

## Eschmeyers

Just recently in Ohio, the Ohio Department of Agriculture (ODA) Director Fred Daily signed an order to revoke the Grade A milk producer license of Darke County dairy producer Carol Schmitmeyer and her husband Paul for operating a herd-share agreement which allows participants to drink their own raw milk. Consumers' ability to make responsible choices about their food and their health is under scrutiny by our state government, and the timely article below from the *Washington Post* demonstrates the scope of this national consumer/farmer issue.

### The Raw Deal

The FDA says it's dangerous. Selling it is illegal. So why does an avid band of devotees swear by the virtues of unpasteurized milk?

By Thomas Bartlett

Sunday, October 1, 2006; W18

IT ARRIVED VIA FEDEX IN A BOX MARKED "PERISHABLE." Inside, packed in Styrofoam and dry ice, I found a one-gallon plastic jug. There was no label or price, no brand name or expiration date -- just a four-letter word scrawled in black marker across the side: Milk.

The milk itself cost \$6, considerably more than the \$3.39 I pay at the grocery. There was an additional charge of \$2.50 for gel packs to hold the jug in place. Plus \$9 for the Styrofoam cooler. Plus \$10 for the dry ice. Add in shipping, and the total came to \$45.24. For one gallon of milk.

But this wasn't just any milk. This was raw, straight-from-the-cow, the real stuff. It hadn't been pasteurized, homogenized or otherwise altered. In Maryland, where I live, as in most other states, you can't walk into a store and buy raw milk. That's because, while possession of raw milk is legal, selling it is a crime. It's also a violation of federal law to transport raw milk across state lines with the intent to sell

it for human consumption. The Tennessee dairy that sold it to me offers raw milk as pet food. The dairy's Web site warns that "due to significant legal and liability issues, we cannot and will not answer questions regarding human consumption of these or any other raw milk products -- please don't ask." Please don't ask, and we won't tell. Wink, wink.

The issue of selling raw milk is, legally speaking, dicey. To determine exactly how dicey, I call Ted Elkin, deputy director of the Office of Food Protection and Consumer Health Services at the Maryland Department of Health and Mental Hygiene. Elkin is in charge of making sure the state's dairy laws are enforced.

"So," I begin carefully, "Maryland's position on raw milk is . . .?"

"Raw milk is illegal for sale," Elkin says. "Period."

"Huh," I reply.

To help drive this point home, he compares selling raw milk to selling pot.

"Interesting," I say. At that moment, I am standing in my kitchen with the fridge door open, staring at my gallon of possible contraband.

"Our position is that it's bad," Elkin says. "But we're not trying to be the Gestapo about this. I don't have the resources to go after individuals." This all made me a little nervous.

Using an analogy, Elkin explains that a small-time heroin dealer in Baltimore might be able to elude the authorities for quite a while. So, during our conversation, raw milk was compared to marijuana and heroin. What's more, Hitler's secret police were mentioned -- in passing, sure, but still.

The raw milk underground isn't for the faint of heart. Some who believe raw milk is nature's perfect food have to break -- or find creative ways to skirt -- state and federal laws. Then they have to ignore the warnings of medical associations and government agencies that rank drinking raw milk alongside BASE

jumping and gas huffing. The Food and Drug Administration even compares it to playing Russian roulette.

And yet there are thousands of folks all over the country who eagerly seek out raw milk, even though it can be expensive, difficult to obtain and -- oh, yes -- illegal to sell. In some states, health agencies are cracking down on raw milk suppliers. In Ohio, an undercover sting recently busted an Amish farmer who was selling raw milk on the sly.

An undercover sting? Over milk? What's going on here?

TO FIND OUT, I TRACKED DOWN THE LEADER OF THE RAW MILK UNDERGROUND. I had hoped she would insist on meeting somewhere discreet -- a quiet park, perhaps, or a Rosslyn parking garage. Maybe there would be code names and intrigue. Instead she suggested we grab lunch at a Mexican restaurant. Fine, I said, trying not to sound disappointed.

Sally Fallon is president of the Weston A. Price Foundation, a nonprofit organization that promotes a return to a more primitive diet. Its namesake was a Cleveland dentist who traveled the world in the 1930s and '40s studying the diets of nonindustrialized cultures. Price concluded, among other things, that animal fats are good for you and that dairy products -- cheese, butter, milk -- should be eaten raw. Fallon looks like the glamour shot on the back of her popular alternative cookbook, *Nourishing Traditions*. She is smartly dressed, hair swept back, the hint of a smirk on her lips. The impression is more corporate executive than radical nutritionist. But when the waitress comes by for our drink orders, Fallon says, without looking up from her menu, "I'd like a glass of raw milk, but you probably don't have that, do you?"

The waitress says nothing, apparently at a loss. Fallon settles for a bottle of Perrier with lime. She first came across raw milk in the early 1970s. She had trouble producing enough breast milk for her three young boys and didn't trust commercial infant formula. So Fallon, who has a master's degree in

English from the University of California at Los Angeles, did what any self-respecting graduate student would do: She started researching the topic. In the course of her reading, she came across a recipe for infant formula based on raw milk. She tried it, and, according to Fallon, her boys thrived, transforming into the happiest, healthiest children imaginable. They never had earaches, digestion trouble or allergies. She can't remember them ever being sick. "It was just magic," she says.

She's been spreading the raw milk gospel ever since. Her cookbook, in which she offers a dizzying menu of nutritional do's and don'ts, is treated as a culinary bible by some ("essential for survival" writes one of the more than 150 Amazon reviewers) and has sold 200,000 copies. Her foundation brought in just under \$700,000 in revenue last year, more than double what it collected in 2003 (the bulk of that comes from dues and donations from its 9,000 members). Her writings address a range of nutrition topics, but her views on milk have garnered the most attention, not to mention scorn.

Fallon wishes to do away with pasteurization altogether. And homogenization, too. For those who have never thought much about either process, here's a quick rundown: Milk is pasteurized by heating it to just over 160 degrees Fahrenheit and maintaining that temperature for 15 seconds to destroy unhealthful bacteria. Homogenization is a method for breaking down fat globules by forcing milk through lots of tiny holes at great pressure. This keeps the cream from rising to the top. Fallon believes that pasteurization and homogenization make milk unhealthful and harder to digest by destroying vitamins and enzymes. Pasteurized milk is, she says, "toxic."

In other words, Fallon is fighting against what is considered perhaps the greatest advance in food safety in the last 100 years. To many scientists and dietitians, this seems unwise. Okay, let's be frank: Some people think Sally Fallon is nuts. Including, it would seem, the people at the Food and Drug Administration.

**THE FDA'S 2006 SCIENCE FORUM WAS HELD IN APRIL IN A CAVERNOUS, BLUE-CARPETED HALL at the Washington Convention Center. There were row after row of poster presentations with titles such as "Characterizing Perfluorochemical Migration From Food Contact Paper" and "Evaluation of Nanomaterials' Immunotoxicity: Examples of Polystyrene Nanoparticles." There were also free cookies. One of the presentations focused on the dangers of raw milk. The display featured an illustration of a glass marked "raw milk" with a red line drawn through it. There was also a photograph of an infant and a young boy looking at each other; the caption read, "Examples of persons at risk from consuming raw milk." The display was based on an FDA report on illnesses caused by raw milk over the last five years. According to the report, there have been 18 "outbreaks" of bacterial illness involving raw milk or raw milk cheeses in 15 states. Those outbreaks have sickened 451 people, a few of those seriously enough to be hospitalized. The report lists types of bacteria that might be found in raw milk, including campylobacter, escherichia, listeria, salmonella, yersina and brucella. It also lists diseases raw milk products can cause, such as tuberculosis, diphtheria, polio, strep throat, scarlet fever and typhoid fever. Three of the report's authors, all FDA employees, are on hand for the presentation. I introduce myself and tell them I'm writing an article about Fallon and the raw milk underground. They groan audibly. All of them.**

**It is safe to say that the FDA is exasperated with Fallon and her raw milk ilk. The FDA says raw milk advocates ignore science and put their faith in dubious anecdotes about its supposed health benefits. Some of those advocates claim that raw milk can treat high blood pressures, urinary tract infections, diabetes, obesity, chronic fatigue syndrome and so on.**

**At these and similar assertions, the FDA researchers shake their heads (literally -- I saw them shake their heads). They say that science simply doesn't back up those claims. They acknowledge that pasteurization does destroy some vitamins and enzymes in milk, but they say those losses are negligible. When I ask**

what they think about feeding raw milk to infants, their expressions become very serious. "The question is," says Cynthia Leonard, one of the report's authors, "do you want to want to play Russian roulette with your baby's life?" This is a favorite FDA analogy, used in interviews and written materials.

I ask the three researchers if any of them has ever tried raw milk. Two say no. Leonard, however, says she has. In fact, she grew up on a farm in Georgia where everyone drank raw milk. Did anyone ever get sick?

"No," she says. "I mean, not that I remember. Although maybe we got sick and didn't know it was from the milk."

Fallon argues that raw milk is unfairly singled out by the FDA. "My god, people get sick from lettuce. People get sick from mayonnaise. People get sick from drinking water," she says. Fallon points out that it's not as if pasteurization of milk is completely safe; in fact, she keeps a list of news reports about outbreaks involving pasteurized milk. As for linking raw milk to deadly diseases, Fallon laughs. "Give me a break!" she says. "Show me a case where that's happened."

I asked the FDA exactly that. In an e-mail, John Sheehan, director of the agency's dairy and egg safety division, wrote that he didn't know of any cases in the United States in the last 20 years. But, he added, "that doesn't mean that they can't or won't occur again if the frequency of consumption of raw milk increases or continues unabated."

That, Fallon argues, just confirms her point. "We're not saying that you can't get sick from raw milk," she says. "We're just saying the risk is very, very low."

The disconnect between raw milk advocates and health authorities runs deep. To understand how deep, it's good to know a little about the history of pasteurization.

In the late 19th century, bad milk was killing babies by the thousands in American cities. In New York City, nearly a quarter of babies died before their first birthday, and tainted cow's milk was largely to blame.

Louis Pasteur invented his process in the 1860s, but decades later it was still not widely used for milk. Enter Nathan Straus, an owner of Macy's department store and a crusading philanthropist. Straus, perhaps more than any other person, is responsible for the near-universal pasteurization practiced today. Disturbed by the infant mortality rate and understanding that bad milk was the culprit, Straus wrote pamphlets arguing for pasteurization and, more important, set up milk stations around the country to distribute pasteurized milk. Mortality rates plummeted. Straus almost single-handedly saved thousands of lives.

Voluntary pasteurization was such a success that cities started passing mandatory pasteurization laws. Chicago was the first in 1908; New York followed six years later. It took several more decades for states to catch up, and raw milk continued to be available in many places. Michigan became the first state to outlaw raw milk in 1948. It wasn't until 1986 that a federal judge ordered the FDA to ban interstate shipment of raw milk. The ruling cited an FDA document stating that "raw milk, including certified raw milk, is a vehicle for transmission and spread of numerous diseases," and there is no "scientifically confirmed benefit for the consumption of raw milk."

The triumph of pasteurization seems like a victory for human progress. Raw milk advocates see it differently. They believe the health problem was caused by lack of regulation and refrigeration, not raw milk. On farms, people drank fresh raw milk. In cities, where the majority of deaths occurred, the dairies were filthy, and there were lax standards for transportation and storage. In addition, suppliers were often unscrupulous, as Cattle, a history of the cow by Laurie Winn Carlson, attests: "Milk was commonly mixed with additives to gain profit. Then, to make it look whole, additives were mixed in, such as

carbonized carrots, grilled onions, caramel, marigold petals, chalk, plaster, white clay and starch. To replace the cream that had been removed, emulsions of almonds and animal brains were dissolved in the liquid to thicken it."

It's undeniable that some of the milk supply was dirty and deadly at the turn of the 20th century. But modern dairy equipment, routine testing of cows and refrigeration have changed all that, raw milk advocates argue. (The FDA and other health authorities contend that those advances, while important, still don't make unpasteurized milk completely safe.) Tom Cowan, a family practice doctor in San Francisco and a founding member of the Price Foundation, has been recommending raw milk to his patients for 20 years. None of them, he says, has ever gotten sick from drinking it. Organic Pastures Dairy Company, based in California, one of the handful of states where raw milk sales are legal, claims to have sold more than 40 million servings of raw milk without a single complaint. The dairy's slogan is "Join the raw revolution."

**A MARRIED COUPLE IN FAIRFAX JOINED THE RAW REVOLUTION LAST YEAR.** They make for unlikely revolutionaries. He works for an investment services company; she takes care of their three boys. They live in a two-story brick house with brown shingles. He is tall and bespectacled. She has curly reddish-brown hair and lots of energy. She needs that energy: They have 2-year-old twins and a 10-month-old. They go to church on Sunday. They drive an economy-size car. They are Mr. and Mrs. America. And they drink raw milk. They didn't want their names used for this article, even though they are not breaking the law. In Virginia, it is illegal to sell raw milk, but it is not illegal to drink raw milk from a cow you own. So they bought a cow. Well, sort of.

They participate in a "cow-boarding" program that takes advantage of this legal loophole (other states, such as Maryland, don't permit such programs). They signed a contract with a Virginia dairy farm, paying \$60 upfront and another \$60 a month for the care and upkeep of the cow they partially own. In



exchange, they get three gallons of raw milk each week. They pay an extra \$40 a month to get it delivered to their door.

They discovered raw milk last fall after the wife gave birth to their third child. The baby was six weeks premature and had trouble gaining weight. The mother couldn't produce enough breast milk, and commercial infant formula didn't agree with the baby. At one point during my recent visit to their house, she pulls out the family photo album. The shots of the baby at 2 months old do seem worrisome. His cheeks look hollow, his arms thin. In medical lingo, the baby was failing to thrive. The pediatrician was concerned. The parents were frantic.

The mother stumbled on a reference to raw milk in a book called *Mommy Diagnostics*. Not surprisingly, she was more than suspicious at first. "It sounds ridiculous," she says. "I thought it was nuts."

But they got more books and read testimonials online. They decided to try it because nothing else was working, and they were running out of options. They didn't make the decision lightly. "It was scary," she says. "I mean, we're talking about a 2-month-old, you know? It was very scary. But my baby needed something, and the doctors weren't helping."

In a week, the baby began to put on weight. His digestive problems vanished. His cheeks filled out. His arms grew pudgy. His mother flips to the next page in the album with photos taken a month later. It's like looking at another baby. Now 10 months old, he weighs 23 pounds, is starting to crawl and can clap his hands with startling force.

The baby lives almost exclusively on raw milk formula (though he's just started to grab food off his parents' plates). When it's feeding time, I watch the parents prepare the formula. They use the recipe in Fallon's book, which calls for ingredients such as liquid whey and cod liver oil. It has to be blended and warmed on the stove. It is not a simple or speedy process.

After the formula is prepared, mother flops down in an overstuffed white chair, hungry baby in hand. From the way he latches onto the bottle, it's obvious that he likes it. I can't help but think, as I'm watching him suck down the raw milk, of the FDA's Russian roulette analogy. I mention this to the couple. "We researched this," he says. "We wouldn't be doing it if we thought it was unsafe. Come on, I mean, these are our kids."

But raw milk hasn't been good for just the kids. As it happens, the mother has extreme difficulty digesting dairy products. She didn't know this until a few years ago; all she knew was that she had chronic abdominal pain. Doctors asked questions, ran tests. One diagnosed endometriosis, a condition in which the uterine lining grows outside the uterus. This turned out to be false. Another doctor suggested she stop eating dairy products. She did, and the pain disappeared.

She avoided dairy from then on. But when they started getting raw milk for the baby, she gave it a try. She found that it didn't upset her stomach. She pours it on cereal and in her tea. No pain. One sip of pasteurized milk, however, and she's miserable. This is proof, raw milk advocates would argue, that the enzymes destroyed during pasteurization really do help with digestion.

The FDA researchers scoff at such testimonials. So does Isabel Maples, a registered dietitian with the National Dairy Council. Maples has heard similar stories, and she says it's all in their heads. "Sometimes if people want to believe something, it's kind of like their reality," Maples says.

And Maples doesn't believe that raw milk is any more nutritious than pasteurized milk. As for feeding it to infants, the dietitian calls that "misguided and certainly very dangerous."

The Fairfax parents have encountered plenty of skepticism from friends and family members. "When we tell some people, it kind of freaks them out," she says. They've never admitted to their pediatrician that they feed the boys raw milk. "In the back of your mind, any parent worries about social services showing up to take away their kids," he says. (A spokeswoman for Virginia social services says she knows of no

cases involving raw milk and that it would likely be an issue only if the child became ill.) As the Fairfax mother wrote me in an e-mail, "I know it's a little bit paranoid, but when you start questioning the FDA, I'm sure they assume revolution is next! :-)"

**THE FAIRFAX FAMILY GETS ITS MILK FROM A FARM IN WINCHESTER**, a small town at the very top of the Shenandoah Valley. Hedgebrook Farm is run by Kitty Hockman-Nicholas, who is in her sixties and does all the milking and the majority of everything else on the farm herself. The land has been in her family since 1906 and has been an operating dairy since 1949. In 2001, Kitty started offering a cow-boarding program. She has about 150 participants throughout Northern Virginia.

Before showing me the dairy operation, Kitty gives me a tour of the farm. She seems to have at least one of every creature. Goats, horses, sheep, donkeys, llamas. More than 50 peacocks. A water buffalo. A Vietnamese potbellied pig named Pork Chop. She hosts events here -- school field trips, birthday parties, hayrides -- and she rents out a large cabin she had built from the remnants of two 19th-century tobacco barns. Kitty helped design every bit of the cabin, called the Herds Inn, down to the shutters and door handles. From the window, you look out onto a green, sloping pasture leading to a grove of trees.

Beyond the trees is Opequon Creek, a tributary of the Potomac River.

The dairy operation keeps the farm afloat. Kitty has 20 Jersey cows, the breed reputed to give the creamiest milk. "I wouldn't milk anything else," she says firmly. Because she runs a grade "A" dairy, the top level for dairy farmers, she is visited regularly by state and federal inspectors and has to meet stringent standards. Her cows are routinely tested for tuberculosis and brucellosis (they've never come up positive, she says). Bacteria levels in the milk are also monitored. Kitty keeps a close eye on the cows, pets them and calls them by name: Lara, Marcy, Roz, Pinto, Beetle, Blythe and so on.

When it's time to milk the cows, Kitty jumps into her beat-up golf cart (the novelty license plate reads "Ms. Moo") and drives to the house to change. She emerges in a flannel shirt and overalls. The cows are

already lining up outside what she's dubbed "the milking parlor." They eat mostly grass but get a handful of protein-rich feed to entice them inside. Kitty dons plastic gloves and uses a paper towel to wipe off each of their teats. She then dips the teats in an iodine solution before hooking up the milking machine.

The heart of the milking machine is called "the claw." Protruding from the claw are four stainless-steel tubes with rubber sleeves that fit snugly over the cow's teats. They are vacuum-powered and make a thwup! sound when Kitty attaches them. The claw sucks the milk through the tubes (called "teat cups") into a rubber hose, which connects to a glass pipe overhead. The milk flows through the pipe, out the door of the milking parlor and into a nearby building that houses an 800-gallon refrigerated, stainless-steel tank. The tank has a spout that Kitty uses to fill up the glass, screw-top jars that cow-boarding participants take home.

As Kitty is milking the cows, a half-dozen cats gather outside the door, waiting patiently for their saucer to be filled.

Kitty grew up drinking raw milk. She remembers her father squirting milk directly from a cow's teat into her mouth. She still has a glass of it every day with lunch. Her adult daughters drink it, too. And her grandchildren. No one has ever become sick from the milk. No customer has ever complained, she says. She calls the FDA's strong warnings nothing more than "scare tactics."

There have been occasional rumblings in Virginia about outlawing cow-boarding programs. So far they remain legal.

MARYLAND, HOWEVER, HAS A REPUTATION AS ONE OF THE MOST RESTRICTIVE STATES when it comes to raw milk. In 2002, a food co-op in Bethesda was busted after an undercover sting. "They told us that if we use raw milk again, we will be put in jail for one year and fined \$10,000," says Victor Landa, director of the Shanti Yoga School of Life and operator of the co-op.

I ask Landa if he's stopped drinking raw milk. There is a pause. Then he chuckles.

"If I tell you that, they will put me in jail," he says. (Elkin, of the Maryland Office of Food Protection, says Landa was never threatened with jail time but was warned not to offer raw milk again.) I had heard rumors that, despite Maryland's vigilance, there was at least one farm offering raw milk. I contacted dairies, asked raw milk drinkers. No one had heard of it, or no one was willing to tell me. After weeks of trying, I finally got a tip.

The farmer asked me not to use his name, for fear of drawing attention to himself. He is young and thin, with big, roughed-up hands. On this day he is wearing a blue, button-down shirt and leather work boots. He shows me around his property, explaining how mulberries ripen unevenly, making them harder to pick than cherries. He tells me how songbirds are attracted to thistle and how red-tailed hawks are a chicken's worst enemy. He talks about working in harmony with nature, rather than against it. Selling milk is his livelihood. Most of what he produces is sold on the commodity market and pasteurized. A small fraction goes to those who have signed up for his cow-boarding program. He doesn't know of any other farmers in Maryland offering raw milk. "I guess they're scared," he says. "Maybe I should be scared, too."

Like Kitty, he grew up drinking raw milk. His father was a dairy farmer. For a long time, he had no interest in the family business. But he changed his mind. "It was either go out and learn how to do something new," he says, "or keep doing what I already know how to do."

His wife also grew up drinking raw milk on a dairy farm. They feed their kids raw milk. He says he has never become ill from drinking it. Neither has his wife or his kids. In fact, he's never known anyone who has gotten sick from drinking raw milk. When I tell him that the FDA has called raw milk "inherently dangerous," he rolls his eyes. "Yeah, that's what they say," he says. The young farmer is not a man of lengthy explanations.

I ask him if he's ever had pasteurized milk. "I had it in a restaurant once," he says. "Tasted terrible." I DECIDED THAT MY FIRST SIP OF RAW MILK WOULD COME NOT FROM THE JUG I HAD BOUGHT ONLINE, but from the gallon Kitty at Hedgebrook gave me (gave, not sold). I knew nothing about the milk I bought online, and even raw milk evangelists stress the importance of knowing your supplier. On the other hand, I watched Kitty milk her cows, talked to her about the precautions she takes, spent a long afternoon at her farm. I trust her.

Milk in its raw state doesn't look like what you buy at the store. It can have a slight yellowish tint. Also, the cream rises to the top, forming an inch-thick layer that you have to stir in. I sit down at the kitchen table, fill my glass and take a small, tentative sip, followed by a big, hearty one. I had heard so much about the taste of raw milk that I half-expected the heavens to open up and angels to descend upon my taste buds. That didn't happen. Still, raw milk is certainly richer and creamier than the store-bought whole milk I normally drink. You can't even compare it to skim. It's fuller somehow, almost like a milkshake. I see how you could get hooked on the stuff.

For the sake of research, I pour myself another glass.

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