



COMTÉ NEWS



Winter 2015

The Chemistry of Comté Rinds

Comté rinds play a critical role in preserving and protecting the cheese. Comté is a bacterial surface-ripened cheese, or smear-ripened cheese. After the new wheels are formed, they are rubbed with dry sea salt and later washed with a brine solution called *morge*, which contains bacteria from the rinds of older cheeses. The wheels are continuously brushed with *morge* throughout the aging process, as well as sprinkled with sea salt, although less frequently. This process creates an interface environment between the cheese and the air. As Rachel Dutton, Ph.D., Harvard University, explains, “Washing the cheese creates a very specific environment on the surface that will favor



certain types of microbes. Thus, the microbial community on washed rind cheeses will be different from cheeses that aren't washed.” For Comté, this microbial community is dominated by salt-tolerant yeast (*Debaryomyces hansenii*) and Gram-positive bacteria.

The abundant bacterial flora on the surface of Comté creates a barrier effect vis-à-vis harmful bacteria, thus protecting the cheese from pathogens. The rind also guards the cheese against contact with the air, preventing oxidation. Although the rind prevents oxidation, it is still permeable, allowing for a loss of moisture as the cheese ages. A younger Comté will therefore have more moisture with a softer or more elastic texture, while an older Comté will be slightly drier in texture.

The rind also impacts Comté's flavors and

aromas. The influence of the rind on flavor development in cheese depends on “how much moisture the cheese has (how easily the activity on the rind can infuse into the cheese) and the surface to volume ratio—the more rind you have on the cheese the greater impact on flavor,” explicates Dutton. While Comté's rind doesn't have as large of an impact on its aromas as that of a softer, smaller cheese (such as Vacherin du Haut-Doubs, or Mont D'Or, for instance), there is still a certain amount of flavor development that occurs, and if you taste Comté closer to the rind you can pick up on some of those specific aromas.

Comté is aged on rough wooden planks made from locally harvested spruce trees. Rooted in ancient tradition (the wood boards have been used for over a thousand years), modern science has shown that the boards have a very important function in preserving the life of the microflora in the rinds, as well as in protecting the cheese from pathogenic bacteria. Experiments have demonstrated that Comté aged on plastic or stainless steel boards results in an asphyxiating environment for the rinds and significantly degrades the quality of the cheese. Other studies have shown that the ecosystem on the wood boards inhibits the growth of pathogenic bacteria, such as *Listeria monocytogenes* (Mariani et al, 2011).

Although the rinds are continuously brushed with *morge* and sea salt, Comté is paradoxically a cheese with a very low salt content. While most cheeses have 1.5 to 2 grams of salt per 100 grams of cheese, Comté has only .8 grams of salt per 100 grams of cheese (0.8%), making it one of the least salty cheeses. And take note: the small crystals that are sometimes apparent in an older Comté are not salt crystals! Rather, they are amino acid crystals that form during the aging process.

Like a regiment of troops, Comté's “living” rind guards against pathogens and preserves the cheese, allowing for the development of the flavors, aromas and textures that define Comté.

Comté (“con – TAY”) cheese ID

General information:

Origin: Jura Mountains (Massif du Jura), France

Milk Type: Raw cow's milk

Cheese Style: Artisanal, pressed, cooked, with natural brushed rind.

French AOC (Appellation d'Origine Contrôlée) since 1958 and European Union Protected Designation of Origin (PDO) Certification.

- Delimited area of production: Doubs, Jura, Ain, elevation 650-5000 ft.
- Milk must be produced by local cows of the Montbéliarde (95%) and Simmental (5%) breeds. There are approximately 130,000 Comté cows.
- Minimum of 2.5 acres of natural pasture for each animal.
- Cattle feed must be natural and free of fermented products and GMOs.
- Each *fruitière* must collect milk from dairy farms within a 16-mile diameter maximum.
- Milk must be made into cheese within 24 hours maximum of the earliest milking.
- Only natural starters must be used to transform the milk into curds.
- Wheels must be aged on spruce boards. Minimum aging is 4 months, generally 6-18 months and sometimes even longer.



Comté Cheese Association

will be at the 2015 Winter Fancy Food Show in San Francisco, Jan 11-13th

BOOTH #3325

New French Cheese Board Home in NYC



This summer the Cheeses of Europe officially debuted its first international event space—the French Cheese Board—located in Midtown Manhattan. The French Cheese Board is a space for consumers and trade members to discover the diversity and richness that French Cheese has to offer through a series of interactive showings and events. The campaign’s mission, “Make it Magnifique”, is to create awareness about the variety of the cheeses of France available on the US market and the multiple ways that consumers can incorporate the cheeses into their diet, their recipes and their lifestyles. For more information, visit www.frenchcheeseboard.com!



Ari Weinzweig, Winner of 2014 American Cheese Society Lifetime Achievement Award

Ari Weinzweig is the Co-Owner and Founding Partner of Zingerman's. Founded in 1982 with a twenty thousand dollar bank loan, the business has flourished into a gourmet foods institution with close to forty million dollars in annual sales.

Zingerman's is renown for its artisan cheese selection, and Ari has played an active role in promoting the growth of the specialty cheese industry in the US. This year he was awarded the 2014 American Cheese Society Lifetime Achievement Award.

Zingerman's began as traditional Jewish deli. Have you always carried specialty cheese?

We were selling cheese right from the beginning. We opened in March 1982, and we had specialty cheese from day one. At that time we had a 6-foot case.

How has the Zingerman's cheese department evolved throughout the years?

Of course the quality of the cheese we sell now is far, far higher than what we were selling then. What was available back in the early '80s pales in comparison to what we can now access. Today our cheese selection is probably 5 times what it was when we opened, and 15 times better! We still cut everything to order. We don't really do pre-cuts unless we're doing a demo.

What changes have you seen in the specialty cheese industry in the US since you started?

Everything is better! The cheese is better. Consumer knowledge is better. Shipping is better. What we sold as high-end in '82 is now mostly standard supermarket fare!

When did you first discover Comté?

I remember reading about Comté in cheese books when we were getting ready to open the deli in '82. It sounded great. But when we got it in, it was surprisingly mild and far less interesting than what I'd read. It turns out that back then – thirty years ago – the Comté that was coming here was very young, in the belief that the American market couldn't cope with full flavored cheese. I then started what turned into a four or five year search for the cheese I'd read about. I found it when I went to the region for the first time in the mid '80s. I'll never forget visiting the market in Besançon and seeing more Comté offerings than I could ever have imagined. I tasted terrific cheeses of all ages! It was fantastic. And then I set to work getting it to Zingerman's, which we eventually did. And we've been selling it actively ever since! Today we select specific profiles of Comté. Our mail order guy prefers a softer and sweeter Comté, while I prefer a more robust Comté in the store. Neither is better. It's just what you like.

You've described Comté as “buttery, smooth, soft but masculine at the same time.”

It's firm, it's strong, it's grounded, but it also has an elegance to it that's special. It's a cheese for any occasion.



What's your favorite way to eat Comté?

Just on its own, but Comté pairs well with almost anything—fresh pears, apples, dried fruit, grapes and raisins, nuts of all sorts, good butter and country bread. It also holds its own with good mustard and chutneys. I also love it in a salad with walnuts, ham and a walnut oil vinaigrette.

What's your favorite dish to cook with Comté?

Fondue Comtoise!

Any favorite wine or beverage pairings with Comté?

My girlfriend's the wine expert, and she recommends white wines from the Jura or Savoie regions of France, as well as beer.



The Mouquod Family—Comté Dairy Farmers

The Mouquods are second-generation Comté dairy farmers. We interviewed patriarch Jean-

François Mouquod about his farm, his farming philosophy, and his favorite ways of eating Comté.

How long has your family been farming for Comté?

We have been Comté dairy farmers for about 80 years. I took over from my father. Our family has lived in Villette for several centuries. Our ancestors were ploughmen and cattle farmers.



How big is your farm?

The farm is 230 acres. We have one employee: my son Maxime. He is going to take over from me in the near future. We have 35 milk cows. We also grow cereals for our cattle, as well as wheat, triticale, fava beans, soy and corn to sell.

What is your farming philosophy?

We have converted to organic farming. We think the time has come to take steps to protect the environment, as well as to produce a better quality and healthier product. We pursue the maximum of self-reliance, which we find relevant on both environmental and economic levels. However, this creates more work—we have to follow and control all of the steps for every product including the sorting, drying and storing of the hay, cereals, seeds, etc. For our herd this implies increased monitoring as well as more preventive care and alternative treatments.

Is the Comté made with your milk certified organic?

Yes. Last May we had to leave our old *fruitière* [Comté cheesemaking facility] in order to join the Chevigny *fruitière*, since it is able to work organically. As of June, the cheesemaker was making 7 organic wheels daily, or about one-third of the production of the *fruitière*. The milk is picked up from 14 farms each day. The organic milk, which comes from 5 farms, is picked up first.

Your wife Edith is known for her delicious Comté Biscuits [see recipe to the right]. What inspired the recipe?

She simply wanted to make something simple, tasty, and better than the aperitif biscuits commercially made. She'd like to mention that they can also be made with a simple pie crust dough made with real flour, good butter, fresh water and a bit of salt.

How else does your family eat Comté?

We eat a lot of Comté—we're crazy about Comté! We often use it for quiches, soufflés, varied kinds of gratins, gougères, "Comtoise" pizzas, pasta and of course in fondue. We even eat it at breakfast with bread, jam and coffee—what a salty-sweet combination!

What do you drink with Comté?

We prefer Jura wines and Champagne, but it's a personal taste. With Comté gougères we drink Crémant du Jura or Champagne, with soufflés we drink Jura white wines, with quiches and pizzas we drink red wines (Trousseau or blends of the three Jura red grape varieties—Trousseau, Plousard and Pinot Noir), and with fruity, aged Comté we drink an aged Savagnin or Vin Jaune.

Comté Biscuits

This recipe comes from the Mouquod family, Comté dairy farmers. They like to serve these crisp, savory biscuits with an aperitif before dinner.



4 cups (18-ounces) all-purpose flour, plus more for rolling
 1 teaspoon salt
 4 teaspoons (0.4-ounce) instant (rapid-rise) dry yeast
 ½ cup extra virgin olive oil
 ¾ cup plus 1 tablespoon water
 6 ounces Comté
 1 scant tablespoon Herbs de Provence

1. In a stand mixer with a paddle attachment, combine the flour, salt and yeast. With the machine running, slowly drizzle in the olive oil, followed by the water. Mix until a smooth dough forms that comes off the sides of the mixing bowl. Knead the dough into a ball. Place the dough back in the bowl and cover the bowl with a damp kitchen towel. Let the dough rise for 1 ½ hours.
2. Preheat the oven to 375°F. Line two large baking sheets with parchment paper.
3. Lightly flour a work surface. Divide the dough into two pieces, then roll each portion into a 12x16-inch rectangle, about 1/16 – 1/8-inch thick. Transfer each to a parchment lined baking sheet. Using a pizza cutter, cut the dough into 2x3-inch rectangles. Separate the rectangles, leaving ½-inch of space in between each.
4. Let the dough rest on the baking sheets while you grate the Comté. Spread the grated Comté over the crackers and sprinkle with a bit of Herbs de Provence. Bake 25-30 minutes, turning the baking sheets halfway through, or until the crackers are golden. Cool completely before serving.

New Recipe Booklet!

We've compiled 20 of our top Comté recipes into a single, mouthwatering recipe booklet! The "Comté Kitchen" booklet is fantastic for promotions, demos, displays and classes. The booklets are currently available to retailers, distributors and educators upon request (limited quantities may apply). The booklet can also be downloaded directly at <http://www.comte-usa.com/trade-resources/pos-materials/>. To request hard copies, please email us at trade@comte-usa.com.



Winter Fancy Food Show

The Comté Cheese Association will be hosting a booth at the Winter Fancy Food Show in San Francisco from January 11-13th. Please visit us at **booth #3325** to meet with Comté representatives, learn more about our educational and point-of-sale materials, and to taste Comté! We hope to see you there.

Lights, Camera, Action! New Comté Videos Set to Release this Winter

Stay tuned for two new series of Comté videos! In the brand new *Comté Cheesemonger* video series, cheesemonger David Robinson of Formaggio Kitchen shares expert tips for cutting, wrapping, storing and tasting Comté. From how to cut a whole wheel, to tips for storing Comté at the store level and at home, to properly tasting Comté, these videos provide valuable advice for both members of the trade and for consumers.

In addition, three new *Comté Cooking School* videos guide viewers step-by-step in making delectable Comté-inspired recipes, including Comté & Asparagus Risotto, Comté Biscotti and Comté with Sweet Hazelnuts. Both series of videos will be available on our website at www.comte-usa.com as well as on our YouTube channel at www.YouTube.com/comtecheese.



The Comté Cheese Association

provides you with everything you need for a successful selling program, including: recipe booklets, brochures, aprons, demo toothpicks, training tools and more. Visit www.comte-usa.com for POS materials and free downloads.

Comté Cheese Association, representing the Comté PDO in the US

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