ACKNOWLEDGMENTS

It is with the utmost pleasure that I thank the many people who assisted me with this monumental project. At least a million thanks are in order, but I will begin with my family. My husband, Charly, has been with me through all of the stories shared in these pages, and my mom spent a lot of time getting the stories out of me.

In addition to my family, without my in-house team I never would have been able to write and design the book I wanted to produce. The work of Casey Carmell, our graphic designer, is always thoughtful and full of energy, and it consistently reflects the spirit of our ice creams. In the book, her work simply shines.

Aaron Beck, Jeni's Splendid Ice Creams' copywriter, works closely with Casey every day, and he exhibited his great wit and a remarkable capacity to steam forward through the entire editing process. Aaron did his best to help me meet deadlines, and I am so happy to have him on our team. Many thanks also go to Joannie Colner-D'Andrea, who assisted on the first drafts of the book. Thank you, Billy Pietrykowski, my assistant. How did I ever get anything done without you?

Without recipe tester Christen Corey, I'm certain that this book would have taken another year to produce. Christen spent month after month in our humble little test kitchen helping to precisely execute every recipe in these pages.

Thanks are in order to every photographer who waited patiently for the perfect melt. The Midwest team included Stacy Newgent, who shot almost all the photographs in the book and made everything look so dreamy and pretty; the charismatic Ely Brothers; my good friend Michelle Maguire, whose idiosyncratic work is always brilliant; and Lisa Fjeld, who came through when we needed even more elegant pictures. Big-time thanks for friendship and always-gorgeous images go to our Big City photo connection, George Lange. Many thanks also to Sally MacLeod for her skillfull illustrations.

Beyond the immediate squad that helped with the book, I must thank Kristin Donnelly (at *Food & Wine* magazine), who planted the seed for this book; Dr. Valente D. Alvarez, Professor of Dairy Food Processing and Director of the Food Industries Center at Ohio State University; and Professor Mike Mangino, Professor Emeritus at Ohio State University and an expert in whey protein denaturation, for verifying my theories on why this recipe works so well.

Without Columbus itself and its extensive network of independent-minded souls, neither this book nor Jeni's Splendid Ice Creams would exist. Franklin Park Conservatory, whose beautiful gardens inspire us throughout the year, granted us permission to shoot loads of photos, and our dear inspirational friend Yusef Riazi allowed us to shoot the cocktail photographs in his beautiful space at Mouton. The Upper Arlington and Columbus Metropolitan Libraries, where I often go for inspiration, were sanctuaries where we laid the groundwork for the book in the winter of 2009.

The insightful, hardworking, and dedicated people, farms, suppliers, and organizations that make up Columbus's food community include several I work with all the time, and without them I'd be lost. Among them are far too many to thank here, but those I must doff my cap

Acknowledgments page, *Jeni's Splendid Ice Creams at Home*

Copy Editing and Fact Checking by Aaron Beck
Design by Casey Carmell, 2011

to are chef Alana Shock for being my earliest and staunchest supporter; longtime friend Lisa Gingerich Dillman, whose palate I trust deeply; Michael Jones and the team at Local Matters, who are changing the world of food; our friends at the Wayward Seed Farm; Jorgensen Farms; Integration Acres; the Chef's Garden; and the North Market; and most important, our innovative dairy family at Snowville Creamery, which is led by Warren Taylor and Victoria (Mitchell) Taylor, Bill Dix, and Stacy Hall.

Beyond Ohio, we work with a handful of like-minded people I must commend, including Shawn Askinosie, whose direct partnerships with cacao farmers around the world yield chocolate with true flavor and heart; Ndali Estate's Lulu Sturdy, who inspires me so much with her disposition, dedication, and out-of-this-world vanilla; Dean & DeLuca co-founder Giorgio DeLuca, for seeing the potential of handcrafted ice cream long ago.

While the aforementioned people contributed greatly, no one contributed more than the team at Artisan. My publisher truly operates as a family-owned company, and I loved working with them. My editor, Ann Bramson, gave us so much freedom to write, style, and design the book, and we learned so much about the process. Trent Duffy and Kevin Brainard just might be the two most patient and persistent people in the publishing business, and they worked wonders to keep, or at least try to keep, us all on schedule. Also at Artisan, we appreciate the efforts of Susan Baldaserini, Amy Corley, Bridget Heiking, Nancy Murray, Barbara Peragine, and Judith Sutton. And thank you to my agent, Jonah Strauss, for all that you do.

At Jeni's everyone takes ice cream seriously, and I couldn't imagine doing this without all of you, including our captain, John Lowe, whose leadership has prepared everyone here for the next things. Nor can I fathom doing what we're doing without my brother-in-law Tom Bauer, whom I thank from the bottom of my heart for getting the word out about us from coast to coast.

As for my husband, Charly, we could not have done this without each other. I am so glad all those years ago that we jumped off and never looked back. I look forward to all of the other great things we will do in our life together. For my daughter, Greta, and son, Dashiell, I hope someday you will be proud of your mama, because I am proud of you every day.

Acknowledgments page, *Jeni's Splendid Ice Creams at Home*

Copy Editing and Fact Checking by Aaron Beck
Design by Casey Carmell, 2011

ABOUT THE AUTHOR

Jeni Britton Bauer and her husband, Charly Bauer, founded Jeni's Splendid Ice Creams in 2002. Today there are seven stores in Columbus and one in Cleveland. The ice creams, yogurts, and sorbets that Jeni and her kitchen team make with fresh Ohio ingredients and exotics from around the world are available in an ever-increasing number of select groceries and restaurants throughout the United States and via mail order. Devotees who scan Jeni's Web site, blog, Facebook page, and Twitter feed daily cause a veritable run on seasonal flavors, sundaes, and other treats.

The flavors that make up Jeni's collections are inspired by the seasons of the Midwestern year. Regardless of the time of year, all Jeni's ice creams and yogurts are made with cream and milk from cows that graze grass on a farm one hundred miles southeast of the Jeni's kitchen. Not only does this partnership yield delicious, high-quality, artisanal ice creams and yogurts, but the union allows both companies to grow together with a focus on quality and sustainability.

Jeni's uncompromising standards, artful attention to details, and devotion to the science and craft of ice cream making were cultivated during work in a French pâtisserie, as well as during her studies at Ohio State University and Penn State University. Jeni's Splendid Ice Creams have been lauded by *The New York Times, Food & Wine, The Washington Post, Bon Appétit, The Boston Globe, Chicago Tribune, Out,* and *The Atlantic Monthly*, among others.

Jeni, whose own favorite flavors are Lemon Frozen Yogurt and Ylang-Ylang Ice Cream with Clove and Honeycomb, lives with her husband and young children, Greta and Dashiell, in Columbus, Ohio.

About the Author page, *Jeni's Splendid Ice Creams at Home*

Copy by Aaron Beck
Design by Casey Carmell, 2011

THE CRAFT OF ICE CREAM

I learned very early on that my artistic leanings could take me only so far in making great ice creams. All those years I'd spent avoiding science classes in high school and college came back to haunt me when I started working with frozen confectionery. Freezing ice cream into a smooth, lickable, delicious mass is a very precise process. Math and science are required.

In recent years, I've had a lot of fun going around to schools and talking to kids about the importance of these subjects. An aspiring artist growing up, I couldn't imagine when I would ever use more than basic math. My teachers never explained the importance of math and science in a way that satisfied me. When I go out and speak to kids, I am very clear: Science is everything—even to artists. And creativity is everything—even to scientists. But you can follow the recipes and make splendid ice cream without reading another word of this chapter. Or you can roll up your sleeves and learn the science behind the art.

Ice cream is a frozen emulsion of water, butterfat (the concentrated fat in milk), proteins (whey and casein), sugars (sucrose, glucose, lactose, and others), starch (thickener), air, and flavors. The balance of all these ingredients, on a molecular level, determines the flavor, texture, consistency, and finish of the ice cream. Other additions (fruit, chocolate, alcohol, etc.) can disrupt the balance. In addition, if the proportions of water, protein, and fat are out of balance, it can make the ice cream feel too cold or too warm on the palate. Understanding the interplay of these ingredients on a molecular level is what ice cream making is all about. But don't worry—you won't be quizzed at the end of this chapter.

The recipes in this book are relatively foolproof for an average cook, but when you branch off on your own, the scientific overview that follows might help you craft your newest flavor.

BALANCING INGREDIENTS

If you were staring out the window during high school chemistry, don't worry—this won't hurt a bit. If any component is not in balance with the water, the ice cream will be "short" (crumbly), soggy, or icy. The perfect balance of ingredients also allows the right amount of air—not too much or too little—to be whipped into the ice cream.

WATER Water is either with you or against you when it comes to making ice creams. It's with you when you have perfectly balanced ingredients that cause water molecules to bind with the proteins, starches, sugars, and fats. It's against you when it roams "unbound" in the mix, leaving you with icy or soggy homemade ice cream.

We don't think of water when we think of ice cream, right? We think of milk. Well, milk is almost 90 percent water. Water will bind to fats, proteins, sugars, and starches—but reluctantly. Free unbound water will become coarse, crunchy ice crystals. Any liquid you add to your ice cream

The Craft of Ice Cream chapter, *Jeni's Splendid Ice Creams at Home*

Copy Editing and Fact Checking by Aaron Beck
Content Arrangement by Jeni Britton Bauer and Aaron Beck
Design by Casey Carmell, 2011

contains water, from milk and honey to berry purees and beer. The goal is to bind the water to sugar, protein, fat, or starch, which will help prevent it from turning into ice crystals. Although each component will bind some water, no single ingredient will take care of all the water so we use a variety of ingredients. Other than pleasing yourself and all who will eat your splendid ice cream, you have one ultimate goal: to bind those water molecules in the milk.

BUTTERFAT Butterfat is the fat in milk. When you remove nonfat skim milk from whole milk, you get heavy cream. If you agitate heavy cream for a while, the fat will separate from the watery, protein-rich whey and you will have butter. Butter is 87 percent butterfat, and butterfat is what makes the ice cream rich and lush. In addition to providing creaminess to the ice cream, butterfat is a great carrier of flavor. It is known to absorb flavors readily—if you store butter next to an onion, the butter will begin to smell like onions. Making ice cream is essentially harnessing flavor. By flavoring butterfat with all things tasty, you lock flavor into your ice cream—which will then be released by the warmth of your tongue and explode into your nose. Unlike egg yolk fat and some other fats, butterfat melts at body temperature. (It releases flavor and scent as soon as it hits your palate.) Lower-butterfat ice creams don't linger as long on your palate or in your nose.

Too much butterfat, and the ice cream will be cloying, and, well, too buttery. Too little, and the ice cream will be thin and weak-bodied and have a mysterious lack of flavor. The flavor of butterfat itself is creamy and lush—a perfect complement to almost any other flavor.

PROTEIN Many ice cream recipes call for egg yolks, which thicken cream by binding water when heated (the protein binds water and coagulates into a custard). However, milk naturally contains the essential proteins necessary to bind water and fat and add body to the ice cream, and these proteins do a better job than egg proteins do.

The two main protein groups in milk are casein and whey. Heat and acid will "denature" the protein (forcing the protein to shed its protective outer coating), which makes it likely to bind with water and thicken the cream. Heating the milk evaporates some of the water, which concentrates the protein and makes the ice creams smoother.

A small lump of cream cheese, which is high in casein proteins (achieved by adding acid to the milk), helps bind the ingredients and gives the ice cream body.

SUGAR Different sugars have different binding capabilities. Sucrose (table sugar) is very sweet and will bind some water. Glucose (from corn or tapioca syrup) has the most water-binding capability and is much less sweet than sucrose. Adding a bit of corn syrup (or tapioca syrup) in place of table sugar actually makes the ice cream less sweet; too much will give the ice cream a soggy texture. Lactose is sugar naturally present in small amounts in milk; it provides some sweetness to the ice cream.

STARCH Cornstarch (or tapioca starch) is the insurance policy on your road to delicious ice creams and yogurts. Any water that dreams of roaming unbound and transforming into nasty, long ice crystals has no choice but to bind with the cornstarch. It is especially important when you add more water-packed ingredients to ice cream or yogurt.

AIR An ice cream's creaminess is in part determined by its air content. All ice cream contains some amount of air. Too much, and the ice cream is too fluffy. Too little, and it becomes a dense, unscoopable mass.

SENSORY COMPONENTS OF ICE CREAMS

TASTE I draw on all the taste sensations experienced on your tongue—sweet, sour, bitter, salty, savory, piquant (chile peppers), and cool (mint, menthol). Taste is the first tier of the four-layered ice cream experience.

TEXTURE It's that crunch between your teeth, that fine-grained grit between your tongue and the roof of your mouth. It's the way viscous, protein-rich butterfat feels inside your mouth. The texture of my ice cream? As smooth and as creamy as I can possibly make it or as chunky, bumpy, and full of nuts, fruits, or handmade goodies as it can be.

CONSISTENCY Consistency refers to the "body" of the ice cream: heavy or light, chewy or weak and thin, hard- or soft-frozen. I strive for body that is dense without being heavy or cloying and just a bit chewy, with a clean, thin "meltdown." We serve our ice cream in a hard-frozen state so that you can eat it slowly from a cone and savor it without it melting quickly.

FINISH You've swallowed the smooth, creamy ice cream, but the pleasant aroma lingers in your nose—that's the "finish," the flavor the butterfat releases as it melts on your tongue and blooms into your nose.

TAKING OFF ON YOUR OWN: CRAFTING ICE CREAMS

Almost anything you add to ice cream will upset the balance of ingredients. When experimenting with flavors, begin by adding a minimal amount of any ingredient to gradually increase flavor with minimal impact on texture. Keep notes so you can adjust each batch and learn how ingredients affect the finished product.

Most flavors are either oil soluble or water soluble. The scents of cinnamon, coffee, mint, basil, and others are essential oils naturally present in plant matter; they bind easily with butterfat because they are oil soluble. (They will also bind with high-proof alcohol, which is how extracts are made.) Fresh fruits and citrus juices hold all of their flavor in the water of the flesh and will not bind with the cream. They are water-soluble essences and must be used sparingly to avoid iciness.

OIL-SOLUBLE AROMATICS To release oil-soluble aromatics into the ice cream base, use a cold or hot steep. We employ both techniques daily in our production kitchen. Hard, dried, barky ingredients require heat. For instance, for coffee ice cream, we add coffee to hot cream and allow it to steep for 10 minutes; we then pour the hot, flavored cream through a sieve to remove the grounds. Green herbs are more delicate and do better with a cold steep. When we make fresh mint ice cream, the mint is torn and muddled, then added to cold cream. It will infuse for about 12 hours and then be removed.

WATER-SOLUBLE FLAVORS For water-soluble ingredients—such as melons, berries, cucumbers, or stone fruits—puree the flesh and add it directly to the ice cream. Berries and melons hold all of their scents in the watery pulp of the fruit, which doesn't bond with alcohol or fats. There is no way to fully separate the flavor from the water; therefore, to keep your ice creams from becoming too icy, it's usually best to concentrate the flavors by heating and evaporating some of the water—as in the roasting strawberries technique (see page 31), which can be applied to most stone fruits and berries. You can also pulverize the fruit and heat the puree with just enough sugar to bind the water to the sugar (about 1 part sugar to 3 parts fruit). Be sure to warm rather than cook the fruit; you don't want the fruit to become "jammy."

The Craft of Ice Cream chapter, *Jeni's Splendid Ice Creams at Home*

Copy Editing and Fact Checking by Aaron Beck
Content Arrangement by Jeni Britton Bauer and Aaron Beck
Design by Casey Carmell, 2011

EXTRACTS & ESSENTIAL OILS Extracts are made by steeping plant matter in alcohol or oil, which, like butterfat, will bond with the flavorful essential oils of plants. Most flavor extracts are made from oil-soluble scents such as vanilla, cinnamon, and almond. Extracts should be used just before freezing, so that the flavor is not evaporated in the heating process. How much you will need depends on how concentrated the extract is (½ to 2 teaspoons is a good range).

Essential oils are pressed or distilled directly from plant matter. An essential oil is the "essence" of a plant and it is highly concentrated; 2 to 5 drops are enough to flavor a whole batch. Add essential oils drop by drop to the ice cream just after you turn the machine on to spin.

SOFT CHEESES & NUT BUTTERS Add these to the warm cream mixture as it comes off the stove. Add them a little at a time, incorporating each addition completely before adding more.

HARD CHEESES Steep hard cheeses as you would mint or other ingredients, and then strain them. Finely grate the cheese and, if you can, add the hard rind to the boiling step (especially with Parmesan). Allow it all to sit in the cream until the cream is cold, then strain and remove any unincorporated cheese.

ALCOHOL Alcohol will depress the freezing point of ice cream, so it will take longer to freeze and/or stay softer, but sometimes this can be deceiving. Stout, for example, has very low alcohol content; you can add it in small quantities without reducing the sugar or adding more. For spirits with very high alcohol—say, bourbon—¼ cup or less can be added to the basic recipe with no problem. If you wish to add more than that, you should reduce the sugar by a few tablespoons. Add the alcohol to the chilled ice cream base just before freezing.

SUGARS It's important to keep the sugar ratio the same in the recipe, or your ice cream will become too hard or too soupy. If you want to add honey, you will need to remove an equal portion of table sugar from the recipe (again, to keep the sugar ratio in balance). Never substitute honey for more than 25 percent of the total sugar, or the ice cream will be too sweet and icy. If you want to add maple syrup, reduce it on the stove by one third and use it in place of a portion of the sugar in the recipe (see page 114). Brown sugar, turbinado, and cane sugar can all be used interchangeably.

COCOA POWDER & CHOCOLATES Adding chocolate to the ice cream base can make ice cream crumbly or dry. It's best to start with one of the recipes in this book, such as The Milkiest Chocolate Ice Cream in the World (page 156) or The Darkest Chocolate Ice Cream in the World (page 100), and go from there. Hydrated cocoa will give you the strongest flavor.

I alternate between using Dutch-process and nonalkalized cocoa. Dutch-process cocoa yields balanced and more nuanced chocolate flavor and has a rich color. Nonalkalized cocoa, which is lighter in color, yields a sharper, fruitier flavor—a nice contrast to the fullness of the cream. Melted chocolate isn't strong enough on its own. I like to add hard chocolate in its purest form by melting it and drizzling it into the finished ice cream (see page 104), especially if I am using a chocolate with unique characteristics that I want to shine through.

The Craft of Ice Cream chapter, *Jeni's Splendid Ice Creams at Home*

Copy Editing and Fact Checking by Aaron Beck
Content Arrangement by Jeni Britton Bauer and Aaron Beck
Design by Casey Carmell, 2011

WARREN & SNOWVILLE

The quality of the cream is what truly sets American artisan ice cream apart from the other ice creams in the grocery aisle. Flavor blooms when built on an exquisite foundation.

There are two things I need as an ice cream maker: (1) the ability to tweak ingredients during every step of the ice-cream-making process (which required years of practice and learning the science) and (2) a partnership with a great dairy.

Meet Warren Taylor, the Don Quixote of dairymen! When they write the history of the deconstruction of our industrialized food system, Warren Taylor will be in paragraph one. Passionately devoted to making good, fresh, and nutritious dairy products safe and widely available without the use of industrial-farming techniques, Warren, who is in his early sixties, has more energy than anyone I have ever met. He never stops talking—about everything. He is the only person I know who can seamlessly weave Beat poetry, biblical references, Confucian philosophy, and Jefferson Airplane lyrics into a conversation about retooling Ohio and America's dairy industry.

At Snowville Creamery, a small-scale dairy in southeast Ohio, Warren works with neighbors Bill Dix and Stacy Hall to process milk from cows that graze on grass.

Good milk, what Warren calls "milk the way it used to be," has always been one of the most important things in life to him. Warren, who built his humble dairy with his retirement, his life savings, spent his career as a dairy scientist watching milk quality diminish. Every region of America deserves a Warren Taylor—someone who is "all in" when it comes to cultivating great minimally processed milk and cream.

Warren and his Snowville crew milk Bill and Stacy's cows twice a day and deliver their high-butterfat (16 percent) cream to us within thirty-six hours of milking. We buy almost all of Warren's high-butterfat cream to make our ice creams. Our do-it-yourself companies have worked and grown together each step of the way, and our partnership is proof that a new, more robust food system can work.

Artisan ice cream must start with Snowville's kind of minimally processed milk and cream, which are more healthful and flavorful than conventional overly processed, overly pasteurized milk and cream. Milk and cream produced by cows that eat grass contain the sweet smell and taste (and nutritional benefits) of grass. How fortunate we are for that.

A page from *Jeni's Splendid Ice Creams at Home*

Copy Editing, Content Arrangement and Fact Checking by Aaron Beck
Design by Casey Carmell, 2011