# THE BEGINNER'S GUIDE TO CHEESEMAKING

EASY RECIPES AND LESSONS to Make Your Own Handcrafted Cheeses

ELENA R. SANTOGADE



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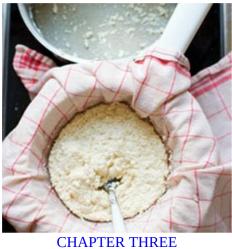


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#### INTRODUCTION

#### **MY STORY**

I began making cheese at home as a way to learn more about cheese. Like many who work in the cheese industry, my path to *fromage* was not in any way linear or part of a grand plan. On paper it looks like destiny realized: I have family roots in Wisconsin; I spent my childhood shopping with my parents at Zabar's and Fairway Market, two of Manhattan's original cheese meccas. The truth is, it was not that neat and tidy. As a kid I loved Velveeta more than I like to admit, and one of the first things I cooked regularly for myself was a grilled American cheese sandwich. It was not until I moved back to New York after college that I started really *noticing* cheese. A lonely postgraduate student working in the publishing industry, I quickly realized that the builtin social life of college was not actually a thing in the real world. Then I discovered the camaraderie of the cheese counter. Maybe it began with a simple question or two, or a taste of something new; I was starving for meaningful human interaction, and I found friendship among the cheesemongers. With little else going on, I mapped out all the cheese shops in New York City. I stretched the activity on weekends by walking from shop to shop, instead of taking the incredibly fast and efficient subway, and I tasted a *lot* of

cheese. I had the good fortune to travel every few months for work, and I found myself seeking out the famed cheese shops in Bologna, Copenhagen, London, and Frankfurt. I attribute one of the biggest publishing deals I made during that time not to my negotiating prowess but to the fact that I pleased the potential customer by completely losing my mind over a Danish cheese cart at lunch.

After a few years of calling cheese my primary hobby, I was in deep. The more I sought out about cheese, the more I unlocked previously unknown-to-me facets of history, geography, biology, and myself. I knew I wanted to get more into it, but I was not the type to leave the city and thrive on a farm somewhere or ditch my more traditional job title for "monger" just yet. I wanted to do something more than taste and read about cheese, and there were no cows in New York City—I checked. There was milk, however.

## IF YOU WANT TO UNDERSTAND CHEESE, MAKE IT

Soon I was opening packages filled with cheese forms, and rushing to get my cultures into the freezer when the mail arrived. At that time there were not many resources for home cheesemakers, but I found a couple of blogs, an online message board, and a few good books. It was enough to start, but I certainly stumbled along the way. I woke up to collapsed piles of curd on my draining mats, waited patiently for coagulation that never happened, and stretched mozzarella to its limits and beyond. Put simply: Most of my early cheesemaking was disastrous and embarrassing, and few of my early cheeses were good enough to share with others. But I loved every minute of the process, and I am better for it. Learning from mistakes is powerful, but it is nice to make cheese that tastes good. And in hindsight, I still would have loved the process if the cheeses I had made in those early years had tasted a little better. There were so many small details that I never saw documented, little secrets to success that I came to through repeated failure. Of course, it is in the doing that we figure out many of those little nuggets of wisdom, but life is hard enough and who has the time to make 10 batches of chèvre before realizing you are adding too much rennet? I wish you a less steep learning curve, so throughout this book I have tried to include all my tips and important lessons learned. Far from making any guarantees of success, I predict you will have your own cheese catastrophes; I am sure you will still learn the hard way here and there, and if you throw at least one failed experiment in the trash without telling a soul how bad it really was, then you are in good company.

# **HOW TO USE THIS BOOK**

First, flip to the introductory chapters that define cheesemaking and describe its key ingredients, tools, and techniques. Following that, you will find a chapter dedicated to detailed, thorough tutorials on the basics of making soft and hard cheeses. These tutorials and the cheese recipe chapters (chapters 4 through 9) all have companion note-taking worksheets, called by the modern cheesemaking term *make sheets*, because recording the details of your efforts is the main key to improving your cheese craft. These make sheets will be your essential resource for tracking your process with every step and taking notes for your next make.



Chapters 4 through 9 are organized by cheese type, and from simplest to most challenging (both by chapter and within each chapter), so that you can work your way through the book as you refine your skills. All the recipes in this book are designed for the passionate beginner with a basic home kitchen. Every cheesemaking recipe includes a helpful list of supplies needed to make it easy to gather everything you need before you begin. All cheeses are followed by an accompanying recipe that features that cheese as a star ingredient, making sure that you have plenty of creative ideas to put your homemade cheeses to use.

If you find there are supplies or ingredients you need, see the Resources for Cheesemaking Supplies (here). The Glossary of Terms (here) should help with any unfamiliar lingo, and the Recommended Reading List (here) provides a world of information for the budding cheesemaker. It is my hope that you will internalize the basic steps of cheesemaking and even develop your own signature recipes as you hone your craft. I hope you have fun, quiet your mind, and experience the thrill of sharing delicious homemade cheese with people you love. Now go make cheese!



#### **CHAPTER 1**

# IN THE CHEESEMAKING KITCHEN

Cheesemaking, in its most basic definition, is the simple process of separating milk solids from the water in milk in order to make cheese. That may sound complicated, but it is much easier than you might suspect to make small batches of cheese at home. As you dive into the contents of this beginner's guide and prepare to make cheese in your home kitchen, know this: You will make good cheese. You might make some *very* good cheese. You will definitely make some not-so-great cheese. Successes and failures aside, you will join the club—the quiet, deliberate, diligent club —of us home-based dairy *explorateurs*, and you will know cheese. You will truly know cheese, inside and out, and that, more than the quality or the quantity of cheese you make, will change your life.

Ready to begin this life-altering experience? First, you will need to procure some equipment and a few ingredients, and prepare anyone you live with for what is about to happen in your kitchen.

# A BRIEF OVERVIEW OF HOME CHEESEMAKING

Home cheesemaking is loaded with endless possibility. Think about the cheese section at your local grocery or specialty food store. How many different cheeses would you guess they sell? Unless your local store happens to be an international food distribution hub, what they have is only a tiny fraction of the thousands of different cheeses made around the world today.

Hold that image of those thousands of different cheeses in your mind, but do not let it intimidate you; they are all made using essentially the same basic process, with just a few simple adjustments. Once the milk solids are separated from the liquid in milk, the next step in most cheesemaking is fermentation, and once this step begins, it does not end.

Fermentation is the most elemental way to preserve food and extend its natural shelf life. I often point out to cheese-wary customers that fermentation is the main reason humans survived into the modern era. Take the large, hard, aged cheeses of the Alps, for example. Made in the warm summer months, cheeses such as Gruyère, Comté, and Emmenthaler were originally made to be eaten months later, during the long, barren winters. Those large wheels of concentrated protein, fat, and nutrients sustained the isolated mountain communities in a way that fresh milk never could. In addition to cheese and fresh cultured dairy products, many of the most beloved foods we consume today are fermented: chocolate, coffee, sourdough bread, and charcuterie—not to mention beer and wine.

Economically, fermentation also meant opportunity for early civilizations. Cheesemaking preserves milk, reducing the product's weight while increasing its shelf life, which makes it easier to transport and greatly extends the reach of its market. If early home cheesemakers did not consume all of what they made, they could sell their softer, smaller cheeses locally; harder, aged cheeses could withstand traveling longer distances to go to markets farther afield. The development of cheeses for sale at market was an early innovation in commerce—a step toward the globalized economy we have today.

## WHY MAKE YOUR OWN CHEESE?

Why bother making cheese at home? Is it not easy to find good cheese at your local farmers' market or gourmet grocery or specialty shop? Is it possible to make anything nearly as good as what you can buy?

#### **ANSWER: TO TRAVEL BACK IN TIME**

By making cheese at home, you can become a time traveler. Cheeses carry with them geographic, economic, and cultural histories. A simple cheesemaking recipe can be your key to unlocking the past. At first glance a recipe for a French-style ashripened goat cheese might not look as if it tells the story of a civilization, but simple curiosity is all you need to uncover the history of France's Loire Valley. You might wonder why so many goat cheeses were originally made in the Loire Valley region. Your investigation will uncover that the Saracens—Muslim Arabs who occupied the region in the eighth century AD—brought goats and goat cheese production to this area from northern Africa. When the Saracen army withdrew, the French farmers simply made use of their animals and equipment. African cheese by way of France: Suddenly that simple cheesemaking recipe is loaded with the histories of two continents, a goat-loving army in the eighth century, and an abrupt, dramatic retreat.

#### ANSWER: TO CHILL OUT AND BE IN AWE

On a physical level, I think of cheesemaking as a form of moving meditation: a nurturing, rhythmic daily exercise that brings satisfaction to the soul and purpose to the senses. The benefits derived from the experience of making cheese go beyond the pure enjoyment of the final taste. Cheese is food for the soul, yes, but cheesemaking is sustenance for the spirit.

Though I paint a pretty picture here, I do not mean to discount the fact that cheesemaking on a larger scale can be brutal, intensely physical work—any Cheddar maker can tell you more about that. I once jumped in to help a cheesemaker friend wash the rinds of a batch of 10-pound wheels of cheese (which are not very large wheels, by general standards). He and his team regularly do this task for hours on end, and at a very fast clip. I had to stop after I had done a meager couple of wheels for fear of breaking my wrists. By making cheese in our homes, we also develop a strong, passionate appreciation for the effort that goes into the professionally made cheeses we can so casually buy and consume. Once I began making cheese at home, I never again complained about the price per pound of a delicious, well-made, artisanal cheese.

# **START WITH SOFT CHEESES**

As you prepare to time-travel, meditate, and be in awe of the great cheesemakers of the world, my advice is to start with a soft cheese recipe. Soft cheeses—even better, *fresh* soft cheeses—are best for your first endeavors. They require less equipment and fewer ingredients, can be done easily in small batches, and give you a much faster feedback loop so that you can improve your craft.

It is important to mention that the simpler a cheese seems, the harder it can be to make a truly extraordinary version of that cheese. Mozzarella is a perfect example: It seems straightforward enough, and is not even cultured or aged, but there is a vast difference between the chewy, flavorless, dry mozzarella bought in a package at the supermarket and the warm, milky, moisture-filled dream found at Italian delis in the Bronx. I do not write this to dissuade you as much as to challenge you. Because of the faster feedback loop, you can make a fresh cheese, see what went well and what went awry, then make another batch right away. There is a reason that the best cheesemakers usually make only a small variety of cheeses (and, in some cases, only one cheese): Thoughtful repetition informs the process. Once you have made a cheese a half-dozen times (and taken copious notes), your final product will be leaps and bounds better than your first attempt.

#### **MOVE ON TO HARD CHEESES**

Once you have some successful soft cheesemaking under your belt, there is no reason not to try your hand at hard cheeses. Hard cheeses require more equipment, more milk, and much more time, but those are all hurdles you can clear if you are committed. Be prepared for the longer feedback loop and take notes as if your life depends on it. The last thing you want to do is wish you had just jotted down a simple temperature or time six months ago, as you try to re-create a great batch, or adjust your process after an off result.

#### **CHEESE SCHOOL 101**

#### Can I have cheese if I am lactose intolerant?

Harder long-aged cow's milk cheeses such as Parmigiano-Reggiano, aged Cheddars, and Alpine-style cheeses should be easier on your stomach. When lactic acid bacteria are added to milk (as in cheesemaking), they convert the lactose in the milk to lactic acid. Over time there is less and less residual lactose in the cheese. Goat's milk and sheep's milk have much lower amounts of lactose to begin with, so even younger cheeses made from them can be much easier for a lactose-intolerant person to digest. Spreads made with nut milk are another option, and a surprisingly delicious one. (See Chapter 8: Nut Spreads & Snacks.)

# THE INGREDIENTS

Because cheesemaking requires just a few key ingredients, the freshness and quality of those ingredients shine through in your finished product. Here is a rundown of all the crucial ingredients in a cheesemaker's pantry. For more on where to find these cheesemaking staples, see the Resources for Cheesemaking Supplies (here).

#### **MILK**

This life-giving substance is typically almost seven-eighths water; the rest is proteins, minerals, lactose (milk sugar), milk fat (butterfat), vitamins, and trace milk solids. Many mammals produce milk; however, by definition *milk* also includes plant and nut milks. (See Chapter 8: Nut Spreads & Snacks to learn about nut milks and their use in cheese-like nut spreads.) It is worth mentioning that some cheeses around the world are made from water buffalo milk. With an almost mystical lore, water buffalo are known to be a very finicky, difficult breed to milk. I once heard that the key to successfully milking water buffalo over time is to get them to like you. Assuming you may not have the means or time to befriend a water buffalo, I cover everything you need to know about the primary milks used for cheeses—cow, sheep, and goat—in the passages that follow.

#### **QUALITY MILK**

The best milk you can use for cheesemaking is the freshest milk

you can get from a small, clean, hygienic dairy located as close as possible to your home. Focus on quality. If you are able to visit a local dairy farm to see what they are all about, you absolutely should. You will be able to tell if the facilities are clean and if the animals are happy. Most farms that allow visitors are going to have very high standards, so you can use that as an indicator as well.

If you are not able to visit a local farm, the next best thing is to buy directly from farmers at your local farmers' market. This will give you a chance to talk with the farmers, and you can even let them know you are planning to make cheese with their milk. If you are buying milk at a store, utilize the dairy buyer for advice. The buyer should know about the conditions on the farms he or she is buying from; a good buyer can be your quality control in that sense. Fresh, local milk is ideal, but small local farmers often forgo the official organic certification due to its high cost, so organic milk is not a requirement for cheesemaking. But freshness and cleanliness are absolutely essential.

#### **RAW VERSUS PASTEURIZED MILK**

Pasteurization partially sterilizes milk (or any liquid) at a temperature and for a period of exposure that destroys objectionable organisms. Most home cheesemakers will have only pasteurized milk available for cheesemaking, but it is important to know the different types of heat treatment and their effect on cheesemaking. You want the purest, least adulterated milk for cheesemaking. The more time it has spent outside of the cow and the more processes it has gone through, the less ideal it is. If you have access to safe, legal, high-quality raw milk, by all means use it for cheesemaking. You will notice that some commercial milks are homogenized. This is not good for cheesemaking. When milk is homogenized, the fats are emulsified into the rest of the milk components. This prevents separation of the cream, which can be helpful for cheesemaking, but if done too rigorously it leaves the milk altered in a way that can make it hard to work with when making cheese. Ideally, you want to work with milk that has not been homogenized, and has a cream layer on top. Before cheesemaking, gently mix the cream into the milk yourself; this is a form of gentle home homogenization.

In short, to make cheese you want to start with the freshest, cleanest, most unadulterated milk you possibly can. A little diligence and research can make a big difference in both the flavor and the safety of your final product.

#### **PASTEURIZATION: THE LAW AND YOUR MILK**

With the exceptions of Arizona, California, Connecticut, Idaho, Maine, Nevada, New Hampshire, New Mexico, Pennsylvania, South Carolina, Utah, Washington, and Vermont, it is not legal to buy raw (unpasteurized) milk for personal consumption.

Pasteurization comes in a few different forms. Here is a cheat sheet:

#### **ULTRA-PASTEURIZED OR UHT (ULTRA HIGH**

**TEMPERATURE):** Milk is heated to or above 280°F for at least two seconds. This method is most often used to create an extended shelf life, and most large-scale national producers of organic milk use this method. Next time you are at the supermarket, look at the sell-by date of a national brand of organic milk; it can be up to six weeks.

**HIGH TEMPERATURE SHORT TIME PASTEURIZATION (HTST):** Milk is heated to 161°F for 15 seconds. This is a common method for local regional milk producers.

**VAT PASTEURIZATION:** Milk is heated to 145°F for 30 minutes. This is the most common form of pasteurization for cheesemaking, as it is least agitating to the milk.

**THERMALIZATION:** Milk is heated to 140°F to 150°F for 15 to 30 seconds, then chilled. The FDA considers this raw milk, so some cheeses you see labeled as "raw" milk in the United States might have had this very gentle heat treatment prior to cheesemaking.

#### **COW'S MILK**

Cow's milk is by far the most affordable and readily available milk in the United States. Different breeds of cow produce different qualities in their milk, so it is helpful to have a working understanding of the differences you might encounter.

- > Holstein cows are the majority population in the United States. These are the large black and white cows that you can see dotting the countryside from coast to coast. They produce large quantities of milk, but the milk is somewhat watery, with fewer milk solids overall.
- > Jersey cows are a top pick for cheesemaking. They produce less milk than Holsteins, but their milk is richer in fat, protein, and nutrients. Jersey cows' milk is often used to make butter, because of its high cream content.
- > Brown Swiss, Dutch-Belted, and many other breeds are present at dairy farms around the country, but they are much less

common than Holstein or Jersey. If you find a local farm with a less common breed of cow, just ask the farmer about the components of the milk.

#### **GOAT'S MILK**

Packaged goat's milk is becoming more readily available at grocery stores around the country. It still comes at a much higher price than cow's milk, as a goat produces about 10 percent as much milk as a cow. One major benefit of goat's milk is the lower lactose content.

#### SHEEP'S MILK

Fresh sheep's milk is nearly impossible to find at major retailers, but if you have a local sheep dairy you may be able to buy fresh milk straight from the farm. But be aware that sheep produce even less milk than goats, and their lactation period is the shortest of the three main dairy animals, so it comes at a super premium price. The high butterfat content and high quantity of milk solids overall make sheep's milk a fun base for cheesemaking. And like goat's milk, it has a lower lactose content than cow's milk.

# ACID

Acidification is one of the underlying processes in cheesemaking. As the milk or cheese acidifies (or cultures), it becomes tangy or tart, and the texture changes as a result. Part of what you are controlling with the timing of your cheesemaking is the rate of acidification: Acidify your curd too fast, and it can become grainy or brittle; acidify too slowly, and your pleasantly tangy flavor may turn full-on sour. To jump-start the acidification of milk for cheese, we often add lactic acid—producing bacteria or a pure form of acid directly to the milk.

When I teach tasting classes I like to describe the acidity of a cheese (or a wine, or a beer, or a chocolate, etc.) as the skeleton of the product. I think of it this way: Acidity provides the structure of the thing, which the producer can then adorn with flavor through different techniques and additions, as they see fit.

Here are a few of the acidification "vehicles" you will use to prepare the recipes in this book:

- Lemon juice is the most recognizable acid. We will use it to coagulate the curd when making Ricotta (here).
- Citric acid (sometimes called "sour salt") is a weak acid naturally found in citrus fruits. In cheesemaking it is most often used to make Mozzarella (here).
- White vinegar can be used to make ricotta, but I have an aversion to using something with such an intense aroma to make such a delicate cheese. In this book we will use white vinegar when making Queso Fresco (here). We will also use pickle brine, which is mainly vinegar, to culture macadamia nuts for Macadamia–Mustard Spread (here).
- Bacteria cultures, most of which include various strains of lactic acid–producing bacteria, are used for most of the cheesemaking recipes in this book. As the bacteria are activated in the milk and cheese, they convert the milk sugars (lactose)

into lactic acid. This conversion process increases the acidity of the milk/cheese.

Rejuvelac is a tart, tangy liquid by-product of soaking grains. We will use it to acidify cashews for Cultured Cashew Creamy (here). It acts on the nuts in a similar way to vinegar, adding acid itself and fostering the development of more acid as the nuts ferment.

A recognizable example of unwanted acidification of milk: when you forget about that half-full quart of milk in the refrigerator and open it up a few weeks after its sell-by date. The indigenous bacteria in the milk are still very slowly at work when the milk is in your refrigerator, and the result of their long-term efforts is the soured, curdled mess you now have to flush down the toilet.

#### **CHEESE SCHOOL 101**

#### Why do stinky cheeses stink?

The classic stinky cheese aroma from cheeses such as Munster and Époisses is caused by the bacteria on the rind. Notice how super stinky cheeses seem to have orangeish rinds? They are host to many good bacteria, and often have one in common: *Brevibacterium linens*.

# **CULTURES**

Cultures of bacteria are added to milk to acidify it in the process of cheesemaking. Using starter culture to acidify milk is called *ripening*. You can get starter cultures and secondary cultures at your local specialty cheese shop or homebrew supply shop if you

have one, or from cheesemaker friends, or from the online shops listed in the Resources for Cheesemaking Supplies (here).

### **STARTER CULTURES**

As mentioned in the last section, one function of a starter culture is to acidify the milk by converting lactose into lactic acid. The type, quality, and even the safety of cheese are defined by the starter culture. Different starter cultures are chosen depending on the cheese being made; cultures are chosen for their flavor-producing qualities and their ability to withstand higher or lower temperatures. In addition to acidifying the milk and protecting against harmful bacteria, starter cultures also contribute to the final flavor of the cheese.

- > Thermophilic cultures are used when cheesemaking involves cooking or heating the curd to higher temperatures (around 120°F), usually in the case of harder, longer-aged cheeses.
- Mesophilic cultures are used for softer, younger cheeses that do not require the curd to be heated as high. Flora Danica is a specific mesophilic culture that is often called for in recipes because of its ability to add a distinctly buttery taste to cheese.

### SECONDARY CULTURES

Sometimes referred to as *ripening cultures*, secondary cultures are added to the cheesemaking process to perform specific, often specialized tasks. One culture (*Propionibacterium freudenreichii* ssp. *shermanii*) produces the eyes in Swiss-style cheese; another (*Penicillium roqueforti*) causes blue cheese to develop a biting, piquant flavor.

### RENNET

Rennet is an enzyme used to coagulate milk. A cheesemonger at the famed Murray's Cheese Shop once explained it to me as acting like a light switch. Before adding rennet you have milk, in which solids are suspended in water, repelling one another (hence the milky look of milk). Add rennet and you have flipped the switch: Suddenly the milk solids are attracted to one another and come together, forming a curd. Rennet is sold at many culinary shops, homebrew supply stores, and specialty grocery stores. (See the Resources for Cheesemaking Supplies on here.) There are three commonly used types of rennet:

- > Animal rennet was originally sourced (in most cheesemaking traditions) as a by-product of the butchering process, since a coagulation-causing enzyme happens to be found in the stomach lining of a calf, lamb, or kid. Today many cheesemakers still use traditional rennet, but more often than not it is purchased through a large-scale culture house and no longer procured from the butcher down the road.
- Microbial rennet is a laboratory-made enzyme, crafted to behave like traditional animal rennet. Many cheeses labeled vegetarian are made using this rennet.
- Vegetable rennet is a coagulation-causing enzyme derived from vegetables. Thistle rennet is historically the most common and still widely used today in Portugal to make Torta-style

sheep's milk cheeses.

### WATER

Though the cheesemaking process is a great big exercise in separating the water from the solids in milk, we do need to *add* water from time to time. Most often water is added as a dilution vehicle for rennet, calcium chloride, or lipase, and we also add water to make Gouda-style washed-curd cheeses. When water is called for, follow the same rule as you do for your milk: You want the purest, least adulterated version. That means natural nonchlorinated spring water, which in my case at least I have to buy from the corner bodega. Tap water is equivalent to homogenized milk: Do not use it for cheesemaking!

#### **CHEESE SCHOOL 101**

#### Why does the blue mold in blue cheese look vein-y?

Blue cheese mold needs oxygen to grow, so cheesemakers pierce their cheese wheels with needles to allow oxygen to penetrate the cheese (in home cheesemaking we often use knitting needles!). After piercing, the oxygen travels through the needling holes, and that is subsequently where the blue mold develops.

#### Can I eat the rind?

There are no hard-and-fast rules about whether or not you should eat the cheese rind. The only rind not worth trying is a wax rind—and even that will not hurt you, but it will not offer much flavor. With some cheeses, you may prefer the rind to the cheese paste, and with others you may not enjoy the rind. It never hurts to try it.

## **MOLD AND YEAST**

Molds and yeasts are both types of fungus, and they are all around us. In cheesemaking, molds such as *Geotrichum candidum* and *Penicillium camemberti* are added to the makes for Brie and Camembert, which are both mold-ripened and soft-ripened cheeses. *Penicillium roqueforti* is a mold added to milk to produce the signature "blue" in blue cheese.

Molds need oxygen to grow, so they either proliferate on the outside of the cheese—creating, for example, the signature white mold rind on a Brie-style cheese—or they grow inside the cheese, enabled by the piercing we do to blue cheese wheels when they are young.

Yeasts can be added to the wash on a washed-rind cheese to keep the acidity of that type of rind environment low. In other types of cheese, yeasts are not actively incorporated, as they tend to cause bitter flavors.

I was taught to love and admire fungi (specifically *Geotrichum candidum*) by my friend the microbiologist Sister Noella Marcellino, aka the Cheese Nun. Her work on microbes has influenced cheesemakers and dairy scientists around the world and set lawmakers and governmental regulators straight about the safety of naturally fermented foods.

### SALT

In cheesemaking you should follow the same rule for salt as you do for water and milk: Unadulterated is best, so be sure to use noniodized salt when making cheese. I find fine, granular salt to be difficult to spread evenly on a cheese surface, so I suggest using a coarse non-iodized salt.

### WHAT IS ON THAT RIND?

### CHARCOAL

The food-grade charcoal that I suggest using for the Ash-Ripened Cheese (here) is a bit different from the original vegetal ash used in the pre-modern home dairy. It is said that ash from singed vegetables was sprinkled over the vat of fresh milk to fend off flies as the milk cultured. The most famous use of this technique is in Morbier cheese, with its signature line of ash cutting horizontally through the wheel of cheese. It is said that Morbier cheesemakers in the French Jura Mountains would sprinkle the ash over leftover Comté curds at night, then top with fresh curds from the next day's cheesemaking.

#### **HERBS AND SPICES**

Any herbs and spices added to your cheese should be thoroughly dried and as well preserved as possible, for the best flavor. If you are using ground spices or pepper, be sure to freshly grind them before adding them to the cheese—it will make a world of difference in your final product.

Because of its strong flavor even when fresh or young, goat cheese is a particularly good vehicle for adding herbs and spices such as thyme, lavender, or black pepper. I like mixing labneh with za'atar, sumac, paprika, or chili powder. Feta is great marinated with whole peppercorns, sage, and garlic.

### ASK A PRO

#### Jos Vulto, Vulto Creamery

Jos was one of the first home cheesemakers I met in Brooklyn when I began dabbling in it myself. He and I, along with a few other cheesemaking friends, would meet up at bars and taste one another's creations. Jos's cheese was in a different stratosphere, so it was no surprise when he turned pro and started Vulto Creamery in Walton, NY.

#### What was the first cheese you ever made at home?

It was a nondescript cheese. I found a very basic cheese recipe online: like a tomme, with a buttermilk or yogurt culture and some simple curd cooking and pressing . . . the cheese was terrible.

# How do you feel about cheesemaking, now that you've been doing it for over a decade?

I love the magic of cheesemaking. Every time I make cheese I am still fascinated by the metamorphosis of the milk as well as the seasonal changes of the milk.

# THE EQUIPMENT

It may seem like cheesemaking requires lots of obscure gadgets, but most of the tools necessary can be found in your home kitchen, or jerry-rigged using household items. What you do not have already, you can find at your local homebrew supply store or kitchenware shop; for tips on where to find specific items, see the Resources for Cheesemaking Supplies (here).

# CHEESECLOTH AND DRAINING/RIPENING MATS

I always have both cheesecloth and butter muslin (same thing, finer weave) on hand, as they are called for to drain fresh cheeses. Once I open a package, one trick I have for keeping the cloth clean is to bunch it up into its own airtight container or mason jar. Then I pull out the edge and cut pieces as needed, without sullying the entire length of the cloth by resting it on my kitchen counter or dropping it on the floor.

Draining mats are important to allow airflow for your final cheeses as they age. Some people like to use bamboo sushi mats, but I feel they are hard to properly clean and sanitize in a home cheesemaking operation (though I do recommend them for use when making tomme-style cheeses that rely on more cave-like conditions for rind development). In general I suggest buying plastic mats in medium and fine mesh for draining, drying, and aging most cheeses. I like buying them in larger pieces and cutting them to suit the size and shape of my equipment.

# **STOCKPOTS**

Medium and large stockpots are pretty straightforward, and any brand will suffice for home cheesemaking. If you are in the market for a new pot, however, my suggestion is to get a taller, more cylindrical pot (rather than a wider and shorter one). A deeper cylinder seems to me to be better for curd formation, and makes curd cutting a bit easier. If you already have pots and you plan to make a decent amount of cheese, I would suggest investing in glass lids for your pots. Through the glass, you can peek to see how your curd is developing—not something grandmothers would approve of, but it comes in handy when you're feeling impatient!

### **THERMOMETERS**

### IN THE VAT

Not any old meat thermometer will do for cheesemaking, so it is best to purchase one with the following specifications:

- > 5- to 12-inch stem
- > Clip to attach the thermometer to the side of your stockpot
- > Dial large enough to read (at least 1 inch in diameter)
- > Made of stainless steel
- > Range of 0°F to 200°F

### TO MEASURE YOUR ENVIRONMENT

As part of your record keeping, you want to make sure you log the environmental conditions when you are making cheese. As you start exploring the recipes in this book, you'll notice that I give instructions for what kind of environment you should be working in for particular steps. I suggest purchasing a couple of small digital humidity and temperature monitors to place in the room where you culture milk and in the fridge where you are aging cheese. I like monitors that show the range of temperature and humidity over the previous few hours, because they give you an idea of how variable your conditions are during cheesemaking and aging.

## LADLE

Over time, a cheesemaker gets attached to his or her tools. One that I have become quite particular about is my cheesemaking ladle. Though I call it a ladle, it is really just a slotted spoon, with one crucial difference: Instead of the longer open slots in a regular slotted spoon, my ladle has small round holes distributed throughout the head of the spoon. Perfect for gentle milk mixing and curd ladling, this perforated tool is a dream. If you can find a "spotted spoon" like mine, get it.

# **CURD KNIFE**

The curd knife needed for cheesemaking has no substitute and will likely need to be purchased from an online cheesemaking supply company. Imagine a long serrated bread knife, but instead of the serration you have a very smooth, sharp edge with a rounded tip. Look for one with at least a 12-inch blade—the good news is it should not set you back more than \$20.

# SANITIZER

Cleaning and sanitizing your equipment and workspace is the most important first step to any make process. Though as a home cook you might just wash and rinse your cooking utensils and equipment, when making fermented foods it is best practice to go through a more commercially minded cleaning *and* sanitizing process. I do not like endorsing too many name brands, but with sanitizer I will point you toward Star San, which is a trusty brand used widely by home brewers and winemakers as well. It is an acid-based no-rinse sanitizer, which means that it is okay if it touches cheese.

### **CHEESE FORMS AND FOLLOWERS**

Cheese forms hold the curds in the final draining period. They come in all shapes and sizes, and they define the shape and size of the finished cheese. They are often sold with matching followers. Cheese forms are also commonly known as cheese molds. In American English we have a challenge because the word "mold" refers to two very different components of the cheesemaking process. For clarity, in this book the word *mold* refers to the fungi that are added to milk as in a Brie-style or blue cheese, and the word *form* refers to the perforated container into which you place curds to drain and take their final shape.



### **HOME-FASHIONED CHEESE FORMS**

For the cost-conscious or the intrepid (or perhaps you are a bit of both, like me), try making your own forms. Take a look at foodgrade heavier-weight plastic containers that you might normally recycle, such as commercial yogurt containers. Six-ounce containers are ideal for small-format cheeses, such as Soft-Ripened Goat Cheese (here), whereas 17-ounce containers are perfect for Cow's Milk and Goat's Milk Feta (here and here) and small tomme cheeses (here). Sterilize your container and poke holes in it. Now you have a cheese form! Seek out containers of different sizes and shapes and have fun.

### **COMMERCIAL CHEESE FORMS**

If you tend to shy away from MacGyvering stuff, you'll be happy to know that we live in a glorious age for those interested in buying commercial cheese forms. See the Resources for Cheesemaking Supplies (here) for some recommendations. When ordering, be sure to have a tape measure on hand so that you can envision exactly what it is you're ordering.

#### FOLLOWERS

When making hard, aged cheeses, you'll need to have a couple of followers to go with your larger forms. A follower is a 2- to 3-inchthick circular piece of food-grade plastic that you can buy alongside your cheese forms; however, a small salad plate will work just as well. Followers distribute the weight from a press or a free weight across the entire surface area of your cheese wheel.

### **CHEESE PRESS**

For most of the cheese recipes in this book, you do not need to purchase or build a high-pressure cheese press. But if you are like me, and the image of this piece of equipment thrills you to no end, then it can be a fun investment—and a beautiful conversation piece between makes!

As with cheese forms, there are two camps here: DIY or JBI (just buy it). You can easily (and inexpensively) purchase or use free plans for building a homemade cheese press, or there are ready-made countertop presses for sale all over the Internet. Country-Style Cheddar (here), Aged Gouda (here), and Grana-Style cheese (here) benefit the most from the use of a real cheese press. Because you want these cheeses to age out over longer lengths of time, it is especially important to expel as much moisture as possible during the pressing phase. While a home-rigged weighted pressing system works for younger cheeses, to get the high pressure needed for longer aged cheese—and keep it consistent during pressing—an actual cheese press works best. When I first started making cheese at home, I was a bit nervous about taking the next step in getting a cheese press. I did not have the cash and was not sure I was ready for professional-level cheesemaking. At that time my blog was garnering lots of attention and energy; people seemed excited by what I was doing in my little Brooklyn kitchen. So I decided to do a little crowdsourcing. Why not involve fans, friends, and family in the fun, raise money to purchase a small cheese press, and motivate myself to take the next step? In the end the donations flooded in, and months later I held a little donor party as thanks. (I served cheeses made using the press, of course!)

### **REFRIGERATION: HIGH-HUMIDITY HIGHER-TEMPERATURE**

For aging cheese, you will need to create a contained environment that's higher in both humidity and temperature than your normal home refrigerator. I suggest one of two solutions or, as was the case in my first "home dairy," one of each:

- > A small countertop wine refrigerator is ideal for aging cheese because it is programmed to hold temperatures around 55°F. You can fairly easily raise the humidity in one of these little units by simply placing a bowl of water inside, alongside your aging cheeses.
- > A small 1- to 2-cubic-foot **"dorm-size"** refrigerator works well to store a number of cheeses as they age. It is a bit harder to keep the humidity high because it has more space than a wine refrigerator, but I find success in having multiple small bowls

of water and hanging clean wet towels around inside it. At first I was concerned that this regular refrigerator unit would not keep a high enough temperature, but I have found if I put it on its warmest setting it stays at a near-perfect 56°F.

Of course, you can make plenty of homemade cheeses that do not require aging, so don't get intimidated by the need for a special refrigerator. When the time is right, acquiring a wine or mini refrigerator to create the environment you need will feel exciting.

### **OTHER HOUSEHOLD ITEMS**

Take a quick inventory and make sure you have

- > 1 or 2 wire cooling racks for draining fresh cheeses
- > 2 baking sheets for catching the expelled whey as you drain fresh cheeses
- > **1 colander** for draining fresh cheeses



### **CHAPTER 2**

# **GETTING STARTED**

There is a lot of repetition in cheesemaking: repetition of technique, repetition in use of ingredients, and repetition of process. As you will see once you get into the cheesemaking recipes, each cheese essentially builds off the same fundamental steps. Mastering these fundamentals is the key to unlocking your creativity as a cheesemaker. In this chapter you will learn about the basic preparations and techniques that you will call on each time you set out to make a new cheese. At some point these steps and procedures will become second nature, to the point where you might find yourself sanitizing your coffee mug in the morning.

# **BEST PRACTICES**

### **CLEAN AND SANITIZE EVERYTHING**

Chef friends of mine joke that, in reality, what they do professionally is wash dishes. This is because a good chef keeps an impeccably clean workspace. Cheesemakers wind up in this camp as well, and it is best to embrace the cleaning and consider it part of the meditative process.

Before making cheese all equipment and surfaces you will work on should be washed well with warm soapy water, rinsed, and sanitized. This includes your stockpot and your ladle, but also your colander, cooling rack, and the countertop where you might set down your cheese forms before using. Luckily with Star San (a food-safe sanitizer) you can simply let the sanitizer air-dry. If you have a dishwasher, then you have it easy for the cleaning and rinsing step. But in my first "home dairy" I did just fine with a hot soapy basin in the sink and some elbow grease.

Keep your cleaned and sanitized materials tucked away in a closed container between uses so that you do not have to clean everything before starting your make process, rather than just at the end. A batch of clean kitchen towels is also good to have stored away in a sealed storage container, ready for use.

### **BUY LESS MORE OFTEN**

"Buy less more often" is an old adage of mine that any cheesemongers who have worked for me will recognize. I mostly use it in reference to buying cheese at the counter, the idea being that I want customers to enjoy their cheese as freshly cut as possible. If you follow this principle when purchasing cheese, you will have a much better tasting experience.

In terms of cheesemaking, what I mean is to buy your milk and make cheese with it as soon as possible. The fresher the milk, the better the cheese—stockpiling milk will not yield good results. There is no shortcut to get you around this fact, so make sure you include your shopping trip when you are mapping out the timing of each make.

## **TAKE OBSESSIVE NOTES**

The more you can document while making cheese, the better your future cheeses will be. Everything from the brand of milk you buy to the timing of each cheesemaking step should be noted. You will thank yourself later when you look back to figure out why your cheese developed the way it did.

Especially in the beginning, cheesemaking is mystery solving. You will follow a recipe to make cheese, but the conditions and actions specific to your space and your approach have an enormous impact on the final product. This is why I refer to the recipes in this book as starting points. In addition to having your own unique environmental conditions, you might also find that you consistently prefer your cheeses when they are left to ripen a bit longer than the recipe calls for. Over time my hope is that you use your own assiduous record keeping to make updates to the "master recipe." In this way you can develop your own collection of cheese recipes that are personal to your tastes, style, and environment.

### **RECIPE AND MAKE SHEET FORMATS**

Throughout this book, the cheesemaking recipes follow a step-bystep format that makes them easy to follow. Note-taking sheets called *make sheets*—accompany the recipes so that you can quickly jot down your observations. Copy the make sheets out of this book to make multiples for tracking successive batches of each cheese, or simply visit https://tastetolearn.com to download a printable PDF. If you collect and compare your make sheets, you can easily adjust and fine-tune your processes, and soon you will hone your cheesemaking recipes to perfection.

### **CHEESE REGIONS OF THE WORLD**

**FRANCE:** Indisputably the global cheese capital, France is known for small-format goat cheeses such as the button-shaped Crottin de Chavignol; the 80-pound darling of the Jura, Comté; the Parisian favorite, Brie; and the famous sheep's milk blue, Roquefort.

**GREAT BRITAIN AND IRELAND:** Home to the royal family, Great Britain also produces some of the world's best-known classics: Cheddar, Stilton, and Caerphilly. Irish beauts such as Durrus and Gubbeen are on the softer, stinky end of the spectrum.

**GREECE:** Greece is best known for its many iterations of feta; brined, salty cheeses fare well in Greece's hot climate.

**HOLLAND:** We can thank the Dutch for lower-acid, sweeter washedcurd cheeses such as Gouda and Edam.

**ITALY:** Cheesemaking abounds in Italy, and as in France there are scores of cheeses unique to each region of the country. Some of the showstoppers include Gorgonzola, Parmigiano-Reggiano, pasta filata–

style cheese (mozzarella, Burrata, provolone), pecorino, ricotta, and Taleggio.

**MEXICO AND LATIN AMERICA:** Because of the warmer climate, cheeses made south of the border are known for being fresh, milky, and salty. Popular styles include queso fresco, Cotija, and panela.

**PORTUGAL:** Though it sits alongside Spain, Portugal boasts its own rich and unique cheesemaking history. Sour, creamy sheep's milk Tortastyle cheeses abound. Serpa and Serra da Estrela are just two of the many cheeses made in this style.

**SCANDINAVIA:** Between them, Denmark, Norway, and Finland produce Danish Blue, the sweetly caramelized Gjetost, Jarlsberg, and the sandwich-favorite, Havarti.

**SPAIN:** Spain's best gift to the cheese-loving world is its sheep's milk Manchego, though the slightly smoky Idiazabal should not be overlooked.

**THE ALPS:** The Swiss, German, French, and Italian Alpine communities produce some of the most luscious cheeses in the world—enough so that they get their own group shout-out on this list! Gruyère, Raclette, Emmenthaler, and Vacherin Mont d'Or are just a few. Slightly stinky and beautiful when melted, the cheeses of this area inspired the invention of fondue.

**UNITED STATES:** Being the "new" kid on the block enables American artisan cheesemakers to look at cheesemaking traditions from around the world and innovate. Creative riffs on the styles listed above are made throughout the United States, and American cheesemakers have developed new cheeses all their own.

### **ALWAYS BE TASTING**

As with any cooking, it is important that you taste your cheese

throughout the process. Get to know the difference between the flavor profiles of fresh milk and cultured milk. Familiarize yourself with the taste and texture of a curd before and after it is heated, and before and after it is salted. As much as possible, make larger batches of aged cheese so that you can open wheels and taste them at different stages of development. Your taste buds will remember, and along with your senses of sight and touch they will tell you if you are on the right track or if something has gone awry. A farmstead cheesemaker I know is so familiar with his milk and his cheese that he can tell how the cheese will turn out just from tasting and looking at the fresh milk as it is pumped into the vat.

Take every opportunity you can to taste cheeses made by other cheesemakers, locally and around the world. If you live near a specialty food shop or a grocery store with a large cheese selection, consider it your library. By tasting cheeses of all kinds, you will train your palate and get better at identifying acidity and flavor notes, which will help you better assess your own cheeses over time. If you do not live near a good source for specialty cheese, the Internet can bring it to your doorstep.

#### **CHEESE AND SCIENCE: WHAT IS HAPPENING HERE?**

Humans made cheese long before we had the periodic table of elements hanging on the wall in every high school science lab. Our understanding of the science behind natural processes has come a long way, but cheesemaking essentially remains the same: We transform milk into cheese through a series of steps that control its fermentation process. Indepth science knowledge is not essential for most home cheesemakers, but let us take a moment for the curd nerd in each of us and look a little deeper into the science behind each of the core cheesemaking steps.

CHEESEMAKING STEP	THE SCIENCE BEHIND IT
WARM THE MILK	Acidification occurs at an optimal temperature range, depending on the cultures added to the milk. By warming the milk to a specific temperature before adding the cultures, we're creating an environment that will best activate the soon-to-be-added cultures.
CULTURE THE MILK	Acidification (the transformation of lactose in the milk to lactic acid), proteolysis (the breakdown of protein structures), and lipolysis (the breakdown of fat globules) begin.
COAGULATE	An enzymatic reaction changes the composition of amino acids (casein) in the milk and causes them to stick together, rather than repel. Acidification, proteolysis, and lipolysis continue.
CUT THE CURD	More curd surface area is exposed, causing whey to escape. Acidification, proteolysis, and lipolysis continue.
DRAIN THE CURD	The curd moisture content decreases as it expels whey. Acidification, proteolysis, and lipolysis continue.
PRESS THE CHEESE	The curd moisture content decreases as it expels whey. Acidification, proteolysis, and lipolysis continue; as a result of the acidification, temperature, and pressure, the cheese curd knits together to form a smooth texture.
SALT THE CHEESE	The moisture content of the cheese decreases as it expels whey. The surface of the cheese dries, and the rind begins to form. Harmful or unwanted bacterial growth is restricted. Acidification, proteolysis, and lipolysis continue.
DRY THE CHEESE	The surface of the cheese continues to dry, and the rind develops. Acidification, proteolysis, and lipolysis continue.
AGE THE CHEESE	Acidification, proteolysis, and lipolysis continue.

# THE TECHNIQUES

The best way to master any technique is to practice. The best way to practice, as a budding home cheesemaker, is to make cheese and make it often. And—this is the important part—do not expect much of it to be extraordinarily good at first. It is best to think of your first cheesemaking endeavors as warm-ups, ways of building your skills and your flow. As with learning any new activity, it is going to feel a little clunky at first, but if you come at it with your full attention, you will be cutting curd like a pro in no time. In this section I will elaborate on the techniques you will use in each step of the cheesemaking process. While it is good to prepare ahead of time, a quick review of these techniques as you do each step in the cheesemaking process will be helpful.

### WARM THE MILK

Fill a stockpot with however much milk you need for your cheese recipe. Stop the drain in a large sink, and place the milk-filled stockpot in the sink. Put your thermometer into the milk and keep it there. Fill the sink around the pot with warm water slowly and incrementally so that you can monitor the gentle rise in milk temperature; slowly and continuously stir the milk in the pot so that it warms evenly from the rising temperature of the water surrounding the pot. You may need to drain out some water and refill the sink with warmer water if it starts to cool. Warm the milk to the temperature specified in your cheese recipe, which will usually be within the 86°F to 90°F range.

Take your time. You should not rush when warming milk for cheesemaking for the simple reason that you want the milk to be as unadulterated as possible. Any sudden agitation is just that: agitation. Keep the milk calm and unbothered and you will be rewarded with a more complex, flavorful cheese.

# ADD CULTURES AND COAGULATE

Most of the recipes in this book add cultures (and in some cases diluted calcium chloride) to the warmed milk first, and then add the rennet. If you are using freeze-dried (powdered), it is best practice to sprinkle them onto the milk and let them hydrate for a minute or so before mixing them into the milk.

### **MIXING: THE UP AND DOWN MOTION**

In many recipes I mention mixing in cultures or rennet using an up and down motion. What I mean by this is that I want you to gently drop and lift your ladle in the stockpot as you move it from side to side. This ensures that you are mixing the culture and/or rennet into the full depth of the pot, and not just into the milk sitting on top.

# **CUT THE CURD**

### KNOWING WHEN THE CURD IS READY

One sense you will develop over the course of a few cheesemaking attempts is knowing when the curd is ready to ladle or cut. The simplest way to check is to drag the stem of your thermometer through the top of the curd for an inch or two. You are watching for a "clean break" in which the curd does not turn lacey and serrated where you have split it. You want the edges to remain clean and not knit back together.

If the curd does not have a clean break, it most likely needs more time to coagulate. If you cut it too early, your curd will be delicate and waterlogged, so you want to be patient as you wait for a strong *set*.

### LADLING

When making more delicate fresh or soft-ripened cheeses, you ladle the curd directly into the cheese forms or a cloth-lined colander. The best approach for this technique is to think of the ladle as a scythe—a blade that cuts crosswise. You will use your ladle to slice broad swaths of curd and "dip" them into the forms. (Ladling is also sometimes referred to as *dipping*.) As with our fundamental approach to be delicate with the milk in cheesemaking, when a recipe calls for ladling the curd, you want to preserve the large pieces of curd as much as possible and avoid breaking them down into smaller pieces for draining.

### THE STRAIGHT AND ANGLED TECHNIQUE

Once your curd is formed, it will essentially be in the shape of your stockpot until you cut it. The first two steps of this curd-cutting technique are to cut slices of the cylinder perpendicular to one another. To cut, press the knife straight down through the depth of the curd so that the dull side of the knife is along the side of the pot, then pull the sharp edge of the knife to the opposite side of the pot in a straight line. Repeat with cuts about 2 inches apart (depending on the recipe) until you have sliced through the entire cylinder. From the top it will look like parallel lines running across

a circle.

Then, repeat with the same series of cuts but perpendicular to the first round. From the top it should look like a circle filled with small squares. If you stopped at this point, you would have a number of four-sided very long curds.

The challenge for the home cheesemaker is cutting not just vertically through the cylinder from top to bottom, but horizontally as well so that the bottom half of the curd cylinder is also cut. To do this you will essentially repeat the first two steps again, but instead of cutting straight down with the knife and moving it through the curd, you will cut at 45-degree angles, slicing across through the bottom of the curd as well as the top.

A warning: As you cut the curd, it will move. It is floating in whey, after all. You will get a feel for it after some practice, but you can eventually stabilize the curd somewhat with the knife as you cut. Sometimes rotating the pot can be helpful if the curd starts to spin.

#### THE STRAIGHT AND ANGLED TECHNIQUE



1. Press the knife straight down through the depth of the curd, so that the dull side of the knife is along the side of the pot. Pull the sharp edge of the knife to the opposite side of the pot in a straight line. Repeat with cuts about 2 inches apart (depending on the recipe) until you have sliced through the entire cylinder.



2. Repeat the same series of cuts, this time perpendicular to the first round. From the top the curd should look like a circle filled with small squares.



3. Insert your knife into the cuts from step 1 or 2, then cut along the line at a 45 degree angle.



4. Turn the pot 90 degrees and repeat step 3. When you're finished the curd will be cut into cubes.

# **DRAIN THE CURDS**

Depending on the type of cheese you are making, you will drain the curd in one of two ways: over a cheesecloth-lined colander or in forms.

For most soft and spreadable cheeses, line a colander with a cheesecloth and place the colander in a bowl or in the sink so that the whey has somewhere to go as it drains. When longer periods of draining are required, I recommend gathering together the corners of a cheesecloth and hanging it above the sink to drain.

You will use forms to drain most semi-firm and hard cheeses, as well as some softer cheeses. Set a cooling rack over a baking sheet and place the cheese forms on top of the cooling rack. The baking sheet will catch the whey as it drains after you ladle the curds into the forms. If you have curds that did not fit into the forms initially after ladling, wait a few minutes and top off the forms. Repeat this over the first 10 to 15 minutes of draining; at that point you should not have any more leftover curd.

The curd, whether draining in forms or in a cheesecloth-lined colander, tends to expel whey at a faster clip at the beginning of the draining process. Here are two pieces of advice:

- 1. Do not leave a cooling rack set over a baking sheet unattended without checking on it every now and then; you may need to empty the tray sooner than you think.
- 2. Pay attention to the airflow in the room where you are draining. Airflow is an element easy for the home cheesemaker to overlook. An open window might keep the room at the right temperature, but you do not want an occasional breeze preemptively drying out the not-yet-developed rind.

### FREEING THE CURD FROM ITS FORM

Knowing when to free your cheese from its draining form is all about trusting your instincts. Even before you have much experience making cheese, you will know by touch: It's ready if your cheese has drained enough to hold its shape outside the form. Until it is fully formed, gently flip the cheese incrementally—every few hours or twice a day—and reinsert it in the form to continue draining and taking shape.

#### WHAT TO DO WITH LEFTOVER WHEY

To get the most value out of your cheesemaking, try not to discard any byproduct of the process. The main by-product of cheesemaking is whey, so if you can find ways to use your whey you will get much more distance from your make. Here are some ideas for how you can use this nutrientrich by-product:

Use whey instead of water in **BREAD OR DOUGH** recipes, especially sourdough.

Soak dried **BEANS AND LEGUMES** in whey before use, to impart added nutrients.

Flavor the whey with macerated fruit and mix with equal part seltzer for a **REFRESHING SPRITZER.** 

Start with whey as a base for **SMOOTHIES AND SHAKES** of any kind.

Substitute whey for water when cooking **RICE**.

### **PRESS THE CHEESE**

You should follow a specific schedule of pressure and timing when you press your cheese. That said, in cheesemaking I believe your natural instincts should override written directions when necessary. The goals of pressing the cheese are to expel whey and knit the curd together. Observe these two processes as you increase or decrease pressure on your cheese. No whey expelled? You might need to increase the pressure. Rind still looks pretty curdy even after a lot of pressure? You might need to more incrementally increase the pressure next time. Absent the technical pH or titratable acidity measurements that professional cheesemakers often rely on as backup for getting this process right, you will have to go through a bit of trial and error to really home in on cheesepressing timing and technique.

Always line the form with cheesecloth when pressing a cheese under a weight. The cloth helps keep the rind from breaking open, and also adds a rustic-looking texture to the final cheese. Each time you rotate the cheese between pressings you'll unwrap the cloth and reline the form.

### **DRY THE CHEESE**

As you get into the art of making cheese, you may start noticing details you have never given a second thought. Airflow is probably one of them. I spent nearly a week of my life obsessing about optimal airflow in my kitchen for drying cheeses. Ultimately, it is another exercise in trial and error, and your key piece of equipment is a regular old fan. It is important to create a drying atmosphere for the cheeses, without over-drying the surfaces before rinds develop. Generally, I advise not pointing your fan directly at the cheeses but to cause a gentle, indirect airflow through the room.

### ASK A PRO Ellyn Ladd, Grafton Village Cheese Co.

Grafton Village Cheese is one of my favorite Vermont cheesemakers (and one I've had the pleasure of working for). The team at Grafton has been making cheese for decades, and over time Grafton Village Cheese Co. has become known for their signature Cheddar flavor profile: big, bite-y, and delicious.

#### What advice would you give to someone just starting out?

Make the cheese you love to eat. As long as you're learning from them, don't stress too much over batches gone bad.

## AGE THE CHEESE

Key elements the home cheesemaker should keep in mind when aging cheese in a wine refrigerator or a little dorm refrigerator:

**Temperature:** Try to maintain the refrigerator within 5 degrees of your target temperature.

**Humidity:** Also try to keep the refrigerator within 5 percent of your target humidity.

**Airflow:** A refrigerator creates airflow by pumping cold air into the unit. If anything, you will have to keep an eye out for dry rinds. You want to be sure air flows *underneath* your wheel of cheese, so resting cheeses on draining mats or cooling racks is much better than setting the cheese directly on the shelf.

Air exchange: In addition to keeping the air flowing in an aging environment, you also need new air to enter the space and old air to leave it. There is not much you can do as a home cheesemaker to adjust for this factor. You will be opening your refrigerator a couple of times per day to rotate the cheeses and manage the humidity, and for your purposes that should be enough.

# GENERAL TROUBLESHOOTING GUIDELINES

Novice and veteran cheesemakers alike run into issues with cheesemaking; embrace the opportunity to learn from each unforeseen scenario you encounter, and your next make will be that much more informed. Here is a quick list of common issues you might run into, possible causes, and some solutions to try:

#### **CURD TROUBLE**

- > No curd formation
- > "Weak curd"
- > Curd takes too long to form

*Possible cause:* The ionic calcium level in the milk is too low. *Try this next time:* Add calcium chloride to the make.

#### **MYSTERY FUNGI**

Mucor (aka "cat hair") mold creates a fuzzy, grayish layer on the cheese rind

*Possible cause:* The moisture content is too high.

*Try this next time:* Extend the draining time, increase salt content, and/or increase drying time.

> Pink color developing inside blue cheese

*Possible cause:* Yeast contaminated the piercing holes. *Try this next time:* Pierce the cheese earlier in its aging process and double-check cleaning and sanitizing of the piercing needle.

> Blue mold developing on the rind of a soft-ripened cheese

*Possible cause:* There are blue mold spores in your aging environment.

*Try this next time:* Thoroughly wash and sanitize your small fridge. Do not age blue cheeses in the same environment as non-blues.

> Wrinkly, thick, loose rind (aka "toad skin" or "slip skin")

*Possible cause:* There is too much *Geotrichum* (yeast-like mold) growth, the salt content is too high, or the aging temperature is too high.

*Try this next time:* Lower the salt content and/or lower the temperature of your small fridge.

### **RIND TROUBLE**

> Rind gives off ammoniated aroma

*Possible cause:* The cheese has aged too long or has been wrapped/stored in an environment without enough airflow. *Try this next time:* Wrap/store the cheese in a more breathable container/wrapping.

> Cracked rind

*Possible cause:* The salt content is too high, the drying airflow is

too rigorous, or the temperature during draining is too high. *Try this next time:* Lower the salt content, create a gentler airflow during drying, and/or lower the room temperature during draining.

### **OFF FLAVORS**

> Bitter taste

*Possible cause:* The salt content is too low, you added too much calcium chloride, or if it's a hard, aged cheese, it did not age long enough.

*Try this next time:* Increase the salt content, decrease the calcium chloride, and/or let the cheese age longer.

# **STORAGE**

Packaging cheese can be an art form or a quick utilitarian solution. Just make sure you protect your cheeses as outlined below. See the Resources for Cheesemaking Supplies (here) for where to find cheese paper.

# WHOLE WHEELS

Once your cheesemaking process is complete, it's best to store your cheese in your home refrigerator until you are ready to enjoy it. Fresh cheeses can be stored in airtight containers, but cheeses that have aged for 2 to 8 weeks are delicate and should ideally be wrapped in cheese paper for storage. Many specialty shops now sell professional-grade cheese paper. If not, you can always ask to buy some of the paper that they use to wrap cheese—but only if it is true cheese paper. Some shops just use butcher paper, which is not ideal for long-term cheese storage. In a pinch, you can wrap soft and semi-hard cheeses snugly in wax paper, then loosely in plastic wrap. This will create a somewhat breathable mini-environment for the cheese but also keep it from drying out in the fridge.

# **CUT PIECES**

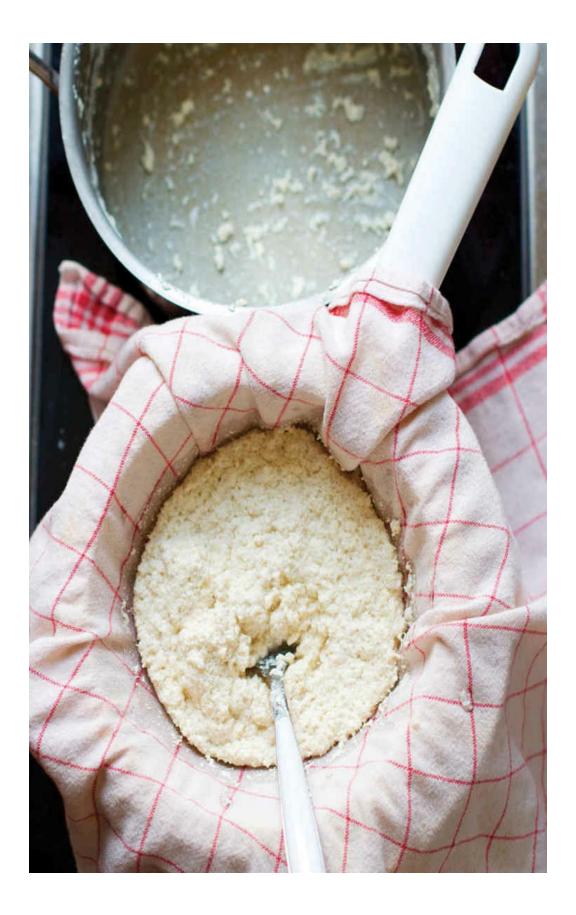
Once the cheese is cut, store it wrapped snugly in either cheese paper or the wax paper and plastic wrap combination. If the cut face of your cheese starts to grow mold after some time in the fridge, just trim it off—it should still be safe to eat.

Never forget that you are in a race against time once you've cut open a wheel of cheese. I suggest eating or gifting cut pieces of your larger cheese wheels within 7 to 10 days of opening them. This can be tricky, and nothing terrible will happen if you stretch the timeline a bit, but know that cut cheese will start to take on the flavors in your fridge and lose its character over time.

#### **CHEESE SCHOOL 101**

#### My cheese grew mold in the fridge. Should I throw it out?

Unless your cheese grows a dark black or deep red mold (neither of which should be growing in your refrigerator), it is still fine to eat! Simply cut off the moldy "face" of the cheese by ¼ inch and enjoy as usual.



# **CHAPTER 3**

# THE TUTORIALS

The best way to learn about cheesemaking is to make cheese. In the pages that follow, I will walk you through the preparations and processes for making your first soft cheese and your first hard cheese. I will go into detail about what to expect at every step, and you will start to practice some of the fundamental techniques covered in Getting Started (here). These recipes are simple and straightforward; the best thing you can do to prepare is to come with a learning attitude and be ready to have fun.

# **RECIPE TUTORIAL: YOUR FIRST SOFT CHEESE**

Many people (including myself) made ricotta at home at some point before they were officially bitten by the home cheesemaking bug. Ricotta is a good way to observe coagulation in action, and it also offers a window into the effects of acid and heat on milk. As you step into the broader world of home cheesemaking, however, I have a different suggestion for your first soft cheese: I want you to start by making fresh chèvre.

This super simple recipe is filled with many teachable moments. By making chèvre you will do the following:

- > Study what happens when you add lactic acid bacteria to milk.
- > Practice hydrating and properly stirring cultures into milk.
- Start to understand the difference between a "clean break" and a curd that is not quite ready to cut.
- > Practice the delicate ladling technique.
- > Develop an understanding of how quickly whey drains from the curd.
- Sharpen your own palate by tasting the milk and cheese throughout the process.
- > Gain confidence in adjusting the recipe to fit your own personal

flavor and texture preferences.

#### **CHEESE SCHOOL 101**

#### Does creamy cheese have more fat?

Do not be fooled by ooey, gooey creamy cheese. Fat content in cheese is a percentage of the solids in the cheese. The softer the cheese, the higher the water content and the lower the solids content. Rather than be wary of softer spreadable cheeses, take a smaller piece of harder, aged cheeses, as they have a higher concentration of solids, including fat—but protein, calcium, and other nutrients as well.

# TAKE NOTES IN A MAKE SHEET

As you work your way through the recipe that follows, record the details of your cheesemaking process in the chèvre make sheet (here). For a PDF that you can print in multiples, see https://tastetolearn.com.

# **BEFORE YOU GET STARTED**

This simple make will take a little less than a full 24-hour cycle from start to finish, so you can quickly and easily tweak your process and try again for different results. Before starting the actual cheesemaking, make sure to do the following:

- **1.** Clean and sanitize your equipment and workspace.
- 2. Make sure the milk you're using is as fresh as possible. Ideally you want to buy and use your milk the same day.

- 3. Try not to make cheese in a kitchen with strong food smells. Try to air out the room and leave a few hours between making an aromatic lunch and culturing your first batch of milk. Milk is like a sponge to the aromas in its atmosphere, so you want your kitchen to smell as neutral as possible.
- **4.** Print your recipe worksheet and have it on hand for note taking.
- 5. Put on some good music and take a few deep breaths. You've got this.



# **THE TECHNIQUES**

During this make you will focus on five of the core cheesemaking steps:

**1. Warm the Milk:** Gently raise the temperature using a warm

water bath.

- 2. **Culture the Milk:** Hydrate and gently mix the lactic acid bacteria into the milk. Take care to hold the water bath temperature so that the bacteria activate.
- 3. Coagulate the Curd: A pinch of rennet is usually added to chèvre-specific culture mixes. Mostly this curd will coagulate because of acid development, which is a slightly different process than the rennet-induced enzymatic coagulation. This does not matter much for the purposes of identifying a "clean break," but it is worth noting.
- **4.** Ladle the Curd: With fresh and high-moisture cheeses, you want to preserve large pieces of curd by gently ladling broad swaths into the cloth-lined colander.
- 5. **Drain the Curd:** More as an exercise in homing in on your own flavor and texture preferences, you will drain the curd until it is to your liking, simple as that.

#### **EQUIPMENT**

- > Medium stockpot
- > Thermometer with at least a 5-inch stem
- > Sink or basin larger than the stockpot
- > 13-inch stainless steel flat perforated ladle
- > Medium colander
- > Cheesecloth, cut to line the colander
- > Medium bowl

#### **INGREDIENTS**

- > 1 quart pasteurized goat's milk
- > 1/8 teaspoon mesophilic lactic acid starter culture
- Pinch dried animal or microbial rennet dissolved in 2 tablespoons cool, non-chlorinated water (or 2 drops liquid rennet)\*
- \* If using a chèvre-specific culture packet, do not add the rennet. The packet will already contain a pinch of rennet.

# THE RECIPE (AKA "THE MAKE PROCESS")

As you follow the master recipe, make sure you have your make sheet (here) on hand so you can note any conflicts or deviations from the recipe. This will help you update your recipes as needed based on your own environment and equipment.

**1. Warm the Milk:** Heat the milk in a gentle warm water bath to 86°F. Stir the milk gently for 10 minutes.

Note: A sink works best for this, as you can regulate the temperature of the water bath fairly easily by surrounding the pot with hot, warm, or cold water as needed.

2. Culture the Milk and Coagulate: Sprinkle the culture onto the milk and let it hydrate on the milk surface for 1 minute. Mix for 30 seconds with an up and down motion. Add the diluted rennet (if using) and mix. Cover the pot and let it rest for 8 to 12 hours, until the whey has pulled away from the sides of the pot, is submerged in mostly clear whey, and leaves a clean break when a knife is inserted into it.

Note: Room temperature (70°F to 74°F) is a fine environment for

#### culturing the milk.

- 3. Ladle the Curd: Line the colander with cheesecloth and place it in the bowl. Using a horizontal motion, slice through the curd with the ladle, transferring disc-shaped pieces of <sup>1</sup>/<sub>2</sub>-inch-thick curd to the colander.
- **4. Drain the Curd:** Bring together the corners of the cheesecloth and hang it over a sink or bowl to drain for 10 to 12 hours.

Note: Curd draining time is completely up to you, the cheesemaker. If you like your chèvre moist and loose, check the curd after 6 hours—that might be all you need. For a dense, more paste-like cheese, drain for up to the full 12 hours.

5. **Target Flavor and Texture:** Chèvre texture is a bit of a personal preference. Depending on your draining time, it can be light and fluffy or a denser paste.

Note: Make sure to take detailed notes on the final flavor and texture. Since this is a simple cheese to make, it is easy to play around with specific elements in the make process and see how they change the results.

**6. Storage:** Store the finished cheese in an airtight container in your refrigerator for up to 2 weeks.

Note: Feel free to mix in fresh herbs or honey before storing the cheese. You will want to use the cheese within 7 to 10 days if you have added any flavorings.



1. Warm the milk.



2. Culture the milk and coagulate.



3. Ladle the curd.



4. Drain the curd.

# CHÈVRE MAKE SHEET

Date	Date started:			Date complete:			
PLAN	From milk to cheese:	Yield:	ACTUAL	From milk to cheese:	Yield:		
EQUIPMENT	<ul> <li>Sink or basin larger th</li> <li>13-inch stainless stee</li> <li>Medium colander</li> </ul>	<ul> <li>Thermometer with at least a 5-inch stem</li> <li>Sink or basin larger than the stockpot</li> <li>13-inch stainless steel flat perforated ladle</li> <li>Medium colander</li> <li>Cheesecloth, cut to line the colander</li> </ul>		<ul> <li>I quart pasteurized goat's milk</li> <li>¼ teaspoon mesophilic lactic acid starter culture</li> <li>Pinch dried animal or microbial rennet dissolved in 2 tablespoons cool, non-chlorinated water (or 2 drops liquid rennet)*</li> <li>If using a chèvre-specific culture packet, do not add the rennet The packet will already contain a pinch of rennet.</li> </ul>			

		DETAILS FROM MASTER RECIPE	WAIT TIME	PLANNED	ACTUAL TIMING	NOTES
	Warm the Milk					
Sd	Culture the Milk and Coagulate					
CHEESEMAKING STEPS	Ladle the Curd					
ESEMAN	Drain the Curd					
CHE	Target Flavor and Texture					
	Storage					

Notes:

# TROUBLESHOOTING

Troubleshooting your first make is a key step in learning how to make cheese at home. Here are some common deviations from the norm, slight issues that might have you scratching your head after your first attempt. Fear not, the 24-hour turnaround on chèvre is exactly why I think it is a great cheese to start with. If you run into any issues, simply adjust your make process based on the suggestions below and make, make again!

### DID NOT GET A CLEAN BREAK IN THE CURD

Some possible causes for not getting a clean break:

- > There was not enough calcium in the milk.
- > The curd needed more time to set.
- > The temperature of the room was too low.

### **CHEESE IS TOO TANGY**

If you find that the final cheese is too tangy for your taste, make sure to note it on your recipe worksheet!

For your next chèvre make, try this:

- > Make sure the milk you use is as fresh as possible. It should taste only very faintly goaty when fresh.
- > Shorten the wait time after culturing the milk.
- > Shorten the draining time, or drain in the refrigerator.

### **YIELD WAS LOW**

Goat's milk should produce a pretty good cheese yield. If you used 1 quart of milk and had less than 1 cup of cheese at the end, something may need to be adjusted in your process.

For your next chèvre make, try this:

- Make sure the temperature of the room while draining is not higher than 74°F.
- > Reduce the draining time.

# FAVORITE DRINK PAIRINGS FOR CHÈVRE

When pairing beverages with cheese, you want to focus on texture, intensity of flavor, and type of flavor. Pairings can be complementary or contrasting, and it's fun to play around with both types.

**BEER:** A fresh pilsner or lighter wheat beer serves as textural contrasts to chèvre, since the fine bubbles in the beer cut the creamy paste of the cheese.

**WINE:** Crisp white wines from the Loire Valley, such as Vouvray or Sancerre, complement the slate-y, mineral notes in the cheese.

**NONALCOHOLIC:** Smoky Lapsang Souchong tea is an incredible flavor contrast to the milky, tangy nature of fresh chèvre.

# **RECIPE TUTORIAL: YOUR FIRST HARD CHEESE**

Before diving into this tutorial, you should be comfortable pressing cheese under weights, and you should have aged out a few soft and semi-hard cheeses so that you are familiar with how cheese develops over time. Explore the recipes in Chapters 4 and 5 and try out a few. Harder, longer-aged cheeses can seem intimidating, but fear not: Your first foray into this realm of cheesemaking will be incredibly informative, and it will offer a new way to build on the knowledge and skills you have developed while making softer, fresher cheeses. I recommend starting in this category by making a younger tomme-style cheese.

Tomme cheeses originated in the French and Swiss Alps, but they are not name protected, so there is a great deal of variation within the style. Tomme is a semi-firm or firm cow's milk cheese, around 4 to 6 pounds in weight, with a natural rind that usually sports a basket weave. Tomme-style cheeses have a rustic appearance and flavor.

For home cheesemaking I like the tomme-style make for its lowtech approach to pressing the cheese and for its shorter aging time. It is tricky to develop a truly rustic, musty, cave-aged rind in a home cheesemaking setup, so this is a cheese that I encourage you to age on a bamboo mat. The bamboo will somewhat mimic the wooden shelves most often used in a cheese cave, and it can be fun to see how a different material plays out during the aging step.

This tutorial will walk you through making a home

cheesemaker's version of a tomme-style cheese. As you try out recipes for other harder, longer-aged cheeses, you will draw from the techniques and fundamentals used in this make process.

# **BEFORE YOU GET STARTED**

This make process will take less than a full 24-hour day to make; then you'll age the cheese for a minimum of 3 months. My suggestion is to do two or three makes in a row so that you can age the final wheels out to different profiles: 3, 5, and 6 months, for example. This way, you will get more feedback than if you'd made just one wheel.

Before you jump in to the actual recipe, review the following steps (as I hope you will do with each cheesemaking endeavor):

- **1.** Clean and sanitize your equipment and workspace.
- 2. Make sure the milk you're using is as fresh as possible. Ideally you want to buy and use your milk the same day.
- 3. Try not to make cheese in a kitchen with strong food smells. Try to air out the room and leave a few hours between making an aromatic lunch and culturing your first batch of milk. Milk is like a sponge to the aromas in its atmosphere, so you want your kitchen to smell as neutral as possible.
- **4.** Print your recipe worksheet and have it on hand for note taking.
- 5. Put on some good music and take a few deep breaths. You've got this.



In addition to the list above, for making harder, longer-aged cheeses such as a tomme, there are a few additional steps you can take to make sure you are totally prepared:

- 6. Make sure you have the proper-size follower for your form. Since you'll be pressing this cheese under weight, you want to make sure you have a circular piece of plastic or a plate that will distribute the weight across the entire surface area of the cheese wheel.
- 7. Prepare your salt brine ahead of time. This takes just a couple of minutes, but it is good to have the brine ready when you need it. You can store your brine at room temperature or in the refrigerator until needed.

8. Make space in your aging fridge! Whether you plan to age one, two, or three wheels, use your form as a guide to free up enough space for the cheese.

#### EQUIPMENT

- > 10- to 12-quart stockpot
- > Thermometer with at least a 5-inch stem
- Sink or basin large enough to submerge the stockpot three-quarters of the way
- > 13-inch stainless steel flat perforated ladle
- > Rectangular cheese form (3 by 7 inches)
- > Cheesecloth, cut to line the form
- > Cooling rack
- > Baking sheet
- > 4-by-6-inch soft-bristle brush
- > Bamboo mat large enough to set under the cheese wheel during aging

#### THE INGREDIENTS

- > 2 gallons whole cow's milk
- > ¼ teaspoon mesophilic lactic acid starter culture D5 (*Lactococcus lactis* ssp. *cremoris*, *Lactococcus lactis* ssp. *lactis*)

- > <sup>1</sup>/<sub>4</sub> teaspoon thermophilic lactic acid starter culture D5 (*Streptococcus thermophilus, Lactobacillus delbrueckii* ssp. *bulgaricus, Lactobacillus helveticus*)
- > ½ teaspoon calcium chloride, dissolved in ¼ cup cool, non-chlorinated water
- > ¼ teaspoon dried animal or microbial rennet, dissolved in ¼ cup cool, non-chlorinated water
- > 2.95 pounds non-iodized kosher salt dissolved in 1 gallon water

# THE TECHNIQUES

During this process you will be expanding upon the cheesemaking techniques covered earlier in the soft cheese tutorial. In making your first tomme, you will also focus on these four additional steps in cheesemaking:

- 1. Cook the Curd: Though you will not raise the temperature as high as for some of the other harder, aged cheeses in this book, you will heat the curds after coagulation. This process can be done in the water bath used to initially warm your milk, but you'll most likely need to boil water and add it to the bath to get the temperature to the target 95°F.
- 2. **Press the Cheese:** You will use weighted pressure to help the curds knit together in this recipe. Before starting the recipe, I suggest reviewing the schedule of pressing, then gathering (and cleaning and sanitizing!) home items that will satisfy the weight requirements. I often use a gallon jug filled with water for weights up to 10 pounds, for example.

- 3. Salt the Cheese: In making a tomme you will brine the full wheel of cheese to add salt. I recommend using non-iodized kosher salt for the brine, and make sure you mix the brine in a bowl or container large enough to fit the final wheel of cheese. If you are making a few wheels in a row, you can use the same brine for each—just save the brine in the refrigerator between uses.
- 4. Age the Cheese: As you age the cheese, you will want to take care to rotate the wheel and gently brush the rind. Make sure to record the development of the rind on your make sheet, as you will want to know for future makes how the rind looked at 2 weeks, 1 month, 2 months, and so forth.

# **TOMME MAKE SHEET**

As you work your way through the recipe that follows, record the details of your tomme cheesemaking process in the tomme make sheet below. For a PDF that you can print in multiples, see https://tastetolearn.com.

### TOMME MAKE SHEET

#### Date started:

Date complete:

PLAN	From milk to cheese:	Yield:	ACTUAL	From milk to cheese:	Yield:
EQUIPMENT	<ul> <li>I0- to 12-quart stockp</li> <li>Thermometer with at</li> <li>Sink or basin large end stockpot three-quarte</li> <li>13-inch stainless steel</li> <li>Rectangular cheese for</li> <li>Cheesecloth, cut to lint</li> <li>Cooling rack</li> <li>Baking sheet</li> <li>4-by-6-inch soft-bristle</li> <li>Bamboo mat large en cheese wheel during at</li> </ul>	least a 5-inch stem bugh to submerge the ers of the way flat perforated ladle orm (3 by 7 inches) he the form le brush ough to set under the	INGREDIENTS	<ul> <li>Lactococcus lactis ss</li> <li>¼ teaspoon thermop culture D5 (Streptoco Lactobacillus delbrue Lactobacillus helvetic</li> <li>½ teaspoon calcium ¼ cup cool, non-chlo</li> <li>¼ teaspoon dried ani dissolved in ¼ cup cool</li> </ul>	lic lactic acid starter cus lactis ssp. cremoris, p. lactis) hilic lactic acid starter occus thermophilus, ckii ssp. bulgaricus, us) chloride, dissolved in

	DETAILS FROM MASTER RECIPE	WAIT	PLANNED	ACTUAL	NOTES
Warm the Milk					
Culture the Milk					
Coagulate					
Cut the Curd					
Cook the Curd					
Drain the Curd					
Press the Cheese					
Salt the Cheese					
Age the Cheese					
Target Flavor and Texture					
Storage					

# THE RECIPE (AKA "THE MAKE PROCESS")

As you follow the master recipe, make sure you have your make sheet (here) on hand so you can note any conflicts or deviations from the documented recipe. This will help you update your recipes as needed based on your own environment and equipment.

**1. Warm the Milk:** Heat the milk gently in a warm water bath to 80°F.

Note: Take your time bringing the milk up to temperature. Stir the milk gently as you increase the temperature of the water bath, being careful not to agitate the milk too much.

2. Culture the Milk: Add the cultures and let them hydrate on the surface of the milk for 1 minute. Then, gently stir for 1 to 2 minutes until incorporated. Add the calcium chloride and mix in with an up and down motion for 30 seconds. Cover the pot and let it sit for 10 to 15 minutes.

Note: Make sure to stir the cultures and the calcium chloride thoroughly into the milk, mixing up and down (not just in a circular motion).

3. **Coagulate:** Add the rennet and stir with an up and down motion for 30 seconds. Cover and let sit for 45 to 60 minutes. Maintain the 80°F water bath during coagulation. You most likely won't need to add any hot water during this process, but check the temperature of the water bath every 10 minutes just to make sure it has not dropped.

Cut the Curd: After 45 to 60 minutes, or when you have a
4. clean break in the curd, cut into ½-to ¾-inch cubes using the straight and angled technique (see here). Let sit for 10 minutes.

**5. Cook the Curd:** Raise the temperature of the curds and whey to 95°F over the course of 20 to 30 minutes using the warm water bath.

Note: Boil water separately and add it to the bath by the cupful along with warm tap water to gently raise the temperature.

6. Drain the Curd: Pour out one-third of the whey and, using your hands or the ladle, bring the curds together under the whey to form a single mass. Note the texture and feel of the curds. They should be smooth, not granular or falling apart. Let sit for 10 minutes. Meanwhile, line a cheese form with cheesecloth. Place the curd mass in the form and place a follower on top. Set the form on top of the cooling rack and baking sheet to drain. Drain the curd for 10 to 15 minutes under its own weight and empty the baking sheet of whey as needed.

*Note: The curd should be knitting together at this point, but not be completely melted.* 

7. **Press the Cheese:** Press and flip the cheese according to the following schedule (3 hours and 45 minutes total):

15 minutes at 2 pounds 30 minutes at 4 pounds 60 minutes at 8 pounds 120 minutes at 16 pounds.

Note: Make sure you observe the rind (you'll get a good look when you remove the cloth each time you flip the cheese). The rind should go from looking curdy and piece-y to smooth, with very faint outlines of the curd.

8. Salt the Cheese: Submerge the cheese in the saturated salt brine for 3 to 4 hours per pound of cheese, about 9 to 12 hours total.

Note: Flip the wheel of cheese every 2 to 3 hours in the brine, and sprinkle coarse non-iodized salt over the exposed side each time.

**9. Age the Cheese:** Once brining is complete, pat the cheese dry with a cloth and set it to age at 55°F and 80 to 85% humidity for 3 to 6 months.

Note: Be sure to turn the cheese every 2 to 3 days and brush the rind gently as mold starts to appear.

**10. Target Flavor and Texture:** This cheese should have a musty, earthy flavor. When it's on the younger end of the spectrum, the texture is slightly gummy and moist. As it ages longer, it will become dry and slightly waxy.

Note: I prefer the younger profile of this cheese; because the texture will change pretty significantly over time, it is fun to home in on your favorite age.

**11. Storage:** Wrap the finished wheel in cheese paper or wax

paper and store in the refrigerator. Once cut, the cheese should be consumed within 10 days.



1. Warm the milk.



2 & 3. Culture the milk and coagulate.



4. Cut the curd.



5. Cook the curd.



6. Drain the curd.



7. Press the cheese.



8. Salt the cheese.



9. Age the cheese.

# TROUBLESHOOTING

As you get into longer, more complex make processes,

troubleshooting can become complicated. Approach troubleshooting as a scientist: Isolate each issue and conduct as controlled an experiment as possible with your next make. If you change more than one step in your process at once, it will be hard to pinpoint exactly what causes a change. This is another reason to make more than one wheel of a harder, aged cheese, both initially and when troubleshooting. By making a single adjustment with each subsequent make, you'll soon be able to pinpoint proven cause and effect.

### CURD IS NOT COMING TOGETHER IN THE WHEY

Temperature is the main suspect for this issue. Make sure you brought the temperature of the curds and whey high enough during the cooking stage, and that you did so incrementally over the specified time. The curd also might have dropped in temperature after you poured off one-third of the whey, so check and maintain the warm water bath throughout that part of the process as well.

# FINAL WHEEL HAS UNEVEN SHAPE

Double-check that your follower is distributing the weight evenly around the surface area of the cheese during pressing. Sometimes with a home setup the follower can be slippery or not exactly the right size. It is fairly inexpensive to buy a tomme-size form along with a matching follower; this might be a worthwhile expense if you are having trouble with wheel shape.

# NAKED RIND

If you find that a diverse array of mold is not growing on your rind during aging, it could be that the rind environment is too salty.

Revisit your brining schedule and try a slight reduction in brining time. If you did not try aging the cheese on a bamboo mat, do so with your next wheel to see if the bamboo helps encourage mold growth more than a plastic draining mat.

### FAVORITE DRINK PAIRINGS FOR TOMME-STYLE CHEESE

**BEER:** Try an amber ale.

**WINE:** Juicy lower-acid wines are best, such as Pinot Noir or Chardonnay.

**NONALCOHOLIC:** Fresh apple cider goes great with tomme-style cheese.

# WHAT'S NEXT?

Now that you have completed a few makes of your first soft cheeses and tried out some additional techniques with your first hard cheese, you have officially joined the home cheesemaking club. It only gets better from here: Soon your physical skills will be honed to a smooth, instinctual rhythm; your understanding of the transformation from milk to cheese will grow deeper and deeper; your ability to produce (and re-create!) delicious, unique cheeses will improve. All these improvements are pretty straightforward, but in developing this cheesemaking craft you will also experience other, less obvious benefits: You will develop your palate, you will nurture the quieter observation-based part of your brain, and you will define your own preferences. Maybe you're even ready to lend out this book and welcome a friend to the cheesemaking club.

When I first began making cheese at home I felt unsure of myself. When I made a cheese that I liked, I wondered if others would consider it good as well. This led me to reach out and find a small group of other home cheesemakers in Brooklyn. We met every month or two to trade ideas and troubleshoot, and we even exchanged equipment as needed. I encourage you to utilize social media to tap into the larger community of home cheesemakers. You might even find that you have local cheesemaking neighbors, eager to connect and support you.

In the pages that follow, you will find that the cheesemaking master recipes are organized by style, and generally progress from easiest to slightly more challenging within each chapter. You now have the information and resources to tackle any cheese in this book, so feel free to jump around between chapters and cheeses, or if you are a more linear learner, make your way through the recipes in order. Revisit the best practices now and then for a refresher, and don't forget to take copious notes during every make process.

One more piece of advice: Take time to celebrate your successes, preferably with family, friends, and a delicious drink pairing.

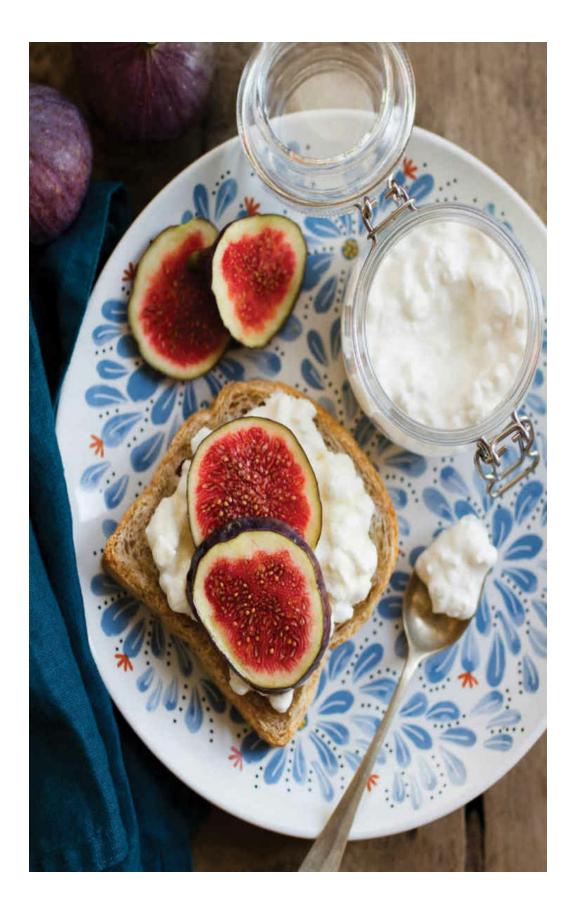
### ASK A PRO Lilith Spencer, Home Cheesemaker & Cheesemonger

Lily was one of my first cheesemonger coworkers, and has since become a DIY homesteader. Social media has also propelled Lily to cheese fame as pictures of her incredibly artistic cheese and charcuterie platters regularly take Instagram and Facebook by storm—check out @cheesemongrrl to see for yourself.

#### What was one of your early aha moments with cheese?

I didn't make cheese at home for the longest time because I was intimidated by the idea of retrofitting a refrigerator to turn it into a cave. While the proper aging environment is important, the cheeses I've been making are aged in a totally normal mini fridge with no real humidity control aside from keeping the cheeses in loosely covered containers with simple paper towel moisture wicks.

I still have plans to make something a little more sophisticated, but to be honest, the current situation is working just fine. Don't let the lack of an "ideal" aging environment keep you from making cheese!



Ricotta Toasts with Fresh Figs, Honey, and Sea Salt (here)

### **CHAPTER 4**

# SOFT & SPREADABLE CHEESES

**LABNEH** Veggie Snack Dip

### **RICOTTA**

Pasta with Lemon

#### **WHEY RICOTTA**

Ricotta Toasts with Fresh Figs, Honey, and Sea Salt

**PANEER** Stewed-Vegetable Entrée

FROMAGE BLANC Dessert Parfait

### **CRÈME FRAÎCHE**

**Creamy Cornbread** 

### MASCARPONE

Cannoli "Milk" Shake

**CREAM CHEESE** Homemade Cheesecake

**COTTAGE CHEESE** Midwestern Potluck Dip

#### **SOFT-RIPENED GOAT CHEESE**

**Tangy Whipped Potatoes** 

### ASH-RIPENED CHEESE

Composed Cheese Course

BRIE-STYLE Seasonal Baked Brie

## CAMEMBERT-STYLE

Turkey Sandwich of Your Dreams

#### **TRIPLE-CRÈME**

Extra-Creamy Zucchini-Pepper Gratin

Soft and spreadable cheeses are the perfect place to start your cheesemaking adventures because they often have a short aging time and give you faster feedback than a hard cheese. This category ranges from fresh, hardly cultured cheeses such as Ricotta (here) to pungent, dynamic, Soft-Ripened Goat Cheese (here). You will get a feel for draining and drying lactic cheeses toward the end of this chapter. Keeping detailed records is still important for these simpler makes. It will be second nature by the time you start making Brined & Cooked Cheeses (here) and Semi-hard, Hard & Blue Cheeses (here).

Ricotta Toasts with Fresh Figs, Honey, and Sea Salt (here) are simple and scrumptious. And just imagine Homemade Cheesecake (here) made with fresh, truly homemade cheese. You will find those recipes and more following the cheese recipes in this chapter.

#### **SOFT & SPREADABLE CHEESE MAKE SHEET**

Use this worksheet as a template for each soft and spreadable make you do, and feel free to adjust as necessary based on the master recipe you are working from (some soft and spreadable recipes might not have a step for drying or aging the cheese, for example). Keep all your worksheets together for each cheese, and over time you can update the master recipe to reflect changes you've made to customize your cheeses. For example, if you find that you consistently let the milk culture for a bit longer than the master recipes call for, update the master recipe to reflect your own personal tastes. Go to https://tastetolearn.com for a PDF of this worksheet that you can print in multiples.

### SOFT & SPREADABLE MAKE SHEET

Date started:		Date complete:			
PLAN	From milk to cheese: Yield:		ACTUAL.	From milk to cheese:	Yield:
EQUIPMENT	<ul> <li>Medium to large stoc</li> <li>Thermometer with at</li> <li>13-inch stainless stee</li> <li>Curd knife with a 12-in</li> <li>Cheesecloth, cut to a</li> <li>Medium colander</li> <li>Small cheese forms</li> <li>Cooling rack</li> <li>Baking sheet</li> </ul>	least a 5-inch stem I flat perforated ladle	INGREDIENTS	Milk: Culture(s): Rennet: Other:	

		DETAILS FROM MASTER RECIPE	WAIT	PLANNED TIMING	ACTUAL TIMING	NOTES
	Warm the Milk					
	Culture the Milk					
	Coagulate					
	Ladle/Cut the Curd					
UNEEDEMANING JIEFS	Drain the Curd					
OUEEOE	Salt the Cheese					
	Dry the Cheese					
	Age the Cheese					
	Target Flavor & Texture					

### LABNEH

Weeknight dinners are my Achilles' heel. I never seem to make a complete homemade meal after work, and I've come to accept that it's just not going to happen. Instead, I have a few go-to's that require little prep, fill me up, and are nutritious. Labneh, or strained yogurt, is one of these staples in my house. Come 7 p.m. on a Tuesday, I dress it up with fresh parsley, rip off a big hunk of sourdough bread, and enjoy a labneh-dip dinner.

FROM MILK TO CHEESE: 20 hours, plus 30 minutes		
YIELD: 2 pounds		
EQUIPMENT		
Medium stockpot		
Thermometer with at least a 5-inch stem		
Slow cooker, yogurt maker, or insulated cooler		
Medium colander		
Cheesecloth, cut to approximately 2 square feet		
Medium bowl		
INGREDIENTS		
1 quart whole cow's, goat's, or sheep's milk		
<sup>1</sup> ⁄ <sub>4</sub> teaspoon lactobacillus-containing culture or		
2 tablespoons plain yogurt with live cultures		
BEER PAIRING: Crisp, fresh pilsner or lager		

**WINE PAIRING:** Bright, mineral-forward white wine such as Chablis or Sauvignon Blanc

**WARM THE MILK**: In a stockpot, heat the milk to 120°F in a warm water bath. Stir the milk gently so that it warms evenly.

**CULTURE THE MILK:** Add the dried culture or yogurt and mix it into the milk. Using a slow cooker, yogurt maker, pressure cooker with a yogurt setting, or insulated cooler, create an environment that keeps the cultured milk mixture at around 90°F to 100°F for 6 to 8 hours.

**TARGET FLAVOR AND TEXTURE:** Taste the mixture periodically until you're satisfied with its flavor. The longer the milk ripens, the tangier the yogurt becomes.

**SET THE YOGURT:** Refrigerate the yogurt to set. It will thicken slightly in about 2 hours.

**DRAIN THE YOGURT:** Line a colander with two layers of cheesecloth and spoon the yogurt into the middle. Gather together the corners of the cheesecloth and tie them together. Hang the yogurt-filled cloth to drain over a bowl in the refrigerator for approximately 10 hours.

Note: If you can't hang the cheesecloth from anything in your refrigerator, keep the yogurt-filled cloth in the colander and let it drain into another smaller bowl beneath.

**TARGET FLAVOR AND TEXTURE:** The labneh is ready when the yogurt has reached a thick, cream cheese-like consistency.

**STORAGE:** Labneh keeps well in the fridge for up to 7 days.

# **VEGGIE SNACK DIP**

A veggie dip can easily get bottom billing on the potluck table, but there's no need to put this baby in the corner. Its bright flavors and surprising seasoning will turn attention away from pigs in a blanket any day. Don't be shy with the za'atar or the olive oil especially, and the fresh parsley leaves add enough of a bright green bite that you'll feel you can get away with scooping it up with bread instead of vegetables.

SERVES 4
PREP TIME: 5 minutes
2 cups Labneh (here)
6 tablespoons za'atar
1 tablespoon paprika, plus more for dusting
Sea salt
Freshly ground black pepper
Olive oil
<sup>1</sup> ⁄ <sub>2</sub> cup fresh parsley leaves

**1.** In a medium bowl, combine the labneh, za'atar, paprika, and a generous amount of sea salt and pepper.

**2.** Taste the mixture. If it's falling flat in flavor, add more of any or all of the ingredients in small quantities. Continue tasting and adjusting the seasoning

until your taste buds are watering and the labneh has taken on a smoky, bright, earthy, refreshing flavor.

**3.** Smooth the surface of the dip in the bowl. Top with a generous swirl of olive oil and a very light dusting of paprika.

**4.** Sprinkle the parsley leaves over the dip and serve.

## RICOTTA

In my opinion, ricotta should be among the first cheeses you make at home. It gives a great introduction to coagulation, especially fun in this case because of the quick and dramatic transformation. Don't hesitate to add the final splash of heavy cream to the curds it brings the texture and flavor together, and elevates the final product into the realm of true luxury.

FROM MILK TO CHEESE: 1 hour
YIELD: 1 cup
EQUIPMENT
Medium stockpot
Thermometer with at least a 5-inch stem
Fine-mesh sieve
13-inch stainless steel flat perforated ladle
Medium colander
Cheesecloth, cut to approximately 1 square foot
Medium bowl
INGREDIENTS
1 quart whole cow's milk
<sup>1</sup> ⁄ <sub>4</sub> cup freshly squeezed lemon juice
2 teaspoons coarse non-iodized salt
<sup>1</sup> ⁄ <sub>2</sub> cup cow's milk cream (optional)
<b>PEEP DAIDING</b> , Lambic or goes style

**BEER PAIRING:** Lambic or gose style **WINE PAIRING:** Dry sparkling white wine such as Crémant de Bourgogne or

#### prosecco

**WARM THE MILK:** In a stockpot, heat the milk over medium heat.

**CULTURE THE MILK**: Pour the lemon juice into the milk through a fine-mesh sieve and mix gently.

**COAGULATE:** Keep the pot over medium heat, mixing gently for 25 to 30 minutes, until it reaches 190°F. Remove the pot from the heat and let it sit as the curds form, about 10 minutes.

Note: Take care to keep a skin from developing on the top or bottom of the pot. During this process, never let the milk sit for more than 1 minute without stirring.

**DRAIN THE CURD:** Line a colander with cheesecloth and place a bowl under the colander. Pour the curds and whey into the colander and let it drain for 10 minutes. Gather the ends of the cloth together and gently squeeze out any excess whey. Gently scoop the curd out of the cheesecloth and into a clean bowl.

**SALT THE CHEESE:** Add the salt and stir until just incorporated. Chill in the refrigerator to thicken, about 10 minutes.

**TARGET FLAVOR AND TEXTURE:** Ricotta should taste lusciously milky and creamy, and have an ethereal lightness in its texture.

**STORAGE:** Store in an open container in the fridge until the ricotta has cooled. Then seal in an airtight container and use within 2 to 3 days.

# **PASTA WITH LEMON**

Citrus is a bright spot on winter menus. I can't get very excited about a lemon in July, but in the depths of February it thrills me to no end. I hadn't ever thought to put citrus in a pasta dish until a local restaurant opened my eyes to the perfect pairing of lemon and Parmigiano-Reggiano cheese. Because you're already using lemon to coagulate your ricotta, I thought incorporating ricotta cheese into the dish was a natural way to add creaminess.

SERVES 2 to 4
PREP TIME: 10 minutes COOK TIME: 12 minutes
½ cup Ricotta (here)
Kosher salt or sea salt
½ pound dried pasta (see Tip)
4 to 6 tablespoons unsalted butter
Freshly squeezed juice of 2 lemons
<sup>1</sup> / <sub>2</sub> cup grated Parmigiano-Reggiano cheese
Freshly ground black pepper

**1.** Take the ricotta out of the fridge to bring it to room temperature.

**2.** In a large pot, heat salted water to boiling over high heat. Cook the pasta according to the package instructions. When the pasta is about 2 minutes

undercooked, drain.

**3.** In a large skillet, melt the butter over low heat.

**4.** Adjust the heat to medium and pour the drained pasta into the skillet. Add the ricotta and stir vigorously to coat the pasta.

**5.** Add half of the lemon juice and half of the Parmigiano-Reggiano cheese and stir vigorously. Taste. Add more lemon juice and Parmigiano-Reggiano until the sauce tastes balanced between the brightness of the acid, the creaminess of the ricotta, and the salty and savory notes from the Parmigiano. Season with salt and pepper as needed, and serve.

**TIP**: I think spaghetti is the best pasta shape for this dish, but I also like orecchiette.

## WHEY RICOTTA

For this make you'll use the drained whey from another cheese to prepare a quick and low-yield ricotta. It's a great option if you want to use your leftover whey immediately without cooling and storing it for another project. Though the yield on this cheese is quite small, whey ricotta requires very little effort and only two core ingredients. It doesn't get much easier than this! The process is nearly identical to that of regular ricotta, except that you don't need to acidify the milk because the whey is already acidified from its previous cheesemaking process. You can add fresh milk if a higher yield is desired.

FROM MILK TO CHEESE: 1 hour
YIELD: <sup>1</sup> /2 cup
EQUIPMENT
Medium stockpot
Thermometer with at least a 5-inch stem
13-inch stainless steel flat perforated ladle
Medium colander
Cheesecloth, cut to approximately 1 square foot
Medium bowl
INGREDIENTS
1 quart whey, leftover from another cheese make
2 cups whole cow's milk (optional)

1 to 2 teaspoons coarse non-iodized salt

<sup>1</sup>/<sub>2</sub> cup cow's milk cream (optional)

**BEER PAIRING:** Gose or lambic style **WINE PAIRING:** Dry sparkling white wine, such as prosecco

**WARM THE MILK**: In a stockpot, heat the whey over medium heat. Add the additional cow's milk if a higher yield is desired.

**COAGULATE:** Keep the pot over medium heat, mixing gently until it reaches 190°F, approximately 25 to 30 minutes. Remove the pot from the heat and let it sit as the curds form, about 10 minutes.

Note: Take care to keep a skin from developing on the top or bottom of the pot. During this process, never let the milk sit for more than 1 minute without stirring.

**DRAIN THE CURD:** Line a colander with cheesecloth and pour the curds and whey into it. Let the whey drain for 10 minutes. Gather the ends of the cheesecloth together and gently squeeze out any excess whey. Gently scoop the curd out of the cheesecloth and into a clean bowl.

**SALT THE CHEESE:** Add the salt and stir until just incorporated. Chill in the refrigerator to thicken, about 10 minutes.

**TARGET FLAVOR AND TEXTURE:** Taste the cheese and add more salt if needed. Whey ricotta should be a bit more cultured, tangy, and complex in flavor than regular ricotta. For a creamier ricotta, pour in the heavy cream until the texture is to your liking.

**STORAGE:** Store in an open container in the fridge until the cheese has cooled. Then seal in an airtight container and use within 2 to 3 days.

# RICOTTA TOASTS WITH FRESH FIGS, HONEY, AND SEA SALT

Pepper and honey make the perfect yin and yang, and fresh figs are delicate and sweet. Combine all three and you have a luscious, flavorful breakfast toast. Since honey is a crucial ingredient in this recipe, I suggest taking the opportunity to learn about the many varietals and the local, seasonal honeys available to you.

<ul> <li>PREP TIME: 10 minutes</li> <li>COOK TIME: 5 minutes</li> <li>2 slices high-quality bread</li> <li>½ cup Ricotta (here)</li> <li>2 teaspoons sea salt, preferably larger flakes</li> <li>Freshly ground black pepper</li> <li>¼ cup honey</li> <li>2 fresh figs, sliced crosswise</li> </ul>	SERVES 2
½ cup Ricotta (here)2 teaspoons sea salt, preferably larger flakesFreshly ground black pepper¼ cup honey	
	½ cup Ricotta (here)2 teaspoons sea salt, preferably larger flakesFreshly ground black pepper¼ cup honey

**1.** Toast the bread in a toaster or briefly under your broiler.

**2.** Season the ricotta with salt and pepper until it tastes balanced, bright, and faintly peppery.

**3.** Using a knife or small spatula, spread a thick coating of the seasoned ricotta onto each toast.

**4.** Drizzle the honey over the cheese-covered toasts. The honey should be drizzled from end to end on the toasts, but only in thin lines.

**5.** Top each toast with a few slices of fresh fig.

### PANEER

Next time you make ricotta, I suggest preparing a double batch and making paneer as well, as it's a simple variation. I like to throw cubes of paneer into vegetable entrées for an extra protein boost; for a quick breakfast, I toast a slab of paneer in the oven and top it with whatever jam I have on hand. The salty-sweet combination is a great way to ready your taste buds for the day.

FROM MILK TO CHEESE: 26 hours		
YIELD: 1 cup		
EQUIPMENT		
Medium stockpot		
Thermometer with at least a 5-inch stem		
Fine-mesh sieve		
13-inch stainless steel flat perforated ladle		
Medium colander		
Cheesecloth, cut to approximately 1 square foot		
Large bowl		
Plate		
Small, heavy saucepan		
INGREDIENTS		
1 quart whole cow's milk		
<sup>1</sup> ⁄ <sub>4</sub> cup freshly squeezed lemon juice		
2 teaspoons coarse non-iodized salt		
BEER PAIRING: Very light pilsner		

#### WINE PAIRING: Light, refreshing Sauvignon Blanc

**WARM THE MILK:** In the stockpot, heat the milk to 86°F in a gentle warm water bath. Stir the milk gently so that it warms evenly.

**CULTURE THE MILK:** Pour the lemon juice through a fine-mesh sieve into the milk. Transfer the pot to the stove and heat the milk to 190°F over medium heat, about 15 minutes. Take care to keep a skin from developing on the top or bottom of the pot.

**COAGULATE:** When the mixture starts to steam, it's close to being ready. Stir with extra care as it hits 190°F and remove from the heat.

**DRAIN THE CURD:** Line a colander with cheesecloth and set it over a large bowl. Pour the curds and whey into the colander and drain for 20 minutes.

**SALT THE CHEESE:** Mix the salt thoroughly into the curd and let rest for 10 minutes.

**PRESS THE CHEESE:** Gather the ends of the cloth together and gently squeeze out any excess whey. Shape the cloth into a disk or square. Fold the cheesecloth neatly over the shape and set it on a clean plate, tilted at a slight angle into the sink or a baking sheet. Place a small, heavy saucepan on top of the cloth-wrapped curd. If the weight of the dish pushes out excess moisture, leave it to drain for 5 to 10 more minutes. Add more weight and flip the curd every 20 minutes until no more whey is expelled, about 1 hour.

**AGE THE CHEESE:** Wrap the cheese in wax paper and then seal in a plastic bag. Store in the refrigerator to smooth and set for 24 hours.

**TARGET FLAVOR AND TEXTURE:** The paneer should be milky, salty, and curdy in texture, but smooth to the touch.

**STORAGE:** The cheese will keep in the refrigerator for up to 10 days.

# **STEWED-VEGETABLE ENTRÉE**

Of all the recipes in this book, I probably make some variation of this dish more often than anything else. A good version of this recipe requires you to have a fresh spice cabinet. I try to buy my dried spices in tiny quantities from a store that sells them in bulk so that they remain fresh. At this point, I pretty much always have an onion, a head of garlic, some coconut milk, and limes on hand, so I just pick out the best-looking dark leafy greens and go for it.

PREP TIME: 10 minutes COOK TIME: 20 minutes 2 tablespoons unsalted butter or Ghee (here) 1 small onion, diced 1 garlic clove, minced 1 tablespoon ground turmeric 1 tablespoon smoked paprika 1 teaspoon red pepper flakes 1 bunch dark leafy greens (chard, kale, beet greens, etc.), stems removed and leaves ripped into 2- to 3-inch pieces
<ul> <li>1 small onion, diced</li> <li>1 garlic clove, minced</li> <li>1 tablespoon ground turmeric</li> <li>1 tablespoon smoked paprika</li> <li>1 teaspoon red pepper flakes</li> <li>1 bunch dark leafy greens (chard, kale, beet greens, etc.), stems removed and leaves ripped into 2- to 3-inch pieces</li> </ul>
<ul> <li>½ teaspoon kosher salt or sea salt</li> <li>2 tablespoons warm water</li> <li>1 cup Paneer (here), cut into 1-inch cubes</li> <li>1 cup coconut milk</li> </ul>

2 tablespoons freshly squeezed lime juice Steamed rice, for serving (optional)

**1.** In a large skillet, melt the butter over medium-high heat. Add the onion and cook until translucent, 5 to 8 minutes.

**2.** Add the garlic and cook for 2 to 3 minutes, making sure it doesn't brown. Add the turmeric, paprika, and red pepper flakes and stir to toast the spices a bit and coat the onion and garlic.

**3.** Add the greens, salt, and warm water. Cover the pan for 2 to 3 minutes, until the greens just start to wilt. Uncover and add the paneer to the pan, cooking until the pan starts to dry.

**4.** Once the pan is nearly dry, add the coconut milk and bring to a simmer. Cook until the coconut milk reduces to a thickened sauce-like consistency, about 10 minutes.

**5.** Remove the pan from the heat, add half of the lime juice, and mix to incorporate. Taste the stew and add more salt or lime juice until the flavors taste balanced. Serve over rice or on its own.

**TIP**: If you're using chard or beet greens, make sure to save the raw stems! I like to chop them into 1-inch pieces and sauté separately in butter until just tender. Season with salt and pepper and save for your morning omelet.

## **FROMAGE BLANC**

When it comes to dessert, cheese is always my top choice. While I sometimes prefer a salty and savory bite, I do have a classic sweet tooth, and fromage blanc is a cheese that satisfies that occasional urge. It's easy to dress up with a touch of confectioners' sugar and some fresh berries, but it still remains creamy and milky in flavor. Homemade fromage blanc is a study in what just a few small tweaks to the core cheesemaking process will give you.

#### FROM MILK TO CHEESE: 29 hours, plus 20 minutes

**YIELD:** 1 CUP

#### EQUIPMENT

Medium stockpot

Thermometer with at least a 5-inch stem

13-inch stainless steel flat perforated ladle

Medium colander

Cheesecloth, cut to approximately 1 square foot

#### INGREDIENTS

1 quart whole cow's milk

<sup>1</sup>/<sub>8</sub> teaspoon mesophilic lactic acid starter culture

Pinch dried animal or microbial rennet dissolved in <sup>1</sup>/<sub>4</sub> cup cool, nonchlorinated water (or 2 drops liquid rennet)

Coarse non-iodized salt

**BEER PAIRING:** Wheat or gose style **WINE PAIRING:** Crisp white wine from the Loire Valley, such as Chablis or

#### Sancerre

**WARM THE MILK**: In a stockpot, heat the milk to 86°F in a warm water bath. Stir the milk gently so that it warms evenly.

**CULTURE THE MILK:** Sprinkle the culture on top of the milk and mix in for 30 seconds with an up and down motion. Cover the pot and let rest for 45 minutes at room temperature (70°F to 74°F).

Note: Be sure to mix in the culture continuously for 30 seconds, dipping the ladle to the bottom and back up to the top of the pot.

**COAGULATE:** Add the rennet to the milk. Stir with an up and down motion for 1 minute. Cover the pot and let rest for 12 to 16 hours, until the curd has pulled away from the sides of the pot and developed a similar texture to yogurt.

**LADLE THE CURD:** Line a colander with cheesecloth and ladle large, shallow <sup>1</sup>/<sub>2</sub>-inch-thick pieces of the curd into the colander to drain.

**DRAIN THE CURD**: Bring together the corners of the cheesecloth and hang over a sink or bowl to drain for 10 to 12 hours.

Note: Curd draining time is completely up to you, the cheesemaker. If you like your fromage blanc looser and more moisture filled, check the curd after 6 hours; for a more paste-like cheese, drain for up to the full 12 hours.

**SALT THE CHEESE:** Depending on your intended use, mix salt in to taste, starting with <sup>1</sup>/<sub>2</sub> teaspoon.

**TARGET FLAVOR AND TEXTURE:** Fromage blanc should have a mild, clean flavor with a tangy acidity. Texturally it should be very similar to chèvre.

**STORAGE:** Store in an airtight container in the fridge. It will keep for up to 2 weeks. You'll notice that it gets tangier with time, as the cultures are still actively working (albeit slowly).

# **DESSERT PARFAIT**

I like dessert at the end of a meal, but only when I haven't had too many preceding courses. There's nothing worse than a romantic meal with your sweetheart ending with a bloated stomach. This parfait is the perfect treat to complete a date-night dinner. Light and flavorful, it won't tip you into the I'm-too-full-to-even-kissyou realm.

SERVES 6
PREP TIME: 5 minutes
COOK TIME: 5 minutes
1 tablespoon salted butter
1 tablespoon sugar
1 cup raw walnuts
1 teaspoon kosher salt or sea salt
2 cups Fromage Blanc (here)
2 tablespoons honey
2 cups fresh blueberries and raspberries
Handful fresh mint leaves

**1.** In a large skillet, melt the butter over medium heat.

**2.** Add the sugar and walnuts and stir. The mixture will bubble up as water is released from the butter. Enjoy the aroma as you stir for 5 minutes, or until

the mixture starts smelling toasty and is just starting to smoke.

**3.** Using a slotted spoon, transfer the walnuts to a plate and spread out to cool. Sprinkle with the salt while the walnuts are still warm.

**4.** After a couple of minutes at room temperature, put the plate in the refrigerator for 5 minutes to complete cooling.

**5.** In six tall, narrow glasses, layer the candied walnuts, fromage blanc, honey, berries, more fromage blanc, and more honey.

**6.** Top with a final dollop of fromage blanc, 2 or 3 berries, and a drizzle of honey and garnish with mint leaves. Serve.

**TIP**: This might seem nitpicky, but I believe (thanks to my mom) that the right spoon makes a big difference when eating this type of dessert. A spoon with a long handle is ideal, preferably one with an open shovel-shaped top.

# **CRÈME FRAÎCHE**

As a kid I didn't have sour foods very often. Fermented foods were never in the house, and even mayonnaise (featuring its own signature tang) was a pretty exotic ingredient for me. So it took me a while to come around to the flavor of slightly cultured fresh dairy products. Sour cream and crème fraîche were joys to behold in my late twenties, but before I understood how they were made, I was wary. As with so many things, making something yourself completely changes the experience.

FROM MILK TO CHEESE: 24 hours
yield: 1 cup
EQUIPMENT
Small stockpot
Thermometer with at least a 5-inch stem
13-inch stainless steel flat perforated ladle
Medium colander
Butter muslin cut to approximately 1 square foot or cheesecloth cut to approximately 2 square feet
INGREDIENTS
1 quart whole cow's milk cream
<sup>1</sup> / <sub>8</sub> teaspoon mesophilic lactic acid starter culture
Pinch Flora Danica culture
<sup>1</sup> ⁄ <sub>2</sub> teaspoon coarse non-iodized salt

**WARM THE CREAM:** Heat the cream to between 86°F and 90°F in a warm

water bath. Stir the milk gently so that it warms evenly.

**CULTURE THE CREAM:** Stir the cultures gently into the cream and mix for 30 seconds with an up and down motion. Cover and let sit for 12 hours at room temperature (70°F to 74°F), until the curd has pulled from the sides of the pot and resembles a thick mass of yogurt.

Note: Be sure to mix in the cultures continuously for 30 seconds, dipping the ladle to the bottom and back up to the top of the pot as you mix.

**LADLE THE CURD:** Line a colander with one layer of butter muslin or two layers of cheesecloth. Ladle the curd gently, using shallow scoops, into the colander.

**DRAIN THE CURD:** Gather together the corners of the cloth and hang over a sink or bowl to drain for 10 to 12 hours. Taste and touch the curd throughout the draining process, assessing until it has reached the consistency of thick cream.

**SALT THE CHEESE:** Depending on your intended use, mix in salt to taste, starting with <sup>1</sup>/<sub>2</sub> teaspoon and adding as needed, tasting as you add.

**TARGET FLAVOR AND TEXTURE:** Crème fraîche should have the consistency of a thickly set cream. It should taste faintly tangy and milky clean.

**STORAGE:** The crème fraîche will keep for 10 days in a sealed container in the refrigerator.

**TIP**: Use in place of cream cheese on bagels with lox.

# **CREAMY CORNBREAD**

Simply put: Dry cornbread is the worst, and there's no hiding it. As a kid, one of our regular family dinners was vegetarian chili and cornbread. I learned early on that no amount of chili or butter can cover up over-cooked cornbread. But who can blame busy parents on a weeknight? This recipe, with the addition of crème fraîche, helps hedge against that dreaded dry outcome. I prefer a square pan to a circular one for baking this bread so that you get those delightful crispy corners.

SERVES 6
PREP TIME: 10 minutes COOK TIME: 15 to 17 minutes
<ul> <li>1 cup all-purpose flour</li> <li>1 cup stone-ground cornmeal</li> <li>1 tablespoon brown sugar</li> <li>1 teaspoon baking powder</li> <li>1 teaspoon kosher salt or sea salt</li> <li>¼ cup whole milk</li> <li>½ cup unsalted butter</li> <li>3 large eggs</li> <li>1 cup Crème Fraîche (here) (if your Crème Fraîche is looser than a cooked custard texture, reduce the quantity by ¼ cup)</li> </ul>

**1.** Preheat the oven to 350°F. Lightly grease an 8- or 9-inch square baking pan.

**2.** In a large bowl, mix the flour, cornmeal, brown sugar, baking powder, and salt. Be sure to break up any clumps of brown sugar with a fork.

**3.** In a saucepan, warm the milk and butter over medium-low heat until the butter has melted.

**4.** Mix the milk and butter with the eggs and crème fraîche in a separate bowl. Whisk the wet ingredients into the dry ingredients until you have a smooth, thick batter.

**5.** Pour the batter into the baking pan. Bake until a toothpick poked in the center comes out clean, 15 to 17 minutes. You want to catch the combread just at the moment it has set, no more.

**6.** Let the cornbread cool in the pan on a wire cooling rack for at least 5 minutes before serving.

**TIP**: Serve the cornbread with the highest-quality salted cultured butter—perhaps one you've made yourself (here).

### MASCARPONE

Marscapone is another example of what a different outcome you will get with just a few slight variations on the basic soft cheese process. It lends itself particularly well to sweeter recipes, so I suggest making this cheese alongside some plans for baking. The classic use is in cannoli filling—and I would not blame you if you skip the cannoli shell and eat the filling by the spoonful—but I also suggest using this cheese to make a cannoli-inspired frosting for your next cake.

FROM MILK TO CHEESE: 19 hours, plus 10 minutes
YIELD: 1 <sup>1</sup> / <sub>2</sub> cups
EQUIPMENT
Medium stockpot
Thermometer with at least a 5-inch stem
13-inch stainless steel flat perforated ladle
Curd knife with a 12-inch blade
Medium colander
Butter muslin, cut to approximately 2 square feet
Large spoon
INGREDIENTS
2 cups whole cow's milk
2 cups heavy cream
<sup>1</sup> ⁄ <sub>8</sub> teaspoon mesophilic lactic acid starter culture
<sup>1</sup> ⁄ <sub>4</sub> teaspoon calcium chloride

Pinch dried animal or microbial rennet dissolved in <sup>1</sup>/<sub>4</sub> cup cool, nonchlorinated water (or 2 drops liquid rennet)

**WARM THE MILK**: In a stockpot, heat the milk and cream to 86°F for 10 minutes in a warm water bath. Stir the milk gently so that it warms evenly.

**CULTURE THE MILK AND COAGULATE:** Sprinkle the mesophilic culture, calcium chloride, and rennet on top of the milk and mix in for 30 seconds with an up and down motion. Cover the pot and let rest for 10 to 14 hours, until the curd has pulled away from the sides of the pot, is submerged in mostly clear whey, and leaves a clean break when a knife is inserted.

**LADLE THE CURD:** Line a colander with butter muslin and ladle large ½-inch-thick pieces of the curd into the colander.

**DRAIN THE CURD**: Let the curd drain for 1 hour. Tie the corners of the muslin into a knot and hang it over a bowl to drain for another 4 hours. This step can be done either in a cooler room (60°F to 68°F) or in the refrigerator.

**TARGET FLAVOR AND TEXTURE**: Mix the final cheese thoroughly with a spoon to smooth. The flavor should be tangy and milky, and the texture should be pudding-like.

**STORAGE:** Store in an airtight container in the refrigerator for up to 10 days.

# **CANNOLI "MILK" SHAKE**

On hot summer days, I sometimes uncharacteristically lose my appetite by dinnertime. The heat and humidity totally zap my energy, and I often want something cold and slightly sweet to combat dehydration and pep me up. Enter the socially acceptable milkshake-for-dinner! A little light on the vegetables but nonetheless fairly nutritious, this summertime treat is an easy, light, refreshing meal when you just don't have the energy for anything more.

SERVES 1	
<b>PREP TIME:</b> 5 minutes	
<sup>1</sup> / <sub>4</sub> cup Mascarpone (here)	
¼ cup cacao nibs	
1 banana, preferably frozen	
<sup>1</sup> ⁄ <sub>4</sub> cup almonds	
½ cup ice	
$\frac{1}{2}$ to 1 cup almond milk	

**1.** In a blender, combine the mascarpone, cacao nibs, banana, almonds, and ice and process until smooth.

**2.** Add <sup>1</sup>/<sub>2</sub> cup of almond milk and blend. Adjust the ingredients as desired, adding up to <sup>1</sup>/<sub>2</sub> cup more almond milk or more ice to change the consistency

until it just holds together and a few crunchy bits of ice remain throughout.

**TIP**: For a thicker, smoother version, add an extra few tablespoons of mascarpone, a second frozen banana, and more almond milk (no additional ice).

### **CREAM CHEESE**

As any bagel lover knows, good old-fashioned Philadelphia Cream Cheese is nothing to scoff at. That is, until you've made your own (or, in the case of us New Yorkers, until you've tasted Ben's, the local favorite). The fun step to play with in this recipe is culturing the milk: Push your boundaries and see what you think of a super tangy bagel spread, or dial it back and just go for the delightful flavor of simple cream. Either way, make sure you have a good bagel.

FROM MILK TO CHEESE: 30 hours, plus 10 minutes		
<b>YIELD:</b> 2 to 4 cups		
EQUIPMENT		
Medium stockpot		
Thermometer with at least a 5-inch stem		
13-inch stainless steel flat perforated ladle		
Medium colander		
Butter muslin, cut to approximately 2 square feet		
Large spoon		
Medium bowl		
INGREDIENTS		
1 gallon whole cow's milk		
1 pint heavy cream		
<sup>1</sup> ⁄ <sub>4</sub> teaspoon calcium chloride		
<sup>1</sup> / <sub>8</sub> teaspoon mesophilic lactic acid starter culture		

Pinch dried animal or microbial rennet dissolved in <sup>1</sup>/<sub>4</sub> cup cool, nonchlorinated water (or 2 drops liquid rennet)

1/2 teaspoon coarse non-iodized salt

**WARM THE MILK**: In a stockpot, heat the milk and cream to 86°F in a warm water bath. Stir the milk gently so that it warms evenly.

**CULTURE THE MILK AND COAGULATE:** Sprinkle the calcium chloride, mesophilic culture, and rennet on top of the milk and mix in for 30 seconds with an up and down motion. Cover the pot and let rest for 10 to 14 hours at room temperature (70°F to 74°F), until the curd has pulled away from the sides of the pot, is submerged in mostly clear whey, and leaves a clean break when a knife is inserted.

Note: Be sure to mix in the cultures continuously for 30 seconds, dipping the ladle to the bottom and back up to the top of the pot.

**CUT THE CURD**: Using a horizontal motion, slice through the curd with the ladle, separating it into <sup>1</sup>/<sub>2</sub>-inch disks.

**DRAIN THE CURD:** Line a colander with butter muslin and drain the curd in the colander for 1 hour. If, after tasting at this point, you'd like the cheese to be a bit tangier, continue draining for 1 hour. Bring together the corners of the butter muslin and hang over a sink or bowl to drain for 14 to 16 hours at room temperature (70°F to 74°F).

Note: Curd draining time is completely up to you, the cheesemaker. If you like your cream cheese looser, check the curd after 8 hours—that might be all you need. For a denser, more paste-like cheese, drain for up to the full 16 hours.

**TARGET FLAVOR AND TEXTURE:** Mix the final cheese thoroughly with a spoon to smooth. The flavor should be tangy and milky. Add the salt to enhance the flavor a bit. (If you'd like, you can also add any flavors you prefer in your cream cheese—my favorites are garlic and scallion.)

**STORAGE:** Store in an airtight container in the refrigerator for up to 10 days.

Enjoy as fresh as possible, with NYC bagels (preferably).

# **HOMEMADE CHEESECAKE**

When she was about nine years old, my sister made a cheesecake with only minimal direction from our mother—and then consumed the entire thing. An amazing feat, both in the making and the eating. You too can achieve this success! This recipe lets your homemade cream cheese shine, and the combination of slightly cooked and fresh berries as a topping is texturally fun and flavorful. Serve with dry sparkling wine for the ultimate dessert course.

SERVES 6
PREP TIME: 15 minutes
COOK TIME: 1 hour, plus 6 hours to chill
FOR THE TOPPING
2 cups fresh berries, divided
3 tablespoons sugar
2 tablespoons water
FOR THE CHEESECAKE
Butter, for greasing the pan
1 pound Cream Cheese (here)
1 pound Cream Cheese (here) <sup>1</sup> / <sub>3</sub> cup sugar
<sup>1</sup> / <sub>3</sub> cup sugar

#### TO MAKE THE TOPPING

**1.** Combine 1<sup>1</sup>/<sub>2</sub> cups of berries, the sugar, and water in a small saucepan over medium-high heat.

2. Stir and mash the berries, splashing in more water if the pan starts to dry out. The berries should release juice, which when mixed with the sugar and water, should thicken. When the mixture has thickened to a syrup-like consistency, remove from the heat and let it cool. Store in the refrigerator in an airtight container for up to 5 days.

### TO MAKE THE CHEESECAKE

**1.** Preheat the oven to 350°F.

2. Butter a 9-inch pie pan.

**3.** In the bowl of a stand mixer, beat the cream cheese and sugar. Add the eggs, one at a time, with the mixer on low.

**4.** Using the tip of a paring knife, cut the vanilla bean open lengthwise and scrape out the seeds from the bean. Add the seeds to the cheese mixture, along with the lemon juice, and mix until uniform.

**5.** Pour the cake batter into the buttered pie plate and bake for 1 hour. Check the cheesecake at 45 minutes. Cool on a wire cooling rack, and refrigerate for at least 6 hours or overnight.

**6.** To serve, top with the cooked berry mixture and the remaining <sup>1</sup>/<sub>2</sub> cup of berries.

**TIP:** For most of my adult life I have lived in tiny apartments. With limited kitchen storage, I was always frustrated with recipes that call for a variety of bulky baking pans. Many recipes for cheesecake call for a springform pan, but your everyday pie plate works just as well in this rendition. A gift to those of you with small kitchens!

# **COTTAGE CHEESE**

When I was a kid, I thought cottage cheese was a horrible diet food that women of a certain age seemed to eat a lot. It was watery and tasteless, and I couldn't believe it was categorized as any type of cheese at all. Of course, I was wrong. And when I started making homemade cottage cheese, I saw the light: It *is* cheese! Delicious cheese! As if still trying to right some childhood wrong, I also suggest drenching the curds in a big splash of heavy cream at the end of the make. Simple, decadent, and satisfying: the way cheese should be.

FROM MILK TO CHEESE: 10 hours
vield: 3 cups
EQUIPMENT
Medium stockpot
Thermometer with at least a 5-inch stem
13-inch stainless steel flat perforated ladle
Curd knife with a 12-inch blade
Medium colander
Butter muslin, cut to approximately 1½ square feet
Medium bowl
INGREDIENTS
1 gallon whole cow's milk
<sup>1</sup> ⁄ <sub>8</sub> teaspoon mesophilic lactic acid starter culture

<sup>1</sup>⁄<sub>4</sub> teaspoon dried animal or microbial rennet dissolved in <sup>1</sup>⁄<sub>4</sub> cup cool, nonchlorinated water (or <sup>1</sup>⁄<sub>4</sub> teaspoon liquid rennet)

### 12 ice cubes

**BEER PAIRING:** Light pilsner **WINE PAIRING:** Light, dry sparkling white wine

**HEAT THE MILK**: In a medium stockpot, heat the milk to 86°F in a gentle warm water bath.

**CULTURE THE MILK:** Add the mesophilic culture to the milk, letting it hydrate on the surface for 1 to 2 minutes before mixing it in. Wait for 10 minutes.

**COAGULATE:** Add the rennet and mix for 30 seconds. Cover the pot and let it rest for 6 to 8 hours.

*Note:* Be sure to mix in the cultures continuously for 30 seconds, dipping the ladle to the bottom and back up to the top of the pot as you mix.

**CUT THE CURD:** When the curd resembles a custard and pulls away from the edges of the pot, cut the curd into ½-inch pieces using the straight and angled cutting technique. Wait for 5 minutes.

**COOK THE CURD:** Heat the curds and whey to 115°F in a warm water bath for 1 hour. Do not do this too quickly, but rather slowly increase the temperature of the bath over the course of 20 to 30 minutes. Stir the curds gently throughout this process.

**DRAIN THE CURD**: Line a colander with butter muslin. Pour the curds and whey into the colander. Fill a bowl with cold water. Bring together the corners of the muslin and submerge the curd-filled cloth in the bowl of cold water, swishing it around so that all of the curds are "washed" and drop in temperature. Keep the curds submerged for 10 to 15 minutes. Repeat, adding ice to the bowl, to drop the temperature even farther. Drain the curds in the colander for 10 minutes, until they are still moist but not swimming in whey.

**TARGET FLAVOR AND TEXTURE:** This cheese should be fairly neutral and milky tasting. Texturally it should be curdy with a little squeak on the bite.

**STORAGE:** Store in a sealed container in the refrigerator for up to 10 days.

# **MIDWESTERN POTLUCK DIP**

Sometimes referred to as seven-layer dip, this dish is the definition of midwestern comfort food. The ingredient combinations might sound odd to those unfamiliar with them, but trust me—it's delicious. My family hails from the great midwestern states of Ohio and Wisconsin, and though I don't think my mother has ever made a recipe like this herself, it's something I secretly hope other family members bring when we have any kind of potluck. More often than not, my dreams come true, and I get to indulge in this totally strange and delightful pile of ingredients. I've made the dish a bit more respectable by encouraging you to make your own refried beans, and the homemade cottage cheese certainly adds a special element.

SERVES 8 to 10
PREP TIME: 30 minutes COOK TIME: 10 minutes
FOR THE GUACAMOLE
2 avocados, pitted and peeled
1 garlic clove, minced
Freshly squeezed juice of 1 lime
1 teaspoon hot sauce
Kosher salt or sea salt
Freshly ground black pepper

#### FOR THE REFRIED BEANS

2 tablespoons Ghee (here) or canola oil

2 garlic cloves, minced

2 teaspoons ground cumin

2 teaspoons chili powder

1 (15-ounce) can pinto beans, rinsed and drained

Kosher salt or sea salt

Freshly ground black pepper

### FOR THE DIP

2 cups Cottage Cheese (here), seasoned lightly with salt and freshly ground black pepper

2 cups diced, seeded tomato (1-inch cubes)

1 cup sour cream

2 cups diced, seeded cucumber (1-inch cubes)

1/2 cup minced, seeded jalapeño

Tortilla chips, for serving

### SERVING SUGGESTION

#### TO MAKE THE GUACAMOLE

In a medium bowl, use a fork to mash together the avocados, garlic, half of the lime juice, hot sauce, salt, and pepper. Taste and add more lime juice, hot sauce, salt, and/or pepper as needed.

#### TO MAKE THE REFRIED BEANS

**1.** In a large skillet, heat the ghee over medium-high heat until a drop of water sizzles.

**2.** Reduce the heat to medium and add the garlic, cumin, and chili powder. Mix to incorporate into the ghee. Add the pinto beans and stir, smashing the beans with the back of a spoon as you stir.

**3.** Cook the mixture until the beans have totally broken down and are mushy, 10 to 12 minutes. Season with salt and pepper to taste.

#### TO MAKE THE DIP

In an 8-by-10-inch baking dish, layer the components of the dish, starting with the refried beans and then the cottage cheese. Add the tomato, guacamole, sour cream, cucumber, and jalapeño, in that order. Refrigerate until the party. When you're ready, serve with your favorite tortilla chips.

**TIP:** This is a great recipe for summertime gatherings around the grill. Even among a high-brow crowd, your dish will probably be licked clean by the end of the night, especially after you reveal that the cottage cheese in the dip is homemade!

### **SOFT-RIPENED GOAT CHEESE**

My first few batches of soft-ripened goat cheese were less important to me for the cheeses they produced than for the lessons I learned about draining, drying, and aging cheese. How to empty the baking sheets of whey without disturbing the cheeses too much? Where is the best place for the cheeses to dry? How to create a super humid environment without fancy technology or equipment? I cover these questions a bit in Getting Started (here), but the best way to find the answers that apply to your specific space is to try and try again. Soft-ripened goat cheese gives you that chance, and with a pretty short feedback loop.

FROM MILK TO CHEESE: 27 hours, plus 20 minutes to make, 10 to 14 days to age

**YIELD:** 4 (6-ounce) cheeses

### EQUIPMENT

Medium stockpot Thermometer with at least a 5-inch stem 13-inch stainless steel flat perforated ladle 4 cheese forms (4 to 6 inches high) Cooling rack **Baking sheet** 

### **INGREDIENTS**

1 gallon goat's milk

<sup>1</sup>/<sub>4</sub> teaspoon chèvre culture (should contain trace rennet)

<sup>1</sup>/<sub>8</sub> teaspoon *Penicillium candidum* 

Pinch *Geotrichum candidum* 2 teaspoons coarse non-iodized salt

**BEER PAIRING:** Coffee stout **WINE PAIRING:** Sparkling rosé

**WARM THE MILK**: In a medium stockpot, heat the milk to 86°F in a gentle warm water bath. Stir the milk gently so that it warms evenly.

**CULTURE THE MILK:** Sprinkle the cultures on top of the milk and mix in for 30 seconds with an up and down motion. Cover the pot and let rest for 10 to 12 hours at a little warmer than room temperature (74°F to 78°F), until the curd pulls away from the sides of the pot, is submerged in mostly clear whey, and leaves a clean break when a knife is inserted.

Note: Be sure to mix in the cultures continuously for 30 seconds, dipping the ladle to the bottom and back up to the top of the pot as you mix.

**LADLE THE CURD:** Place the forms on a cooling rack set over a baking sheet. Using a horizontal motion, slice through the curd with the ladle, transferring ½-inch-thick disks of curd to the forms. Fill them completely with curd.

**DRAIN THE CURD**: Let the curd drain in the forms for about 2 hours. After the first hour or so, it should be firm enough to slide out of the forms, flip, and re-form. Rotate each cheese two or three times during the draining process.

*Note: Make sure to empty the expelled whey from the baking sheet throughout this process so it doesn't overflow.* 

**SALT THE CHEESE:** Remove the cheeses from their forms and sprinkle some salt over each cheese. Put the cheeses back in their forms and flip upside-down once every 20 minutes for a total of three times.

Note: Gently spread the salt by hand over the cheese if needed, but be careful not to smash or break apart the delicate fabric of the cheese at this point.

**DRY THE CHEESE:** Remove the cheeses from the forms and air-dry for 8 to 12 hours, turning every hour. The cheeses have finished drying when they are no longer shiny and visibly wet, and the whey has stopped draining. They should start to grow patches of white bloomy mold.

AGE THE CHEESE: Move the cheeses into a cool, high-humidity environment (55°F, 95% humidity) and age for 10 to 14 days. Flip daily and gently pat down the white bloomy mold when it grows beyond a few millimeters. The cheeses should become covered fully in the white bloomy mold within 4 to 5 days. They will initially firm up, but then soften over time.

**TARGET FLAVOR AND TEXTURE:** The cheese is ready when pressure on the rind yields like a ripe mango. The flavor should be milky and yeasty, with a hint of minerality.

*Note:* For a stronger-flavored cheese, wait to taste until the rind develops some tan-colored marks.

**STORAGE:** Wrap the cheeses in crystal cheese paper, or with wax paper and then aluminum foil. The cheeses will keep and continue aging in the refrigerator for 2 weeks. Try to store the cheeses in a high-humidity environment in your refrigerator.

# **TANGY WHIPPED POTATOES**

For most of my life I thought that mashed potatoes were the perfect vehicle for butter, and that there was little that could be done to improve on the simple combination of potatoes, butter, and cream. This opinion changed when I discovered the French dish *aligot*. To imagine mashed potatoes as more cheese than potato completely rocked my world. The ooey, gooey nature of *aligot* is downright addictive, but I find I max out on it pretty quickly without some kind of acid to cut the richness. Sometimes that acid can be found in a glass of wine. Here I suggest using goat cheese to achieve the fondue-like texture while also adding a burst of tangy acidity.

**PREP TIME**: 15 minutes **COOK TIME**: 15 minutes

2 pounds red or new potatoes
Kosher salt or sea Salt
1 to 1¼ cups Soft-Ripened Goat Cheese (here), rind removed, divided
Freshly ground black pepper

**1.** Fill a large pot with cool water, add the potatoes, lightly salt the water, and bring to a boil over high heat. Simmer until a fork easily pierces the potatoes, 10 to 15 minutes.

**2.** Drain the potatoes and put them in the bowl of a stand mixer. Add <sup>3</sup>/<sub>4</sub> cup of goat cheese and season with pepper. Mix on medium with the paddle attachment until the cheese is well incorporated and the potatoes are mashed, about 5 minutes.

**3.** Add the rest of the cheese and mix, tasting for balance and texture. Add salt and pepper sparingly, as needed.

**TIP**: I like the potatoes to be very smooth and a bit dense, so I add the cheese in three stages, mixing for almost 10 minutes. If you like an airier mashed potato, mix minimally in one step, just until the cheese is incorporated.

### **ASH-RIPENED CHEESE**

Ash-ripened cheese is a good first foray into working with interesting rinds. Once you've become familiar with the white bloomy *Penicillium candidum* rind, the perfect next step in your cheesemaking education is to experiment with charcoal powder and note the differences in ripening and flavor. Serve this cheese with chocolate, honey, or fruit preserves.

FROM MILK TO CHEESE: 46 hours to make, 10 to 14 days to age

**YIELD:** 3 or 4 small cheeses

#### EQUIPMENT

Small stockpot

Thermometer with at least a 5-inch stem

13-inch stainless steel flat perforated ladle

3 or 4 cheese forms (3 inches in diameter and 3 inches high)

Cooling rack

Baking sheet

Draining mats

### INGREDIENTS

1 gallon pasteurized goat's milk

1/8 teaspoon mesophilic lactic acid starter culture

<sup>1</sup>/<sub>16</sub> teaspoon *Penicillium candidum* 

<sup>1</sup>⁄<sub>8</sub> teaspoon dried animal or microbial rennet dissolved in <sup>1</sup>⁄<sub>4</sub> cup cool, nonchlorinated water (or <sup>1</sup>⁄<sub>8</sub> teaspoon liquid rennet)

3 teaspoons coarse non-iodized salt

1 teaspoon charcoal powder

**BEER PAIRING:** Light, crisp beer, such as pilsner or Kölsch **WINE PAIRING:** Loire Valley white wine, such as a Sancerre or Vouvray

**WARM THE MILK:** In a stockpot, heat the milk to 74°F and hold at that temperature in a warm water bath.

Note: You want this cheesemaking process to happen a bit cooler than most of the other makes in this book so that whey isn't released too quickly.

**CULTURE THE MILK:** Sprinkle the mesophilic culture and *P. candidum* over the surface of the milk, then wait a minute or two before mixing them in to the rest of the pot to allow the cultures time to hydrate and fully release. Let the mixture sit, covered, for 6 hours.

**COAGULATE:** Add the rennet and mix, using an up and down motion, for 30 seconds. Let sit for 2 hours, or until the curd has pulled away from the sides of the pot, is submerged in mostly clear whey, and leaves a clean break when a knife is inserted.

**LADLE THE CURD:** Place the forms on a cooling rack set over a baking sheet. Using a horizontal motion, slice through the curd with the ladle, transferring <sup>1</sup>/<sub>2</sub>-inch-thick disks of curd to the forms. Fill them completely with curd.

**DRAIN THE CURD:** Let the curd drain for 10 to 14 hours. Be sure to empty the baking sheet as it fills with whey. Once you see that the curd has knit together, unmold, flip, and drain upside-side down back in the form.

Note: The environment should be on the cooler side of room temperature, 70°F to 72°F, so that you don't lose too much whey. By the time the curds are ready to come out of their forms, they will be about half the height they originally were.

**DRY THE CHEESE:** Unmold the cheeses and set over draining mats. Mix the salt and charcoal together and sprinkle the mixture over the surface of each

cheese. Be sure to flip the cheeses every hour or so to promote even drying. Let sit for 16 to 24 hours.

*Note:* Drying should be done in a cooler environment, 60°F to 65°F, with some added humidity.

AGE THE CHEESE: Once the cheeses have lost visible moisture or shiny sections on their surface, they are ready to age. Transfer to draining mats in a high-humidity (90%) environment at 55°F and let the cheese age for 10 to 14 days. Turn the cheeses twice a day for the first 3 to 4 days, then once a day after that.

Note: After 3 to 5 days of aging, the charcoal surface should become a light gray as the white bloomy mold grows. If the rind starts to grow more than a few millimeters out from the cheese, gently pat it down as you flip the cheese each day.

**TARGET FLAVOR AND TEXTURE:** The cheese is ready when the grayish bloomy rind fully coats the cheese, and when pressure on the rind feels firm but yielding. This cheese should be moist and dense in texture, as if you saturated a marshmallow with water. Flavors can range from bright and lemony to earthy. Chalky notes are undesirable (unless, of course, you like them).

**STORAGE:** Store the cheeses in the refrigerator, wrapped snugly in cheese paper or wax paper. Before cutting the cheese open, the wheels will keep for up to 2 weeks in the fridge. Once cut, the cheese should be consumed within 3 to 5 days.

**TIP**: You can also make this type of cheese by working off the Chèvre recipe (here) until the ladling step and then picking up here from Drain the Curd. The make will take a bit longer but yields a tangy, softer version of this cheese.

# **COMPOSED CHEESE COURSE**

This recipe is an homage to the beauty of its ingredients, and a meditation for the cheesemaker. One thing I love about restaurant service is the act of plating food. Even when rushed, plating a dish can feel incredibly creative, and gives you a chance to appreciate each ingredient and think about how your guest will consume it. After you've taken the time and effort to make the ash-ripened goat cheese, this recipe gives you the chance to linger lovingly over your final product—an important but often-overlooked final step to the cheesemaking process.

SERVES 4
PREP TIME: 15 minutes
COOK TIME: 15 minutes
FOR THE BERRY REDUCTION
1 cup fresh berries
2 fresh rosemary sprigs
1 teaspoon sugar
FOR THE COMPOSED CHEESE COURSE
<sup>1</sup> / <sub>3</sub> cup hazelnuts
⅓ cup honeycomb
1 Ash-Ripened Cheese log (here)

**EQUIPMENT ALERT:** Make sure you use *unwaxed*, *unflavored* dental floss to cut the disks of cheese!

### TO MAKE THE BERRY REDUCTION

**1.** In a small pan, combine the fresh berries, rosemary, sugar, and a splash of water and cook over medium heat.

**2.** Stir and crush the berries gently until the water simmers off and the entire mixture starts to thicken. Remove from the heat and let it cool completely.

### TO MAKE THE COMPOSED CHEESE COURSE

**1.** Preheat the oven to 350°F.

**2.** Spread out the hazelnuts on a baking sheet and bake for 5 to 10 minutes, shaking the tray every few minutes to stir the nuts. When you smell the toasted nuts, they are finished.

**3.** Spread out the hazelnuts on half of a clean kitchen towel. Cover the nuts with the other half of the towel and use a small saucepan to crush the nuts. When they're crushed to rice-size pieces, set the nuts aside.

**4.** Chop the honeycomb into dime-size pieces. Set it aside.

**5.** Twist enough unflavored dental floss around your fingers to allow a 6-inch space between your hands. Gently guide the floss down through the goat cheese log crosswise, slicing it into ½-inch-thick disks. You should have at least 12 disks.

**6.** Set out four plates and arrange the cheese course elements in any creative way you'd like, layered in this order: disk of goat cheese, spoonful of berry reduction, disk of goat cheese, 2 or 3 pieces of honeycomb, disk of goat cheese, and a sprinkling of crushed hazelnuts. You can stack the cheese vertically, fan it across the plate, or arrange it in groupings around the plate. Let your creative spirit guide you, and have fun with the beautiful visuals of this plating exercise.

### **BRIE-STYLE**

After experimenting with the fresh cheeses and small forms featured earlier in this chapter, making a larger-format Brie-style cheese is a natural next step. Your first larger-format cheese conveys a sense of accomplishment all its own. As an urban cheesemaker, I have a special fondness for Brie—a true urban cheese itself. It's made just outside of Paris in the Île-de-France region, and I like to think of Brie as a cosmopolitan cheese, a kindred spirit of sorts.

FROM MILK TO CHEESE: 60 hours to make	e, 6 to 8 weeks to age
---------------------------------------	------------------------

**YIELD:** 1 wheel

### EQUIPMENT

Medium stockpot

Thermometer with at least a 5-inch stem

13-inch stainless steel flat perforated ladle

Cheese form (7<sup>1</sup>/<sub>2</sub> inches in diameter) with follower

Cheesecloth, cut to approximately 2 square feet

Cooling rack

Baking sheet

Draining mat

### INGREDIENTS

1 gallon whole cow's milk

<sup>1</sup>⁄<sub>4</sub> teaspoon mesophilic lactic acid starter culture

<sup>1</sup>/<sub>16</sub> teaspoon *Penicillium candidum* 

Pinch *Geotrichum candidum* <sup>1</sup>⁄<sub>4</sub> teaspoon calcium chloride <sup>1</sup>⁄<sub>4</sub> teaspoon dried animal or microbial rennet dissolved iu

<sup>1</sup>⁄<sub>4</sub> teaspoon dried animal or microbial rennet dissolved in <sup>1</sup>⁄<sub>4</sub> cup cool, nonchlorinated water (or <sup>1</sup>⁄<sub>4</sub> teaspoon liquid rennet)

 $1\!\!\!\!/_2$  teaspoons coarse non-iodized salt, divided

**BEER PAIRING:** Creamy porter or stout, or a fresh saison **WINE PAIRING:** Sparkling dry white wine or an old world Burgundy

**WARM THE MILK:** In a medium stockpot, heat the milk to 86°F in a warm water bath. Stir the milk gently so that it warms evenly.

**CULTURE THE MILK**: Sprinkle the cultures and calcium chloride on top of the milk and mix in for 30 seconds with an up and down motion. Cover the pot and let rest for 30 minutes at room temperature (70°F to 74°F).

**COAGULATE:** Add the rennet to the milk. Stir with an up and down motion for 1 minute. Cover the pot and let rest for 90 minutes, until the curd has pulled away from the sides of the pot, is submerged in mostly clear whey, and leaves a clean break when a knife is inserted.

**LADLE THE CURD:** Line a form with cheesecloth and place it on a cooling rack set over a baking sheet. Using a horizontal motion, slice through the curd with the ladle, transferring ½-inch-thick disks of curd into the form.

**DRAIN THE CURD:** Let the curd drain for 18 to 24 hours. It should lose around one-quarter of its total mass in the first hour. After the first hour, flip the curd at even intervals, every 2 to 3 hours. The curd should shrink to about one-third of its original size and become firmer to the touch.

Note: To flip the curd the first few times, stack the setup from bottom to top in this order: baking sheet, cooling rack, cheese form with curd, cooling rack, baking sheet. Flip the entire stack of items, making sure that the baking sheet on the bottom is drained of all whey first.

**SALT THE CHEESE:** Unmold the cheese and set it on a draining mat over the baking sheet. Sprinkle <sup>3</sup>/<sub>4</sub> teaspoon of salt evenly over the top and sides of the

cheese. Let the cheese sit for 10 hours. Turn the cheese over and sprinkle the remaining <sup>3</sup>/<sub>4</sub> teaspoon of salt evenly over the other side of the cheese. Wait for 12 hours.

**DRY THE CHEESE:** Place the curd at room temperature with little airflow and flip at 4-hour increments throughout the course of the day. Let the cheese sit for 12 hours total.

**AGE THE CHEESE:** Store the cheese at 55°F and 90% humidity and set the cheese on a draining mat for 10 to 15 days. Turn twice daily to prevent mold from growing on the mat.

Note: When you start to see the signature white bloomy mold growing, that's a good sign. Gently pat down the mold if it grows more than a few millimeters thick in any place.

Store the cheese in a cooler environment (40°F refrigerator temperature with humidity). Flip daily and notice how it softens. After 4 to 6 weeks the cheese should feel soft to the touch. At this point it's most likely ready to enjoy.

**TARGET FLAVOR AND TEXTURE:** Though creamy to the eye, the main flavor of this cheese should ideally be a vegetal, cabbage-y note. When it's young, the center of the cheese paste will be lactic and curdy, while the paste just under the rind will take on a melty, pudding-like texture.

Note: The longer you age this cheese, the more gooey and broken down the paste becomes. The rind will also become ammoniated if left to age for too long, so take note of the aromas present in aging.

**STORAGE:** Wrap in cheese paper and store in the refrigerator for 2 to 3 weeks beyond its initial ripeness. Once cut open, the cheese will store well for 3 to 5 days. For a stronger-flavored cheese, wait to taste until the rind develops some tan-colored marks.

**TIP**: If you don't like the cabbage-forward flavor of traditional Brie, substitute Flora Danica for the mesophilic culture, and you should get a creamier flavor

profile.

## **SEASONAL BAKED BRIE**

When I was in college, before I had an inkling that cheese was in my professional future, one of the fancy items my friends and I would serve at parties was baked Brie. In hindsight it was a smart choice—lots of fat and protein to keep us from feeling the effects of a bit too much beer. At the time we considered this the epitome of party snacking, and it's just as delicious and pleasing to me today.

SERVES 10 to 12
PREP TIME: 5 minutes COOK TIME: 5 to 8 minutes
1 wheel Brie-Style cheese (here)
2 tablespoons brown sugar
Fall: apples, peeled and cut into 1-inch cubes
Winter: cranberries
Spring: blackberries
Summer: peaches, peeled and cut into 1-inch cubes
Fresh bread, for serving

**1.** Preheat the oven to 350°F.

**2.** Place the wheel of cheese on a baking sheet. Score the top of the wheel with an X so that it goes through the top rind and into the paste.

**3.** Top the wheel of cheese with the brown sugar and seasonal fruit of your choice. Place the baking sheet in the oven. Check it after 5 minutes and every 1 to 2 minutes after, cooking until the sugar has completely melted and the cheese is bubbling along the scored X.

**4.** Let the cheese cool for 2 minutes before serving with fresh bread.

**TIP:** I always like to have a few things on hand in the fridge and pantry in case we have unexpected visitors and I need to put out a quick spread. If you don't have any fresh fruit on hand, you can always replace the brown sugar and fruit with a jam or compote.

### **CAMEMBERT-STYLE**

I think of this shape and style as the perfect party cheese. Bring a wheel to the next dinner party you're invited to and have fun responding to exclamations of "Wait—you made this?!" The process is nearly as straightforward as making a fresh cheese, but with a bit more attention needed in the drying and aging steps. My recommendation for your first attempt at Camembert is to take very detailed observational notes as the cheese dries and ages. By writing down exactly when the white mold appears and how it develops, you'll be able to retrace your steps to re-create success or remedy any errors.

**FROM MILK TO CHEESE:** 43 hours, plus 20 minutes to make, 10 to 15 days to age

**YIELD:** 2 or 3 wheels

### EQUIPMENT

Medium stockpot Thermometer with at least a 5-inch stem 13-inch stainless steel flat perforated ladle Curd knife with a 12-inch blade 2 or 3 cheese forms (6 inches in diameter) Cooling rack Baking sheet Draining mats INGREDIENTS

1 gallon whole cow's milk

<sup>1</sup>⁄<sub>4</sub> teaspoon mesophilic lactic acid starter culture

<sup>1</sup>/<sub>16</sub> teaspoon *Penicillium candidum* 

Pinch Geotrichum candidum

<sup>1</sup>⁄<sub>4</sub> teaspoon dried animal or microbial rennet dissolved in <sup>1</sup>⁄<sub>4</sub> cup cool, nonchlorinated water (or <sup>1</sup>⁄<sub>4</sub> teaspoon liquid rennet)

Coarse non-iodized salt

**BEER PAIRING**: Saison or lambic **WINE PAIRING**: Yeasty sparkling white wine, such as a classic Champagne, specifically Crémant de Bourgogne

**WARM THE MILK**: In a medium stockpot, heat the milk gently, to between 86°F and 90°F in a warm water bath. Stir the milk gently so that it warms evenly.

**CULTURE THE MILK**: Sprinkle the cultures on top of the milk and mix in for 30 seconds with an up and down motion. Cover the pot and let rest for 30 minutes at room temperature (70°F to 74°F).

Note: Be sure to mix in the cultures continuously for 30 seconds, dipping the ladle to the bottom and back up to the top of the pot as you mix.

**COAGULATE:** Add the rennet to the milk. Stir with an up and down motion for 1 minute. Cover the pot and let rest for 90 minutes.

**CUT THE CURD**: Cut the curd into 1-inch pieces using the straight and angled technique. Let sit for 20 minutes.

**DRAIN THE CURD:** Place the forms on a cooling rack set over a baking sheet. Gently scoop the cut curds into the forms and let the curds drain for 1 hour. They should lose around one-quarter of their mass. Continue to drain the curds for 12 hours. Flip the forms at even intervals (every 2 hours is a good start) over the course of the draining period.

*Note: The curd should shrink to about one-third of its original size and become firmer to the touch.* 

SALT THE CHEESE: Evenly sprinkle ½ teaspoon of salt over the top of each cheese and let rest for 8 hours. Flip and sprinkle the remaining ½ teaspoon of salt on the other side of each cheese. Let rest for 8 hours.

**DRY THE CHEESE:** Remove the cheese from the forms and dry at room temperature with little airflow, flipping every 4 hours for 12 hours.

**AGE THE CHEESE:** Age the cheese at 55°F and 90% humidity on draining mats for 10 to 15 days. Turn twice daily to prevent mold growth on the mats. After up to 15 days, continue to age the cheese in a storage container closed with a loose-fitting lid in the refrigerator.

Note: When you start to see the signature white bloomy mold growing, that's a good sign. Gently pat down the mold if it grows more than a few millimeters thick in any place.

**TARGET FLAVOR AND TEXTURE:** Your final cheese should have a firm pudding-like texture, with notes of cream and earth and a faint vegetable taste. The flavor and texture are very similar to a Brie-style cheese.

Note: See the note on Flora Danica in the Brie recipe if you want a creamier flavor profile (here).

**STORAGE:** Wrap the cheeses in crystal cheese paper or wax paper and aluminum foil. Store in the coldest part of your refrigerator until ready to enjoy. Once the cheese has aged properly, it should be enjoyed within 1 to 2 weeks.

# TURKEY SANDWICH OF YOUR DREAMS

The success of this sandwich is completely dependent on the quality of its ingredients. If you're going to construct this beauty, go the distance to find the greatest baguette, the most pungent mustard, and the freshest turkey. You can make the cheese and butter (or make one and buy the other to save time and make things a bit easier on yourself). The apple and the watercress add crunchy, juicy elements to this dish, so be sure those are fresh and in season locally.

SERVES 2
PREP TIME: 15 minutes
1 baguotto
1 baguette
4 tablespoons butter, at room temperature, divided
3 tablespoons whole-grain mustard
<sup>1</sup> / <sub>2</sub> wheel Camembert-Style cheese (here), cut into 8 small wedges
8 to 10 thin roast turkey slices
1 cup watercress, loosely packed
<sup>1</sup> / <sub>2</sub> Granny Smith apple, thinly sliced

**1.** Slice the baguette lengthwise so that it opens like a sandwich. Smear the bottom side of the bread with half of the butter from end to end. Spread on

the mustard.

**2.** Line the camembert wedges end to end on the baguette bottom. Top with the turkey by dropping the turkey in ribbons, not laying it flat as you would in an Italian sub. Add the watercress.

**3.** Smear the remaining 2 tablespoons of butter on the top side of the bread and place the apple slices across the top. Carefully close the top bread over the bottom and cut the baguette in half crosswise to yield two sandwiches.

### **TRIPLE-CRÈME**

Add cream to just about anything, and I'm a fan. This is no less true when it comes to cheese. Triple-crème is one of my favorite examples of just how much cream can elevate a cheese. I like to say that enjoying a triple-crème cheese is just a thinly disguised way to eat butter straight from the package without social judgment. Adding cream to the make is educational too: Working with the higher butterfat is a different experience, and you will see each step in the cheesemaking process in a new light.

**FROM MILK TO CHEESE:** 60 hours to make, 10 to 15 days, plus 4 to 6 weeks to age

**YIELD:** 2 (8-ounce) wheels or 4 (4-ounce) wheels

### EQUIPMENT

Medium stockpot

Thermometer with at least a 5-inch stem

13-inch stainless steel flat perforated ladle

2 medium cheese forms (6 to 8 inches in diameter) or 4 small cheese forms (3 to 5 inches in diameter)

Cheesecloth, cut to approximately 2 square feet

Cooling rack

Baking sheet

Large draining mat

### INGREDIENTS

1 gallon whole cow's milk

2 cups heavy cow's cream

<sup>1</sup>⁄<sub>4</sub> teaspoon Flora Danica culture

<sup>1</sup>/<sub>16</sub> teaspoon *Penicillium candidum* 

Pinch Geotrichum candidum

1/4 teaspoon calcium chloride

<sup>1</sup>⁄<sub>4</sub> teaspoon dried animal or microbial rennet dissolved in <sup>1</sup>⁄<sub>4</sub> cup cool, nonchlorinated water (or <sup>1</sup>⁄<sub>4</sub> teaspoon liquid rennet)

Coarse non-iodized salt

**BEER PAIRING:** Oatmeal stout **WINE PAIRING:** Pinot Noir

**WARM THE MILK**: In a medium stockpot, heat the milk and cream to 86°F in a warm water bath.

**CULTURE THE MILK:** Sprinkle the cultures and calcium chloride on top of the milk and mix in for 30 seconds with an up and down motion. Cover the pot and let rest for 30 minutes at room temperature (70°F to 74°F).

**COAGULATE:** Add the rennet to the milk. Stir with an up and down motion for 1 minute. Cover the pot and let rest for 90 minutes, until the curd has pulled away from the sides of the pot, is submerged in mostly clear whey, and leaves a clean break when a knife is inserted.

**LADLE THE CURDS:** Line the forms with cheesecloth and place them on a cooling rack set over a baking sheet. Using a horizontal motion, slice through the curd with the ladle, transferring ½-inch-thick disks of curd into the forms.

**DRAIN THE CURD:** Let the curd drain for 1 hour, losing around one-quarter of the total mass. After the first hour, flip the curd every 2 to 3 hours for a total of 18 to 24 hours. The curd should shrink to about one-third of its original size and become firmer to the touch.

Note: To flip the curd the first few times, stack the setup from bottom to top in this order: baking sheet, cooling rack, cheese forms with curd, cooling rack, baking sheet. Flip the entire stack of items, taking care to make sure that the baking sheet on the bottom is drained of all whey

### before flipping.

SALT THE CHEESE: Remove the cheeses from the forms and cheesecloth and place on a draining mat over the cooling rack. Sprinkle 1 teaspoon of salt (or <sup>1</sup>/<sub>2</sub> teaspoon if using 4 smaller forms) evenly over the top and sides of the cheese and let rest for 10 hours. Flip the cheese over and sprinkle 1 teaspoon of salt (or <sup>1</sup>/<sub>2</sub> teaspoon if using 4 smaller forms) over the top and sides of the cheese. Let rest for an additional 12 hours.

**DRY THE CHEESE**: Place the cheese at room temperature (70°F to 74°F) with little airflow and flip every 4 hours for 12 hours.

**AGE THE CHEESE:** Store the cheese at 55°F and 90% humidity on a draining mat for 10 to 15 days. Turn twice daily to prevent mold growth on the mat.

Note: When you start to see the signature white bloomy mold growing, that's a good sign. Gently pat down the mold if it grows more than a few millimeters thick in any place.

After up to 15 days, continue to age the cheese in a storage container, closed with a loose-fitting lid, in the refrigerator. Flip daily and notice how it softens. After 4 to 6 weeks the cheese should feel soft to the touch and be ready to enjoy!

**TARGET FLAVOR AND TEXTURE:** The cheese should be decadently creamy, like a fine pudding. The flavor should be dominated by cultured cream.

**STORAGE:** Wrap in cheese paper and store in the refrigerator for 2 to 3 weeks beyond initial ripeness. Once cut open, the cheese will store well for 3 to 5 days.

**TIP**: For a stronger-flavored cheese, wait to taste until the rind develops some tan-colored marks.

# EXTRA-CREAMY ZUCCHINI-PEPPER GRATIN

This recipe is a riff on Julia Child's Tian de Courgettes au Riz. While Julia is content with Parmigiano-Reggiano cheese, I've taken it a step further into the luscious realm (is there any better realm?) and added triple-crème for an even creamier, more decadent dish. Be sure to let the gratin cool for 10 to 15 minutes out of the oven, as this will help it set.

#### SERVES 6

**PREP TIME:** 10 minutes, plus 30 minutes to drain **COOK TIME:** 40 to 45 minutes

2 pounds zucchini

1 teaspoon kosher salt or sea salt

<sup>1</sup>/<sub>4</sub> cup unsalted butter

1 medium onion, diced

1 garlic clove, minced

Freshly ground black pepper

2 tablespoons all-purpose flour

<sup>1</sup>/<sub>2</sub> cup uncooked white rice

<sup>1</sup>/<sub>2</sub> cup Triple-Crème cheese (here), rind removed

<sup>1</sup>⁄<sub>4</sub> cup grated Parmigiano-Reggiano

**1.** Grate the zucchini on a box grater or using the grating blade of a food processor. Transfer to a medium bowl. Add the salt and mix well. Transfer to a colander and place the colander over the bowl. Let it sit for at least 30 minutes to drain.

**2.** Squeeze out the excess liquid from the zucchini, reserving all the liquid for use later.

**3.** Preheat the oven to 350°F.

**4.** In a large skillet, melt the butter over medium-low heat. Add the onion and cook until the onion becomes very soft, 5 to 10 minutes. Add the garlic and continue to cook for 1 to 2 minutes more. Season with pepper.

**5.** Increase the heat to medium, add the zucchini, and cook for 5 minutes. Add the reserved zucchini water and continue cooking for 2 to 3 more minutes, increasing the heat to medium-high, until it has reduced by one-third.

**6.** Add the flour and stir in the rice. Lower the heat and let it simmer lightly for 5 minutes.

**7.** Mix in the triple-crème and transfer the entire mixture to a large baking dish.

**8.** Top with the grated Parmigiano-Reggiano and bake until the top has browned and the liquid has mostly cooked off, about 20 minutes.

**TIP**: If you're planning to freeze the dish for later use, cut the final baking step in half and finish baking when you defrost and plan to enjoy the dish.



Mediterranean Salad (here)

## CHAPTER 5

## **BRINED & COOKED CHEESES**

## COW'S MILK FETA Mediterranean Salad

GOAT'S MILK FETA Home Alone Pizza

## MOZZARELLA

Baked Mozzarella Sticks with Marinara Sauce

**QUESO FRESCO** Breakfast Tacos

## **YOUNG GOUDA**

**Roast Beef Sandwich** 

## AGED GOUDA Colorful Frittata

## **PROVOLONE** Burger with Bite

## HAVARTI A Different Fish Sandwich

Try making these cheeses after you have made a few basic Soft & Spreadable Cheeses (here). In this chapter we take the basic soft cheesemaking process to the next level by cooking and brining the curd. You will learn the difference between washedcurd and washed-rind cheeses, and you will channel the Italian in you by stretching Mozzarella (here) and aging Provolone (here). The cheese styles in this chapter vary a great deal, but the essential cheesemaking processes have two central elements in common: The curd is heated after cutting, and the cheeses are brine-salted. Along with each cheesemaking recipe, you will find a recipe for cooking with brined and cooked cheeses: everything from Breakfast Tacos (here) to Home Alone Pizza (here).

## **BRINED & COOKED CHEESE MAKE SHEET**

Use the worksheet below as a template for each brined and cooked make you do, and feel free to adjust as necessary based on the master recipe you're working from (for example, you stretch mozzarella, but you wash gouda curd). Keep all your worksheets together for each cheese, and over time you can update the master recipe to reflect changes you've made to customize your cheeses. Go to https://tastetolearn.com for a PDF of this worksheet that you can print in multiples.

## BRINED & COOKED MAKE SHEET

Date started:			Date o	Date complete:			
PLAN	From milk to cheese:	Yield:	ACTUAL	From milk to cheese:	Yield:		
	<ul> <li>Medium to large stockpot</li> <li>Thermometer with at least a 5-inch stem</li> <li>13-inch stainless steel flat perforated ladle</li> <li>Curd knife with a 12-inch blade</li> <li>Cheesecloth, cut to approximately 2 square feet</li> <li>Medium colander</li> <li>Medium cheese forms with follower</li> <li>Cooling rack</li> <li>Baking sheet</li> <li>Medium bowl</li> </ul>		INGREDIENTS	Milk:			
EQUIPMENT				Culture(s):			
				Rennet:			
			N	Other:			

	DETAILS FROM MASTER RECIPE	WAIT	PLANNED	ACTUAL	NOTES
Warm the Milk					
Culture the Milk					
Coagulate					
Cut the Curd					
Stir the Curd					
Wash the Curd					
Stretch the Curd (Pasta Filata)					
Drain the Curd					
Press the Cheese					
Salt the Cheese					
Dry the Cheese					
Age the Cheese					
Target Flavor & Textu	re				

# **COW'S MILK FETA**

Making feta is a great option when you feel like making cheese but know you might not eat it right away, because it has a long shelf life. Whenever I get a little too ambitious and have an extra gallon of milk in the fridge, I make feta and forget about it for a while. Because of its hearty nature, feta is also a great cheese to make in the summer months, when room temperature might be a bit higher than ideal for most cheesemaking. Serve drizzled with olive oil with a bowl of olives for a summertime snack.

FROM MILK TO CHEESE: 28 hours plus 20 minutes to make, 3 to 5 days to age		
vield: 2 cups		
EQUIPMENT		
Large stockpot		
Thermometer with at least a 5-inch stem		
13-inch stainless steel flat perforated ladle		
Curd knife with a 12-inch blade		
Rectangular cheese form (4 by 6 inches or similar)		
Cheesecloth, cut to approximately 1 square foot		
Large bowl		
Storage container		
INGREDIENTS		
1 gallon whole cow's milk		

<sup>1</sup>⁄<sub>4</sub> teaspoon mesophilic lactic acid starter culture

1/4 teaspoon dried animal or microbial rennet dissolved in 1/4 cup cool, non-

chlorinated water (or <sup>1</sup>/<sub>4</sub> teaspoon liquid rennet)

1 teaspoon coarse non-iodized salt, if needed

10% brine: 4.8 ounces non-iodized salt dissolved in 6 cups non-chlorinated water

5% brine: 2.4 ounces non-iodized salt dissolved in 6 cups non-chlorinated water

**BEER PAIRING**: Crisp, light, summertime beer, such as Kölsch, pilsner, or saison

**WINE PAIRING:** Bright, high-acid white wine, such as Albariño or Sauvignon Blanc

**WARM THE MILK**: In a stockpot, heat the milk gently to 86°F in a warm water bath. Keep the milk warmed for 10 minutes. Stir the milk regularly so that it warms evenly.

**CULTURE THE MILK**: Sprinkle the culture on top of the milk and mix in for 30 seconds with an up and down motion. Cover the pot and let rest for 8 hours at room temperature (70°F to 74°F).

**COAGULATE:** Add the rennet to the milk. Stir with an up and down motion for 1 minute. Cover the pot and let rest for 12 hours.

**CUT THE CURD**: Cut the curd into ½- to 1-inch-thick pieces using the straight and angled technique. Wait for 10 minutes.

**STIR THE CURD**: Return the pot to the hot water bath and bring the curds and whey temperature up to 95°F. Stir for 5 minutes.

**DRAIN THE CURD:** Line a form with cheesecloth and ladle the curds into the form. Drain for 2 hours.

*Note:* If the curds are especially soft, sprinkle 1 teaspoon of salt over the top before you leave them to drain.

**DRY THE CHEESE:** Gently slide the curd out of the mold and reinsert upsidedown. Let it sit for 4 to 6 hours.

Note: If the curd is too soft to be unmolded, continue letting it drain in the mold, flipping it upside-down every 2 hours until it holds its shape outside the mold.

**SALT THE CHEESE:** In a large bowl, mix the 10% brine solution. Submerge the cheese, cheesecloth removed, in the brine and let sit at room temperature, covered with a plate or cloth, for 3 to 5 days. Flip the cheese once daily to prevent one side from drying out. Taste the cheese after a couple of days for salt and flavor. Remove from the brine when the salt level is noticeable but not overpowering.

**TARGET FLAVOR AND TEXTURE:** Feta flavor is a personal preference, and can land anywhere on the spectrum between bright and tangy to milky and savory. The texture should be dry and crumbly.

Note: Salt can easily overpower the flavors in this cheese, so experiment with the brining time to get at your target profile.

**STORAGE:** In an airtight storage container, mix the 5% brine solution and store the cheese in it, submerged, in the refrigerator. The feta will keep for 1 to 2 months.

# **MEDITERRANEAN SALAD**

This is a pretty straightforward take on the classic Greek salad, with the interesting twist being, of course, that you're using feta you made yourself! I like playing around with fresh herbs and olives in a salad like this—use whatever you have in the refrigerator, and you might be surprised with a tasty new combination. One thing to keep in mind: Although tomatoes are available year-round, this salad will always taste better if you make it in the summer months when tomatoes are in season.

SERVES 4
<b>PREP TIME:</b> 20 minutes, plus 1 hour to chill
<sup>1</sup> ⁄ <sub>4</sub> cup extra-virgin olive oil
2 tablespoons red wine vinegar
1 tablespoon honey
<sup>1</sup> ⁄ <sub>4</sub> teaspoon kosher salt or sea salt
<sup>1</sup> ⁄ <sub>4</sub> teaspoon za'atar
2 large tomatoes, seeded and diced
1 large cucumber, seeded and diced
1 small red onion, diced
1 cup Cow's Milk Feta (here), crumbled, divided
1/2 garlic clove
½ cup olives

## 1/4 cup packed fresh parsley leaves

**1.** In a small bowl, whisk together the olive oil, red wine vinegar, honey, salt, and za'atar. Taste and add salt, za'atar, or honey for balance, as needed. Set aside.

**2.** In a large bowl toss together the tomatoes, cucumber, red onion, and <sup>3</sup>/<sub>4</sub> cup feta.

**3.** Using a Microplane grater, grate the garlic clove into the bowl.

**4.** Pour two-thirds of the dressing into the salad mixture and toss until fully incorporated.

**5.** Refrigerate for at least 1 hour and up to 4 hours.

**6.** Take the salad out of the refrigerator 30 minutes before serving and top with the remaining feta, the olives, and the parsley.

**TIP:** This salad benefits from time. I suggest making it 2 to 4 hours ahead of time. I prefer using olives with pits because they have a much nicer texture, and more flavor than pitted olives. However, be sure to warn your guests so no one breaks a tooth.

# **GOAT'S MILK FETA**

Before I had access to goat's milk, I would travel to Astoria, Queens, to buy goat's milk feta. The variations on this fairly straightforward brined cheese are dizzying in Queens; from one corner grocery to the next there are dozens of options, all stacked in clear containers and submerged in brine. From springy, loose, and soft to grainy, tight, and dense, feta has many forms. Experiment with brining and draining times to try out your own variations at home. Serve drizzled with olive oil with a bowl of olives for a summertime snack.

FROM MILK TO CHEESE: 28 hours plus 20 minutes to make, 3 to 5 days to age
YIELD: 1 cup
EQUIPMENT
Medium stockpot
Thermometer with at least a 5-inch stem
13-inch stainless steel flat perforated ladle
Curd knife with a 12-inch blade
Rectangular cheese form (4 by 6 inches or similar)
Cheesecloth, cut to approximately 1 square foot
Large bowl
Storage container
INGREDIENTS
1 quart goat's milk
<sup>1</sup> / <sub>8</sub> teaspoon mesophilic lactic acid starter culture

<sup>1</sup>/<sub>8</sub> teaspoon dried animal or microbial rennet dissolved in <sup>1</sup>/<sub>4</sub> cup cool, nonchlorinated water (or <sup>1</sup>/<sub>8</sub> teaspoon liquid rennet)

1 teaspoon coarse non-iodized salt, if needed

10% brine: 4.8 ounces non-iodized salt dissolved in 6 cups non-chlorinated water

5% brine: 2.4 ounces non-iodized salt dissolved in

6 cups non-chlorinated water

**BEER PAIRING**: Crisp, light, summertime beer, such as Kölsch, pilsner, or saison

**WINE PAIRING:** Bright, high-acid white wine, such as Albariño or Sauvignon Blanc

**WARM THE MILK**: In the stockpot, heat the milk to 86°F for 10 minutes in a warm water bath. Stir the milk gently so that it warms evenly.

**CULTURE THE MILK:** Sprinkle the culture on top of the milk and mix in for 30 seconds with an up and down motion. Cover the pot and let rest for 8 hours at room temperature (70°F to 74°F).

**COAGULATE:** Add the rennet to the milk. Stir with an up and down motion for 1 minute. Cover the pot and let rest for 12 hours.

**CUT THE CURD:** Cut the curd into ½- to 1-inch-thick pieces using the straight and angled technique.

**STIR THE CURD**: Return the pot to a hot water bath and bring the curds and whey temperature up to 95°F. Stir for 5 minutes.

**DRAIN THE CURD:** Line a form with cheesecloth and ladle the curds into the form. Drain for 2 hours.

*Note:* If the curds are especially soft, sprinkle 1 teaspoon of salt over the top before you leave them to drain.

**DRY THE CHEESE:** Gently slide the curd out of the mold and reinsert upsidedown. Let it dry for 4 to 6 hours.

Note: If the curd is too soft to be unmolded, continue letting it drain in the mold, flipping it upside-down every 2 hours until it holds its shape outside of the mold.

**SALT THE CHEESE:** In a large bowl, mix the 10% brine solution. Submerge the cheese, cheesecloth removed, in the brine and let sit at room temperature, covered with a plate or cloth, for 3 to 5 days. Flip the cheese once daily to prevent one side from drying out. Taste the cheese after a couple of days for salt and flavor. Remove from the brine when the salt level is noticeable but not overpowering.

**TARGET FLAVOR AND TEXTURE:** Feta flavor is a personal preference, and can land anywhere on the spectrum between bright and tangy to milky and savory. The texture should be dry and crumbly.

Note: Salt can easily overpower the flavors in this cheese, so experiment with the brining time to get at your target profile.

**STORAGE:** In an airtight storage container, mix the 5% brine solution and store the cheese in it, submerged, in the refrigerator. The feta will keep for 1 to 2 months.

# HOME ALONE PIZZA

I call this recipe Home Alone Pizza not because it's a nod to the delicious delivery pizza Kevin orders in *Home Alone* but because it's one of the oddly satisfying meals I'll make for myself when no one else is around. I vary the toppings based on whatever's in the refrigerator, and though the chapati dough is a bit of a project, I use the flatbreads all week to make breakfast burritos and lunchtime wraps, or to dip in sauce or Fromage Fort (here) for a snack.

## Freshly ground black pepper

#### TO MAKE THE CHAPATIS

**1.** In a stand mixer fitted with a dough hook, mix the water, salt, and whole-wheat flour until it comes together as a dough, about 5 minutes.

**2.** Let the dough sit for 10 minutes to rest, covered loosely with a cloth or plastic wrap.

**3.** In a large skillet, melt the butter over medium heat. Add the chopped scallions and cook until translucent and starting to brown. Remove from the heat.

**4.** Divide the dough evenly into 6 pieces. Using a rolling pin, roll each ball out into a thin 8-inch-diameter round on a lightly floured work surface.

**5.** Spoon one-sixth of the cooked scallions onto each round of dough, fold the dough over itself, and roll each dough back out to a 6-inch-diameter round. The scallions should be pressed into the dough and visible.

**6.** Wipe the skillet clean with a paper towel and heat over high heat until the pan is hot. Place a round of chapati dough in the hot skillet and let it cook for 2 to 3 minutes. Flip onto the other side and cook for another 2 to 3 minutes. Transfer to a plate and repeat with the rest of the dough.

7. Once cooled, the chapatis can be stored at room temperature in a plastic bag or airtight container for a few days.

### TO MAKE THE PIZZA

**1.** Preheat the oven to 350°F.

**2.** In a large skillet, heat the olive oil over medium heat. Crumble the sausage meat into the skillet and cook, breaking up the meat into small pieces. Once the sausage has cooked through, set it aside.

**3.** Line a baking sheet with aluminum foil. Place a scallion chapati on the baking sheet and top with the mozzarella, feta, sausage, rosemary, and pepper.

4. Bake until the mozzarella has melted and the feta is starting to brown, 5 to

8 minutes.

**5.** Remove the pizza from the oven and let it cool for a few minutes before eating.

**TIP**: Omit the sausage for a veggie-friendly option. You can also substitute any fresh herb for the rosemary.

## MOZZARELLA

The lesson I've learned from making mozzarella is that simple does not mean easy. It's tempting to think that harder cheeses, aged out for months and involving some special *affinage* (aging of cheeses), are harder to make than something uncultured and relatively straightforward like mozzarella. But after one attempt you'll see that this is truly an advanced cheese. The key philosophy in making mozzarella is that less is more. Acid development is finicky in this cheese, and if it's overstretched the curd will become granular and unpleasant.

# FROM MILK TO CHEESE: 1 hourVIELD: 4 (6-ounce) ballsEQUIPMENTMedium stockpotThermometer with at least a 5-inch stem13-inch stainless steel flat perforated ladleCurd knife with a 12-inch bladeMedium bowlSmall bowl

### INGREDIENTS

1 gallon whole cow's milk

<sup>1</sup>/<sub>8</sub> teaspoon lipase dissolved in <sup>1</sup>/<sub>4</sub> cup cool, non-chlorinated water and allowed to rest for 15 minutes

1/8 teaspoon animal or microbial rennet dissolved in 1/4 cup cool, non-

chlorinated water (or ½ teaspoon liquid rennet) 2 tablespoons coarse non-iodized salt

**BEER PAIRING:** Kölsch or pilsner **WINE PAIRING:** Buttery white wine, such as Chardonnay

**WARM THE MILK:** In a stockpot, heat the milk to 86°F for 10 minutes in a warm water bath. Stir the milk gently so that it warms evenly.

**CULTURE THE MILK:** Add the citric acid and lipase. Mix thoroughly into the milk and then let rest for 15 minutes.

**WARM THE MILK**: Raise the temperature of the warm water bath until the milk reaches 90°F.

**COAGULATE:** Add the rennet to the milk. Stir with an up and down motion for 1 minute. Cover and let rest for 20 minutes, or until the curd resembles a custard and pulls away from the edges of the pot.

**CUT THE CURD:** Cut into <sup>1</sup>/<sub>2</sub>-inch-thick pieces using the straight and angled cutting technique. Let rest for 5 minutes.

**STIR AND COOK THE CURD**: Replenish the water bath with hotter water, stirring the curds gently until a thermometer reads 110°F. Let rest in the hot water bath for 5 minutes.

Note: Do not over-stir! More stirring yields a firmer cheese, and will slightly lower your yield.

**DRAIN THE CURD:** Scoop the curds into a clean medium bowl with the ladle. Gently press the curds in the bowl, using the spoon and the side of the bowl, to expel whey.

**STRETCH THE CURD:** In the stockpot, heat the original whey until almost boiling, and add the salt. Set aside a small bowl of this salted brine for your final mozzarella balls. Gently pour the hot whey into the bowl with the curds until they are submerged. Let sit for 2 to 3 minutes. Fold the curds over one another (using the spoon and the edge of the bowl if the whey is too hot for your hands) until they've melted together into a single mass. Divide the mass

of melted curd into four equal pieces.

While keeping the curds submerged in the whey, start stretching each curd mass into a long snake-like shape by gently tugging it from one end back to the other, until you get a smooth, springy, tight texture. Then, roll up the curd (like a croissant!). When you've rolled up the entire curd, stretch the outermost layer over the edges to get a smooth exterior. Repeat for all four curd masses.

Note: Be careful not to overwork the curd in this step. Less is more, as over-stretching will result in a grainy, hard final cheese.

**SALT THE CHEESE:** Once you've formed the balls, immediately set them in the warm salted brine set aside earlier. Let rest for 10 minutes.

**TARGET FLAVOR AND TEXTURE:** Fresh mozzarella should be milky and sweet. The texture should be smooth and bursting with moisture.

**STORAGE:** Mozzarella is best enjoyed fresh, within an hour of making. But if you must store it, you can either leave it in the salted brine or wrap it in plastic. Store in the refrigerator and use within 2 to 3 days.

# BAKED MOZZARELLA STICKS WITH MARINARA SAUCE

My partner has an unrivaled love of mozzarella sticks. When he talks about them, it's as if we're in a time warp. Suddenly I can see an 11-year-old boy, in awe of this melty, salty, gooey, crunchy miracle of cheese. I think it's good to reawaken the kid in all of us, and in my house this is a fairly simple way to do it.

#### **SERVES 4**

**PREP TIME**: 15 minutes, plus 30 minutes to freeze **COOK TIME**: 25 minutes

#### FOR THE SAUCE

<sup>1</sup>/<sub>4</sub> cup extra-virgin olive oil

1/2 small yellow onion, diced

1 garlic clove, minced

<sup>1</sup>/<sub>2</sub> teaspoon kosher salt or sea salt

1 (14-ounce) can diced San Marzano tomatoes

1 (14-ounce) can strained San Marzano tomatoes

Freshly ground black pepper

15 to 20 fresh basil leaves, cut into chiffonade

#### FOR THE MOZZARELLA STICKS

<sup>1</sup>/<sub>2</sub> cup all-purpose flour

3 large eggs, beaten

- 1 cup Italian-style bread crumbs
- 1 tablespoon extra-virgin olive oil
- 1 pound Mozzarella (here), cut into 4- to 6-inch strips and frozen

#### TO MAKE THE SAUCE

**1.** In a large skillet, heat the olive oil over medium heat. Add the onion and cook until it starts to sweat and soften, about 5 minutes.

**2.** Add the garlic and stir, taking care not to let the garlic brown. Add the salt and stir as the onion releases more moisture.

**3.** Add the tomatoes with their juices and season with pepper. Raise the heat to medium-high until the mixture starts to simmer, then reduce the heat to medium. Cook, stirring intermittently, until the sauce reduces to a thick consistency, 10 to 15 minutes.

**4.** Remove from the heat and stir in the fresh basil. Taste and adjust the salt and pepper as needed.

## TO MAKE THE MOZZARELLA STICKS

**1.** Place the flour, beaten eggs, and bread crumbs in three separate bowls.

**2.** Line a baking sheet with aluminum foil and brush with the olive oil.

**3.** Dip each of the mozzarella sticks in the flour and then the egg. Roll each stick in the bread crumbs to coat.

**4.** Place the coated mozzarella strips on the baking sheet and place in the freezer for at least 30 minutes.

**5.** Preheat the oven to broil.

**6.** Place the frozen breaded mozzarella strips in the oven and broil for 2 minutes. Remove the baking sheet from the oven and flip the mozzarella sticks. Broil for an additional 2 to 3 minutes. The mozzarella sticks are done when the bread crumb coating starts to toast and the mozzarella is still holding its shape but starting to melt. Serve with the warm marinara sauce.

# **QUESO FRESCO**

Like feta, this is a good cheese to make in warm weather. It requires no special cultures or equipment, so if you find yourself fresh out of cultures and in possession of extra milk on a hot day, this is the perfect project. Play around with the pressing schedule a bit, as it will change in efficacy depending on the heat and humidity.

FROM MILK TO CHEESE: 4 hours, 45 minutes
<b>YIELD</b> : 2 pounds
EQUIPMENT
Medium stockpot
Thermometer with at least a 5-inch stem
13-inch stainless steel flat perforated ladle
Medium colander
Cheesecloth, cut to approximately 1 square foot
Cheese form (4 to 7 inches in diameter and 4 to 7 inches high) with follower
INGREDIENTS
1 gallon whole cow's milk
<sup>1</sup> / <sub>3</sub> cup distilled white vinegar
<sup>1</sup> ⁄ <sub>2</sub> teaspoon coarse non-iodized salt
BEER PAIRING: Lager
WINE PAIRING: Rosé or Albariño

**WARM THE MILK**: In a stockpot, heat the milk to 185°F over medium heat.

This should take about 20 minutes.

*Note: Stir the milk, scraping the bottom of the pot constantly to prevent the milk from cooking on the bottom.* 

**CULTURE THE MILK:** Pour the vinegar into the milk and stir constantly. Watch carefully for the curds to form as you mix the vinegar into the hot milk. Once you see the greenish clear whey and the white curds forming, stir gently for 5 more minutes.

**COAGULATE:** Remove the pot from the heat and let sit for 10 minutes.

**DRAIN THE CURD:** Line a colander with cheesecloth and pour the curds and whey into the colander. Drain for 10 minutes. Gather the corners of the cloth together and hang the cheese over a sink or bowl to drain for 20 to 30 minutes.

**SALT THE CHEESE:** Add the salt to the drained curds and stir until just incorporated. Let rest for 10 minutes. Taste the curd and add more salt if you can't taste what you have already added. Let rest for 10 minutes. You want the curds over-salted at this point, as some will wash off and more will be expelled during pressing.

**PRESS THE CHEESE:** Place the curds in the form and place the follower on top of the curds. Press and flip the cheese according to this schedule (3 hours and 15 minutes total):

10 pounds for 30 minutes15 pounds for 45 minutes20 pounds for 1 hour25 pounds for 1 hour

*Note:* Watch the rind of the cheese during pressing. It should go from open and curdy to closed with the smoothed outlines of the curds.

**TARGET FLAVOR AND TEXTURE:** Queso fresco should be milky and salty, not dissimilar to feta in texture, though less wet on the outside and more moisture filled from within.

**STORAGE:** Store, wrapped snugly in wax or butcher paper, in the refrigerator for 3 to 5 days. Enjoy this cheese fresh, as it is not cultured enough to keep its flavor profile over time.

# **BREAKFAST TACOS**

I'm constantly trying to break out of a breakfast rut, but I also prefer to have my coffee after I've eaten breakfast, which means that I'm not at my best when I prepare my first meal of the day. Often I revert to a simple omelet with cheese, tomato, and toast. I can't seem to venture too far from that basic approach, but when I feel a bit more energetic, I swap out the toast for tortillas and sauté up a few peppers. On a weekend morning this is a refreshing deviation from the norm but still doesn't tax my system too much before I've had that beloved caffeine.

**PREP TIME:** 10 minutes **COOK TIME:** 12 to 15 minutes

4 large eggs

3 tablespoons unsalted butter or Ghee (here), divided

1 red or green bell pepper, seeded and cut into 1-inch pieces

1/2 small yellow onion, diced

Kosher salt or sea salt

Freshly ground black pepper

4 corn tortillas

Hot sauce

<sup>1</sup>⁄<sub>4</sub> cup roughly chopped fresh cilantro stems and leaves

<sup>1</sup>/<sub>3</sub> cup Queso Fresco (here)

## 1 lime, cut into 4 wedges

**1.** In a small bowl, beat the eggs. Set them aside.

**2.** In a medium skillet, heat 1 tablespoon of butter over medium heat. When melted, add the pepper and onion. Cook until softened, 5 to 7 minutes. Season with salt and pepper.

**3.** Add the remaining 2 tablespoons of butter to the skillet and melt. Add the eggs and stir constantly as they cook. Continue cooking until the eggs are firm but still shiny and moist.

**4.** In a small dry skillet, warm the tortillas one at a time over low heat, taking care not to let them get crispy. When the tortillas are warm, fill each tortilla with one-quarter of the egg mixture. Top with 2 or 3 dashes of hot sauce and a sprinkle of cilantro and cheese. Serve the tacos with the lime wedges.

**TIP**: I like to make more of the pepper and onion mixture and store it in the fridge so that I can just throw them into the following day's eggs without the prep.

## **YOUNG GOUDA**

My favorite thing about a young Gouda is the texture. A friend and fellow cheese industry colleague once told me that she classifies some cheeses as "weekend cheeses." She explained that after a full work week spent tasting high-minded, complex, sometimeschallenging cheeses, she just wants a cheese she can sit back and snack on over the weekend. Young Gouda is my weekend cheese!

FROM MILK TO CHEESE: 34 hours to make, 3 to 5 months to age

**YIELD:** 1 (5-pound) wheel

#### EQUIPMENT

Large stockpot Thermometer with at least a 5-inch stem 13-inch stainless steel flat perforated ladle Curd knife with a 12-inch blade Cheese form (8 inches in diameter and 6 inches high) with follower Cheesecloth, cut to approximately 1 square foot Cooling rack Baking sheet Large draining mat

#### INGREDIENTS

2 gallons whole cow's milk

<sup>1</sup>/<sub>4</sub> teaspoon mesophilic lactic acid starter culture (MM100 is often used for Gouda)

<sup>1</sup>⁄<sub>4</sub> teaspoon calcium chloride dissolved in <sup>1</sup>⁄<sub>4</sub> cup cool, non-chlorinated water

<sup>1</sup>⁄<sub>4</sub> teaspoon dried animal or microbial rennet dissolved in <sup>1</sup>⁄<sub>4</sub> cup cool, nonchlorinated water (or <sup>1</sup>⁄<sub>4</sub> teaspoon liquid rennet)

2 quarts non-chlorinated water

2 teaspoons coarse non-iodized salt

Saturated salt brine: 3 pounds non-iodized salt dissolved in 1 gallon nonchlorinated water

**BEER PAIRING:** Saison or a salty gose-style **WINE PAIRING:** White and red Burgundy wines, such as Chardonnay and Pinot Noir

**WARM THE MILK**: In a stockpot, heat the milk to 85°F in a warm water bath. Stir the milk gently so that it warms evenly.

**CULTURE THE MILK:** Add the mesophilic culture and calcium chloride and stir gently. Cover and let rest for 45 minutes.

**COAGULATE:** Add the rennet and stir using an up and down motion for 30 seconds. Cover and let rest for 45 to 60 minutes. Hold the milk temperature at around 90°F during this process.

**CUT THE CURD**: Cut the curd into ¼-inch-thick pieces using the straight and angled cutting technique. Let rest for 10 minutes.

**STIR THE CURD**: Stir the curds gently for 10 minutes. The curds will still be soft but should become about one-fifth smaller during stirring.

**WASH THE CURD**: Remove about half of the whey and replace it with water of the same temperature (86°F to 88°F). Add the salt. Let sit for 10 minutes.

**WARM THE CURD:** Stir gently for another 15 minutes and increase the temperature of the curds and whey to 100°F in the warm water bath. Continue stirring for 10 more minutes.

*Note: Increase the temperature by adding hot water to the bath.* 

**FORM THE CHEESE:** Line a form with cheesecloth and place it on a cooling rack set over a baking sheet. Pour off enough whey so that what remains in

the pot just covers the curds. Using your hand, gently press the loose curds together into a single mass. When the curds have knit together a bit, place the curd mass into the prepared form.

*Note:* Be sure to keep the curds submerged in the remaining whey as you form the curd mass.

**PRESS AND DRAIN THE CHEESE:** Place the follower on top of the curds in the form. Press and flip the cheese according to the schedule below (6 hours and 45 minutes total). When flipping the cheese, unwrap the cloth, line the form with the cloth, and place the flipped cheese back into the cloth-lined form.

5 pounds for 15 minutes 5 pounds for 30 minutes 10 pounds for 1 hour 15 pounds for 1 hour 20 pounds for 1 hour 25 pounds for 3 hours

Note: Room temperature (70°F to 74°F) is a good environment for the pressing process. Flipping and pressing is a somewhat inexact science in a home cheesemaking operation. Take care to watch the curd and observe how much whey it's expelling and how the rind texture looks. The curd should knit together and should expel whey continuously as it presses, slowing down near the end.

**SALT THE CHEESE:** Unmold the cheese, remove the cheesecloth, and weigh. In the stockpot, mix the saturated salt brine. Submerge the cheese in the brine for 3 hours per pound of cheese, 12 to 24 hours total, depending on your yield.

AGE THE CHEESE: Dry the cheese with a clean towel after brining and set it on a draining mat to age at 55°F to 60°F and 85% humidity. Flip the cheese once per day for the first week, then once every few days after that. After 1 week of aging, the cheese can be waxed if you like. If you keep the rind natural, brush it off with a clean dry towel once a week to stop any unwanted mold

growth. Age for 3 to 5 months.

**TARGET FLAVOR AND TEXTURE:** Young Gouda should be mouthwatering and mild in flavor, with notes of buttercream and scotch. The texture should be fudge-like.

Note: If you've made more than one wheel, I suggest tasting one at 2 months, and the others at 1-month increments after that, to learn how the same make process develops in the cheese over time.

# **ROAST BEEF SANDWICH**

With so many great butchers and specialty shops in Brooklyn, I haven't had too many opportunities to make homemade roast beef, but a good wheel of homemade Gouda is a great reason to embark on this project. Leftovers can be daunting if you're only a household of one or two, so I suggest you invite some friends to a Saturday roast beef picnic lunch and open a few bottles of beer to enjoy alongside the sandwiches.

#### SERVES 2 to 6

**PREP TIME**: 5 minutes for the roast beef, plus 4 hours to marinate, plus 5 minutes to assemble the sandwich **COOK TIME**: 2 hours for the roast beef

#### FOR THE ROAST BEEF

2 teaspoons salt

3 teaspoons freshly ground black pepper

- 3 teaspoons finely chopped fresh sage leaves
- 3 garlic cloves, minced
- 2 tablespoons extra-virgin olive oil
- 2 pounds boneless beef top loin roast

#### FOR THE sandwiches

<sup>1</sup>⁄<sub>4</sub> cup mayonnaise

1 baguette, cut lengthwise to hinge open

<sup>1</sup>/<sub>2</sub> cup watercress

4 medium-thick slices Young Gouda (here) 8 ounces roast beef

#### TO MAKE THE ROAST BEEF

**1.** In a small bowl, combine the salt, pepper, sage, garlic, and olive oil. Rub the mixture all over the roast. Wrap the roast with plastic and let it marinate in the refrigerator for at least 4 hours or as long as overnight.

**2.** When you're ready to cook, let the roast sit out at room temperature for 1 hour to come to room temperature.

**3.** Preheat the oven to 325°F.

**4.** Place the roast on a cooling rack on a baking sheet (to keep the bottom from getting soggy) and roast for 1 to 2 hours. The roast should read 130°F in the center when it's ready to come out of the oven. Cool the meat completely before carving or refrigerating. If you're refrigerating for use later, the roast will keep well for 3 to 5 days.

#### TO MAKE THE SANDWICHES

**1.** Spread the mayonnaise along the top and bottom halves of the baguette.

**2.** Add the watercress and cover with the slices of Gouda from end to end. Add the roast beef.

3. Close the baguette and cut crosswise for two large sandwiches.

**TIP:** Cut the baguette depending on the number of guests and the meal plan. This is a huge sandwich for one person, or a decent-size one for two. It also makes great finger food for a larger group if you're putting out a more elaborate spread.

**TIP:** This recipe is easy to scale up if you're making sandwiches for a crowd. You'll already have enough roast beef to feed up to six, so just increase the rest of the ingredients as needed.

# AGED GOUDA

I like to call well-made aged Gouda "cheese candy." With its lower acidity and caramelized flavor profile, it tastes slightly sweet and salty at the same time. Warmed butterscotch is the flavor I most associate with a well-made Gouda; I'd choose a piece of this cheese over a Werther's any day!

<b>FROM MILK TO CHEESE:</b> 25 hours, plus 5 to 12 months to age
<b>YIELD</b> : 1 (4- to 5-pound) wheel
EQUIPMENT
Large stockpot
Thermometer with at least a 5-inch stem
13-inch stainless steel flat perforated ladle
Curd knife with a 12-inch blade
Cheese form (8 inches in diameter and 6 inches high) with follower
Cheesecloth, cut to approximately 1 square foot
Cooling rack
Baking sheet
Large draining mat
INGREDIENTS
2 gallons whole cow's milk

<sup>1</sup>/<sub>4</sub> teaspoon mesophilic lactic acid starter culture (MM100 is often used for Gouda)

<sup>1</sup>⁄<sub>4</sub> teaspoon calcium chloride, dissolved in <sup>1</sup>⁄<sub>4</sub> cup cool, non-chlorinated water

1/2 teaspoon dried animal or microbial rennet dissolved in 1/4 cup cool, non-

chlorinated water (or ½ teaspoon liquid rennet) 2 quarts non-chlorinated water, heated to 150°F Saturated salt brine: 2.95 pounds non-iodized salt dissolved in 1 gallon nonchlorinated water

**BEER PAIRING:** Strong, hoppy IPA or a Trappist ale **WINE PAIRING:** Cabernet Sauvignon or southern Italian red made from the Frappato grape

**WARM THE MILK**: In a stockpot, heat the milk to 85°F in a warm water bath. Stir the milk gently so that it heats evenly.

**CULTURE THE MILK:** Add the mesophilic culture and stir gently. Cover and let sit for 45 minutes. Add the calcium chloride and stir. Let sit for 10 minutes.

**COAGULATE:** Add the rennet and stir using an up and down motion for 30 seconds. Let rest for 45 to 60 minutes. Hold the milk temperature at around 90°F during this process.

**CUT THE CURD**: Cut the curd into ½-inch-thick pieces using the straight and angled cutting technique. Let sit for 5 minutes.

**STIR THE CURD**: Stir the curds gently for 10 to 15 minutes. The curds will still be soft, but should reduce in size by about one-quarter while stirring.

**WASH THE CURD:** Remove about one-third of the whey and replace it over the course of 10 minutes with water heated to 150°F. Once all the water has been added, stir gently for another 15 minutes. Let sit for 10 minutes.

Note: Reserve the removed whey for other uses if you like: Substitute for water in bread baking or mix with fresh crushed fruit and seltzer for a probiotic drink.

**DRAIN THE CURD:** Line a form with cheesecloth and place on a cooling rack set over a baking sheet. Pour off enough whey so that what remains in the pot just covers the curds. Using your hand, gently press the loose curds together into a single mass. When the curds have knit together a bit, transfer the curd mass into the prepared form.

*Note:* Be sure to keep the curds submerged in the remaining whey as you form the curd mass.

**PRESS THE CHEESE:** Place the follower on top of the curds in the form. Press and flip the cheese according to the schedule below (6 hours and 45 minutes total). When flipping the cheese, unwrap the cloth, line the form with the cloth, and place the flipped cheese back into the cloth-lined form:

- 5 pounds for 15 minutes 5 pounds for 30 minutes 10 pounds for 1 hour 15 pounds for 1 hour
- 20 pounds for 1 hour
- 25 pounds for 3 hours

Note: Flipping and pressing is a somewhat inexact science in a home cheesemaking operation. Take care to watch the curd and observe how much whey is expelled and how the rind texture looks as you press. The curd should knit together and should expel whey continuously as it presses, slowing down near the end.

**SALT THE CHEESE:** Unmold the cheese, remove the cheesecloth, and weigh. In a stockpot, mix the saturated salt brine and submerge the cheese in the brine for 3 hours per pound of cheese, 12 to 15 hours total, depending on your yield.

AGE THE CHEESE: Dry the cheese with a clean towel after brining and set it on a draining mat to age for 5 to 12 months. Age at 55°F to 60°F and 85% humidity. Flip the cheese once per day for the first week, then once every few days after that. After 1 week the cheese can be waxed if you like. If you keep the rind natural, brush it off with a clean, dry towel once a week to stop any unwanted mold growth.

**TARGET FLAVOR AND TEXTURE**: Notes of butterscotch and bourbon are ideal for the final cheese. A toothsome texture is the target for an aged Gouda, preferably with a little crystallization.

Note: If you've made more than one wheel, I suggest tasting one at 3 months, and the others at 2-month increments after that, to learn how the same make process develops in the cheese over time.

**STORAGE:** Wrap tightly in butcher paper or wax paper and store in the bottom rear of your refrigerator. Once cut, the cheese will keep up to 2 weeks wrapped and stored in the refrigerator.

**TIP**: Wedges of aged Gouda make great gifts for friends!

# **COLORFUL FRITTATA**

Once I finally moved into an apartment with a little space for entertaining, I discovered that brunch is an easy meal to cook for a group. This frittata requires minimal effort, looks gorgeous, and is super creamy and luscious thanks to the Gouda and crème fraîche combination. Ask your friends to bring a baguette, pour the Bloody Marys, and you've got yourself a perfectly low-key afternoon.

SERVES 8 to 2	10

**PREP TIME:** 15 minutes **COOK TIME:** 30 minutes

3 tablespoons unsalted butter, divided

1 small yellow onion, diced

1 red bell pepper, seeded and cut into <sup>1</sup>/<sub>2</sub>-inch pieces

1 green bell pepper, seeded and cut into ½-inch pieces

1 yellow bell pepper, seeded and cut into <sup>1</sup>/<sub>2</sub>-inch pieces

12 large eggs

1/2 teaspoon kosher salt or sea salt

1/2 teaspoon freshly ground black pepper

<sup>1</sup>/<sub>2</sub> cup Crème Fraîche (here)

1 cup shredded Aged Gouda (here)

**1.** In a large skillet, melt 1 tablespoon of butter over medium heat. Add the

onion and cook until softened. Remove from the pan and set it aside. Using a paper towel, wipe out the pan and return it to the burner.

**2.** Add 1 more tablespoon of butter to the skillet. Add the peppers and turn the heat up to medium-high. Stir to coat the peppers in butter as they cook. Cook until only slightly softened; the peppers should still be bright in color and have a crunch. Set them aside.

**3.** Preheat the oven to 300°F.

**4.** In a large cast iron skillet, melt the remaining 1 tablespoon of butter over medium heat. Make sure the butter coats the bottom and sides of the pan. Remove the skillet from the heat.

**5.** In a large bowl or stand mixer, beat the eggs, salt, and pepper until uniform. Stir in the crème fraîche and mix well. Add the pepper-onion mixture and Gouda and mix.

**6.** Pour into the buttered skillet and transfer to the oven. Cook until just set, about 20 minutes. If the center of the frittata is still liquid, leave it in for 5 to 10 minutes more until it is set and resembles a cooked custard. Cool for 10 minutes before serving.

**TIP**: You can serve this warm or at room temperature. I like to serve highquality salted cultured butter with bread alongside the frittata.

# PROVOLONE

Once you're comfortable with mozzarella making, provolone is a great next project from the pasta filata family of cheese. I suggest making two or three batches of this cheese over the course of a few days and aging them out to experiment with different flavor profiles. Lipase is your ally in this cheese, as it will help develop the signature bite-y, spicy finish. Beware of using too much, though, as it softens the curd.

**YIELD:** 1 (12- to 16-ounce) cheese

#### EQUIPMENT

Large stockpot

Thermometer with at least a 5-inch stem

13-inch stainless steel flat perforated ladle

Curd knife with a 12-inch blade

Medium colander

Medium stockpot

Cooling rack

Baking sheet

Storage container

#### INGREDIENTS

2 gallons whole cow's milk

<sup>1</sup>⁄<sub>4</sub> teaspoon thermophilic lactic acid starter culture

<sup>1</sup>/<sub>8</sub> teaspoon lipase, dissolved in <sup>1</sup>/<sub>4</sub> cup cool, non-chlorinated water

<sup>1</sup>⁄<sub>4</sub> teaspoon calcium chloride, dissolved in <sup>1</sup>⁄<sub>4</sub> cup cool, non-chlorinated water

<sup>1</sup>/<sub>2</sub> teaspoon dried animal or microbial rennet dissolved in <sup>1</sup>/<sub>4</sub> cup cool, nonchlorinated water (or <sup>1</sup>/<sub>2</sub> teaspoon liquid rennet)

Saturated salt brine: 2.95 pounds non-iodized salt dissolved in 1 gallon nonchlorinated water

**BEER PAIRING:** Crisp lager **WINE PAIRING:** Chianti or Barbera

**WARM THE MILK**: In a large stockpot, heat the milk to 88°F in a warm water bath.

**CULTURE THE MILK:** Add the culture and let it hydrate on the surface for a minute. Then, gently stir for 1 to 2 minutes until incorporated. Cover and let rest for 60 minutes, keeping the water bath at 90°F. Add the lipase and calcium chloride and mix in for 30 seconds. Cover and let rest for 10 minutes.

**COAGULATE:** Add the rennet and stir with an up and down motion for 30 seconds. Cover and let rest for 45 to 60 minutes.

**CUT THE CURD:** Cut into <sup>1</sup>/<sub>2</sub>-inch cubes using the straight and angled technique. Let rest for 10 minutes.

Note: After you've cut the curd and let it rest for 10 minutes, the curds will be closer to ¼ inch due to the continued process of acidifying and expelling moisture.

**COOK THE CURD**: Raise the temperature of the curds and whey to 118°F in the hot water bath over the course of 45 minutes. Let rest for 10 minutes.

Note: A warm water bath will work with this step if you have very hot tap water or if you boil water and pour it into the bath, but if you find that the temperature is not increasing enough, place the pot over low heat on the stove top. When heating on the stove, make sure to stir constantly, or

# you'll run the risk of scorching the curds on the bottom.

**DRAIN THE CURD**: Place a colander over a medium stockpot. Pour the curds into the colander and drain for 45 minutes. The heat of the whey below the draining curds will help them continue to develop as they drain.

**CUT THE CURD:** Cut the curd mass into ½-inch-thick slices and stack in the colander. Drain for 2 hours.

MILL THE CURD: Using a chef's knife, cut the slabs of curd into 1-inch cubes.

**STRETCH THE CHEESE:** In the medium stockpot, heat the whey expelled during the draining of the curd to 170°F. Submerge the curds in the hot whey bath and let the curds soften and melt together. Use the ladle to start to press the curds together at the side of the basin. When the curd has started to melt together, gently start to massage it into one mass (or multiple masses if making smaller shapes). Stretch the curd gently and fold it over itself, eventually kneading it into a cylindrical shape.

*Note: Maintain a warm whey temperature of* 170°*F to* 180°*F during this process.* 

**SALT THE CHEESE:** In the large stockpot, mix the saturated salt brine. Transfer the final shaped cheese to the brine for 6 to 8 hours, rotating it periodically so that all surfaces are hydrated. Reserve 1 quart of the brine in a storage container for later use.

**DRY THE CHEESE:** Dry the cheese at room temperature (70°F to 74°F) in a higher-humidity environment on a cooling rack set over a baking sheet for 24 hours, or until the surface is no longer wet to the touch or shiny.

**AGE THE CHEESE:** Age at 55°F and 80% humidity for 3 to 9 months. If the cheese grows mold or starts to crack, wash with a brine-soaked cloth twice a day for 1 or 2 days, using the brine reserved from when you salted the cheese.

Note: You can wipe the cheese with olive oil after it has dried for a few days to prevent unwanted mold growth and over-drying.

**TARGET FLAVOR AND TEXTURE:** The cheese will be ready at 3 months and will develop a peppery, piquant flavor and drier texture the longer it ages.

**STORAGE:** Uncut provolone can be refrigerated for up to 2 months. Wrap in cheese paper or aluminum foil.

# **BURGER WITH BITE**

To properly cook a burger, you'll need a nice sear (which can cause some smoke), so you might want to find a way to temporarily deal with your smoke alarm. The other secret to this burger is the garlic rub. When I first became a cheesemonger, I worked at a shop that sold thoughtfully crafted and delicious sandwiches. One of the tricks I learned there was to rub the cut face of a garlic clove over just-toasted dry bread: subtle garlic heaven, with no bitterness or intensity.

#### SERVES 4

**PREP TIME**: 15 minutes **COOK TIME**: 1 hour, 30 minutes for the peppers (including steaming), and 10 minutes for the burgers

### FOR THE ROASTED RED PEPPERS

2 red bell peppersKosher salt or sea saltFreshly ground black pepper2 teaspoons extra-virgin olive oilSherry vinegar

### FOR THE BURGERS

1½ pounds ground beef Kosher salt or sea salt Freshly ground black pepper <sup>1</sup>/<sub>2</sub> cup coarsely grated Provolone (here)

4 potato buns, split

2 garlic cloves, cut in half lengthwise

2 tablespoons mayonnaise

### TO MAKE THE ROASTED RED PEPPERS

**1.** Preheat the oven to 450°F to 500°F.

2. On a baking sheet, arrange the whole bell peppers and roast, checking at 20 minutes and then rotating every 10 minutes until they are charred. Remove the peppers from the oven, transfer to a bowl, and cover with plastic wrap or aluminum foil. Let the peppers steam and cool for at least 30 minutes.

**3.** Slip off the skins of the peppers with your fingers. Cut the peppers in quarters and remove the stems and seeds.

**4.** Lightly season the peppers with salt and pepper and dress them with olive oil and a splash of sherry vinegar.

### TO MAKE THE BURGERS

**1.** Form the ground beef into four equal patties. Generously season both sides of each patty with salt and pepper.

**2.** Heat a dry cast iron skillet over high heat until a drop of water sizzles in the pan.

**3.** Place the patties in the skillet, and reduce the heat to medium. Don't flip until you see that the bottom side has crisped up and the meat above it has started browning.

**4.** Flip the patties once, cooking them until almost finished to your liking. Top each patty with one-quarter of the grated provolone. Once melted, remove from the heat.

**5.** Meanwhile, preheat the broiler.

**6.** Place the potato buns, cut-sides up, on a dry baking sheet. Broil, watching them closely, as you want to leave them in only as long as it takes to lightly

toast the cut sides.

**7.** Remove the buns from the oven and gently rub the cut faces of the garlic cloves over the cut sides of each bun.

**8.** Spread a thin layer of mayonnaise on the bottom buns, top with the cheese-coated patties, then add the roasted red peppers and the top buns. Serve.

**TIP**: Look for ground beef that is not just 100 percent grass fed, but also 100 percent grass finished. The flavor is unbeatable!

# HAVARTI

A true Havarti is very different from the deli-style cheese many Americans are used to. My eyes were first opened to the real character of Havarti in Copenhagen, before I'd ever tried making cheese. The Danes laughed as I oohed and aahed over the Havarti; it was sweet and creamy, with a faint funky flavor that I hadn't tasted in the American counterparts.

**FROM MILK TO CHEESE:** 18 hours plus 40 minutes to make, 10 to 14 weeks to age

**YIELD:** 1 (3- to 4-pound) cheese

#### EQUIPMENT

Large stockpot

Thermometer with at least a 5-inch stem

13-inch stainless steel flat perforated ladle

Curd knife with a 12-inch blade

Cheese form (7 inches in diameter and 6 inches high)

Cheesecloth, cut to approximately 1 square foot

Small, heavy saucepan

Cooling rack

Baking sheet

Large draining mat

Storage container

#### INGREDIENTS

2 gallons whole cow's milk

<sup>1</sup>⁄<sub>4</sub> teaspoon mesophilic lactic acid starter culture

Pinch Flora Danica culture

<sup>1</sup>⁄<sub>4</sub> teaspoon calcium chloride dissolved in <sup>1</sup>⁄<sub>4</sub> cup cool, non-chlorinated water

<sup>1</sup>⁄<sub>4</sub> teaspoon dried animal or microbial rennet dissolved in <sup>1</sup>⁄<sub>4</sub> cup cool, nonchlorinated water (or <sup>1</sup>⁄<sub>4</sub> teaspoon liquid rennet)

1/2 teaspoon coarse non-iodized salt, plus more for sprinkling

Saturated salt brine: 2¼ pounds non-iodized salt dissolved in 1 gallon nonchlorinated water

3% brine: 1.9 ounces non-iodized salt dissolved in 8 cups non-chlorinated water

**BEER PAIRING:** Wheat beer

**WINE PAIRING:** Mild, crisp white wine, such as Vouvray or Chablis

**WARM THE MILK**: In a stockpot, heat the milk to 86°F in a warm water bath.

**CULTURE THE MILK:** Add the cultures and let them hydrate on the surface for a minute. Then, gently stir for 1 to 2 minutes until incorporated. Let sit for 1 hour. Add the calcium chloride and mix in for 30 seconds. Let rest for 10 minutes.

**COAGULATE:** Add the rennet and stir with an up and down motion for 30 seconds. Let rest for 45 to 60 minutes.

**CUT THE CURD**: Cut into <sup>1</sup>/<sub>4</sub>-inch cubes using the straight and angled technique.

**WASH THE CURD:** Remove 8 cups of whey and add the same amount of warmed water (86°F, the same temperature as the curds and whey) along with the salt to the remaining whey.

**COOK THE CURD:** Raise the temperature of the curds and whey to 100°F over the course of 20 to 30 minutes in a warm water bath. If your tap water isn't hot enough, boil water separately and pour it incrementally into the bath.

**PRESS THE CHEESE:** Line a form with cheesecloth. Form the curd while it's still submerged in the diluted whey. Knead the curd together as a mass with spatulas, then use the smaller heavy-bottomed saucepan to press down on the curd mass under the diluted whey. If the saucepan isn't keeping the curd

submerged, fill it with water to increase the weight. Pour off all the liquid and place the curd mass in the prepared form. Cover the curd with a follower and start with just enough weight on top to cause the curd to visibly expel whey.

Note: If you don't have a follower, you can use a small plate or lid. Flip the form and reapply the follower and twice the original weight onto the second side for 30 minutes. Continue flipping and applying more pressure, increasing the pressure and time by 25% to 30% each time, for 6 to 8 hours. You have pressed enough when the rind has no openings and the curd holds its shape when lifted from the form.

**SALT THE CHEESE:** Remove the cheesecloth and weigh the cheese. In the stockpot, prepare the saturated salt brine. Submerge the cheese in the brine for 2 hours per pound of cheese, 6 to 8 hours, depending on your yield. Sprinkle salt on the exposed side of the wheel and flip to submerge that side every 2 hours.

**AGE THE CHEESE:** Wipe the wheel dry and age it on a draining mat at 55°F and 85% humidity. In a storage container, prepare the 3% brine solution. Turn the wheel daily and wash with the brine solution every 2 to 3 days for 10 to 14 weeks.

Note: The regularity of the wash should be in response to the moisture and the development of light orange bacteria on the rind. Wash more often if the rind is dry and cracking (and/or lower the salt content of the brine in your next make). Wash less often if the rind becomes too sticky and develops a rancid odor.

**TARGET FLAVOR AND TEXTURE:** The flavor should be mild and milky, with a faint funkiness in the background. Texturally the cheese should be sticky and semi-firm.

**STORAGE:** After aging it is customary to vigorously wipe down the washed, sticky rind until it looks clean and close to the color of the paste. Then wrap in aluminum foil to store. The cheese will keep for 10 days in the refrigerator once cut, before growing mold on the cut face. Trim off any developing

mold, and the cheese will keep for up to 3 weeks.

# A DIFFERENT FISH SANDWICH

Havarti is one of the rare cheeses that goes well with fish, at least in my opinion. Not just any fish works here, but with smoked salmon or lox it's a dream: a perfectly tangy stand-in for the cream cheese that you might normally think of pairing with this type of fish. Because it has more complexity and a stronger flavor than cream cheese, raise the bar overall with dark rye bread, a pungent mustard, and fresh dill.

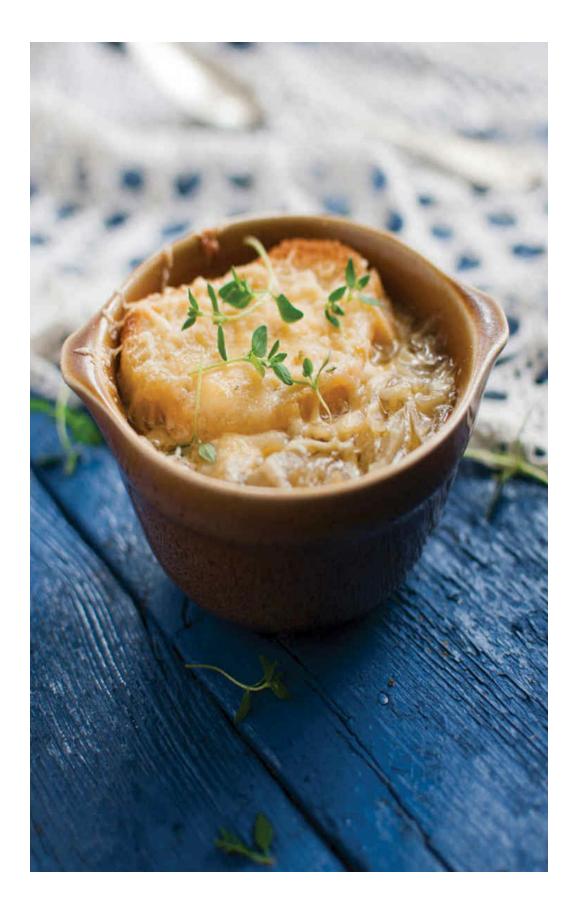
SERVES 2
PREP TIME: 5 minutes
2 to 3 tablespoons unsalted butter, at room temperature
4 slices dark rye bread
2 tablespoons whole-grain mustard
4 medium-thick slices Havarti (here)
<sup>1</sup> / <sub>2</sub> cup loosely packed fresh dill
6 ounces smoked salmon

**1.** Butter one side of the slices of bread and spread mustard on the top slices.

**2.** On the bottom slices of the bread, layer the Havarti slices, fresh dill, and smoked salmon.

**3.** Place the mustard-spread top slice over the sandwich, then cut diagonally.

**TIP:** Pair with a selection of pickles for a perfect lunch spread.



French Onion Soup (here)

# **CHAPTER 6**

# SEMI-HARD, HARD & BLUE CHEESES

**BEER-WASHED CHEESE** 

**Built-In Fondue** 

MUNSTER Autumnal Galette

ALPINE-STYLE French Onion Soup

# **COUNTRY-STYLE CHEDDAR**

Secret-Ingredient Apple Pie

# **GRANA-STYLE**

Cacio e Pepe

# **MANCHEGO**

Lamb Tartare

# BRITISH-STYLE BLUE Blue Polenta

**ITALIAN-STYLE BLUE** Go-To Blue Dressing

GOAT'S MILK BLUE Fromage Fort This chapter includes recipes for some of my absolute favorite cheeses to eat, which are also some of the most ubiquitous cheeses for sale today. (What would the world be like without Parmigiano-Reggiano? I do not want to know.) You'll get good practice with *affinage* (aging cheeses) when making these cheeses, as the aging techniques and environments create big differences in your final products. Take care to separate your blue cheese aging environment from that of non-blue cheeses, because mold is quick to colonize.

With homemade semi-hard, hard, and blue cheeses in your kitchen, you must try some of my most prized recipes for cooking with them: Autumnal Galette (here), French Onion Soup (here), Secret-Ingredient Apple Pie (here), and so many more.

# SEMI-HARD, HARD, AND BLUE CHEESE MAKE SHEETS

Use the following worksheets as a template for each semi-hard cheese, hard cheese, and blue cheese makes you do, and feel free to adjust as necessary based on the master recipe you're working from. Cheddaring is a step unique to Cheddar and British-style blues, whose makes include a curd-milling step, for example. Keep all your worksheets together for each cheese, and over time you can update the master recipe to reflect changes you've made to customize your cheeses. Go to https://tastetolearn.com

for a PDF of this worksheet that you can print in multiples.

# SEMI-HARD CHEESE MAKE SHEET

Date started:		Date complete:			
PLAN	From milk to cheese:	Yield:	ACTUAL	From milk to cheese:	Yield:
	<ul> <li>Medium to large stockpot</li> <li>Thermometer with at least a 5-inch stem</li> <li>13-inch stainless steel flat perforated ladle</li> <li>Curd knife with a 12-inch blade</li> <li>Cheesecloth, cut to approximately 2 square feet</li> <li>Medium colander</li> <li>Medium to large cheese forms with follower</li> </ul>			Milk:	
IN			NTS	Culture(s): Rennet:	
EQUIPMENT			INGREDIENTS		
ă	<ul> <li>Cheese press</li> <li>Cooling rack</li> </ul>		ING	Other:	
	> Baking sheet				

	DETAILS FROM MASTER RECIPE	WAIT	PLANNED	ACTUAL	NOTES
Warm the Milk					
Culture the Milk					
Coagulate					
Cut the Curd					
Drain the Curd					
Cut the Curd Drain the Curd Press the Chees Salt the Cheese	e				
Salt the Cheese					
Dry the Cheese					
Age the Cheese					
Target Flavor & 1	"exture				

# HARD CHEESE MAKE SHEET

#### Date started:

Date complete:

PLAN	From milk to cheese:	Yield:	ACTUAL	From milk to cheese:	Yield:	
	<ul> <li>Large stockpot</li> <li>Thermometer with at</li> </ul>			Milk:		
TN	<ul> <li>&gt; 13-inch stainless steel flat perforated ladle</li> <li>&gt; Curd knife with a 12-inch blade</li> <li>&gt; Cheesecloth, cut to approximately 2 square feet</li> <li>&gt; Medium colander</li> <li>&gt; Large cheese forms with follower</li> <li>&gt; Cheese press</li> <li>&gt; Cooling rack</li> <li>&gt; Baking sheet</li> </ul>		INGREDIENTS	Culture(s):		
EQUIPMENT				Rennet: Other:		
ΕĞ						

	DETAILS FROM MASTER RECIPE	WAIT	PLANNED	ACTUAL TIMING	NOTES
Warm the Milk					
Culture the Milk					
Coagulate					
Cut the Curd					
Cook the Curd					
Drain the Curd					
Cheddar					
Mill the Curd					
Press the Cheese					
Salt the Cheese					
Dry the Cheese					
Age the Cheese					
Target Flavor & Texture					

# BLUE CHEESE MAKE SHEET

Date started:			Date complete:				
PLAN	From milk to cheese:	Yield:	ACTUAL	From milk to cheese:	Yield:		
	<ul> <li>Medium to large stockpot</li> <li>Thermometer with at least a 5-inch stem</li> <li>13-inch stainless steel flat perforated ladle</li> <li>Curd knife with a 12-inch blade</li> <li>Cheesecloth, cut to approximately 2 square feet</li> <li>Medium colander</li> <li>Large cheese forms with follower</li> </ul>			Milk:			
EQUIPMENT			INGREDIENTS	Culture(s): Rennet:			
						<ul> <li>2 cooling racks</li> <li>2 baking sheets</li> </ul>	
		<ul> <li>Knitting needle or 8-inch (or longer) metal skewer</li> </ul>					

		DETAILS FROM MASTER RECIPE	WAIT	PLANNED TIMING	ACTUAL TIMING	NOTES
	Hydrate the Mold					
	Warm the Milk					
	Culture the Milk					
	Coagulate					
2	Cut the Curd					
	Drain the Curd					
	Mill the Curd					
	Salt the Cheese					
5	Dry the Cheese					
	Age the Cheese					
	Pierce the Cheese					
	Age the Cheese					
	Target Flavor & Texture					

Washed-rind cheeses have a natural dichotomy: They smell stinky but often taste sweet, yeasty, and only faintly funky. I first got into this style of cheesemaking because of my love for beer. What better cheese to pair with a beer than one washed with the same beer? The interesting twist is that these cheeses come from the monastic tradition of production. Abbey ales and Trappist-style beers were produced by nuns and monks, as were many washedrind cheeses. The meditative and repetitive process behind these products lend themselves perfectly to monastic life, and I like believing that there's some spiritual benefit to consuming a beerwashed cheese.

**FROM MILK TO CHEESE:** 10 hours plus 3 days to make, 14 days plus 4 weeks to age

**YIELD:** 2 (8-ounce) wheels

### EQUIPMENT

Large stockpot Thermometer with at least a 5-inch stem 13-inch stainless steel flat perforated ladle Curd knife with a 12-inch blade 2 cheese forms (4 to 6 inches in diameter and 6 inches high) Cheesecloth, cut to approximately 1 square foot Cooling rack Baking sheet Large draining mat

#### **INGREDIENTS**

2 gallons whole cow's milk

<sup>1</sup>/<sub>4</sub> teaspoon mesophilic lactic acid starter culture (*Lactococcus lactis* ssp. *cremoris*, *Lactococcus lactis* ssp. *lactis*)

Pinch Brevibacterium linens

Pinch Geotrichum candidum

<sup>1</sup>⁄<sub>4</sub> teaspoon animal or microbial rennet dissolved in <sup>1</sup>⁄<sub>4</sub> cup cool, nonchlorinated water (or <sup>1</sup>⁄<sub>4</sub> teaspoon liquid rennet)

Coarse non-iodized salt

12 ounces Abbey ale

**BEER PAIRING**: The best beer to pair with a beer-washed cheese is the same one you used to wash the cheese.

**WINE PAIRING:** Slightly oxidized white wine from the Jura, such as Arbois or Chardonnay, or off-dry Riesling

**WARM THE MILK**: In a stockpot, heat the milk to 90°F in a warm water bath.

**CULTURE THE MILK:** Add the cultures and let them hydrate on the surface for a minute. Then, gently stir for 1 to 2 minutes until incorporated. Cover the pot and let rest for 1 hour, maintaining a temperature of 90°F throughout the rest period.

**COAGULATE:** Add the rennet and stir with an up and down motion for 30 seconds. Let rest for 30 minutes, maintaining a temperature of 90°F throughout the rest period.

**CUT THE CURD:** Cut the curd into ¾-inch-thick pieces using the straight and angled technique. Stir the curd slowly for 5 minutes. Maintaining a temperature of 90°F, let the curds rest for 45 minutes, stirring periodically.

**DRAIN THE CURD:** Line the forms with cheesecloth and place on a cooling rack set over a baking sheet. Transfer the curd to the forms. Turn the curd in the forms after 10 minutes and then again after 30 minutes. Let the curds continue to drain for 45 minutes.

**PRESS THE CHEESE:** Press the cheese lightly, with about half as much weight

as the curd weighs, for 3 hours. Flip and repeat for another 3 hours at room temperature (70°F to 74°F).

**SALT AND DRY THE CHEESE:** Remove the cheesecloth and weigh the cheeses. Sprinkle salt on each formed cheese, using 2% of the cheese weight in salt for each cheese. Let rest for 3 days, keeping a cooler room temperature (68°F) and 80% humidity.

AGE THE CHEESE: Transfer the cheese to a cooler, higher-humidity environment of 58°F and 95% humidity, and let the cheese age on a draining mat for 14 days. Rub gently with the beer every other day. Be sure to flip the cheese when rubbing with the beer so that it develops evenly on each side. Wrap the cheese in crystal cheese paper or wax paper. Store at refrigerator temperature and flip the cheese daily, continuing to age the cheese for 4 weeks.

Note: I recommend using an Abbey (or Trappist-style) ale to wash this cheese. The strong flavor and alcohol content create a good environment for rind development.

**STORAGE:** This cheese can be stored, uncut, for up to 2 weeks after aging. Once cut, the cheese should be consumed within 2 to 3 days.

# **BUILT-IN FONDUE**

Fondue is inarguably one of the most romantic meals starring cheese. But who wants to spend time at the stove top mixing and preparing the dish? Spend that time with your sweetheart instead and throw a wheel of washed cheese in the oven. Inspired by the classic Vacherin Mont d'Or of the French and Swiss Alps, this approach yields a bubbly round of savory, strong, luscious cheese ready for dipping!

#### SERVES 6

**PREP TIME:** 5 minutes **COOK TIME:** 10 to 15 minutes

1 wheel Beer-Washed Cheese (here)

1 garlic clove, sliced

<sup>1</sup>/<sub>4</sub> cup Abbey ale

**1.** Preheat the oven to 375°F.

2. Wrap aluminum foil around the bottom of the wheel of beer-washed cheese, coming up 2 to 3 inches higher than the cheese itself and leaving the top open. Essentially, you are creating a snug little bowl for the cheese to sit in. Place the foil-wrapped cheese on a baking sheet.

**3.** Using a sharp paring knife, cut six to ten slits in the top rind of the cheese. Slide the garlic slices into the slits.

**4.** Pour the beer on top of the cheese and bake the cheese until it's bubbling, 10 to 15 minutes.

**5.** Serve immediately in a bowl with good, crusty bread. Pair with the same beer used in the recipe and in washing the cheese.

**TIP**: If you're serving this as part of a dinner party, it's fun to spoon the beerwashed cheese into soufflé cups and make individual "fondue pots" for your guests to enjoy.

# **MUNSTER**

Like they did with Havarti, American delis have co-opted Munster with a lesser version. A German cheesemaker in Wisconsin once blew my mind when he served me a true Munster (gooey and stinky) on dark rye bread with thinly sliced red onions and grainy mustard. With one bite I felt my taste buds had awakened from a lifelong dormancy! A word of caution about the aging step with this cheese: You might want to prepare any housemates for the strong aroma.

**FROM MILK TO CHEESE:** 10 hours plus 3 days to make, 14 days plus 4 weeks to age

**YIELD: 2 (8-ounce) wheels** 

### EQUIPMENT

Large stockpot Thermometer with at least a 5-inch stem 13-inch stainless steel flat perforated ladle Curd knife with a 12-inch blade 2 cheese forms (4 to 6 inches in diameter and 6 inches high) Cheesecloth, cut to approximately 1 square foot Cooling rack Baking sheet Large draining mat Storage container

INGREDIENTS

2 gallons whole cow's milk

<sup>1</sup>/<sub>4</sub> teaspoon mesophilic lactic acid starter culture D5 (*Lactococcus lactis* ssp. *cremoris*, *Lactococcus lactis* ssp. *lactis*)

Pinch Brevibacterium linens

Pinch Geotrichum candidum

<sup>1</sup>⁄<sub>4</sub> teaspoon animal or microbial rennet dissolved in <sup>1</sup>⁄<sub>4</sub> cup cool, nonchlorinated water (or <sup>1</sup>⁄<sub>4</sub> teaspoon liquid rennet)

Coarse non-iodized salt

1% (light) brine: 1.3 ounces non-iodized salt dissolved in 1 gallon nonchlorinated water, plus a pinch *Brevibacterium linens* 

**BEER PAIRING:** Trappist or Abbey ale **WINE PAIRING:** Slightly oxidized white wine from the Jura, such as Arbois or Chardonnay, or off-dry Riesling

**WARM THE MILK**: In a stockpot, heat the milk to 90°F in a warm water bath.

**CULTURE THE MILK:** Add the cultures and let them hydrate on the surface for a minute. Then, gently stir for 1 to 2 minutes until incorporated. Cover the pot and let rest for 1 hour, maintaining a 90°F temperature.

**COAGULATE:** Add the rennet and stir with an up and down motion for 30 seconds. Cover and let rest for 30 minutes, maintaining a temperature of 90°F.

**CUT THE CURD**: Cut the curd into ¾-inch-thick pieces using the straight and angled technique. Stir the curd slowly for 5 minutes. Let rest for 45 minutes, maintaining a temperature of 90°F and stirring periodically.

**DRAIN THE CURD:** Line the forms with cheesecloth and place on a cooling rack set over a baking sheet. Transfer the curd to the prepared forms. Turn the curd in the forms after 10 minutes and then again after 30 minutes. Continue draining for an additional 45 minutes.

**PRESS THE CHEESE:** Press the cheese lightly, with about half as much weight as the curd weighs, for 3 hours. Flip and repeat for another 3 hours at room temperature (70°F to 74°F).

**SALT AND DRY THE CHEESE:** Remove the cheesecloth and weigh each cheese. Sprinkle salt on each formed cheese, using 2% of the cheese weight in salt for each cheese. Let rest for 3 days. Keep at a cooler room temperature (68°F) and 80% humidity.

**AGE THE CHEESE:** Transfer the cheese to a cooler 58°F and 95% humidity environment, for 14 days. In a storage container, mix the light brine. Rub the cheese gently with the light brine every other day. Be sure to flip the cheese when washing so that it develops evenly on each side. After 14 days, wrap the cheese in crystal cheese paper or wax paper and age for 4 weeks. Store at refrigerator temperature and flip the cheese daily.

Note: Taste periodically through the aging process if you've made enough wheels to sacrifice a few. If the cheese is drying out too much, rehydrate by washing gently with the light brine.

**TARGET FLAVOR AND TEXTURE**: Munster should smell quite pungent and funky, but exhibit milky, sweet flavors on the palate.

Note: If the aroma is too strong for your liking, take a towel dampened with water and gently wipe off some of the orange colored rind. Wrap tightly in aluminum foil after doing so to prevent the cheese from drying out.

**STORAGE:** This cheese can be stored, uncut, for up to 2 weeks after aging. Once cut, the cheese will keep for 7 to 10 days wrapped and stored in the refrigerator.

# **AUTUMNAL GALETTE**

A savory galette is what I consider the brunch-time frittata's wiser cousin. Making dough from scratch is easy (food processor required, however) and satisfying, and this is a fun opportunity to experiment with different types of flour. In this version, the strong Munster, salty and sweet ham, and nutty dough all meld to make for a very warming, satisfying dish, a perfect meal when the weather starts to turn.

#### SERVES 6

**PREP TIME**: 30 minutes, plus 1 hour to rest **COOK TIME**: 40 minutes

### FOR THE DOUGH

1 cup all-purpose flour

<sup>1</sup>/<sub>2</sub> cup rye, whole-wheat, or buckwheat flour

1 teaspoon kosher salt or sea salt

<sup>1</sup>/<sub>2</sub> teaspoon sugar

4 tablespoons (<sup>1</sup>/<sub>2</sub> stick) unsalted butter, cut into 1-inch cubes

<sup>1</sup>/<sub>2</sub> cup ice-cold water

### FOR THE GALETTE

2 medium apples, preferably Braeburn or McIntosh, peeled, cored, and thinly sliced

6 slices (about <sup>1</sup>/<sub>2</sub> pound) roasted deli ham, cut into 1-inch squares

6 ounces Munster cheese (here), cut into ½-inch cubes

#### TO MAKE THE DOUGH

**1.** Combine the flours, salt, and sugar in a food processor and pulse until well mixed.

**2.** Add the butter in a few batches and pulse until the mixture looks like dry oats.

**3.** Add the cold water 1 tablespoon at a time and pulse. When the dough comes together, stop adding water and transfer the dough to a floured surface. Knead a few times and shape into a flattened disk. Wrap the dough tightly in plastic wrap and let rest in the refrigerator for at least 1 hour.

**4.** Roll the dough into a 12-inch circle between two pieces of wax paper until it's <sup>1</sup>/<sub>8</sub> inch thick. Remove from the wax paper and set the dough on a parchment-lined baking sheet.

### TO MAKE THE GALETTE

**1.** Preheat the oven to 350°F.

**2.** Layer the apples, ham, and cheese on the galette dough, repeating the layers until the filling is all used.

**3.** Fold the edges of the galette dough over the filling to make a 2- to 3-inch border.

**4.** Bake until the dough is cooked through, the apples are soft, and the cheese is completely melted, 30 to 40 minutes.

**TIP**: Double the dough and save half in the freezer for future use.

### **ALPINE-STYLE**

Gruyère, Comté, Beaufort, Abondance, Emmenthaler: the royal flush! The Alpine style is steeped in history, featuring some of the world's greatest cheeses. It's also a style that American cheesemakers have made their own, with cheeses such as Pleasant Ridge Reserve and Tarentaise, winning awards and cultivating many fans. When I attempt this style at home, I have fun imagining what cheesemaking in the Alps might have been like. I think of the animals traveling up the hills, eating wildflowers and mountain grasses along the way; I ponder the solitary existence of the shepherds and cheesemakers who spend their summers up high, far from their valley communities below. And when I open a wheel of Alpine-style cheese I think of the homecoming, the trip back down to the valley village and the promise of cheese-filled sustenance throughout the winter.

FROM MILK TO CHEESE: 40 hours	plus 45 minutes to make,	10 months to age
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**YIELD:** 1 (6- to 8-pound) wheel

#### EQUIPMENT

Large stockpot Thermometer with at least a 5-inch stem 13-inch stainless steel flat perforated ladle Curd knife with a 12-inch blade Colander Cheesecloth, cut to line the colander and cheese form Cheese form (12 inches in diameter) with follower Cooling rack Baking sheet Large draining mat

#### INGREDIENTS

4 gallons whole cow's milk ½ teaspoon Thermo B culture

Pinch LH100 Lactobacillus helveticus

Pinch proprionic acid

<sup>1</sup>⁄<sub>2</sub> teaspoon calcium chloride dissolved in <sup>1</sup>⁄<sub>4</sub> cup cool, non-chlorinated water

<sup>1</sup>/<sub>2</sub> teaspoon dried animal or microbial rennet dissolved in <sup>1</sup>/<sub>4</sub> cup cool, nonchlorinated water (or <sup>1</sup>/<sub>2</sub> teaspoon liquid rennet)

Saturated salt brine: 2.95 pounds non-iodized salt dissolved in 1 gallon nonchlorinated water

Coarse non-iodized salt

**BEER PAIRING:** Milk stout, dark lager, or any beer that's roasty and creamy **WINE PAIRING:** Alsatian white, such as an off-dry Riesling, or white wine from the Jura

**WARM THE MILK**: In a large stockpot, heat the milk to 86°F in a warm water bath. Stir the milk gently so that it warms throughout.

**CULTURE THE MILK:** Add the cultures and calcium chloride and let hydrate on the surface for a minute. Then, gently stir for 1 to 2 minutes until incorporated. Cover the pot and let rest for 60 minutes.

**COAGULATE:** Add the rennet and stir with an up and down motion for 30 seconds. Cover and let rest for 45 minutes, maintaining a milk temperature of 86°F to 90°F.

**CUT THE CURD:** Cut the curds in three sessions, using the straight and angled technique each time. First, cut into 1-inch pieces and let sit for 5 minutes. Then, cut the curds into ½-inch pieces and let sit for 5 minutes. Finally, cut into ¼-inch pieces and let sit for 5 minutes.

**COOK THE CURD**: In a warm water bath, heat the cut curds and whey to 120°F slowly, over the course of 20 minutes.

Note: If your tap water doesn't get hot enough, boil water separately and add slowly with warm water to the water bath.

**DRAIN THE CURD:** Line a colander with the cheesecloth and set aside. Drain out enough whey so that the curds are just covered. With your clean hands, slowly and delicately start to bring the curds together, using the side of the pot to press the curds together. Once the curds have knit together somewhat as one mass, pour the remaining whey and the curd into the prepared colander. Gather the cloth and place the curd into the form.

Note: Once the cheese-in-cloth is situated in the form, fold the extra cheesecloth neatly over the surface. Top with the follower.

**PRESS THE CHEESE:** Place a weight roughly equal to the weight of the curds on top of the follower and let sit for 15 minutes. A bottle or small pan filled with water works for this first pressing. Remove the cheese from the form, unwrap it, flip it, wrap it in the cloth again, place it back in the form, replace the follower, and repeat with 10% more weight. Flip the cheese in the form, replace the follower, and repeat with 10% more weight. Let sit for 30 minutes. (This is a good opportunity to use those old dumbbells in the basement.)

Continue rotating the cheese and increasing the weight with each round. Flip the form and follower and repeat with 20% more weight. Let rest for 60 minutes. Flip the form and follower and repeat with 30% more weight. Let rest for 2 hours. Flip the form and follower and repeat with 30% more weight. Let rest for 4 hours. Flip the form and follower and repeat with 30% more weight. Let rest for 8 hours. Flip the form and follower and repeat with 30% more weight. Let rest for 8 hours.

Note: The increases in weight here are just guidelines. As you press the cheese, be sure to look at the curd underneath the cloth between pressings.

Once the rind has closed, the cheese is most likely ready for the next step. This can happen anywhere from 8 to 20 hours from the first press.

**SALT THE CHEESE:** Remove the cheesecloth and weigh the cheese wheel. In the stockpot, mix the saturated salt brine, and submerge the cheese wheel in the brine for 3 hours per pound of weight, 18 to 24 hours total. Dust the exposed side of the cheese with salt so that it brines evenly. Flip the wheel of cheese every 1 to 2 hours and re-salt the exposed side. Reserve 1 quart of the brine for later use.

AGE THE CHEESE: Age at 55°F and 80% to 85% humidity for up to 4 weeks. Wash the wheel every 2 days with a brine-soaked cloth, using the brine reserved in the previous step. Turn the cheese daily, making sure it's always resting on a draining mat for airflow.

After 1 month, increase the aging temperature to 62°F to 65°F and increase the humidity by about 5%, and continue to age for 3 months. Wash the wheel twice each week with a brine-soaked cloth. Continue to age for an additional 3 to 6 months, washing the wheel once a week with a brine-soaked cloth.

Note: If you have one, you can use a cheese trier to core the cheese once every 2 months to taste and see how it develops.

**TARGET FLAVOR AND TEXTURE:** When you cut open the wheel, note the eye formation. The texture should be toothsome: dense but yielding, not grainy. The flavor should have nutty, caramel notes. Make sure to include texture and flavor notes in your make sheet.

**STORAGE:** Wrap any cut pieces in cheese paper, wax paper, or aluminum foil and store in a humid environment in the refrigerator. Once the wheel has been cut open, it will keep its character for 2 to 3 weeks in the refrigerator.

Note: Cut pieces will start to grow mold on the cut face within a week in the fridge. Just scrape off or trim back an inch from the face and enjoy the rest of the piece.

# **FRENCH ONION SOUP**

To me, this classic dish is a celebration of onions and of winter. I don't love being cold, but I do love the feeling of warming up, and this soup definitely warms you up. French onion soup is best made and served on a cold day. The aromas of caramelized onion that fill your home, along with the warmth from so much time spent cooking on the stove top, are bonuses of the dish.

#### **SERVES 4**

**PREP TIME:** 20 minutes **COOK TIME:** 2 hours, 30 minutes

8 tablespoons (1 stick) unsalted butter

3 pounds Vidalia onions, thinly sliced

Kosher salt or sea salt

Freshly ground black pepper

1/2 cup Amontillado sherry

1 quart low-sodium chicken broth

1 quart low-sodium beef broth

4 thyme sprigs, plus 1 teaspoon fresh thyme leaves for garnish

2 bay leaves

4 slices crusty sourdough bread

1 garlic clove, cut in half

1<sup>1</sup>/<sub>2</sub> pounds Alpine-style cheese (here), grated

**1.** In a large Dutch oven, melt the butter over medium-high heat. Add the onions and cook until softened, stirring intermittently.

2. Reduce the heat to medium-low and cook, stirring every few minutes, until the onions are softened and deep brown in color. Season lightly with salt and pepper as the onions cook. Add a splash of water as you stir if the pot starts to look dry. This should take at least 1 hour, and if you can spare 2, you will be rewarded in flavor later.

**3.** Add the sherry and bring the mixture to a low simmer, stirring to loosen any onions from the bottom of the pot. After about 5 minutes add both broths, the thyme sprigs, and the bay leaves and bring the mixture to a simmer over medium-high heat. Reduce the heat to maintain a very gentle simmer and let the mixture cook for 30 minutes.

**4.** Meanwhile, preheat the broiler. Toast the bread under the broiler until golden brown and crisp throughout. Rub each piece of bread with the cut face of the garlic clove.

**5.** When the onion-broth mixture has reduced to a thicker soup consistency, spoon it into four ovenproof soup bowls. Top each with a layer of grated cheese, then the toast, then another layer of grated cheese.

**6.** Set the bowls on a baking sheet and broil until the cheese melts and starts to bubble and brown.

**7.** Remove the thyme sprigs, sprinkle the thyme leaves over each bowl to garnish, and serve.

**TIP**: Serve with a chilled, dry Alsatian white wine, such as Riesling or Grüner Veltliner, or an Arbois from the Jura.

# **COUNTRY-STYLE CHEDDAR**

Like many Americans, I was raised on grilled Cheddar cheese and tomato sandwiches, and I still eat them all the time. Cheddar is a cheese I'm always happy to have. I don't have to pair it with anything specific (though I love it with coffee, hot chocolate, or beer) or be in any particular mood to enjoy a piece. The savory cloth-bound profiles are my favorites, and I find inspiration in Montgomery's Cheddar from England and Grafton's Traditional Clothbound in Vermont.

FROM MILK TO CHEESE: 29 hours plus 3 days to make, 3 to 12 months to age

**YIELD:** 1 (3- to 4-pound) wheel

EQUIPMENT
Large stockpot
Thermometer with at least a 5-inch stem
13-inch stainless steel flat perforated ladle
Curd knife with a 12-inch blade
Medium colander
2 pieces cheesecloth, cut to line the colander and form
Cheese form (6 inches in diameter and 10 inches high)
Baking sheet
Cooling rack
Butter muslin
INGREDIENTS

2 gallons whole cow's milk

<sup>1</sup>/<sub>4</sub> teaspoon mesophilic lactic acid starter culture (*Lactococcus lactis* ssp. *lactis*, *Lactococcus lactis* ssp. *cremoris*)

<sup>1</sup>/<sub>2</sub> teaspoon dried animal or microbial rennet dissolved in <sup>1</sup>/<sub>4</sub> cup cool, nonchlorinated water (or <sup>1</sup>/<sub>2</sub> teaspoon liquid rennet)

Coarse non-iodized salt

8 tablespoons (1 stick) unsalted butter or lard, at room temperature

#### BEER PAIRING: Brown ale

WINE PAIRING: Cabernet Sauvignon or Pinot Noir

**WARM THE MILK**: Weigh your stockpot and record the weight for the salting phase. In the stockpot, warm the milk to 86°F in a warm water bath.

**CULTURE THE MILK:** Add the culture and let it hydrate on the surface for a minute. Then, gently stir for 1 to 2 minutes until incorporated. Cover the pot and let rest for 60 minutes, maintaining a temperature of 86°F to 90°F.

**COAGULATE:** Add the rennet and stir with an up and down motion for 30 seconds. Cover the pot and let rest for 45 minutes, maintaining a temperature of 86°F to 90°F.

**CUT THE CURD:** Cut the curd into ¼-inch-thick pieces using the straight and angled technique. Let sit for 10 minutes.

**COOK THE CURD:** Gently stir the curds while raising the warm water bath temperature so that the curds heat to 100°F. Stir as the curds and whey heat up. This step is gradual; the curds and whey should heat up over 30 minutes.

**DRAIN THE CURD:** Line the colander with cheesecloth and pour the curds and whey through the colander to drain. Return the curds to the empty stockpot and keep them submerged in a 95°F water bath.

**CHEDDAR:** Separate or cut the curd mass into two or three pieces and stack them on one another. Rotate the stack every 15 minutes over the course of 1<sup>1</sup>/<sub>2</sub> to 2 hours.

Note: The curd masses should stretch and flatten as they're rotated and stacked. This process is called cheddaring.

MILL THE CURD: Cut or break apart the curd mass with your hands into ½-inch pieces. Take note of the texture and feel of the curd at this point.

**SALT THE CHEESE:** Weigh the pot with the curds and subtract the original pot weight to find your curd weight at this point. Add 2% of the curd weight in salt and mix thoroughly among the cut curds. Mix the salt in with your hands to get a feel for how the curd firms up during this process.

**PRESS THE CHEESE:** Line the form with cheesecloth and place on a cooling rack set over a baking sheet. Scoop the salted curds into the prepared form. Cover fully with the cheesecloth and, using a follower, press the cheese with 10 pounds of pressure for 15 minutes.

Move the curds to a warmer temperature of 78°F and 80% humidity. Continue to press the cheese, making any adjustments if you see the curd breaking open on the edges or draining excessive amounts of whey. By the fifth pressing, the edges should be significantly knit together, showing minimal curd formation. When flipping the cheese, unwrap the cloth, line the form with the cloth, and place the flipped cheese back into the cloth-lined form. Press and flip the cheese according to this schedule (24½ hours total):

- 15 pounds for 15 minutes
- 20 pounds for 45 minutes
- 40 pounds for  $1\frac{1}{2}$  hours
- 50 pounds for 10 hours
- 50 pounds for 12 hours

*Note:* You'll need to peek underneath the cloth to see how the curd is forming. Don't be shy!

**DRY THE CHEESE:** Remove the cheesecloth and set the cheese out to dry for 1 to 2 days, until the surface is no longer wet to the touch or shiny. The environment should be 78°F and 80% humidity.

**BANDAGE THE CHEESE:** Prepare the butter muslin by cutting two pieces in circles approximately 4 inches larger in diameter than the wheel, and two pieces in rectangular pieces long enough to each wrap around three-quarters of the wheel. Apply a coat of butter to the top of the wheel of cheese, then lay

the circular muslin over it, smoothing it onto the wheel and folding it over the edges. Repeat on the bottom, then wrap with the rectangular pieces until the wheel is completely covered in tightly fitting cloth. Press under 30 pounds overnight to seal.

Note: If using lard, make sure it's from a trusted local farm source, preferably grass-fed cows.

**AGE THE CHEESE:** Age at 55°F and 80% humidity for 3 to 12 months. The wheel will initially grow white, blue, and green mold. These colors will appear around 14 days of aging. This is normal, and they will fade into signature brown and gray molds as the cheese ages. Flip the wheel every 3 days for the first 3 months, and once a week after that.

**TARGET FLAVOR AND TEXTURE:** Begin tasting the cheese at 3 months, and taste monthly if possible. It should develop from a highly acidic, slightly sour flavor to a more balanced, savory, mouthwatering profile over time. Texturally the cheese should be crumbly but well knit.

Note: Because this is a firmer cheese, you can taste it as it's aging by using a cheese trier. Insert the trier into the middle of the cheese by pressing it firmly. Twist as you pull it out, and you'll get a peek at what's happening inside the wheel. Seal the trier's hole with the rind edge of what you pulled out. Smooth a little lard or butter over it to seal it back up.

**STORAGE:** This cheese will store well in its aging conditions. Once the cheese is cut, wrap well with wax paper and plastic wrap and enjoy within 1 month. If a cut piece of cheese starts to grow mold in the fridge, simply scrape or trim off the exposed face. The rest of the cheese is fine!

# **SECRET-INGREDIENT APPLE PIE**

I could argue that there is no more natural pairing than apples and Cheddar cheese. The combination tastes like home and autumn (also a great pairing, by the way), and I love playing around with these two ingredients in recipes. While living in North Carolina, I found out that some people sneak a little Cheddar cheese into the crusts of their apple pies. This amazed me: how perfect! Like anchovies in Caesar dressing, I had no idea the Cheddar was there, but I wasn't surprised to find out that there was a special secret in those pies. Secret's out; have fun!

#### **SERVES 6**

**PREP TIME:** 1 hour plus 1 hour to chill **COOK TIME:** 1 hour 20 minutes

#### FOR THE CRUST

2 cups all-purpose flour

<sup>1</sup>⁄<sub>4</sub> teaspoon kosher salt or sea salt

<sup>1</sup>/<sub>2</sub> cup grated Country-Style Cheddar cheese (here)

2 sticks cold unsalted butter, cut into 1-inch cubes

<sup>1</sup>/<sub>3</sub> cup ice water

#### FOR THE PIE

8 to 10 medium apples, preferably a combination of Braeburn and Honeycrisp, peeled, cored, and sliced thin

<sup>1</sup>/<sub>2</sub> cup brown sugar

<sup>1</sup>/<sub>2</sub> cup granulated sugar
<sup>1</sup>/<sub>2</sub> teaspoon freshly grated nutmeg
4 tablespoons (<sup>1</sup>/<sub>2</sub> stick) unsalted butter, cut into 1-inch cubes
Country-Style Cheddar cheese (here), for serving

#### TO MAKE THE CRUST

**1.** In a food processor, pulse the flour, salt, and cheese until well mixed.

**2.** Add the butter in a few batches and pulse until the mixture resembles dry oats.

**3.** Add the cold water, about a tablespoon at a time, and pulse. When the dough comes together, stop adding water and transfer the dough to a floured surface. Knead a few times, then divide the dough into two equal balls. Wrap each ball tightly in plastic wrap and let rest in the refrigerator for at least 1 hour.

**4.** Roll one ball of dough into a circle between two pieces of wax paper until it is <sup>1</sup>/<sub>8</sub> inch thick. Return the rolled-out dough (still between two pieces of wax paper) to the refrigerator. Roll out the second ball of dough as you did the first.

**5.** Remove the second rolled-out piece of dough from its wax paper and place it in a pie plate, pressing it into the shape of the dish. Prick it throughout with a fork and refrigerate both doughs again for at least 1 hour.

**6.** Preheat the oven to 425°F.

7. Remove the dough-lined pie dish and cover with parchment paper. Press the paper snugly into the dough and fill with weights (dried beans are best). Bake just until the crust edges start to take on a golden color, 12 to 15 minutes. If the edges start to brown before the middle and bottom are golden, wrap the edges of the plate in aluminum foil.

**8.** Remove the bean-filled parchment paper and continue baking the crust until the bottom is golden brown, about 5 minutes more. Remove from the oven and let cool completely.

#### TO MAKE THE PIE

**1.** In a medium bowl, toss the apple slices, sugars, and nutmeg. Refrigerate for at least 30 minutes.

2. Preheat the oven to 375°F.

**3.** Toss the apples in their own liquid and then fill the cooked and cooled pie crust with the slices, shaking off excess moisture as you go. Top the apple mixture evenly with the butter cubes and lay the top crust over the entire dish. Press the top crust down onto the bottom crust and trim any excess dough. Cut slits in the crust to allow steam to escape while the pie bakes.

**4.** Bake for 1 hour, checking the pie at 45 minutes to make sure the top doesn't get too dark. If the edges are browning too quickly, cover with foil.

**5.** Let cool for at least 10 minutes before serving. Serve each slice with a wide, thin slice of Cheddar cheese on top.

**TIP**: Roll out any extra dough and cut into cracker-size squares. Place the dough squares on a parchment-lined baking sheet and bake until golden brown, 10 to 12 minutes. Enjoy as a fancy homemade Cheez-It snack!

### **GRANA-STYLE**

To successfully make a grana-style cheese it's very helpful to have a mechanical press that can hold pressure up to 50 pounds. (I'm tempted to say that this is required, but I have seen some impressive homemade pressing rigs, so I'll leave that possibility open.) In this make, the curd is quite small and already somewhat firm by the time it goes into the press, so it takes a fair amount of effort to get it to knit. Since you'll be waiting quite some time for this cheese to age out, I would suggest making one wheel per month for 3 to 4 months so that you can study different batches as they come to term.

**FROM MILK TO CHEESE:** 50 hours, plus 20 minutes to make, 6 to 12 months to age

**YIELD:** 1 (2- to 3-pound) wheel

#### EQUIPMENT

Large stockpot

Thermometer with at least a 5-inch stem

13-inch stainless steel flat perforated ladle

Curd knife with a 12-inch blade

Colander

2 pieces of cheesecloth, cut to approximately 2 square feet

Cylindrical cheese form (7 inches in diameter and 6 inches high) with follower

Cooling rack

Baking sheet

Mechanical cheese press

Large draining mat

#### INGREDIENTS

4 gallons 2% cow's milk

1/2 teaspoon thermophilic lactic acid starter culture

<sup>1</sup>⁄<sub>2</sub> teaspoon calcium chloride dissolved in <sup>1</sup>⁄<sub>4</sub> cup cool, non-chlorinated water

1 teaspoon dried animal or microbial rennet dissolved in <sup>1</sup>/<sub>4</sub> cup cool, nonchlorinated water (or 1 teaspoon liquid rennet)

Saturated salt brine: 2.95 pounds non-iodized salt dissolved in 1 gallon water

<sup>1</sup>⁄<sub>4</sub> cup coarse non-iodized salt

BEER PAIRING: IPA WINE PAIRING: Lambrusco

**WARM THE MILK**: In a stockpot, heat the milk to 86°F in a warm water bath. Stir the milk gently so that it warms evenly.

**CULTURE THE MILK:** Add the culture and calcium chloride and let them hydrate on the surface for a minute. Then, gently stir for 1 to 2 minutes until incorporated. Cover and let sit for 60 minutes, maintaining a milk temperature of 86°F to 90°F.

**COAGULATE:** Add the rennet and stir with an up and down motion for 30 seconds. Cover and let sit for 45 minutes.

**CUT THE CURD:** Slowly, cut the curds into <sup>1</sup>/<sub>4</sub>-inch pieces. Let sit for 10 minutes.

**STIR AND COOK THE CURD:** Gently stir the curds and watch them shrink to nearly rice-size pieces. Using the water bath surrounding the pot, increase the curds and whey temperature slowly to 130°F. It should take about an hour to increase the temperature to 130°F if you're going at the right speed.

**DRAIN THE CURD**: Line a colander with cheesecloth and pour the curds and whey through the colander.

**PRESS THE CHEESE:** Line a form with cheesecloth and place it on a cooling rack set over a baking sheet. Pack the curds into the form until it's as full as possible. Place the follower on top of the curds, and press and flip the cheese according to the schedule below (10 hours and 45 minutes total). When flipping the cheese, unwrap the cloth, line the form with the cloth, and place the flipped cheese back into the cloth-lined form:

- 10 pounds for 15 minutes
- 15 pounds for 30 minutes
- 20 pounds for 2 hours
- 25 pounds for 2 hours
- 30 pounds for 3 hours
- 30 pounds for 3 hours

Note: This part of the process should be done in a higher-temperature environment, 80°F. The pressing schedule is not exact. Watch the rind to see that the curd is knitting together and smoothing out as the cheese presses. The cheese should be expelling whey at every point in the pressing schedule, albeit more slowly near the end than at first.

**DRY THE CHEESE:** Remove the cheesecloth and let the cheese rest and dry for 24 hours at 80°F and higher humidity.

**SALT THE CHEESE:** Weigh the cheese when dry. In the stockpot, mix the saturated brine and submerge the cheese in the brine for 6 hours per pound, about 12 hours total. The environment should be cooler, about 50°F.

Note: Sprinkle salt on the exposed side of the cheese as it brines. Rotate the cheese so the same side isn't exposed through the entire brining process.

**AGE THE CHEESE:** Dry the cheese with a clean towel and age on a draining mat at 55°F and 80% humidity for 6 to 12 months. Turn the cheese daily for even aging in the first month or two, wiping the rind with olive oil when you turn the cheese. After that, ease into turning (and oiling) once per week.

**TARGET FLAVOR AND TEXTURE:** Grana-style cheese should be brothy and savory, with a strong salt presence. The texture should be extra firm and dry, verging on grainy.

Note: You may find white crystallized spots in the cheese paste. These are most likely calcium deposits, an occasional inoffensive defect in a Granastyle cheese.

**STORAGE:** Once cut, the cheese should be wrapped tightly in aluminum foil. It can keep for up to a month in your refrigerator, but the sooner you enjoy the cheese after cutting the wheel the more flavorful it will be.

Note: For longevity in the fridge, store cheese in one of the lower drawers near the back. This is the coldest spot in your fridge, and the best for maintaining a high-quality product.

# **CACIO E PEPE**

Restaurant food often gets a reputation for being loaded with extra fat and salt. Oftentimes this is true, but now and then a great chef will acknowledge that extra butter or oil doesn't add to a dish. In the case of cacio e pepe (literally, "cheese and pepper"), drytoasting the pepper and then finishing the pasta in fragrant, aromatic pepper water is by far the best way to get the most flavor possible. The butter and cheese are still there but in smaller quantities than you might expect.

SERVES 2 TO 4
PREP TIME: 5 minutes COOK TIME: 15 minutes
Kosher salt or sea salt
12 ounces dried pasta
1 tablespoon coarsely ground black pepper
4 tablespoons (½ stick) unsalted butter
1 cup Microplane-grated Grana-Style cheese (here)

**1.** Fill a large pot with water and heat over high heat. Generously salt the water.

**2.** Cook the pasta according to package directions, draining it 3 to 4 minutes prior to doneness so that it is slightly undercooked. Reserve <sup>3</sup>/<sub>4</sub> cup of the cooking water.

**3.** In a large, dry skillet, heat the pepper over medium-high heat, swirling the pan constantly to prevent scorching. After 2 to 3 minutes, add ½ cup of the reserved pasta-cooking water, and cook until the pepper-water mixture barely coats the pan.

**4.** Add the drained pasta to the skillet and continue to cook, swirling the pan and stirring the pasta in the water. As the water evaporates, add the butter, lower the heat to medium, and continue stirring vigorously. Taste the pasta. At this point it should be just shy of al dente.

**5.** Remove the pan from the heat and add the grated cheese. Stir vigorously to coat the pasta with the cheese and the butter. Add a splash or more of the remaining pasta-cooking water, if needed, to bring the sauce together.

**TIP**: I like to serve this pasta with a glass of full-bodied red wine. A southern Italian red, such as Primitivo or Frappato, is a great pairing.

### **MANCHEGO**

Making Manchego is a great way to learn about working with sheep's milk. My suggestion is to closely observe how the milk reacts to each step in the make. Understanding how different types of milk react to heat, cultures, and agitation will inform your own adjustments to all your master recipes. Sheep's milk comes at a premium, and you do need a decent amount of it for this recipe, so tackle this recipe once you've made and aged a few other cheeses successfully.

**FROM MILK TO CHEESE:** 17 hours plus 30 minutes to make, 3 to 12 months to age

YIELD: 1 (2- to 3-pound) cheese

#### EQUIPMENT

Large stockpot Thermometer with at least a 5-inch stem 13-inch stainless steel flat perforated ladle Curd knife with a 12-inch blade Colander 2 pieces cheesecloth, cut to line the colander and the form Cylindrical cheese form (8 inches in diameter and 6 inches high) with follower Cooling rack Baking sheet Mechanical cheese press Large draining mat

#### INGREDIENTS

2 gallons sheep's milk

<sup>1</sup>⁄<sub>4</sub> teaspoon mesophilic lactic acid starter culture

<sup>1</sup>⁄<sub>4</sub> teaspoon thermophilic lactic acid starter culture

<sup>1</sup>/<sub>4</sub> teaspoon lipase dissolved in <sup>1</sup>/<sub>4</sub> cup cool, unchlorinated water and allowed to rest for 15 minutes

<sup>1</sup>⁄<sub>4</sub> teaspoon dried animal or microbial rennet dissolved in <sup>1</sup>⁄<sub>4</sub> cup cool, nonchlorinated water (or <sup>1</sup>⁄<sub>4</sub> teaspoon liquid rennet)

Coarse non-iodized salt

Saturated salt brine: 2.95 pounds non-iodized salt dissolved in 1 gallon nonchlorinated water

Extra-virgin olive oil

#### **BEER PAIRING:** Saison

WINE PAIRING: Cabernet Sauvignon or Tempranillo

**WARM THE MILK**: In a stockpot, heat the milk to 86°F in a warm water bath. Stir the milk gently so that it warms evenly.

**CULTURE THE MILK:** Add the cultures and let them hydrate on the surface for a minute. Then, gently stir for 1 to 2 minutes until incorporated. Cover and let sit for 60 minutes, maintaining a milk temperature of 86°F to 90°F.

**COAGULATE:** Add the lipase and the rennet and stir with an up and down motion for 30 seconds. Cover and let sit for 45 minutes.

**CUT THE CURD:** Cut the curd into ½-inch pieces using the straight and angled technique. Let sit for 5 minutes. Stir and continue to cut until the curds are rice-size. This step should take up to 20 minutes. Maintain the curds and whey temperature around 86°F to 90°F.

**COOK THE CURD:** By adding very hot water to the water bath, slowly increase the temperature of the curds and whey to 110°F. The temperature should increase over the course of 30 to 40 minutes. Stir gently to keep the curds from melting together. Continue to cook for 10 minutes.

DRAIN THE CURD: Line a colander with cheesecloth and transfer the curds and

whey to the colander. Bring together the corners of the cloth to squeeze out the excess moisture from the curd.

**PRESS THE CURD:** Line a form with cheesecloth and place on a cooling rack set over a baking sheet. Place the curds in the prepared form and place the follower on top of the curds. Press and flip according to the following schedule (6 hours and 30 minutes total). When flipping the cheese, unwrap the cloth, line the form with the cloth, and place the flipped cheese back into the cloth-lined form:

- 10 pounds for 15 minutes 15 pounds for 15 minutes 25 pounds for 3 hours
- 30 pounds for 3 hours

Note: The pressing schedule is not exact. Watch the rind to see that the curd is knitting together and smoothing out as the cheese presses. The cheese should be expelling whey at every point in the pressing schedule, albeit slower near the end than at first. If you're planning to age your Manchego for longer than 3 months, consider increasing the pressure for the later two presses.

**SALT THE CHEESE:** Remove the cheesecloth. In the stockpot, mix the saturated salt brine, and submerge the cheese in the brine. Sprinkle the exposed side with salt. Let it sit for 8 hours in a 55°F environment. Flip once or twice during brining.

**AGE THE CHEESE:** Dry the cheese with a clean towel and set on a draining mat to age in a 55°F environment for 3 to 12 months. In the first week of aging turn the cheese daily; after that, twice a week. Rub the cheese with olive oil when the rind looks dry to you throughout aging.

Note: Be sure to note the schedule of when you oil the cheese, and also the conditions of the aging environment. That way you can either re-create a beloved rind or troubleshoot a less likeable result.

TARGET FLAVOR AND TEXTURE: Manchego should be very buttery and sweet,

with a hint of woolly flavor. The texture is pliable when young, drier and latticed when older.

**STORAGE:** Once cut, the cheese should be wrapped tightly in wax or butcher paper. Cut pieces can keep for up to 2 to 3 weeks in your refrigerator, but the sooner you enjoy the cheese after cutting the wheel, the more flavorful it will be.

Note: For longevity in the fridge, store cheese in one of the lower drawers near the back. This is the coldest spot in your fridge, and the best for maintaining a high-quality product.

# LAMB TARTARE

I feel very lucky to live in New York City during what seems to me to be a tartare renaissance. It's on the menu at nine out of ten new restaurants on any given day, and each chef puts his or her own spin on it. While I love a classic beef tartare, lamb tartare has become a favorite. I like the stronger, slightly gamey flavor, and it's enhanced here with cheese from the same animal, giving the whole dish a very sheep-y depth of flavor.

<sup>1</sup>⁄<sub>4</sub> cup finely chopped cilantro stems<sup>1</sup>⁄<sub>4</sub> cup Microplane-grated Manchego cheese (here)

#### TO MAKE THE CROSTINI

**1.** Preheat the oven to 350°F. Line a baking sheet with parchment paper.

**2.** Slice the baguette on the bias into 24<sup>1</sup>/<sub>4</sub>-inch-thick slices. Toss in a bowl with the olive oil until the slices are nicely coated.

**3.** Arrange the slices in a single layer on the prepared baking sheet.

**4.** Bake for 10 minutes, watching the slices closely throughout. The timing depends on the thickness of the slices, so you want to check to make sure they don't burn. When the crostini are nicely browned and crisp to the touch, remove from the oven and let cool completely.

#### TO MAKE THE LAMB TARTARE

**1.** In a medium bowl, combine the lamb, olive oil, soy sauce, paprika, chili powder, salt, celery, shallot, and cilantro. Mix well.

**2.** Place 6 crostini on each serving plate, and divide the tartare mixture evenly alongside the crostini.

**3.** Top each plate of tartare with one-quarter of the grated cheese.

**TIP:** I love having a well-balanced white wine with tartare. Because the paprika is a strong flavor in this dish, pair with a full-bodied white such as a white Burgundy or Grüner Veltliner.

### **BRITISH-STYLE BLUE**

Stilton is a cheese I like on the bookends of my day. It's a favorite in the morning with black coffee, and late at night with a piece of dark chocolate. This style of blue cheese turns out to be quite firm and fudge-like in texture while also boasting an intense creaminess. Stilton is another cheese that owes its delicate balance to the addition of cream to the make.

FROM MILK TO CHEESE: 29 hours to make, 4 weeks plus 3 to 4 months to age

**YIELD:** 1 (3- to 4-pound) wheel

#### EQUIPMENT

Medium stockpot Thermometer with at least a 5-inch stem 13-inch stainless steel flat perforated ladle Curd knife with a 12-inch blade Colander Cheesecloth, cut to approximately 2 square feet Cheese form (7½ inches in diameter) with follower Cooling rack Baking sheet Knitting needle or long metal skewer Draining mat

#### INGREDIENTS

<sup>1</sup>/<sub>16</sub> teaspoon *Penicillium roqueforti* 

1 gallon plus ¼ cup whole cow's milk, divided

1 cup cow's milk cream
¼ teaspoon mesophilic lactic acid starter culture
Pinch *Geotrichum candidum*¼ teaspoon dried animal or microbial rennet dissolved in ¼ cup cool, nonchlorinated water (or ¼ teaspoon liquid rennet)
Coarse non-iodized salt

**BEER PAIRING:** Porter or stout **WINE PAIRING:** Dry sparkling white, port, or Amontillado sherry

**HYDRATE THE MOLD:** Mix the *P. roqueforti* mold into <sup>1</sup>/<sub>4</sub> cup of milk and let sit at room temperature for 4 hours.

**WARM THE MILK:** In a stockpot, heat the remaining gallon of milk and the cream to 86°F in a warm water bath. Stir the milk gently so that it warms evenly.

**CULTURE THE MILK**: Sprinkle the cultures (including the *P. roqueforti*) on top of the milk and mix in for 30 seconds with an up and down motion. Cover the pot and let rest for 30 minutes at room temperature.

Note: Be sure to mix the cultures in continuously for all 30 seconds, dipping the ladle to the bottom and back up to the top of the pot as you mix.

**COAGULATE:** Add the rennet to the milk. Stir with an up and down motion for 1 minute. Cover the pot and let rest for 60 minutes.

**CUT THE CURD:** Cut the curd mass into 1-inch cubes using the straight and angled technique. Let sit for 10 minutes.

**DRAIN THE CURD:** Line a colander with cheesecloth and pour the curds and whey into the colander. Set the colander back into the original (warm) pot and keep the pot submerged in a 90°F warm water bath for 12 hours.

**MILL THE CURD**: The curds will have melted into a loose mass after draining. Break apart the curds by hand into their original 1-inch pieces.

**SALT THE CHEESE:** Weigh the curd, then calculate the salt quantity as 3% of the curd weight. Mix the salt in with the curds by hand until thoroughly incorporated.

Note: It's important to do this step with your hands so that you get a real sense of the texture of the curd at this step. Make sure to take notes on how it feels.

**DRAIN THE CURD**: Warm the form by running it under warm water, then place it on a cooling rack set over a baking sheet. Transfer the curds to the form. Turn incrementally after 30 minutes, then 1 hour, 2 hours, 6 hours, and 12 hours.

*Note: The cheese might be finished draining before the suggested timeline. Once it holds its shape freely, then it's ready for aging.* 

AGE THE CHEESE: Remove the cheese from the form and smooth its edges carefully, essentially rubbing the entirety of the cheese surface with your hands. This step will be easier if the room is slightly warmer, 78°F to 80°F. Age the cheese at 55°F and 90% humidity for 4 weeks. Flip the cheese once per day.

**PIERCE THE CHEESE:** After 4 weeks, pierce the cheese evenly throughout the wheel. Pierce all along the sides, at a slight angle up or down each time. You should end with 6 to 8 piercings on the top and bottom and 16 to 18 on the sides of the cheese.

Note: Make a note of the number of piercings. This will be a key element to adjust as you try making this cheese again. More piercings yields more bluing.

**AGE THE CHEESE:** Move the cheese into a colder environment (42°F to 44°F) and set on a draining mat to age for 3 to 4 months. Turn every 2 to 3 days while aging.

TARGET FLAVOR AND TEXTURE: The flavor should be dominated by buttered

toast, roasted coffee, or chocolate notes. The texture should be dense but firm.

**STORAGE:** Wrap the finished cheese in aluminum foil before and after cutting it open. Once cut, the cheese is good for 7 to 10 days.

## **BLUE POLENTA**

New York City has more incredible restaurants than you could ever need. Aside from the dent that this high-quality food environment can put on your wallet, one downside to so many great options is that it's hard to justify going back to the same place twice. Enter Beast, a no-frills, delicious, neighborhood-pioneering spot that I discovered when I first moved to Brooklyn. Sadly, Beast is no longer in business, but for a few glorious years I went there religiously for the warm ambience and a few small dishes that consistently hit the spot. Since its closing, I've had to try and recreate this polenta—one of my favorite dishes at Beast—at home. It's never quite the same as the one they served at the restaurant, but it takes me back to a relaxed time in a new neighborhood among friends.

SERVES 2
PREP TIME: 10 minutes COOK TIME: 60 minutes
4 cups cold water
1 cup whole milk
1 teaspoon kosher salt or sea salt
1 cup stone-ground coarse cornmeal
6 tablespoons unsalted cultured butter, divided
3 cups mushrooms (preferably a mix of shiitake and cremini), stemmed and

thinly sliced 1 cup British-Style Blue cheese (here)

**1.** In a medium pot, combine the water, milk, and salt. Bring to a boil over high heat and whisk in the cornmeal.

**2.** Reduce the heat so that the mixture simmers gently. Stirring often, cook until the polenta has absorbed the liquid and is tender, 45 to 60 minutes.

**3.** Meanwhile, in a large skillet, melt 2 tablespoons of butter over medium heat. Add the mushrooms in batches small enough so that a single layer of the mushrooms do not touch one another. Stir the mushrooms so that they are coated with butter, but do not stir too much during cooking. The mushrooms should be browned and tender. Remove the mushrooms from the pan and salt the batch to taste. Repeat with the remaining mushrooms, adding a bit more butter as needed with each batch.

**4.** When the polenta has finished cooking, mix in the blue cheese and mushrooms, and add any remaining butter. If the mixture is dry and too thick, add more water or milk until the consistency is to your liking.

**TIP**: This is a great dish to serve alongside steak and with a glass of full-bodied red wine.

### **ITALIAN-STYLE BLUE**

Admittedly, I tend to prefer the British-style blues, with their characteristic added cream, over any other, but the Italians certainly know what they're doing with their variations on Gorgonzola. The long culturing time in this make contributes to the signature final piquant flavor. I suggest playing around with the aging time for this cheese. It can be sweet and creamy when young, or dry and spicy as it ages out.

**FROM MILK TO CHEESE:** 20 hours plus 3 days to make, 3 weeks plus 2 to 4 months to age

**YIELD:** 1 (3- to 4-pound) wheel

### EQUIPMENT Large stockpot Thermometer with at least a 5-inch stem 13-inch stainless steel flat perforated ladle Curd knife with a 12-inch blade Colander Cheesecloth, cut to approximately 2 square feet Cylindrical cheese form (7 inches in diameter and 6 inches high) Large draining mat Cooling rack Baking sheet Knitting needle or 8-inch-long metal skewer

#### INGREDIENTS

2 gallons whole cow's milk

<sup>1</sup>⁄<sub>4</sub> teaspoon Flora Danica culture

Pinch Penicillium roqueforti

1/8 teaspoon calcium chloride dissolved in 1/4 cup cool, non-chlorinated water

<sup>1</sup>⁄<sub>4</sub> teaspoon dried animal or microbial rennet dissolved in <sup>1</sup>⁄<sub>4</sub> cup cool, nonchlorinated water (or <sup>1</sup>⁄<sub>4</sub> teaspoon liquid rennet)

Coarse non-iodized salt

**BEER PAIRING:** Porter or stout

**WINE PAIRING:** Sparkling, dry white wine or Nocino (an Italian liqueur made from unripe walnuts)

**WARM THE MILK**: In a stockpot, heat the milk to 86°F in a warm water bath. Stir the milk gently so that it warms evenly.

**CULTURE THE MILK:** Sprinkle the Flora Danica and *P. roqueforti* on top of the milk and mix in for 30 seconds with an up and down motion. Cover the pot and let rest for 45 minutes. Add the calcium chloride and let rest for 5 minutes at room temperature (70°F to 74°F).

Note: Be sure to mix the cultures in continuously for all 30 seconds, dipping the ladle to the bottom and back up to the top of the pot as you mix.

**COAGULATE:** Add the rennet to the milk. Stir with an up and down motion for 1 minute. Cover and let rest for 60 minutes.

**CUT THE CURD:** Cut 2-inch pieces of curd, using the straight and angled method. Let the curd rest for 5 to 10 minutes between each angle.

**DRAIN THE CURD:** Line a colander with cheesecloth and pour the curds and whey into the colander. Drain overnight, 8 to 10 hours.

**FORM THE CHEESE:** Transfer the curd to the form, and using your hands, press gently to fill the form completely. Let the curd drain for 8 hours. Flip every 2 hours, pressing gently on the curd each time.

**SALT THE CHEESE:** Remove the cheese from its form and weigh the curd. Measure out salt to equal 3% of the weight of the curd. Salt the cheese by sprinkling the salt evenly over the surface for 3 days using this guide:

Day 1: use half of the total salt Day 2: use half of what's left Day 3: use the remainder

Note: In between saltings, set the cheese on a draining mat set on a cooling rack over a baking sheet.

**AGE THE CHEESE:** Age the cheese at 55°F and as close to 100% humidity as you can get for 2 weeks.

**PIERCE THE CHEESE:** Pierce the cheese 10 times from the top of the wheel through the bottom. Let it age for 1 week. Pierce 10 times through the opposite end of the wheel.

Note: Make a note of the number of piercings. This will be a key element to adjust as you try making this cheese again. More piercings yield more bluing.

**AGE THE CHEESE:** Age the cheese at 55°F and as close to 100% humidity as you can get for 2 to 4 months.

**STORAGE**: Wrap the finished cheese in aluminum foil before and after cutting it open. Once cut, the cheese should be consumed within 10 to 14 days.

# **GO-TO BLUE DRESSING**

My big complaint about blue cheese dressing is that it's not blue cheese-y enough. The solution? Make it yourself, however you like it. So here is my version, a blue cheese-y dressing to out-blue the rest.

#### SERVES 6 TO 8

**PREP TIME:** 10 minutes, plus 6 hours to chill

1<sup>1</sup>/<sub>2</sub> cups British-Style Blue cheese (here) or Italian-Style Blue cheese (here), crumbled

<sup>1</sup>/<sub>2</sub> cup sour cream

<sup>1</sup>/<sub>3</sub> cup buttermilk, shaken well

1 tablespoon white wine vinegar, plus more as needed

1 teaspoon honey, plus more as needed

<sup>1</sup>/<sub>4</sub> cup minced fresh chives

Freshly ground black pepper

**1.** Combine all the ingredients in a food processor or blender and blend until smooth, scraping down the sides of the bowl intermittently. Taste for balance and add more honey or vinegar if needed. The consistency should be fairly runny, like an egg.

**2.** Transfer the dressing to an airtight container and refrigerate for at least 6 hours. It should thicken a bit, and the flavors will become more pronounced and balanced. Mix in a little water before use, if needed.

**TIP**: I especially love this dressing on romaine lettuce. It's also great as a dip for veggies or wings. If you find that it's too runny, mix in some mayonnaise —a quick fix.

# **GOAT'S MILK BLUE**

This make reflects a slight variation in the process for Soft-Ripened Goat Cheese (here), but the difference in the final product can be significant. Because of the soft, moisture-filled nature of the curd in this recipe, you shouldn't expect heavy bluing. Blue cheese mold needs space and air to develop. When you puncture the formed cheeses during this make, it should allow for some bluing, but the curd will close quickly, cutting off significant blue development. The blue cheese flavor should still be there, however, which can be an interesting trick on the palate without the visual cues.

## FROM MILK TO CHEESE: 46 hours to make, 10 to 14 days to age

## **YIELD:** 3 or 4 (3-ounce) cheeses

#### EQUIPMENT

Medium stockpot Thermometer with at least a 5-inch stem 13-inch stainless steel flat perforated ladle Curd knife with a 12-inch blade 3 or 4 cheese forms (3 inches in diameter and 4 inches high) Cooling rack Baking sheet Draining mats Small (2-mm-diameter) knitting needle

#### INGREDIENTS

1 gallon pasteurized goat's milk

<sup>1</sup>⁄<sub>8</sub> teaspoon mesophilic lactic acid starter culture

<sup>1</sup>/<sub>16</sub> teaspoon *Penicillium candidum* 

1/8 teaspoon Penicillium roqueforti

<sup>1</sup>/<sub>8</sub> teaspoon dried animal or microbial rennet dissolved in <sup>1</sup>/<sub>4</sub> cup cool, nonchlorinated water (or <sup>1</sup>/<sub>8</sub> teaspoon liquid rennet)

1 tablespoon coarse non-iodized salt

**BEER PAIRING:** Stout or porter for a creamy milkshake-like combination **WINE PAIRING:** Dry sparkling white wine, such as Crémant de Bourgogne or Champagne

**WARM THE MILK**: In a stockpot, heat the milk to 74°F in a warm water bath and hold it at that temperature.

Note: You want this cheesemaking process to happen a bit cooler than most of the other makes in this book so that whey isn't released too quickly.

**CULTURE THE MILK**: Add the mesophilic culture, *P. candidum*, and *P. roqueforti*, and mix into the milk for 30 seconds. Cover and let rest for 6 hours.

Note: Sprinkle the dried cultures over the surface of the milk, and wait a minute or two before mixing them in to the rest of the pot. This way, they have time to hydrate and fully release.

**COAGULATE:** Add the rennet and mix for 30 seconds using an up and down motion. Let rest for 2 hours, until the curd has pulled away from the sides of the pot, is submerged in mostly clear whey, and leaves a clean break when a knife is inserted.

**LADLE THE CURD:** Using a horizontal motion, slice through the curd with the ladle, transferring ½-inch-thick disks of curd to the forms. Fill the forms to the top, until no more curd will fit.

**DRAIN THE CURD:** Let the curd drain on a cooling rack set over a baking sheet for 10 to 14 hours. Be sure to empty the baking sheet as it fills with whey. Once you see that the curd has knit together, unmold, flip, and return to the form to continue draining.

Note: The environment should be on the cooler side of room temperature, 70°F to 72°F so that you don't lose too much whey. By the time the curds are ready to come out of their forms, they will be about half the original height.

**DRY THE CHEESE**: Unmold the cheeses and set over draining mats. Sprinkle the salt over the full surface of each cheese. Let sit for 16 to 24 hours, flipping the cheeses every hour or so, to promote even drying. Drying should be done in a cooler environment, 60°F to 65°F, with some added humidity.

*Note:* You can spread and smooth the salt by hand if need be, to get a more even distribution.

**PIERCE THE CHEESE:** Take the knitting needle and gently, at alternating upward and downward angles, pierce the cheeses 6 times each, evenly around the cheese.

**AGE THE CHEESE:** Once the cheeses have lost visible moisture or shiny sections on their surfaces, they are ready to age. Age at 55°F and 90% humidity on draining mats. Turn the cheeses twice a day for the first 3 to 4 days, then once each day after that. Age for 10 to 14 days total.

Note: After 3 to 5 days of aging, the white bloomy mold will start to grow. If the rind starts to grow more than a few millimeters out from the cheese, gently pat it down as you flip the cheese each day.

**TARGET FLAVOR AND TEXTURE:** The cheese is ready when the white bloomy rind fully coats the cheese and when pressure on the rind feels firm but yielding.

Note: This cheese should be moist and dense in texture, as if you saturated a marshmallow with water. The blue mold development should be visibly subtle, but it will add a distinctive piquant flavor.

**STORAGE:** Store the cheeses in the refrigerator, wrapped snugly in cheese paper or wax paper. Before cutting the cheese open, the wheels will keep for up to 2 weeks in the fridge. Once cut, the cheese should be consumed within 3 to 5 days.

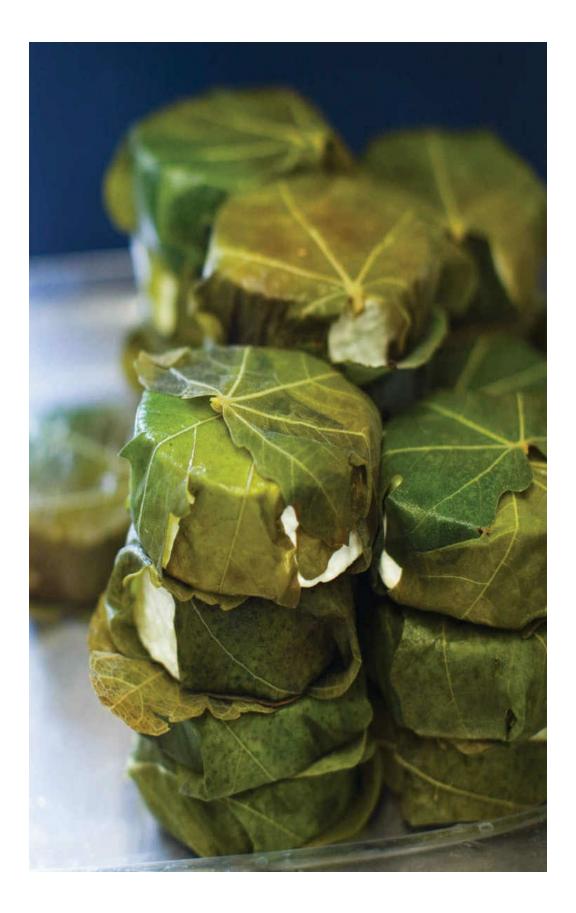
**TIP**: Serve this cheese with chocolate, honey, or fruit preserves.

# **FROMAGE FORT**

It's always heart-wrenching to throw out unused food from the refrigerator, but it's especially upsetting to toss the fruits of your diligent and time-consuming cheesemaking efforts. I take care to avoid tossing cheese in the garbage; one way to make sure cut pieces don't mold-away in the depths of the fridge is to make a monthly batch of fromage fort. This recipe is more of a guideline than anything, as you should use whatever cheese you have on hand that you need to move. The secret is that near-garbage cheese winds up being incredibly delicious.

SERVES 6 TO 8
PREP TIME: 3 minutes
1 pound cheese (any mix of leftover bits)
<sup>1</sup> / <sub>2</sub> cup dry white wine
2 garlic cloves
Freshly ground black pepper
Crostini or crackers, for serving

In the bowl of a food processor, process the cheeses, wine, garlic, and a few turns of ground pepper until mixed well and mostly smooth. Taste and adjust the flavors as needed, adding more wine or pepper. Serve with crackers or bread. **TIP**: You can serve this immediately if you've found yourself with unexpected houseguests and nothing else to feed them. Otherwise, it's best to mix the fromage fort and let the flavors mingle for a few days in the fridge.



Leaf-Wrapped Cheese (here)

## CHAPTER 7

# **DRESS IT UP**

## **LEAF-WRAPPED CHEESE**

## PEPPER CHÈVRE

## **SMOKY BUTTER**

## HERB-INFUSED FRESH CHEESE

## MARINATED QUESO

After putting so much time, effort, love, and energy into your cheeses, it can be fun to get a bit fancy at the end. A touch of flair can be a unique way to riff off a recipe that you have mastered, amplifying the cheese's flavor profile, or just trying something new. I find that my dressed-up cheeses are usually the ones that I give to friends and family as little gifts—and to roommates as thanks for surrendering part of their kitchen to cheesemaking.

To my mom's dismay, I have never taken much pleasure in wrapping presents. Cheeses, on the other hand, I love to wrap. Whether I'm at the counter wrapping a cheese for sale, or rewrapping a piece in my own kitchen, I take great pleasure in the process. I like to take the opportunity to feel the weight of the cheese, to look closely at it, and to think about how it tastes and how it was made. In this spirit, leaf-wrapped cheese provides the ultimate enjoyment. I suggest using a fig or chestnut leaf, but you can use most any leaf that's large enough to envelop your cheese.

**FROM MILK TO CHEESE:** 1 week plus 27 hours to make, 7 days plus 3 to 5 weeks to age

**YIELD:** 4 (6-ounce) cheeses

### EQUIPMENT

Medium stockpot Thermometer with at least a 5-inch stem 13-inch stainless steel flat perforated ladle 4 cheese forms (3 to 4 inches in diameter) Cooling rack Baking sheet

## INGREDIENTS

4 chestnut or fig leaves, large enough to envelop a 4-inch round cheese

2 cups bourbon, dark rum, or eau-de-vie

1 gallon goat's milk

<sup>1</sup>⁄<sub>4</sub> teaspoon chèvre culture (should contain a trace rennet)

<sup>1</sup>/<sub>8</sub> teaspoon *Penicillium candidum* Pinch *Geotrichum candidum* Coarse non-iodized salt

LIQUOR PAIRING: Serve with the liquor used for soaking the leaf.

Wash the leaves with mild soap and water. Rinse thoroughly. In a small jar, combine the leaves and liquor, pressing the leaves below the surface of the liquor. Soak for at least 1 week and up to 3 weeks, refrigerated.

**WARM THE MILK**: In a stockpot, heat the milk to 86°F in a warm water bath. Stir the milk gently so that it warms evenly.

**CULTURE THE MILK:** Sprinkle the cultures on top of the milk and mix in for 30 seconds with an up and down motion. Cover the pot and let rest for 10 to 12 hours in a warm water bath, keeping the milk a little warmer than room temperature (74°F to 78°F).

Note: Be sure to mix in the cultures continuously for all 30 seconds, dipping the ladle to the bottom and back up to the top of the pot as you mix.

**LADLE THE CURD:** The curd is ready to ladle when it has pulled away from the sides of the pot, is submerged in mostly clear whey, and leaves a clean break when a knife is inserted. Place the forms on a cooling rack set over a baking sheet. Using a horizontal motion, slice through the curd with the ladle, transferring ½-inch-thick disks of curd to the forms.

**DRAIN THE CURD**: Drain the curd for 1 hour, by which time it should be firm enough to slide out of the forms, flip, and re-form. Rotate each cheese two or three times over the next hour, for a total of 2 hours. Make sure to empty the expelled whey from the baking sheet throughout this process so it doesn't overflow.

**SALT THE CHEESE:** Remove the cheeses from the forms and sprinkle ½ teaspoon of salt over each cheese. Gently spread the salt by hand over the cheese if needed, but be careful not to smash or break apart the delicate fabric

of the cheese. Put the cheeses back in their forms and flip upside-down every 20 minutes for 1 hour.

**DRY THE CHEESE:** Remove the cheeses from the forms and air-dry, turning every hour. The cheeses are finished drying when they are no longer shiny and visibly wet, and the whey has stopped draining. Patches of white bloomy mold should begin to appear.

**AGE THE CHEESE:** Move the cheeses to a cooler, high-humidity environment, around 55°F and 95% humidity, for 7 days. Flip daily and gently pat down the white bloomy mold when it grows beyond ¼ inch. The cheeses should become covered fully in the white bloomy mold within 4 to 5 days and will initially firm up, but then soften over time. At this time you are ready to wrap your cheeses.

**WRAP THE CHEESE:** Remove the fig or chestnut leaves from the liquor. Place each cheese in the middle of a chestnut leaf and fold the leaf around the cheese to completely cover it. As you fold, dip your fingers in the liquor soak and wet the edges of the leaf to seal it around the cheese. Continue to age for 3 to 5 weeks at 55°F.

**TARGET FLAVOR AND TEXTURE:** The cheese is ready when pressure on the rind yields like a ripe mango. The flavor should be milky and yeasty, with a hint of minerality. For a stronger-flavored cheese, wait to open until the cheese is extremely soft to the touch, nearly melting out of the leaf.

**STORAGE:** Wrap the cheeses in crystal cheese paper or wrap with wax paper and then aluminum foil. The cheeses will keep and continue aging in the refrigerator for 2 weeks.

# **PEPPER CHÈVRE**

Chèvre is a strong cheese, and it's equally versatile with sweet and savory add-ins. Honey is perhaps the most common pairing on the sweet end, but pepper is my favorite addition. Rather than just add pepper to the cheese, I suggest taking the extra step to heat the freshly ground pepper first, which releases more of its aroma and flavor. This is also the secret to a more flavorful Cacio e Pepe (here).

**YIELD:** 1 CUP

#### EQUIPMENT

Medium stockpot

Thermometer with at least a 5-inch stem

13-inch stainless steel flat perforated ladle

Medium colander

Cheesecloth, cut to approximately 1 square foot

Large skillet

#### INGREDIENTS

1 quart pasteurized goat's milk

<sup>1</sup>⁄<sub>8</sub> teaspoon mesophilic lactic acid starter culture

Pinch dried animal or microbial rennet dissolved in <sup>1</sup>/<sub>4</sub> cup cool, nonchlorinated water (or 2 drops liquid rennet)

2 teaspoons coarsely ground black pepper

1/2 teaspoon coarse non-iodized salt

**BEER PAIRING:** Bright, spicy beer, such as saison **WINE PAIRING:** Earthy red wine, such as Pinot Noir

**WARM THE MILK:** In a stockpot, heat the milk to 86°F for 10 minutes in a warm water bath. Stir the milk gently so that it warms evenly.

**CULTURE THE MILK**: Sprinkle the culture and rennet on top of the milk and mix in for 30 seconds with an up and down motion. Cover and let sit for 8 hours at room temperature (70°F to 74°F).

*Note:* Be sure to mix in the cultures continuously for all 30 seconds, dipping the ladle to the bottom and back up to the top of the pot.

**LADLE THE CURD:** Line a colander with cheesecloth. The curd is ready to ladle when it has pulled away from the sides of the pot, is submerged in mostly clear whey, and leaves a clean break when a knife is inserted. Using a horizontal motion, slice through the curd with the ladle, transferring <sup>1</sup>/<sub>2</sub>-inch-thick disks of curd to the colander.

**DRAIN THE CURD**: Gather the corners of the cheesecloth and hang over a sink or bowl to drain for 10 to 12 hours at room temperature (70°F to 74°F).

Note: Curd draining time is completely up to you, the cheesemaker. If you like your chèvre looser and more moisture filled, check the curd after 6 hours; for a more paste-like cheese, drain for up to the full 12 hours.

**PREP THE PEPPER:** In a large skillet, heat the pepper over medium-high heat, swirling the pan constantly to prevent scorching. After 3 to 4 minutes, turn off the heat and set the pan aside. Spoon the ground pepper into a small bowl and let it cool completely.

MIX THE CHEESE: Mix the cooled pepper and the salt into the chèvre.

**TARGET FLAVOR AND TEXTURE:** Chèvre texture is a bit of a personal preference. Depending on your draining time, it can be light and fluffy or a denser paste. Make sure to take detailed notes on the final flavor and texture. Since this is a simpler cheese to make, it's easy to play around with specific

elements in the make process and see how they change the results.

**STORAGE:** Store the finished cheese in an airtight container in the refrigerator for up to 2 weeks.

**TIP**: For a twist on Cacio e Pepe (here), add Pepper Chèvre to cooked pasta. Toss and stir to coat the pasta, along with 1 to 2 tablespoons of butter.

# **SMOKY BUTTER**

When I was the buyer for a large French-themed specialty food store in Manhattan, I discovered the Basque region's answer to Controne and Aleppo hot pepper: Espelette. One of my favorite products that we sold was an Espelette pepper butter, made in the Basque region. Since moving on from that job I have had a hard time finding this beloved product, so I resolved to make my best imitation. If you can't find dried Espelette pepper, use Controne or Aleppo in its place.

FROM MILK TO BUTTER: 12 hours plus 50 minutes
YIELD: 1 pound
EQUIPMENT
Small stockpot
Thermometer with at least a 5-inch stem
Food processor or stand mixer
Medium bowl
Wooden spoon
INGREDIENTS
1 quart heavy cream
1 packet buttermilk culture
1 tablespoon kosher salt or sea salt
1 tablespoon dried hot pepper, preferably Espelette (Aleppo or Controne also work)

WARM THE CREAM: In a stockpot, heat the cream to 75°F for 10 minutes in a

warm water bath. Stir the milk gently so that it warms evenly.

**CULTURE THE CREAM:** Sprinkle the buttermilk culture on top of the cream, and mix in for 30 seconds with an up and down motion. Cover the pot and let rest for 8 to 12 hours, taking care to keep the temperature between 72°F and 75°F.

Note: Experiment with culturing time to taste. The longer you let the cream culture, the more tangy and complex the flavor of your finished butter will be.

**FORM THE BUTTER:** Bring the temperature of the cultured cream down to 65°F in a cold water bath. Transfer the cream to the food processor or mixer, filling the jar just under half full with the cultured cream. Work in batches if needed. Process on medium-low and watch as the cream transforms first to whipped cream and then to a combination of butter and buttermilk, 10 to 15 minutes. Stop and scrape down the sides of the bowl every few minutes throughout the process.

**WASH THE BUTTER:** Fill a bowl halfway with cool water. Pour off the expelled buttermilk from the butter, and submerge the clumped butter in the water. Knead the butter gently with a wooden spoon, pressing it into the sides of the bowl. You'll see that the water becomes cloudy as more buttermilk is expelled. Drain and refill with cool water as you knead the butter until the water is mostly clear.

Note: Save your buttermilk during this step for other uses. Some favorites include herbed salad dressing, pancake batter, and biscuits.

**SALT AND SEASON THE BUTTER:** Continue kneading the butter with a spoon to form a smooth ball. Add the salt and the hot pepper, <sup>1</sup>/<sub>2</sub> teaspoon at a time, tasting as you go. The butter will expel a bit more buttermilk after you add the salt. This is normal, so just pour it off.

**STORAGE:** Form the butter into your preferred final shape and refrigerate for the longest shelf life. Cultured butter keeps for up to 4 weeks, but be sure to taste it incrementally. It will continue to slowly culture over time, even in the

fridge. I like to press butter into a small mason jar for storage; it's also a cute way to package the butter if you're planning to give it as a gift.

**TIP**: Let the pepper permeate the butter for at least a day in the refrigerator before using. The flavors will be smoother and more complementary with a little rest after mixing.

At this point you know how to mix herbs into chèvre. Take the same idea to a more interesting level by making a young, nearly fresh cheese and infuse the milk with herbs at the very beginning. Any herb can be fun, but I like to use rosemary because it's strong and recognizable and won't just make the cheese taste generically herbaceous.

FROM MILK TO CHEESE: 28 hours to make, 10 to 14 days to age

**YIELD:** 4 (6-ounce) cheeses

#### EQUIPMENT

Small saucepan Medium stockpot Thermometer with at least a 5-inch stem 13-inch stainless steel flat perforated ladle Curd knife with a 12-inch blade 4 cheese forms (3 to 4 inches in diameter) Cooling rack

Baking sheet

#### INGREDIENTS

1 cup non-chlorinated water

8 rosemary sprigs

1 gallon goat's milk

<sup>1</sup>⁄<sub>4</sub> teaspoon chèvre culture (should contain trace rennet)

1/8 teaspoon Penicillium candidum

Pinch *Geotrichum candidum* Coarse non-iodized salt

**BEER PAIRING:** Fragrant, aromatic saison **WINE PAIRING:** Sparkling rosé

In a small saucepan, bring the water to a boil over high heat. Remove from the heat, immediately add the rosemary sprigs, and cover. (Trim the rosemary sprigs to fit, if necessary.) After 1 hour, the water should smell and taste strongly of rosemary. If you feel the flavor is too mild, try again with more rosemary, less water, and/or more time steeping. Remove the rosemary from the water.

**WARM THE MILK**: In a stockpot, heat the milk and the rosemary-infused water to 86°F in a warm water bath. Stir gently so that the milk warms evenly.

**CULTURE THE MILK:** Sprinkle the cultures on top of the milk, and mix in for 30 seconds with an up and down motion.

Note: Be sure to mix in the cultures continuously for all 30 seconds, dipping the ladle to the bottom and back up to the top of the pot as you mix.

The milk should culture at a little warmer than room temperature (74°F to 78°F) for 10 to 12 hours.

**LADLE THE CURD:** The curd is ready to ladle when it has pulled away from the sides of the pot, is submerged in mostly clear whey, and leaves a clean break when a knife is inserted. Place the forms on a cooling rack set over a baking sheet. Using a horizontal motion, slice through the curd with the ladle, transferring ½-inch-thick disks of curd to the forms. Fill them completely with curd.

**DRAIN THE CURD:** Drain the curd for 1 hour before sliding the cheese out of the forms, flipping, and re-forming. Flip the cheese every 20 minutes for an additional 1 hour. Make sure to empty the expelled whey from the baking sheet throughout this process so it doesn't overflow.

**SALT THE CHEESE:** Remove the cheeses from the forms and sprinkle ½ teaspoon of salt over each cheese. Gently spread the salt by hand over the cheese if needed, but be careful not to smash or break apart the delicate fabric of the cheese. Put the cheeses back in the forms and flip upside-down every 20 minutes for 1 hour.

**DRY THE CHEESE:** Remove the cheeses from the forms and air-dry, turning every hour for 8 to 12 hours. The cheeses have finished drying when they are no longer shiny and visibly wet, and the whey has stopped draining. They should start to grow patches of white bloomy mold.

**AGE THE CHEESE:** Move the cheeses to a cooler, high-humidity environment of 55°F and 95% humidity for 10 to 14 days. Flip daily and gently pat down the white bloomy mold when it grows beyond <sup>1</sup>/<sub>4</sub> inch. The cheeses should become covered fully in the white bloomy mold within 4 to 5 days. They will initially firm up, but then soften over time.

**TARGET FLAVOR AND TEXTURE:** The cheese is ready when pressure on the rind yields like a ripe mango. The flavor should be milky and yeasty, with a hint of minerality and a background essence of rosemary. For a stronger-flavored cheese, wait to taste until the rind develops some tan-colored marks.

**STORAGE:** Wrap the cheeses in crystal cheese paper or in wax paper and then aluminum foil. The cheeses will keep and continue aging in the refrigerator for 2 weeks. Try to store the cheeses in a high-humidity environment in your refrigerator.

**TIP**: Try using this cheese the next time you make Tangy Whipped Potatoes (here).

# **MARINATED QUESO**

I like to have friends over for casual get-togethers; elaborate dinner parties are not my thing. When I open a bottle of wine and sit down with company, I want to focus on enjoying the people I love. My trick to achieving this goal: a well-stocked refrigerator and pantry full of ready-to-serve snacks. Marinated Queso can be a quick, delicious, and filling item for just such an occasion—and your friends will be extra impressed that you made the queso fresco yourself. With a good fresh bread to soak up the flavorful oil, serve this and a bottle of wine and relax.

<b>FROM MILK TO CHEESE</b> : 4 hours, plus 30 minutes, plus 8 hours to marinate
YIELD: 2 pounds
EQUIPMENT
Medium stockpot
Thermometer with at least a 5-inch stem
13-inch stainless steel flat perforated ladle
Medium colander
Cheesecloth, cut to approximately 1 square foot
Cheese form (4 to 7 inches in diameter and 4 to 7 inches high) with follower
INGREDIENTS

gallon whole cow's milk
 cup distilled white vinegar
 teaspoon coarse non-iodized salt, plus more as needed
 cups extra-virgin olive oil

1 tablespoon red pepper flakes

1 tablespoon smoked paprika

1 tablespoon dried thyme

**WARM THE MILK**: In a medium stockpot, slowly heat the milk to 185°F over medium heat, about 20 minutes.

*Note: Stir the milk, scraping the bottom of the pot constantly to prevent the milk from cooking on the bottom.* 

**CULTURE THE MILK:** Pour the vinegar into the milk, stirring continuously. Watch carefully for the curds to form as you mix the vinegar into the hot milk. Once you see the greenish clear whey and the white curds forming, stir gently for another 5 minutes.

**COAGULATE:** Remove the pot from the heat and let sit for 10 minutes.

**DRAIN THE CURD:** Line a colander with cheesecloth. Pour the curds and whey into the colander, and drain for 10 minutes. Gather the corners of the cloth together and hang the cheese over a sink or bowl to drain for an additional 20 to 30 minutes.

*Note: Reserve the whey for other uses! See here.* 

**SALT THE CHEESE:** Add the salt to the drained curds and stir until just incorporated. Taste the curd and add more salt if you can't taste what you have already added. You want the curds to be over-salted at this point, as some will wash off or be expelled with the whey during pressing.

**PRESS THE CHEESE:** Transfer the cheese and cheesecloth to the form, and place the follower on top of the curds. Press according to this schedule, flipping the form each time you adjust the pressure (3 hours and 15 minutes total):

10 pounds for 30 minutes 15 pounds for 45 minutes 20 pounds for 1 hour 25 pounds for 1 hour

*Note:* Watch the rind of the cheese during pressing. It should go from open and curdy to closed with the smoothed outlines of the curds.

**TARGET FLAVOR AND TEXTURE:** Queso fresco should be milky and salty, not dissimilar to feta in texture, though less wet on the outside and more moisture filled from within.

MARINATE THE CHEESE: In a large bowl or airtight container, mix the olive oil, red pepper flakes, smoked paprika, and thyme. Cut the cheese into 3-inch cubes and marinate for at least 8 hours, and up to 24 hours before serving.

**STORAGE:** Store in an airtight container in the refrigerator. Enjoy this cheese fresh, as it is not cultured enough to keep its flavor profile over time.



Cultured Cashew Creamy (here)

## CHAPTER 8

# **NUT SPREADS & SNACKS**

## **BRAZIL NUT CONDIMENT**

## **ALMOND WHEEL**

## **HAZELNUT HEAVEN**

## **CULTURED CASHEW CREAMY**

## **MACADAMIA-MUSTARD SPREAD**

## NUT MILK

Although we are here for the love of dairy, it would be remiss of me not to acknowledge the growing dairy-free cheese movement. Rather than pit one camp against the other, I try to embrace handmade foods of all kinds—especially anything fermented—and encourage you to as well. Fresh, homemade almond milk (here) has done wonders for my cold-brew experience in the summers. I highly recommend experimenting with different nuts. Since it can be a bit uninspired to simply sprinkle almonds around your cheese board, try using the recipes in this chapter—like Macadamia–Mustard Spread (here)—as spruced-up accompaniments and stand-alone additions to a party spread.

# **BRAZIL NUT CONDIMENT**

Sometimes I'm not in the mood to have cheese at every meal shocking, I know! This condiment gives me the flavor blast you get from Parmigiano-Reggiano but allows for a break from cheese. I especially like sprinkling this over roasted squash or sautéed dark leafy greens. As a topping for pasta, it's flavorful and adds a bit of a crunch if you don't process it too much.

#### SERVES 6

**PREP TIME:** 5 minutes

#### INGREDIENTS

1 cup Brazil nuts

- 1 teaspoon minced garlic
- <sup>1</sup>/<sub>2</sub> teaspoon nutritional yeast
- 1/2 teaspoon kosher salt or sea salt

In a food processor, pulse the Brazil nuts until granular in texture. Add the garlic, nutritional yeast, and salt, and pulse a few more times to incorporate.

**TIP**: Try using this as a gluten-free coating when pan-frying fish.

# **ALMOND WHEEL**

This almond wheel is a great alternative to serving plain old nuts alongside your cheese board at a party. Not only will your guests do a double-take when they realize this wheel is made of almonds, the creamy texture provides a nice texture pairing to harder, aged cheeses. The honey and lemon combine to make this a great accompaniment alongside high-acid cheeses such as Country-Style Cheddar (here) or Italian-Style Blue (here).

#### **SERVES 4 TO 6**

**PREP TIME:** 15 minutes, plus 22 hours to soak and ferment **COOK TIME:** 1 hour, plus 1 hour to rest

### INGREDIENTS

1 cup almonds
 3⁄4 cup water
 3 tablespoons freshly squeezed lemon juice
 2 tablespoons dark honey (chestnut or buckwheat)
 1⁄4 teaspoon kosher salt or sea salt

**1.** In a jar or nonreactive bowl, soak the almonds in water for 10 to 12 hours. Drain the almonds, and using your hands, squeeze off the skins so that they are clean and naked.

**2.** Transfer the almonds to a food processor and add the water, lemon juice, honey, and salt. Process until very smooth, scraping down the sides of the bowl intermittently.

**3.** Line a bowl with butter muslin or two layers of cheesecloth. Spoon the smooth almond mixture into the cloth, gather up the corners, and place in the

refrigerator for 8 to 10 hours.

**4.** Preheat the oven to 170°F. Line a baking sheet with parchment paper.

**5.** Gently flatten the almond mixture into a disc and remove from the cloth. Place on the lined baking sheet and bake for 1 hour. Turn off the oven, but leave the almond wheel inside to dehydrate for an additional 1 hour.

# **HAZELNUT HEAVEN**

When tasting Alpine-style cheeses, I often identify a hazelnut-like flavor. Though it's a bit less common to find fermented hazelnut products, I think the flavor is a great element in cheese, so I like the idea of fermenting the nuts themselves to see what happens. Similar to the way we culture milk with yogurt to make more yogurt, this recipe uses the active lactic acid bacteria in nondairy yogurt to culture the nut paste. Soy yogurt or coconut milk yogurt can be used, though I prefer coconut milk yogurt, as it's a bit less processed.

#### **SERVES 6 TO 8**

**PREP TIME:** 30 minutes plus 20 hours to soak and ferment **AGING TIME:** 7 to 14 days

### INGREDIENTS

2 cups hazelnuts

2 tablespoons coconut milk yogurt or soy milk yogurt

1/2 teaspoon kosher salt or sea salt, plus extra for rubbing the "rind"

**1.** In a glass jar or nonreactive bowl, soak the nuts in water for 8 hours. Strain the nuts from the water, reserving the water.

**2.** In a food processor, blend the nuts with the soaking water, adding the water  $\frac{1}{2}$  cup at a time, until you have a smooth, cream-like paste.

**3.** Transfer the nut paste to a medium bowl and mix with the yogurt until incorporated. Cover loosely and leave in a warm room for 8 to 12 hours.

**4.** Line a cheese form with butter muslin. Once the mixture ferments to your liking, mix in the salt and transfer to the prepared form. Place in the

refrigerator on a wire cooling rack set over a baking sheet to drain.

**5.** Turn the cheese in its form once per day. This will be tricky at first while it has more moisture, but should get easier over time.

**6.** On the third or fourth day, when the hazelnut mixture keeps its form, gently rub it all over with salt. Continue to let it drain and ferment in the refrigerator for 7 to 10 days.

7. How to know when it's ready: This fermented hazelnut mixture will remain soft, even after it has drained and set in its form for over a week. My suggestion is to make a double or triple batch and taste each at different ages —7, 12, and 14 days, for example—to determine what level of fermentation you prefer.

# **CULTURED CASHEW CREAMY**

Once you've made cheese a few times, you start to understand the effects that beneficial bacteria can have on milk. Fermenting nondairy products is an exciting deviation from the cheesemaker's norm; we can learn new things about fermentation when working with nondairy ingredients. A cousin to cultured, probiotic-filled beverages such as kombucha and kefir, rejuvelac is the fermentation vehicle in this recipe. It's an interestingly fizzy liquid, generated as a by-product from the process of sprouting grains.

SERVES 6
<b>PREP TIME</b> : 30 minutes plus 7 days to soak and ferment <b>AGING TIME</b> : 48 hours
INGREDIENTS
<sup>1</sup> ⁄ <sub>2</sub> cup wheat berries
Water
1 cup cashews

**TIP:** Mix fresh chives, herbs, or freshly ground pepper into the jar for added flavor and texture.

**1.** Put the wheat berries in a glass jar and add enough water to completely cover them. Cover the jar with a piece of cheesecloth secured by a rubber band. Soak the grains for 6 to 8 hours.

**2.** Drain the water from the wheat berries. Set the jar, inverted, at an angle over a bowl to continue to drain. Twice each day, pour fresh water over the grains and swirl it around before draining the wheat berries and inverting the

jar to drain again.

**3.** After 2 to 3 days, the grains should start to sprout. When the tails appear, rinse and drain the grains one final time, then store in the refrigerator for up to 5 days.

**4.** Add fresh water to the jar. Cover loosely. Place the jar in a warm room for 24 to 48 hours. The mixture should start to develop some bubbles and should taste a little acidic. Drain the mixture, reserving both the liquid (that's the rejuvelac!) and the sprouts.

Note: Once you've drained off the rejuvelac from the sprouted grains, rinse the grains once or twice. They can be added to salads or even bread dough. Store the grains in the refrigerator and use within 1 to 2 days.

**5.** In a glass jar or nonreactive bowl, soak the cashews in fresh water for 8 to 10 hours.

**6.** Drain the cashews and transfer them to a blender or food processor. Add <sup>1</sup>/<sub>4</sub> cup of the rejuvelac and process until very smooth.

7. Transfer the cashew mixture to a glass jar, cover with cheesecloth, and let it culture in a warm room for 24 to 36 hours, tasting it along the way and moving to the next step when it's fermented to your liking.

**8.** Move the cashew creamy to the refrigerator and let it set for 8 to 12 hours. The final product will be quite soft and similar to a fresh cheese.

# MACADAMIA-MUSTARD SPREAD

As you know from making your own cheeses, the fat content of milk has a big impact on the final flavor and texture. For this spread, I chose macadamia nuts because of their high fat content. I wanted the spread to be luscious and rich, similar in decadence to a cream cheese. In the interest of making fermented, nut-based accompaniments and snacks more accessible to the home cheesemaker, I gravitate toward processes that use easy-to-procure (or produce) fermentation vehicles. With this one you'll use pickle brine, so make sure you have a jar of pickles on hand.

#### **SERVES 4**

**PREP TIME:** 30 minutes plus 44 hours to soak and ferment **AGING TIME:** 4 to 6 days

#### INGREDIENTS

1 cup macadamia nuts
 3 tablespoons pickle brine
 <sup>1</sup>⁄<sub>4</sub> teaspoon kosher salt or sea salt
 Freshly ground black pepper
 1 tablespoon whole-grain mustard

**1.** In a glass jar or nonreactive bowl, soak the nuts in water for 8 hours. Drain.

**2.** In a food processor, blend the soaked nuts with the pickle brine until it forms a smooth, cream-like paste.

**3.** Line a colander with butter muslin and pour the nut mixture into the colander. Cover loosely and leave in a warm room for 24 to 36 hours.

Note: I suggest making a double batch the first time and letting one mixture ferment for 24 hours and one for 36 hours so that you can determine, once the process is complete, which fermentation length you prefer.

**4.** Transfer the mixture to a bowl and mix in the salt and a few turns of freshly ground pepper until incorporated.

**5.** Spoon the mixture into the middle of a 1-foot square of parchment paper. Form the nut mixture into a log, then spoon the mustard to the side and roll the log in it so that it's completely coated.

**6.** Wrap the log snugly in the parchment paper and set in an airtight container in the refrigerator.

7. Age for 4 to 6 days before serving.

**TIP**: Since this is made with pickle brine and mustard, I suggest serving it with a savory dark rye bread.

## **NUT MILK**

As someone whose entire life revolves around a certain dairy product (cheese!), it is tough for me to admit that I have trouble digesting fresh dairy. I was relieved to find that my lactose challenge doesn't translate to cultured dairy; as you now know, there is hardly any lactose in cultured dairy products, especially longer-aged cheeses and sheep's and goat's milk cheeses. When I first pinpointed the issue, I realized that my cereal habit needed to change. Luckily, I wasn't forced to give it up entirely, thanks to the advent of the nut milk craze.

SERVES 2
<b>PREP TIME:</b> 5 minutes plus 2 to 10 hours to soak
INGREDIENTS
1 cup nuts
4 cups water
Kosher salt or sea salt

**1.** In a glass jar or nonreactive bowl, cover the nuts with water and let them soak according to the following times:

**2.** Almonds and hazelnuts: 8 to 10 hours Brazil nuts: 4 hours Cashews and macadamia nuts: 2 hours

**3.** In a blender, combine the nuts, 4 cups of fresh water, and a pinch of salt. Blend on high until the mixture is very smooth.

**4.** For a super smooth, lighter nut milk, strain the mixture through a finemesh sieve lined with a double layer of cheesecloth. For a thicker, richer milk, do not strain (but remember to shake the milk before using). **TIP:** For a slightly sweetened nut milk, add pitted dates, honey, or maple syrup (start with 3 dates or 3 tablespoons of honey or syrup). For a flavored milk, add any baking spices of your choice, or unsweetened cocoa powder for a chocolate spin.



Ghee (here)

#### CHAPTER 9

# **EASY DAIRY FERMENTS**

YOGURT

**KEFIR** 

**QUARK** 

**CULTURED BUTTER** 

GHEE

Freshly cultured dairy products are my most prized refrigerator staples. You cannot beat the taste of fresh Yogurt (here), or the richness of Cultured Butter (here) made at home. A selection of these products on rotation in your fridge—or all present at the same time, as is often the case in my house—will safeguard against bland, boring cooking. If you are the over-ambitious type (like me) and find yourself with a bit too much fresh milk than you have time or space to make into cheese, simply whip up one of these recipes and free yourself from the sell-by stress. These recipes require very little active time: Essentially you just do a bit of mixing and then let the cultures do their work.

#### **DAIRY FERMENT MAKE SHEET**

Use the worksheet below as a template for each dairy ferment you make, and feel free to adjust as necessary based on the master recipe you're working from (making quark and making butter require different steps, for example). Keep all your worksheets together for each recipe, and over time you can update the master recipe to reflect changes you've made to customize your dairy ferments. Go to https://tastetolearn.com for a PDF of this worksheet that you can print in multiples.

### DAIRY FERMENT MAKE SHEET

#### Date started:

Date complete:

PLAN	From milk to cheese:	Yield:	ACTUAL	From milk to cheese:	Yield:
EQUIPMENT	<ul> <li>Medium to large stock</li> <li>Thermometer with at</li> <li>13-inch stainless steel</li> <li>Curd knife with a 12-in</li> <li>Cheesecloth, cut to ap</li> <li>Medium colander</li> </ul>	least a 5-inch stem flat perforated ladle	INGREDIENTS	Milk: Culture(s): Rennet: Other:	

		DETAILS FROM MASTER RECIPE	WAIT	PLANNED TIMING	ACTUAL	NOTES
	Warm the Milk					
Sda	Culture the Milk					
CHEESEMAKING STEPS	Ladle/Cut the Curd					
EESEMA	Drain					
CHE	Salt					
	Target Flavor & Texture					

# YOGURT

The best thing about making yogurt at home is that you can customize the texture and flavor to your exact preferences. Like it super tangy? Let the milk culture for as long as you can take it. If you're a Greek yogurt devotee, take the time to drain it through butter muslin until it reaches your preferred creaminess. A yogurt maker helps with consistency in the final product, but you can easily rig up an insulated cooler, a low-heat slow cooker, or a particularly toasty room to keep the cultures active as it develops.

FROM MILK TO YOGURT: 8 to 10 hours
YIELD: 1 quart
EQUIPMENT
Medium stockpot
Thermometer with at least a 5-inch stem
Yogurt maker, insulated cooker, or slow cooker
INGREDIENTS
1 quart whole cow's, goat's, or sheep's milk
<sup>1</sup> ⁄ <sub>4</sub> teaspoon dried <i>Lactobacillus</i> -containing culture <i>or</i> 2 tablespoons plain

yogurt with live cultures

**WARM THE MILK:** In a stockpot, heat the milk to 120°F in a hot water bath.

**CULTURE THE MILK:** Add the culture to the milk and stir. In a yogurt maker, insulated cooler, or slow cooker, create an environment that keeps the cultured milk mixture around 90°F to 100°F for 6 to 8 hours. Taste the mixture periodically until you're satisfied with its flavor. The longer the milk ripens, the tangier the yogurt becomes.

**TARGET FLAVOR AND TEXTURE:** Refrigerate the yogurt to set. It will slightly thicken in texture after a couple of hours. The flavor can land anywhere between tart and sweet.

**STORAGE:** The yogurt will keep for 2 to 3 weeks refrigerated in an airtight container. It will continue to acidify, getting tangier over time.

### **KEFIR**

Kefir has grown in popularity as more people have come to find that they have trouble digesting cow's milk. The fermentation process makes this a milk alternative that's easier on the system, and you can play around with how tangy it turns out.

FROM MILK TO KEFIR: 14 to 20 hours
<b>YIELD:</b> 1 quart
EQUIPMENT Medium saucepan
Medium spoon
INGREDIENTS
1 quart whole cow's milk
1 tablespoon kefir grains or 1 packet "direct-set" kefir culture

**WARM THE MILK**: In a saucepan, heat the milk to 85°F in a warm water bath.

**CULTURE THE MILK:** Put the kefir grains or culture in a glass jar and pour in the milk. Stir well for about a minute. Loosely cover the container and culture at room temperature for 12 to 18 hours. Check for flavor and consistency as it cultures. A longer culturing time will yield a tangier, thicker kefir.

**TARGET FLAVOR AND TEXTURE:** Refrigerate the kefir to set. It will slightly thicken in texture after a couple of hours. The flavor can land anywhere between very tart and slightly sweet. Kefir should be looser in texture than yogurt, but it is all up to personal preference.

**STORAGE**: The kefir will keep for 2 to 3 weeks in a sealed container in the refrigerator. It will continue to slowly acidify, getting tangier over time.

# **QUARK**

Lesser-known in the United States, quark is delightful on the palate and one of the easier cheeses to make. It's great to serve to goatwary friends, as it has the texture and acidity of chèvre but not the goaty flavor. For presentation I suggest rolling the cheese into disks and then coating them with fresh thyme and a drizzle of honey. Make sure to use the freshest milk possible when making quark; the simplicity of the make will expose any off-flavors in the milk.

FROM MILK TO CHEESE: 24 hours
YIELD: 1 cup
EQUIPMENT
Medium stockpot
Thermometer with at least a 5-inch stem
13-inch stainless steel flat perforated ladle
Medium colander
Cheesecloth, cut to approximately 1 square foot
INGREDIENTS
1 quart whole cow's milk
<sup>1</sup> / <sub>8</sub> teaspoon mesophilic lactic acid starter culture
Coarse non-iodized salt
BEER PAIRING: Wheat or gose-style

**WINE PAIRING:** Crisp white wine from the Loire Valley

**WARM THE MILK**: In a stockpot, heat the milk to 86°F in a warm water bath.

**CULTURE THE MILK:** Sprinkle the culture on top of the milk and mix in for 30 seconds with an up and down motion. Cover the pot and let rest for 12 hours.

Note: Be sure to mix in the cultures continuously for all 30 seconds, dipping the ladle to the bottom and back up to the top of the pot.

**LADLE THE CURD:** Line a colander with cheesecloth. Using a horizontal motion, slice through the curd with the ladle, transferring ½-inch-thick disks of curd to the colander.

**DRAIN THE CURD**: Bring together the corners of the cheesecloth and hang over a sink or bowl to drain for 10 to 12 hours.

Note: Curd draining time is completely up to you, the cheesemaker. If you like your quark looser and more moisture-filled, check the curd after 6 hours; for a denser, more paste-like cheese, drain for up to the full 12 hours.

**SALT THE CHEESE:** Depending on your intended use, mix in salt to taste, starting with <sup>1</sup>/<sub>2</sub> teaspoon.

**TARGET FLAVORS AND TEXTURE:** Quark should have a mild, clean flavor with a bright acidity. Texturally it should be very similar to chèvre.

**STORAGE:** Store in an airtight container in the refrigerator for up to 2 weeks. You'll notice that it gets tangier with time, as the cultures still actively work (albeit slowly) in refrigerated conditions.

# **CULTURED BUTTER**

There are two ways to think about butter: as a workhorse, or as a delight. If you are of the workhorse camp, diligently measuring it out for baking and never sneaking a taste straight from the container, cultured butter might be your game changer. To me, cultured cream (butter) is in an entirely different camp than cultured milk (cheese). Culturing adds a somewhat universal tangy flavor, yes, but it also reveals a deep complexity of flavor if the cream is of a very high quality. When making your own, be sure to use the freshest local cream you can find, preferably from Jersey cows.

FROM MILK TO BUTTER: 12 hours
YIELD: 1 pound
EQUIPMENT
Small stockpot
Thermometer with at least a 5-inch stem
Food processor or stand mixer
Medium bowl
Wooden spoon
INGREDIENTS
1 quart heavy cream
1 packet buttermilk culture
1 tablespoon kosher salt or sea salt (optional)

WARM THE CREAM: In a stockpot, heat the cream to 75°F for 10 minutes in a

warm water bath. Stir the milk gently so that it warms evenly.

**CULTURE THE MILK:** Sprinkle the buttermilk culture on top of the cream, and mix for 30 seconds with an up and down motion. Cover the pot and let rest for 8 to 12 hours, keeping the milk between 72°F to 75°F using a warm water bath.

Note: Experiment with culturing time to taste. The longer you let the cream culture, the tangier and more complex the flavor of your finished butter will be.

**FORM THE BUTTER:** Bring the temperature of the cultured cream down to 65°F in a cold water bath. Transfer the cream to the food processor or mixer, filling the jar just under half full with the cultured cream. Work in batches if needed. Process on medium-low and watch as the cream transforms first to whipped cream and then to a combination of butter and buttermilk, 10 to 15 minutes. Stop and scrape down the sides of the bowl every few minutes throughout the process.

**WASH THE BUTTER:** Fill a medium bowl halfway with cool water. Pour off the expelled whey and submerge the clumped butter in the water. Knead the butter gently with a wooden spoon, pressing it into the sides of the bowl. You'll see that the water becomes cloudy as more buttermilk is expelled. Drain and refill with cool water as you knead the butter until the water is mostly clear.

Note: Save your buttermilk during this step for other uses. Some favorites include herbed salad dressing, pancake batter, and biscuits.

**SALT THE BUTTER:** Continue kneading the butter with a spoon to form a smooth ball. If you're planning for salted butter, add the salt ½ teaspoon at a time and taste as you go. The butter will expel a bit more buttermilk after you add the salt. This is normal, so just pour it off.

**STORAGE:** Form the butter into your preferred final shape and refrigerate for the longest shelf life. Cultured butter keeps for up to 4 weeks, but be sure to taste it incrementally. It will continue to slowly culture over time, even in the

fridge.

**TIP**: I like to press butter into a small mason jar for storage; it's also a cute way to package the butter if you're planning to give it as a gift.

### GHEE

Cooking with ghee has been a revelation for me. I prefer the taste and texture of butter to oil in cooking, but the low smoking point always stopped me from using it in most instances. Enter ghee: a high—smoking point butter-derived fat, perfect for most stove top cooking. Ghee is also forgiving in the sense that it has a much longer shelf life than butter, and doesn't easily go rancid as oil is prone to do.

**WARM THE BUTTER:** In a stockpot, bring the butter to a boil over medium heat.

**COOK THE BUTTER**: Reduce the heat so that the butter just simmers and the foam created from the boil fades.

**SEPARATE THE MILK SOLIDS:** After about 5 minutes, you will be able to see when the milk solids have all sunk to the bottom of the pot. At this point, turn off the heat.

DRAIN THE GHEE: Line a sieve with muslin and set over a jar. Pour the

contents of the pot through the sieve into the jar, and let cool at room temperature. The final ghee should be translucent and have a strong orange or yellow hue. If you see any milk solids in the ghee, use a long-handled spoon to remove them.

**STORAGE:** Seal the container of ghee, and it will keep at room temperature for up to 2 months. For longer shelf life, make sure the ghee is stored in a dark place, not out on your counter. It can also be stored in the refrigerator if a firmer, more butter-like texture is desired.



### **GLOSSARY OF TERMS**

**acidification:** The process of lowering the pH level (or increasing the acidity) of a substance. Acidification in cheesemaking is caused by the bacteria converting the lactose in milk to lactic acid. This process occurs gradually throughout the cheesemaking process.

*affinage*: The French term for the art of cheese aging. It is considered a skill separate from cheesemaking in France, and the person who ages cheese is called an *affineur*.

**Alpine-style:** A common categorization of hard, aged cheeses traditionally made in the Alpine mountain communities. Alpine-style cheeses are made with thermophilic cultures and cooked, and they are typically quite large, 20 to 70 pounds per wheel.

**ash-ripened:** A type of rind treatment in which the cheesemaker sprinkles food-grade charcoal onto the rind of the cheese before aging. Historically, ash from singed vegetables was used in the home dairy.

**bloomy rind:** A term for the white rind that grows on cheeses such as Brie and Camembert as a result of the *Penicillium candidum* and *Geotrichum candidum* molds.

*Brevibacterium linens*: This bacterium is often found on pungent, washed-rind cheeses. For many of these stinky cheeses, it is essential.

**calcium chloride:** An additive composed of calcium and chlorine. It is stirred into store-bought milk to create a firmer curd.

**charcoal powder:** Food-grade charcoal is used in modern cheesemaking in place of the ash that was traditionally sprinkled on the rind, as with an ash-ripened cheese, or sprinkled over the previous day's curd or milk as for Morbier cheese.

**cheesemaking:** The process of converting milk into cheese, often done through fermentation and heat treatment, and involving the controlled separation of the milk solids and the water in milk. The central scientific processes occurring during cheesemaking are acidification, proteolysis, and lipolysis.

clean break: The signature look of a fully coagulated curd.

**coagulation:** The enzymatic or acid-initiated process by which milk solids attract and "stick" together, rather than repel.

culture: Bacteria, often a mix of multiple strains in cheesemaking and yogurt making.

**dipping:** The process of ladling a lactic-set curd into cheese forms or a cloth-lined colander.

**eyes:** In the context of cheese, this term is used to describe the uniform, circular holes produced in Alpine-style cheeses such as Emmenthaler.

face: In the context of cheese, this term is used to describe the exposed cheese paste, after a wheel or

piece has been cut.

**fermentation:** The breakdown of a substance by bacteria; the breakdown produces acid among other by-products, and often requires a carbohydrate (sugar) to initiate.

**follower:** A shape placed on the surface of a cheese wheel during pressing. Its function is to evenly distribute the pressure across the surface of the wheel.

**form:** A cheese form is a perforated container for draining and shaping cheese. (The term "cheese mold" is also commonly used, but avoided in this book because it should not be confused with actual cheese mold fungus.)

**Flora Danica:** A specific mesophilic culture, added to milk in cheesemaking for its distinctly buttery flavor notes.

*Geotrichum candidum*: A yeast-like mold that works in tandem with the *Penicillium candidum* mold to form the rinds of "bloomy rind" cheeses, such as Brie and Camembert.

lactic acid culture: Bacterium strains that specifically produce lactic acid from lactose.

**lipolysis:** The chemical breakdown of fat. This process occurs gradually throughout the cheesemaking process.

**make:** Today's cheesemakers frequently use this term (or "make process") to describe the method of crafting a specific batch of cheese. It is simply shorthand for "cheesemaking recipe and techniques."

**mesophilic culture:** A category of bacteria used in cheesemaking for softer cheeses that are not heated above 100°F.

**non-chlorinated:** Refers to a substance, such as water, that has not been treated with chlorine.

**Penicillium candidum:** The mold added to milk in cheesemaking that becomes the signature white "bloomy rind" on cheeses such as Brie and Camembert.

*Penicillium roqueforti*: The signature blue mold found in the Roquefort cheese of France and many other blue cheeses made around the world. The spores of this mold grow on rye bread.

**piquant:** A term used to describe a spicy, peppery flavor often found in sheep's milk cheeses.

**Propionibacterium freudenreichii ssp. shermanii:** This lactic acid bacterium is used in conjunction with thermophilic starter cultures. It is often added to milk to make Swiss-style cheese because it creates uniform holes (or "eyes") due to its carbon dioxide by-product.

**proteolysis:** The chemical breakdown of protein. This process occurs gradually throughout the cheesemaking process.

**rennet, animal:** Also known as traditional or old-fashioned rennet, animal rennet is an enzyme found in the stomach of a milk-fed calf, kid, or lamb. This enzyme causes a breakdown in milk's casein proteins, which coagulates the cheese curd.

**rennet, microbial:** This is a mold or yeast-based enzyme that contains no animal products but behaves like traditional animal rennet, causing a breakdown in milk's casein proteins that coagulates cheese curd.

**rennet, vegetable:** A plant-based enzyme derived most commonly from cardoon thistle and nettles, vegetable rennet causes a breakdown in milk's casein proteins that coagulates cheese curd, just like

traditional animal and microbial rennet. True vegetable rennet adds a slightly bitter flavor to the cheese, and, for that reason, it can be challenging to work with. It is most often used in Torta-style cheeses from Portugal.

**rind:** The outer layer of an aged cheese, populated with molds, yeasts, and bacteria. The rind protects the cheese from the outside environment, enabling the cheese interior to ripen and ferment.

**set:** A curd has set when it has coagulated and firmed up.

**thermophilic culture:** A category of bacteria used in cheesemaking for harder, aged cheeses that are heated above 100°F.

**trier:** A tool for *affinage*, the cheese trier is used to "core" wheels of cheese to analyze and taste the paste as it ages. *Affineurs* and cheesemakers will often core a wheel from each batch throughout the aging process as a way to get a sneak peek at how the cheese is developing.

**whey:** The by-product of cheesemaking, composed of mostly water with small, varying amounts of bacteria, protein, fat, calcium, and other nutrients expelled by the cheese curd.

## RESOURCES FOR CHEESEMAKING SUPPLIES

It does not take much to make good cheese. The shops listed here are reliable sources for specialty cheesemaking tools, hard-to-find ingredients, and cheese packaging materials. You can also visit your local culinary supply stores and homebrew shops, which sell cheesemaking essentials like food-safe sanitizers (such as Star San) and starter cultures. Because sampling other cheesemakers' cheeses is a fundamental part of the craft, here I have included several of the best mail-order cheesemongers; treat yourself, and have a cheese tasting delivered to your door.

#### Artisan Geek (artisangeek.com)

Cheesemaking supplies, ingredients, and instruments for smallscale artisan producers all over the world.

#### Boska (boska.com)

A world-renowned purveyor of cheese knives, slicers, graters, curlers, raclette, fondue pots, and cheese boards, as well as cheesemaking kits.

### **Cultures for Health (culturesforhealth.com)**

Cheesemaking tools and equipment, recipes, and a wide variety of starter cultures, as well as instructions for making a simple cheese

press.

### Di Bruno Bros. (dibruno.com)

Since 1939, this Philadelphia shop has specialized in artisan cheeses. They offer mail-order and subscription services.

### Fante's Kitchen Shop (fantes.com)

Since 1906, this family store in Philadelphia's historic Italian market has sold every kitchen gadget imaginable, including a wide variety of cheesemaking supplies: high-quality cheese presses, thermometers, rennet, and cheesecloth.

#### **The Grommet (thegrommet.com)**

Cheese kits, serving sets, cutting boards, and cheese paper.

#### Homesteader's Supply (homesteadersupply.com)

Cheese presses designed with home cheesemakers in mind.

#### Marx Foods (marxfoods.com)

Rare ingredients, such as fresh herbs, edible flowers, and gourmet cheeses, from an artisanal grocer that ships just about anywhere overnight.

#### Murray's Cheese (murrayscheese.com)

New York City's oldest cheese shop. Here you can find imported and domestic cheeses, which are searchable by country or name.

New England Cheesemaking Supply Co. (cheesemaking.com)

Cheesemaking supplies, kits, and recipes.

### Penzeys Spices (penzeys.com)

Specialty spices.

#### Rawmazing (rawmazing.com)

An excellent resource for plant-based nutrition and recipes, from raw to cooked. Kitchen tools and equipment, books, blenders and food processors, and dehydrators.

#### Sur La Table (surlatable.com)

Kitchen supplies, cheesemaking forms, tools, thermometers, and food-grade cheesecloths.

#### Williams-Sonoma (williams-sonoma.com)

Kitchen supplies, cheesemaking forms, tools, thermometers, cheese boards, knives, and food-grade cheesecloths.

#### Zingerman's (zingermans.com)

This classic New York deli provides an excellent mail-order cheese selection.

### RECOMMENDED READING LIST FOR THE CHEESE ENTHUSIAST

#### Books

- Caldwell, Gianaclis. *Mastering Artisan Cheesemaking: The Ultimate Guide for Home-Scale and Market Producers*. White River Junction, VT: Chelsea Green Publishing, 2012.
- Davies, Sasha, and David Bleckmann. *The Cheesemaker's Apprentice: An Insider's Guide to the Art and Craft of Homemade Artisan Cheese, Taught by the Masters.* Beverly, MA: Quarry Books, 2012.
- Donnelly, Catherine, ed. *Cheese and Microbes*. Washington, DC: ASM Press, 2014.
- Donnelly, Catherine, ed. *The Oxford Companion to Cheese*. Oxford: Oxford University Press, 2016.
- Edgar, Gordon. *Cheddar: A Journey to the Heart of America's Most Iconic Cheese*. White River Junction, VT: Chelsea Green Publishing, 2015.
- Harbutt, Juliet, ed. *World Cheese Book*. London: Dorling Kindersley Limited, 2009.
- Hurst, Janet. *Homemade Cheese: Recipes for 50 Cheeses from Artisan Cheesemakers.* Minneapolis: Voyageur Press, 2011.

- Katz, Sandor Ellix. *Wild Fermentation: The Flavor, Nutrition, and Craft of Live-Culture Foods.* 2nd ed. White River Junction, VT: Chelsea Green Publishing, 2003.
- Kindstedt, Paul S. *American Farmstead Cheese: The Complete Guide to Making and Selling Artisan Cheeses.* White River Junction, VT: Chelsea Green Publishing, 2005.
- Kindstedt, Paul S. *Cheese and Culture: A History of Cheese and Its Place in Western Civilization*. White River Junction, VT: Chelsea Green Publishing, 2012.
- Le Jaouen, Jean-Claude. *The Fabrication of Farmstead Goat Cheese*. Ashfield, MA: Cheesemakers' Journal, 1987.
- Lucero, Claudia. One-Hour Cheese: Ricotta, Mozzarella, Chèvre, Paneer—Even Burrata. Fresh and Simple Cheeses You Can Make in an Hour or Less! New York: Workman Publishing, 2014.
- McCalman, Max, and David Gibbons. *Mastering Cheese: Lessons for Connoisseurship from a Maître Fromager*. New York: Clarkson Potter Publishers, 2009.
- Paxson, Heather. *The Life of Cheese: Crafting Food and Value in America*. Berkeley: University of California Press, 2013.
- van Loon, Dirk. *The Family Cow*. North Adams, MA: Storey Publishing, 1976.

#### **Online Organizations and Educators**

Academie Opus Caseus: academie-mons.com

American Cheese Society: cheesesociety.org

Cheese Connoisseur: cheeseconnoisseur.com

Cheese Journeys: cheesejourneys.com

The Cheese School of San Francisco: thecheeseschool.com Cheesemonger Invitational: cheesemongerinvitational.com Culture Magazine: culturecheesemag.com Eataly Classes and Events: eataly.com/us\_en/classes-and-events Madame Fromage: madamefromageblog.com Microbial Foods: microbialfoods.org Murray's Cheese Classes: murrayscheese.com/classes New England Cheesemaking Supply Co.: cheesemaking.com Zingerman's Creamery Events: zingermanscreamery.com/eventslist

### **COMMON CONVERSIONS**

# VOLUME EQUIVALENTS (LIQUID)

US STANDARD	US STANDARD (OUNCES)	METRIC (APPROXIMATE)
2 tablespoons	1 fl. oz.	30 mL
¼ cup	2 fl. oz.	60 mL
¹∕₂ cup	4 fl. oz.	120 mL
1 cup	8 fl. oz.	240 mL
1½ cups	12 fl. oz.	355 mL
2 cups or 1 pint	16 fl. oz.	475 mL
4 cups or 1 quart	32 fl. oz.	1 L
1 gallon	128 fl. oz.	4 L

### VOLUME EQUIVALENTS (DRY)

US STANDARD	METRIC (APPROXIMATE)
1/8 teaspoon	0.5 mL
¼ teaspoon	1 mL
½ teaspoon	2 mL
¾ teaspoon	4 mL
1 teaspoon	5 mL
1 tablespoon	15 mL
¼ cup	59 mL
¹∕₃ cup	79 mL
¹∕₂ cup	118 mL
<sup>2</sup> /3 cup	156 mL
<sup>3</sup> ⁄4 cup	177 mL
1 cup	235 mL
2 cups or 1 pint	475 mL
3 cups	700 mL
4 cups or 1 quart	1L

### **OVEN TEMPERATURES**

FAHRENHEIT (F)	CELSIUS (C) (APPROXIMATE)
250°F	120°C
300°F	150°C
325°F	165°C
350°F	180°C
375°F	190°C
400°F	200°C
425°F	220°C
450°F	230°C

### WEIGHT EQUIVALENTS

US STANDARD	METRIC (APPROXIMATE)
1/2 ounce	15 g
1 ounce	30 g
2 ounces	60 g
4 ounces	115 g
8 ounces	225 g
12 ounces	340 g
16 ounces or 1 pound	455 g

### ACKNOWLEDGMENTS

I want to thank all the professional cheesemakers around the world for quietly laboring, day after day, to make cheeses that nourish, inspire, and bring joy to so many people around the world.

I believe a big part of any success is due to pure luck. In my case that luck came in the form of a hand-me-down wine fridge. Thank you, Brian Hurley, for that first blue cheese "aging cave," and for remembering me years later.

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### **ABOUT THE AUTHOR**

**Elena Santogade**'s home cheesemaking adventures eventually led her to pursue a full-blown career in the cheese industry. She started as a cheesemonger, became an American Cheese Society Certified Cheese Professional, and went on to open and manage two distinct cheese-focused retail operations in New York City. Elena worked with Connecticut-based Arethusa Farm on product development and sales, and she is currently a Sales Manager for Grafton Village Cheese Co. in Vermont.

Elena lives a self-described "delicious life" in Brooklyn with her partner, Josh, a chef. At any given time she can be found nibbling on one of the half-dozen cheeses in her fridge, or out around town with Josh, enjoying all that New York City has to offer.