NOP Organic Dairy Pasture Symposium Presentation by Kathie Arnold

The grazing season on our farm will begin within the week and will be in full swing with all our animals—from baby calves on up--on pasture day and night usually by early May. Yearling heifers through bred heifers and dry cows get 100% of their intake (other than salt and minerals) from pasture for at least 200 days each year. Younger heifers get up to 3# of grain while on pasture and some forage supplement as needed later in the season when pasture regrowth slows.

Our milking cows get a new piece of pasture twice a day—after each milking. Virtually every year on our farm, we are able to average 40% or more DMI from pasture for 180 to 200 days. The way we know how much pasture the milking cows are eating is that we keep daily feeding records year round. We feed a total mixed ration and every day we write down how many cows worth of TMR we mixed for that day. Then it's easy to figure how much they are getting from pasture—if we are only mixing up for 40% of the number of cows we were before pasture turnout in the spring, then that means we are getting 60% of their DMI intake from pasture—which is a typical May scenario. By August, DMI from pasture may be down to 40%. Last year because of the drought—we were down to 30% for August, but even so, we still averaged close to 50% DMI for the 4 peak months of pasture. We did keep the milking cows in days for about two weeks in August to stretch the pasture out, but they were out all nights. In a normal year, milking cows would be out on pasture day and night from early May through September—perhaps just coming in early some afternoons on a few excessively hot days during the summer.

We keep track of heifers on pasture by noting their numbers and pasture changes on a simple calendar.

We have been intensive grazing for 13 years, but for 2 years prior to that we went to mostly confinement after years of grazing the milk cows for 3 or so months a year but not intensively. We did the Cornell Dairy Farm Business Summary for 11 years—over the period of years with the 3 different levels of grazing. What pushed us to try confinement was a drive to increase milk production and thus increase profits. What then pushed us to intensive grazing after those two years of mainly confinement was the decline in profitability with confinement. But going to intensive grazing changed the profit picture dramatically to the better for two major reasons. One, the greatly decreased grain cost because well managed pasture is not just a substitute for forage but also a substitute for grain, especially the high cost protein portion. And the second reason was greatly improved herd health.

<u>What happened to our herd average with these changes?</u>

In 1991 and 92 when only the low producers were grazed and then only for about 2 to 3 months, we averaged 22,000 of milk shipped per cow. From 1994 through 1997--when we were intensively grazing for 180 to 200 days a year—we ranged from 21,5 to 22,900 pounds shipped per cow--an average of 22,000 pounds. So, essentially we had NO real change in production when going from mostly confinement to intensively managed pasture.

<u>But what did change was our vet and medicine costs</u>:
In 1988 & 89 when we did some grazing but not intensive grazing and not for the full growing season, our vet and medicine was $48/cow (and sold 19,000 # milk/ cow).

Then n 1991 and 92 when we used the least pasture with our lactating cows that we ever had and kept all fresh cows and high cows off pasture, vet and medicine cost increased $12/ cow.

Our average vet & medicine cost for the 4 years after our switch to intensive grazing then dropped almost a $7 per cow, even with the fact that the vet charges & drugs cost more per unit as time went on.

(If you are interested in what happened to our vet costs when we went organic after that—our average for 2001-2002 was down another 7 dollars per cow, to $46 /cow.)

Many other costs were down too—electricity use, bedding, fuel, and machine use because the cows were doing much of their own harvesting, feeding, and manure spreading with their 4 legs instead of us with iron and petroleum.

Granted, there are some initial capital costs (of installing fencing and purchasing water line and water tanks) when going to a grazing system, but much of it can be done very cheaply—most of our internal fencing is just temporary step in posts and one strand of aluminum wire. But the savings in operating costs quickly outstrip the investment needed. This has long been confirmed by Cornell Dairy Farm Business Summary comparisons of grazing versus non-grazing herds which have consistently shown both a lower vet and medicine cost as well as higher net income for grazing herds.

During the 8 years we have been organic, we have almost doubled our herd size from 70 to 130 mature cows. But commensurate with the increase in herd size has been an increasing allocation of acreage to pasture. We have more than an acre of pasture for each milking cow and closer to 2 acres per animal available as needed for the heifers and dry cows. Each farm must keep their animal numbers in balance with the number of pasture acres. If additional animals are desired over the capacity of the pasture land available, then that operation will need to have additional milking facilities to decentralize animals so that they can intake significant amounts of pasture.

During the non-grazing season, our youngstock under 6 months of age are in groups in bedded pack pens where they have lots of room and freedom of movement. Heifers over 6 months of age and dry cows have free choice living conditions—they can choose to either be in a freestall barn or be outside. For our milking cows, we have both a very open freestall barn and a tie stall barn, with half the herd spending the day in the tie stall barn and their night in the freestall barn and the other half of the herd the flip arrangement. They all have time each day to roam in the barnyard where there is free choice hay, salt and minerals available.

The past few years we have had around 10 extra cows to sell each year, although this year we kept them and increased our herd size by 10%. We have not bought a single animal in the 8 years we have been organic.

As to the pasture rule change--there must be specificity added to the rule to require a minimum intake of pasture, for it is pasture intake, not just time spent in a pasture setting, that drives the health benefits of pasture feeding both for the cows and for the consumers of their milk. Just requiring 120 days per year on pasture is not enough because such could be met with cows on pasture for just an hour or less a day. Even requiring a number of hours per day on pasture is not enough because cows could have mechanically harvested feeds provided for them to eat while out on pasture. Stocking rate is problematic because of different land resources—most parts of the country will need around 1 acre of pasture per cow for a good system but in a very few, extremely unique locations, 3 or maybe even 4 cows per acre are doable. The only iron clad way to insure a minimum amount of pasture intake is to require a minimum amount of intake.

I'd like to finish by saying that I was invited to Fairway Markets in NYC in March to be part of a panel discussion on organic standards. Before I said anything (or anyone else had said anything) about pasture, I asked how many people in the audience purchased organic dairy products--around 75% raised their hands. Then I asked how many wanted their organic dairy products to come from cows grazing on pasture for the growing season? Immediately, the same big show of hands. Then I asked how many wanted their organic dairy products to come from cows kept in feed lots for the growing season? Zero hands. Consumers are clear on this expectation. And with the results of the recent Consumers Union and Center for Food Safety surveys, consumers are clear that they will depart from the organic milk market if feedlots with no significant pasture remain an option for organic dairy production.