

The Remedy¹

As we have seen, the majority of Vermont dairy farmers operate in a system that, by official government policy, is stacked against them. We have also seen that the goals of the Vermont Milk Commission (“VMC”) convened to ‘help’ by assuring farmers an “equitable rate of return” and consumers a “supply of milk at reasonable prices,” are contradictory and unachievable—if, that is, the VMC wants to accomplish both at once while preserving the conventional, farm paradigm.

But the interests of both farmers and consumers *could* be simultaneously served if the VMC were to view the problem from two different perspectives and provide a solution suitable to each:

- The conventional one for value-conscious consumers
- A new one for Vermont dairy farmers

We, in the U.S., have the duty, inasmuch as we are able, to try through our congressional delegation, to affect policy. But truth be told, changing U.S. farm and/or energy policy from Vermont is virtually beyond our parochial competency. Altering our own little farm economy, on the other hand, while still imposing, is possibly within our reach.

Separate in your mind the world’s, and even the country’s, food problem from the farm problem we have here in Vermont. Our largest dairy farms are, of course, part of the vast federal food system: they will someday topple over under their own weight. But the problem I ask you to address is how to restore to profitability +/-450 small and middle-sized, Vermont farms, the majority, and how to protect the contribution hundreds of *Vermont* farmers could make to the social and rural fabric of this once-predominantly, agricultural state. It is about how to change conditions *here* so that as members of our middle class—hundreds more than just the largest twenty or thirty Vermont farmers—will again be in a position to earn net profits from dairying, purchase feed, supplies and equipment *here* at their local dealerships, call and pay for veterinarian and other services and make a taxable contribution to *Vermont’s* economy.

Keep in mind that not all farms are the same, that some will make profits while others cannot. Keep in mind that Vermont does not need to produce more commodity milk; milk is fungible, *i.e.*, milk made here is identical to milk made in surplus on farms in neighboring states. Keep in mind that no matter what we do here in Vermont, commodity milk will continue to be both cheap and plentiful for the foreseeable future.

¹ *The Remedy* is excerpted from James H. Maroney, Jr., “The Political Economy of Milk: Reinvigorating Vermont’s Family Dairy Farms,” (Leicester, VT: Gala Books, Ltd, 2008), Chapter VIII, p. 124-147. The numbers, such as the number of remaining dairy farms, their production and price received, have been updated.

The VMC heard testimony from Milk Commissioners from New Jersey, Maine and New York and has recommended that farmers here might be given a modest, over-order premium *if neighboring states enact similar legislation first*. But it is not, to put it bluntly, the Vermont taxpayer's concern to provide a living wage to dairy farmers from other states. It is not either the Vermont taxpayer's concern to preserve the industry's present level of milk production. The VMC's two, incompatible goals are achievable, but they must be de-coupled so as to:

1. Allow conventional farmers from other states to supply Vermont consumers with a continuous supply of inexpensive, commodity milk at "reasonable prices"
2. Convert *all* Vermont dairy farmers to the production of expensive, organic milk made for export

To do this, the VMC must recognize that:

1. The urban market for expensive, organic milk is not identical with the market for inexpensive, commodity milk
2. The production of Vermont organic milk is not synonymous with the production of a basic food

Secretary of Agriculture Earl Butz's assertion that 50 million people would starve if farmers were to go back to organic agriculture implies that people would starve if *all* farmers went organic, or that small and mid-sized Vermont farmers are not distinct from large farmers here and elsewhere, or that they could not adjust their operations to serve a particular clientele or that were US farmers to stop raising beans and corn for animal feed as their principal occupation there would be plenty of land on which to grow food for human consumption. Butz accepts that, like all the rest, Vermont farmers, large and small, must continue to make commodity milk or people would starve. In 1972, when organic milk was all but unknown, this may well have made at least some sense.

But it no longer makes any sense: organic milk is now successfully differentiated from commodity milk. There is little sense in denying that the market for commodity milk is past maturity and it is made in such surplus that no one is going to do without milk. In a word, it doesn't pay Vermont farmers and it never will again. Vermont farmers have a unique opportunity to get out of a system that is hostile to their interests. *But they will need help and they must get it without delay*. They have, alas, but a crumbling infrastructure ravaged by decades of financial losses and the consequence of staying too long in the conventional paradigm. But 85% of them do still have land and infrastructure just barely adequate to make another product besides commodity milk: organic milk. This opportunity is not new; why don't they convert?

The answer is complicated; the word "organic" conveys to some farmers an effeminate cosmopolitanism, an unwelcome assault upon, shall we say, the conventional yeoman's virility. Although *agricola*, the Latin word for farmer, is masculine, it takes the feminine

form, and while there are certainly women farmers, the majority of farmers today is men.

Equipment and farm supply advertisers have noted this fact and gone to considerable trouble and expense to link the farmers' subliminal, masculine values to big yields, big tractors, big farms and big debt—the products the magazine's advertisers are coincidentally selling—which are incompatible with organic farming. Or, it may be that conversion requires capital, or struggling with a frightening new learning curve. Dairy farmers are also, by custom, not in touch directly with their customers, from whom the owners of most businesses learn to make adjustments. And the word “conventional” implies a reluctance to change: it may be any combination of these.

Traditional dairy farmers, for reasons there is no space here to address, resist the notion of farming organically, in spite of the now-proven success of the word's allure to urban consumers and in spite of its demonstrated payback to farmers. Perversely, those who oppose organic methods and support conventional practices place themselves in the awkward position of defending over production and low farm prices, which is what conventional farming returns. Why do that? Today, organic dairy farmers—up to 200 now from 3 in 1989—represent 20% of dairy farms in Vermont. They do not all make money farming organically, but—obviously—they are converting for a reason. Could the reason be that they are getting (with quality premiums) \$40/cwt instead of \$16/cwt?

To be sure, what we now know as “conventional” farming practices have taken a strong foothold, and “wealth is wheat in the bin” is, for farmers everywhere, both a true and potent adage. The conversion from conventional to organic, which requires an acceptance of reduced, or even static annual yields, a three-year period of “cleansing” for animals and land, some handwork, pasturing and other techniques lost since grandfather was in the barn will necessitate a radical adjustment in facility, methodology and attitude. During and after transition, converts may use no antibiotics or hormones and they must graze their small herds, in season, on grass pasture. The majority grows no corn, feeds dry hay with little or no grain and typically milks 30-90 cows in stanchions. These methods, all perfectly standard operating procedure on all Vermont dairy farms prior to 1950 are, after a period of adjustment that will be wrenching for some, duplicable in most small to medium-sized Vermont operations.

Organic will be resisted by those farmers with deeply ingrained and understandable fears of backing off on 20,000 lb. herd averages, greater corn acreage and steady production gains per fixed unit of input, all of the goals they have fought so hard to achieve in order to remain competitive. Yet, continuing resistance, in the face of \$40/cwt for the alternative, is hard to rationalize. And we could spend years contesting the large farm/small farm question and do nothing about \$16/cwt milk payments for Vermont's 450 small to medium-sized conventional dairy farmers.

This, however, is incontestable: if they will but transition to organic, Vermont dairy farmers could have what amounts to a monopoly on the state's brand name.

We all know that the market for Maine lobsters is wider and richer out-of-state than in, just as in Florida the greater, richer market for oranges is realized by adding value and exporting. In Idaho, this is true for potatoes; in Maryland it is true for crabs; in Botswana it is true for diamonds and in Friedrichshafen, Germany it is true for Zeppelins. Vermont milk, by comparison, is almost entirely (95%) shipped, in raw form, out of state where others add value, brand it, and reap profits. At present, the words “organic milk” are linked to no particular region or state: the phrase is generic.

If the Vermont Milk Commission had wanted to fix the farm problem here, they might have ventured to assist our farmers to:

1. Convert to organic production
2. Organize under a Vermont Organic coop that *owns a brand*
3. Raise capital
4. Build infrastructure and design distribution
5. Offer affluent, east coast consumers a line of dairy products that will forever link in their minds the word “Vermont” to the words “Organic Milk.”

If the farmers were to add to those words the phrases “Fair Trade” and “glass bottled” the product would speak clearly and loudly to urban consumers—the most prosperous demographic in the world lives within a 300-500 mile radius of Vermont—all familiar with, and eager to buy, products thus described and thus supplied. And, because farmers in New York, Idaho, California, Texas, Florida or Wisconsin cannot make *Vermont Certified Organic Fair Trade Milk*, the product can come from nowhere else. If 450 of Vermont’s dairy farmers will but take it—and if our chronically, ossified Agency of Agriculture would reorganize itself and lead them to it—a share of the market for organic milk is theirs to claim and theirs to exploit.

Such a venture needs capital: how to raise it?

The answer is not—*not, not, not*—to invite investment from the conventional processors, be they “farmer-owned” coops or privately held. Such buyers pay only slightly more than the cost of production for 41% of the milk Vermont farmers ship and well below the farmers’ cost of production for the other 59%. Farmers do not need any more of these kinds of partners; and the market does not need more commodity milk products, made in Vermont or elsewhere.

Modern dairy food manufacturing, as we have seen, is a huge industry and the barriers to entry are incredibly formidable. Profit margins are so thin that huge volumes and 24/7 work schedules are the norm. New entrants must have access to staggering amounts of capital to buy equipment, to pay fixed costs and guarantee free cash flow from operations. Beyond that, distribution routes and retail grocery slotting fees are so competitive that new, smaller brands are discouraged from entering the fray. If and when they do (Organic Cow, Vermont

Milk Company, Vermont Family Farms, etc.), the big boys quickly crush them.

Truth be told, it is late in the game: Horizon, Organic Valley and Stonyfield have effectively garnered all available organic milk supplies and these companies enjoy first-mover status among consumers looking into the dairy cases all around the country. Yet exclusively Vermont-sourced, fluid milk and milk products, conventional or organic, make no major appearance in the urban markets.²

Notwithstanding this vacuum, Vermont-made certified organic fair-trade glass bottled milk would enjoy two very important properties, largely untapped, that would boost the chances for a new entry:

1. The state's very marketable name, which to milk consumers, already means fresh, green and organic.
2. The state's proximity to markets in Connecticut, Massachusetts, Pennsylvania and New York.

The "Farm Problem," in summation, has arisen because Vermont dairy farmers make a commodity product of which there is an oversupply and steadily falling demand, and to which, because it is so plentiful and cheap, others, for their own private gain, add value. To thrive, Vermont farmers must, instead, produce a value-added, retail product of their own that will lag just behind but never overtake demand, which prospers because it enjoys a *Durable Competitive Advantage*.

There are only three ways for any business to gain a Durable Competitive Advantage:

- ⊏ Price Leader (lowest cost)
- ⊏ Shortest Time/distance to Market
- ⊏ Control a valuable resource

Vermont dairy farmers, who presently have none of these, could have all three. Competitively produced, in an era when the cost of fuel makes long-distance shipping prohibitive, Vermont Certified Organic Fair Trade Glass Bottled Milk can be exported to the nearby New York, Connecticut and Boston groceries, where up-scale, urban consumers gladly pay \$15/gal, of which Vermont dairy farmers will get roughly \$3.00.³

Keep in mind that organic milk is not a necessary staple food product, nor will everyone buy it. Keep also in mind it is unimportant that a majority of Vermont consumers will not support Vermont organic milk. Ordinary, commodity milk and Vermont Certified Organic Fair

² The one exception is Cabot cheese.

³ On a trip to my local Middlebury supermarket, I identified in the case not fewer than fifteen SKUs for fluid milk, whole, skim, 1%, 2%, organic, coop, etc., ranging in price from \$3/gal to \$7/gal. In April 2008, on a fact-finding trip to upscale stores in New York, Whole Foods, Dean & DeLuca and Zabars customers are paying \$13/gal for organic milk.

Trade Milk are both milk (even identical)⁴. But to the retailer and the consumer, they are distinctly different SKUs (stock keeping units), with their own associative values, costs and price points. Dairy consumers are not divided into just one or two classes; they can be divided, depending upon where you find them, into an impressive array of preferences, tolerances and capabilities.

For example, the Vermont Milk Commission recently heard a report from the manager of City Market on how they created a market for “Coop Milk.” Vermonters, he said, reported in a survey that they would pay a modest premium in exchange for (in this order):

1. Pure, fresh and clean milk
2. From local, family farms
3. Made without rBST
4. Organic

City Market asked Monument Farms of Middlebury to partner with them to create a new SKU to be branded Coop Milk, which would meet the first three requirements on the list, but not the fourth. Coop Milk is a success because it is tailored for the market segment into which it is sold. It provides the Vermont coop consumer—who is, generally speaking, somewhat willing to help farmers yet very value-conscious—the *appearance* of quality assurance. It provides the producer a slim premium over what he/she is paid to produce plain old commodity milk.

Keep in mind that the idea for Coop Milk was driven by a concern not for Vermont dairy farmers or for the water quality in Lake Champlain but for City Market consumers. As such, retail price was a major factor, and only some, but by no means all, City Market consumers pay the modest, extra price. But Vermont coop consumers are not identical to up-scale urban milk consumers, who shop in relatively small, boutique markets. Vermont dairy farmers as a class make much, much more milk than can be sold in Vermont’s little coops. Consequently, more Coop Milk would quickly surpass local demand and drive the price back down.

⁴ Some consumers are motivated to buy organic milk as a health issue, because they fear that ordinary, commodity milk contains antibiotics, growth hormones or pesticide residues. BGH, also known as rBST, is a synthetic hormone injected into cows to stimulate milk production. But it is so thoroughly metabolized in the cow’s rumen that a dedicated team of biochemists could not find traces of it in the milk of cows treated with the hormone. Antibiotics, on the other hand, do pass through the cow into the milk; but farmers are obligated to withhold milk from treated cows until, after four or five days, the cow passes it out, at which time, her milk is allowed into the bulk tank. All milk coops and handlers are required to screen milk at every pickup for trace amounts of antibiotics, which by Federal law, are not allowed in the milk. Petroleum-based herbicides and pesticides are highly effective, labor saving technologies. But they are virulent toxic substances and ideally, they have no place in the food chain. Obviously, since they are applied to the fields where crops are grown, there is concern they will leach into the water or migrate into the food system. This may be so. But my objection to them is that they enhance production for those who use them and lower prices for all farmers, whether they use them or not.

Vermont Certified Organic Fair Trade Glass Bottled Milk, on the other hand, requires the farmer to make a commitment to a rigorous standard, which in most cases involves major financial and cultural adjustments. Precisely because organic farming repudiates production-oriented technologies—the root cause of high yields and lower prices—and because the demand for milk is inelastic—demand is relatively constant in the face of ordinary supply volatility—and lastly and most importantly because dairy farmers who want to join an organic coop must wait until the coop has sufficient demand to warrant new supply, organic milk farmers cannot overproduce their market. Adherence to the organic standards lowers milk production +/-15%, and it is received wisdom that a drop in milk production of just 10% would double the FMMO price. Consumers would, in other words, pay more for milk were they offered no cheaper alternative. There is justification, therefore, for *all* Vermont dairy farmers who wish to make an income to make less milk and to make it organically.

To capture this opportunity there are three steps that call for an organization with authority similar to what the state invested in the VMC to:

1. Offer our farmers financial and technical support for the transition to organic
2. Organize a Vermont Fair Trade, Organic Milk Coop that promises them:
 - A real voice in management
 - A decent, middle-class existence
 - A sound economic future in retirement

It is imperative to understand that even if all 600 of Vermont's remaining conventional dairy farmers turn to the production of organic milk, large conventional farmers in other states will continue to supply commodity milk for value-oriented Vermont consumers. This would satisfy the second half of the VMC's mandate, to “assure Vermont consumers a supply of fresh milk at reasonable prices.”

The Vermont legislature must undertake a rapid withdrawal of support, both implicit and explicit, from the conventional farm paradigm and throw its support behind converting Vermont's remaining dairy farmers to organic.

Fortunately, converting to organic production will not only reduce greenhouse gas emissions and sequester carbon in the soil, continuous ground cover, composting, organic fertilization and other NOP⁵ practices will increase the amount of soil organic matter, reduce erosion, conserve water and enhance fertility. This, in turn, will increase crop productivity and make Vermont agricultural products stand out in upscale urban markets along the east coast where 40M of the world's most prosperous demographic are eager to buy ecologically grown food products. Unfortunately, none of these measures is currently

⁵ The Organic Food Production Act of 1990 (7 U.S.C.A. § 6501-22) required that the USDA develop national standards for organic products. The NOP Final Rule was first published in the Federal Register in 2000 and are in the US Code of Federal Regulations at 7 CFR Part 205. Vermont's Senator Patrick Leahy is credited with passing the legislation.

promoted or adopted in Vermont's Comprehensive Energy Policy (“CEP”).

The largest impediment to converting farms rapidly to organic is not money, although that is surely a factor. It is that not all Vermont dairy farmers want to convert, and some for one reason or another cannot meet the standards. But those who resist change are running out of time; the FMMO price has been stuck for the last four years in the range of \$16/cwt or \$4/cwt below the median Vermont dairy farmer’s cost of production. The conventional Vermont dairy industry is on track this year—notwithstanding the effects of COVID-19—to lose \$53,545,000⁶ and neither VAAF^M or the legislature has a plan either in effect or in planning that would stanch this bleeding.

It would be one thing if dairy farmers insisted upon applying the conventional paradigm, over producing their markets and getting less for their milk than it costs them to make. That is their right. But the paradigm externalizes its residues, not by sloppiness but by design, into community’s air and water. This is not their right and it is intolerable to society. Society has on many occasions expressed support for dairy farmers and wishes them to succeed; it has provided them at public expense exemptions from property and sales taxes and other assistance. Yet *still* our dairy farms fail and *still* they apply the substances that over produce markets and pollute the lake and the atmosphere. It will do society no good to allow operators to continue to choose their own practices since farmers—like everyone else—hold their own interests above the community's.

VAAF&M, ANR and DEC even as they are separate agencies, share a unified goal, which is to conserve important parcels of land, with the overall goal of maintaining a strong, rural economy by keeping farmland affordable and in active use. This cannot be achieved while implicitly supporting farm technologies (*i.e.*, funding farmland conservation without mandating sustainable farming practices) that boost production and pollute the lake and the atmosphere. Higher production is what drives prices down, which is what draws funding for VHC^B and VLT from the state. This is akin to trying to ride a horse in two directions at once. The problem, by this analysis, lies with the regulators, not the farmers. VAAF&M’s, ANR’s and DEC’s policies are empirically failing because state regulators have not yet decided which is more important, clean water or a shambling dairy industry. So, they try to achieve both but achieve neither. The failure of these organizations to review their efficacy is intolerable.

In answer to those who insist that organic milk is but a niche market, I offer these simple observations:

1. The national trend toward organic milk, which pays farmers a steady price reliably 50-80% above that paid to conventional farmers (organic is all one class), is entering

⁶ At today’s prices LFOs are about breaking even, but MFOs and LFOs are losing money in huge amounts

<https://www.dropbox.com/s/hm7qu5ez20s8j9m/Profit%20%28loss%29%20VT%20dairy%20by%20category.xlsx?dl=0>

its twentieth year and Vermont now has 200 converts. Still, the vast majority or 450 of Vermont farmers (with the active or passive complicity of the Vermont Agency of Agriculture) clings to the conventional model.

2. Organic milk is currently just 15% of all milk made in Vermont but it earns its producers 30% of gross Vermont dairy farm income and maybe as much as 90% of net Vermont dairy farm income.
3. Ben & Jerry's Homemade requires 210,000 pounds of cream per batch to fill their vats, which is separated from 6.4 million pounds of 3.25% milk.
4. At these metrics, if Ben & Jerry's plant were operating one shift, 300 days of the year, they would require near 2 billion pounds of organic milk, about equal to the conventional Vermont dairy farmers' total annual production of 2.1 billion lbs.
5. That 2.1 billion lbs of conventional milk (21M cwt) is now worth (at \$16/cwt) \$336 million to farmers.
6. If 80% of all Vermont farmers converted to organic and sold all their milk at prevailing prices (\$34/cwt) to just Ben & Jerry's, their 2 billion lbs would earn them \$633 million.

In order to help Vermont farmers to take advantage of the organic milk market, it will first be necessary for the Agency of Agriculture to shift the *greater* part—not the least—of its resources to small and medium-sized dairy farmers—about 80% of the remaining 600—and away from its decades-old devotion to a few dozen large, conventional farmers.

The agency must also confine its mission to *farming*, which is about cultivating the soil to grow foodstuffs and raw produce in Vermont, and away from nutrition, food assistance, marketing and food manufacturing. Coffee roasted and packaged in Vermont or salsa, cut, mixed and packaged here, are welcome businesses in Vermont and of course, government has a duty to provide for people who need food assistance. But these programs belong respectively in the Departments of Commerce, Economic Development and Health & Human Services.

Those farmers who wish to change, rather than slide into oblivion, will need assistance to convert their operations to organic. They will also need a leg up to meet the higher cost of three years' annual organic expenses while they are still making conventional incomes. The Agency of Agriculture must also facilitate a plan to capitalize and equip in-state manufacturing capacity that Vermont producers will own and always control.

Keep in mind that converting the entire Vermont dairy industry to organic would cut lake pollution from agriculture in half within five years and turn 375 conventional Vermont dairy farmers from tax dependents to profitable, taxpayers. When I make this statement, I invariably hear that “if we did that, there would soon be a glut in the organic milk markets,

prices would tumble and we'd be right back where we started." But this ignores fundamental principles upon which organic certification is based.

For starters, the National Organic Program standards do not allow the importation or application of NPK fertilizer. Second, organic dairy cows must go outside for six or seven months of the year to rotational grazing plots, where they eat what their maker intended them to eat: grass. Since a cow cannot go much farther than a few hundred yards from the barn to eat before she starts to expend more energy in the day than she can ingest, an organic farm is limited to about 200 cows and about 600 arable acres. And third, organic cows are fed a ration based primarily upon high quality forage, with grain added only sparingly.

The other objection I hear to my suggestion is that the organic markets are also in surplus right now and that there is no market for all the organic milk that Vermont would be producing. Yes, the organic markets are presently in surplus. But this objection also fails to grasp the precepts of the organic standards.

First, if experience tells us anything only a dozen or so of Vermont's conventional dairy farmers would elect right away to join the organic program. Some would wait a while and then maybe join, and the rest—perhaps half—would never or could not join. So those going out of Vermont dairying would far surpass those producing a 'surplus' of organic milk.

Second, ordinary milk comprises components each of which has a value in the marketplace. Everyone knows that Class I or fluid beverage milk, even though it is sometimes priced below the cost of production returns the highest price. Reliably below the farmer's cost of production we have Class II, Class III and IV. Butterfat, usually about 3.5% of production, is its own value category and like protein pays a modest premium. But there are no classes in organic milk; the farmer's entire production returns the same price, and that price is today, with premiums for butterfat and protein, around \$40/cwt or 62% more than what the conventional farmer receives for the *All-Milk* price. So, if Vermont dairy farmers were to reduce milk production by 25% and increase gross revenue by 150%, the industry would be making a profit.⁷

Third, unlike conventional dairy farmers, organic farmers are not allowed to expand production whenever it suits them; the organic coops control individual production in order to keep group production below demand. This provision means that the coops will not take on new farms unless and until demand surges above group production; this means that the organic coops will only take on new Vermont producers as demand for their milk manifests in the marketplace; this means that even if Vermont were to declare tomorrow that it was converting its entire industry to organic, very few if any farmers would be permitted to ship milk into the pool. Add to that obstacle, that to become certified takes

⁷ <https://www.dropbox.com/s/mjni2io8nvg15n1/Scott%20Phil%20reinvigorate%20agriculture.pdf?dl=0>

three years of ‘cleansing,’ during which time the new organic farmer must provide only organic feed and comply with all organic protocols, but sell his or her production into the regular, conventional market. Obviously, these limitations would be difficult for most farmers and for some, virtually impossible. Here is how we get around them.

NOFA Vermont is the certifying agent in the state. I have been in talks with them about creating a new class for new farmers that they would call “transitional.” Dairy products made with some quantity of transitional milk would be labeled as “Made with Transitional Organic Milk” and priced higher than commodity milk but below organic milk.⁸ Farmers who sign up to become certified must still go through the three-year ‘cleansing’ period. But as soon as they sign and as soon as they begin complying with the organic protocols, their milk would become eligible to be labeled ‘transitional.’ Because they have not yet been accepted into an organic coop and because they must sell their milk into the conventional market, they would receive the FMMO price plus the difference between it and the prevailing organic price, so they are making the equivalent of the organic price from the start. Who would pay that difference during the transition?

Vermont has two large consumers for raw milk, Agrimark/Cabot and St. Albans both of which buy only conventional milk. If the state of Vermont were to declare that it would henceforth no longer support the production of conventional milk, thereby disrupting these companies’ supply chains, would either of them, both of which have for generations marketed themselves as Vermont based, go out of state to buy conventional milk rather than support Vermont dairy farmers transitioning to organic milk? I don’t think so. And I think the legislature could think of a way to persuade the state’s large consumers of milk products, like Ben & Jerry’s and Commonwealth Dairy, to support the program, thereby putting the burden for supporting the conversion of Vermont dairy farmers to organic on consumers, the ultimate beneficiaries of the change.

Working capital for a new, in-state milk manufacturing plant would, ordinarily, come from the private sector, which, if it saw an opportunity, would reap the lion’s share of the benefits, leaving farmers where they presently are as low-paid producers of an essential ingredient. Farmers, in view of their experience with rock bottom prices over the past three decades, have no spare capital to invest in a new venture, no more credit resources to draw upon and good reason to be risk averse. Consequently, working capital must be raised by public subscription, not from private, or venture capital, sources.

An initial public offering (IPO) could take the form of a statewide, CSA (Community Supported Agriculture) whereby, in exchange for capitalizing—not expensing—the business, subscribers would receive their milk as dividends. For example, a \$6,000 investment that might, if invested, yield 5%, or \$300, would instead pay the average family of four’s annual expenditure for milk every year. This model would be a departure from the conventional

⁸ It does not matter how much “transitional” milk is in a given dairy product. From the conventional point of view, a mix of the two is still milk; from the organic point of view, it can only be labeled as organic if it is 100% Vermont Certified Organic milk.

CSA where, in exchange for an advance against the season's expenses, the farmer disperses a share of the season's vegetables to his or her supporters. The next season, another advance is made, a share of the season's produce is distributed, and so on.

I would hope the state would offer Vermont investors in this issue a 3:1 tax shelter opportunity if they buy a 6% convertible preferred stock. After three years, stockholders could convert their preferred stock to common, which would be issued in two classes: B shares, reserved for NOFA certified farmers, would exercise 10 votes to every A share. For every 10 shares of A class stock converted, the investor would give one share of B class stock to the farmers, thus assuring 51% farmer control.

Only 60% of the capital should be in equity with the remainder in debt, which if guaranteed by the state in the form of tax-free municipal bonds, is very attractive. Capital can also be raised from grants or by application to various federal and state government sources. Given that "farmer-owned" coops today routinely pay their members below their cost of production (and are even regulated by Capper-Volstead to pay not more than 8%), it is unclear if the enterprise must, or might not have to, take the form of a cooperative.

The goals, similar to those for any new enterprise, are:

- Analyze value proposition; identify opportunities, competitive advantages and threats
- Organize and contract for sources of raw product (VOMPA and NOFA-VT)
- Research and secure ongoing funding resources
- Design and perfect organizational and capital structures
- Research facilities and process design for manufacturing
- Source and price durable equipment requirements
- Research and identify haulers and suppliers; strategic alliances
- Research applicable State and Federal regulations and requirements for compliance
- Analyze market needs, trends and growth
- Analyze competition
- Devise pricing strategy; promotion and distributors
- Identify management and personnel requirements

- Construct and write marketing and public relations plans
- Research and write breakeven analysis, three-year cash flow projections and P&L

Will my remedy fix everything for every farmer? No. Will it fix the problem for the majority? I hope so. Will it clean up Lake Champlain? It will in its first year reduce nutrient runoff from Vermont agriculture by half⁹ and go a long way to helping Vermont meet its federally mandated water quality standards and its global warming aspirations.

In sum, the question is: will Vermont continue to spend \$80-100,000,000/year on dozens of programs all intended on their faces to “save agriculture and protect the lake” yet empirically achieving neither? Or will it reform conventional farming, the largest contributor to farm attrition and lake pollution, and achieve both?

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⁹ The 2015 TMDL tasked Vermont ‘agriculture’ with reducing its contribution to lake pollution by 67% but to date it has managed but 11%. The reason dairy has not met its target and will not is that the industry is obsessed with importing nutrients and over supplying its markets. Vermont’s 35 LFO’s each housing more than 699 cows and her 100 MFOs each housing between 199-699 cows, which together account for roughly half the 125,000 cows in the state, cannot comply with the NOP pasture rule. These farms would have to downsize to fewer than 200 cows or go out of business. With them would go the imported grain and fertilizer used to grow the corn that feeds 62,500 cows and all the manure they produce. Since the main purpose of converting the dairy industry to organic is to comply with our water quality standards, this change would *ipso facto* reduce the dairy industry’s contribution to lake pollution by half immediately.