

CONTACT US

Questions, comments, story ideas?
Contact Lynn Schmidt and Jen Kopf, Lifestyle co-editors
291-8644, fax 399-6507, lifestyle@intelligencer.com

Lifestyle/Food

WEDNESDAY, JANUARY 20, 2010, LANCASTER, PA.

CRAFTING CHEESE

Writer's second attempt, under guidance, reaps savory reward

BY DAINA SAVAGE
Staff correspondent

A love of artisanal foods naturally leads to a desire to try your hand at making your own. Unfortunately, my first attempts at the ancient culinary craft of cheese making were, frankly, embarrassing.

Inspired after reading Barbara Kingsolver's book "Animal, Vegetable, Miracle: A Year of Food Life," I had dreams of making my own mozzarella to top grilled pizzas and tuck between slices of heirloom tomatoes and basil.

I procured the milk, rennet tablets and citric acid to make the "30 Minute Mozzarella Magic" created by "Cheese Queen" Ricki Carroll, whose "Home Cheese Making" manual has inspired legions of novices to turn into cheese makers. The founder of the New England Cheesemaking Supply Company in 1978 in an attempt to preserve the milk on her own farm, Carroll has taught more than 7,000 people how to make cheese in workshops. More than 100,000 bought her book and presumably attempted it on their own.

With her beginner's kit to guide me (\$25 at www.cheesemaking.com), I dove in. I thought I followed the instructions perfectly. But when my first batch looked more like ricotta than the mozzarella I was attempting, I gave up.

Thankfully, I ran into Paradise native Elisa Ranck Fleming, who, inspired by the same books, dove into cheese making with her family.

As the Ranck family owns the Verdant View Farm, their unlimited supply of fresh milk afforded plenty of chances to experiment. They too had their own early failures. But once they got the hang of it, they added cheese making to the Farmer's Apprentice programs at their bed and breakfast.

In addition to learning how to gather eggs or feed a goat, apprentices can try making butter, churning ice cream or canning preserves.

"The mozzarella is really simple, so it's a good one to teach," Fleming said. A cheese-making apprenticeship was just what I needed. Nothing beats hands-on training, and having experienced and confident cheese makers to question throughout the process was invaluable.

START WITH GOOD MILK

From the beginning, I learned why my attempt might have failed. Starting with local, farm-fresh whole milk is a definite advantage. Although I already knew not to use ultra-pasteurized milk, which is too heat-damaged to form a solid curd, the milk I used may have been heated too much during the pasteurizing process. The closer to the cow, the better.

As foodies know, the flavorful *terroir* (terrain) of the cheese you create will vary with the grass the cows were eating when they made the milk, the soil quality, the weather, and even the genetics of the herd.

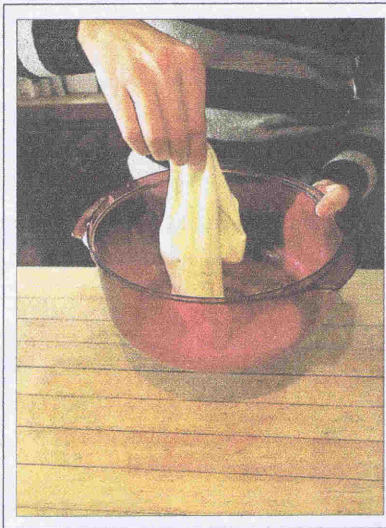
Those who choose to use raw milk for making cheese should do so within 48 hours.

Pasteurized and homogenized whole milk is what most people will use, with the best results from local producers who use minimal processing and get it from cow to shelf quickly. Homogenized milk won't work for hard cheeses, but can be used for soft cheeses such as mozzarella. When using store-bought milk, adding calcium chloride will help restore the balance between calcium and protein to form better curds.

INGREDIENTS AND SUPPLIES

Making cheese is basically removing the water from the milk to concentrate the protein and butterfat. To do this, in ancient times, people discovered that enzymes from the stomach of young ruminant would cause milk solids

PHOTOS BY DAINA SAVAGE



Daina Savage photos

Mozzarella is a simple cheese to try to make, according to veteran cheese maker Elisa Ranck Fleming. Cheese-making classes are offered at Verdant View Farm in Paradise.



Elisa Ranck Fleming, left, recently welcomed a reporter into her home to learn to make cheese.

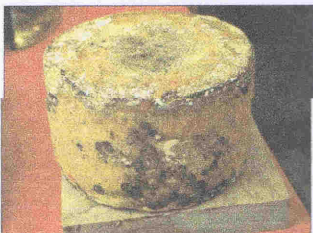
Cheese-making apprenticeships at Verdant View Farm in Paradise are \$15 per person. A tour of the farm and visits with the farm animals are included. Reservations are required, call 687-7353 or e-mail reservations@verdantview.com.

For step-by-step instructions and photographs, visit Ricki Carroll's Web site at www.cheesemaking.com.

Lancaster ONLINE.com

GET A BONUS RECIPE FOR CHEESE WHILE BISCUITS ONLINE

Elisa Ranck Fleming adds rennet — available in liquid, tablet and powdered form — to milk as one step in the cheese-making process.



The writer's first attempts at cheese making were embarrassing, but eventually she found success. A block of hand-crafted Parmesan sits with its multihued rind, above, which is what the writer aspires to craft someday.

30-MINUTE MOZZARELLA

1 gallon milk
1 1/2 teaspoon powdered citric acid dissolved in 1/4 cup cool water
1/4 teaspoon liquid rennet diluted in 1/4 cup cool water (if using rennet tablets, follow conversion instructions on the package)
Add the dissolved citric acid solution to the cold milk. Heat slowly to 90 degrees in a stainless steel pot over medium-low heat. The milk will begin to thicken like yogurt.
Gently stir in the diluted rennet for 30 seconds and turn the heat to low. In about 5 minutes, a firm curd will form, separat-

ing from the clear whey. If the whey is still white, wait a few more minutes.
Take off the heat. Use a knife to cut the curds into chunks. Scoop them out with a slotted spoon into a colander.
Reserve the whey.
Press the curds gently with your hands, squeezing out as much whey as possible.
Transfer curds to a heat-proof bowl, microwave on high for a minute, pouring off the excess whey.
Knead the curd like you would bread dough, folding it over and over to distribute

the heat, continuing to squeeze out excess whey. It will be almost too hot to handle (about 135 degrees), so either use rubber gloves, spoons, or tough it out.
If it's not hot enough to stretch, you can return it to the microwave for 30 seconds at a time until the curd is smooth and pliable.
When the cheese stretches like taffy, it's done. Roll it, braid it and have fun. Best eaten fresh, it can be refrigerated for a week.
Yields 1 pound.

Cheese

Continued from D1

to separate from the whey and form curds. (The enzymes help the animal digest its mother's milk). It proved a tasty way to store perishable milk.

Now extracted from calf stomachs, you can purchase rennet in liquid, tablet and powdered form. Vegetable rennet made from plants with coagulating properties is also now available for vegetarians.

While rennet helps the curds coagulate, citric acid helps the curds separate from the whey. Another mistake I made in my attempt at cheese making was to mix the citric acid, as well as dissolve the rennet tablet in tap water. Unlike the Rancks, I have chlorinated city water. It's essential to use unchlorinated water, preferably distilled, to make these ingredients liquid.

The Rancks get their rennet and other cheese-making supplies from Miller's Natural Foods in Bird-in-Hand. But they can also be ordered from the "Cheese Queen" herself at www.cheesemaking.com.

As for utensils, the Rancks have found a double-boiler works best for them.

"With our electric range, we found we had hot pockets, so using the double-boiler shields the temperature from spiking," Fleming said.

Measuring that temperature is also important. You'll need a thermometer that reads between 80 degrees to 120 degrees. If you want to wing it, 85 degrees feels lukewarm and 103 is hot but tolerable.

You'll also need a knife, a colander or slotted spoon and a microwave-safe bowl.

THE PROCESS

Making cheese is like making bread — it's a simple process, but you need to gain a feel for it to be successful. I found another of my rookie mistakes was impatience. Waiting for the curds and whey to separate, and then to coagulate, is essential. I was stirring too much, hence the ricotta-like results. When my apprenticeship yielded a white cheese mass separate from the clear whey, I was thrilled.

"If you take the curds off too early, they'll be too soft. If they're heated too much, they'll melt," Fleming cautioned. "You want them to be just firm enough."

Then the fun began as we kneaded the piping hot mozzarella like dough, stretching it like taffy, and popping it in the microwave to ensure it stayed hot through the process. We molded it into a glossy round and sprinkled it with salt. For special occasions, the Rancks will braid it or form other decorative shapes. We enjoyed it fresh and still warm on plain crackers so they wouldn't overwhelm the delicate, mild taste.

id-ly
its
ey
re
nd
ce
a
st
in-
re
st
in
a
p.
ig,
k-
ts
/s
ch
a
n.
p-
G:
ner
ve
ve
ou
er
or
he
er
en
ot
a
ot
2n
so
ad
er,
ur
m
e-
ve-
an
a
es
se
ur
sl.
od
f's
it.
lg
of
ad-
sd
gs
er
he
ur
lg
tl.
ld
ke
n.
ey
he
til
ite