Cheesemaking Overview – Goat Milk Cheese

Mr. Neville McNaughton
Cheezsorce, L.L.C.

Discussion Topics

- Market Place
- Manufacture
- Milk Composition
- Milk Quality
- Milk Production

Simple Economics

Ave. Price for Goat Milk - $30.00 to $38.00/100
Assume Retail Price at Farmers Market $15.00/lb
Assume 10 goats milking 365 days
Assume 6# of milk per goat per day is 60# of milk or $22.80 value as milk for manufacturing
Assume a 15% yield as fresh Chevre is 9# of cheese per day or $135.00/day
p.a. $8,344.00 gross value of milk from #10 goats when used for cheese.
p.a. $49,275.00 gross value when manufactured into cheese
Thanks to the Engineer in Session One for pointing this out.
I will not develop this any further today due to the many variable when setting up an operation to make cheese, particularly the issue of scale.

The Market place

It is strong and has remained do during this period of economic downturn. While growth may have leveled off there is no measurable decline.

Goat cheese buyers purchase for the following reasons, goat milk and by extension the cheese made from goat milk is of higher quality, is better for you and less about price.

In the recovering economy we will see a resumption of strong growth.

Cheese Sectors

Soft cheese will remain strong, while the market place doesn’t need another Chevre all regional producers must include Chevre in their product mix.

There is a growing appreciation of traditional products with a wide and varied range of surface growth treatments using yeasts and molds.

There is also a willingness to try all non traditional surface treatments as well such as dipping in annatto, grape juice etc. to stain the surface, raise the pH and then grow moulds on the surface, coat surfaces with rustic mixed herb blends.

Hard Cheese

Noticeable by their absence are high quality table cheese. This is a major opportunity.
Sales Opportunities

Farmers markets are the opportunity for regional Cheesemakers in all geographic areas of the country. Consumers particularly in the cities are joining the producers on this journey back to the production of better food. They are tolerant of producers efforts during development periods and promoters of your product to others when you get it right.

Groups

Slow Food and other similar value based organizations who believe in eating well, eat local and sustainability are the producer advocates, producers should reciprocate and support these organizations at every opportunity.

Distributors

In all major population centers we have specialty distributors who want your product, seek them out. If you are producing product far from your point of sale be prepared to spend time travelling to the metropolitan areas and promote your product. Distributors full fill the important function of distribution but they really get behind products that have producer support.

Manufacture

Large manufacturers are growing fast, there is strength in companies like Mont Chevre, Bongrain, Vermont Butter and Cheese, Red Wood Hill, Cypress Grove and others. They are becoming more sophisticated as manufacturers, more efficient which enables them to be competitive on the national scene.

Smaller producers have the advantage of producing products that do not look mass produced, focus on:

- Quality
- Variety
- Natural finishes

Look for efficiencies in your operation that will help keep you costs down.

Milk Composition

This Cheesemaker’s View

We need more protein
We need higher solids
We do not need higher fat
We do not need more volume

Why are producers not breeding for protein?????

I suspect greater than 95% of goat milk in the USA is used for Cheese

Goats breed for fat and volume do not recognize the needs of Cheesemakers

When we increase the fat content of milk we get only a small increase in yield because we need to decrease the moisture content of the cheese or it will become too soft.
When we increase protein we capture additional fat and moisture and make substantially more cheese.
High solids milk lowers production cost. Cheesemakers are in the process of concentration, removal of
moisture (whey), increasing the protein content of milk by 20% reduces overheads by 20% approx.

It takes the same energy and labor to process low solids milk as high solids milk. Use DHI protein data
to select for protein and cheese yield.

Focus on a better protein to fat ratio and higher solids.

**Milk Quality**

As a Cheesemaker you’re my definition of quality may be different than the producers.

A producers definition is a low Total Plate Count (TPC) and low Somatic Cell Count (SCC)

As a Cheesemaker my quality problems in cheese come from Anaerobic, thermophilic organisms.
Many pass through the pasteurization process.
Lactobacilli, Propioni, Leuconostoc, Mesophilic spores.

We do not routinely check for these bacteria

Checking for LPC – Laboratory Pasteurization Count
Lactobacilli
Mesophilic spores

Many of these organisms are in the milk as a result of:
Animal management practices
Milking Parlor Cleaning Practices – Most farmers do not know essential information about how to wash
the milking parlor, the presence of non 3A components that cannot be washed with CIP is a problem.

Note: Current Milking Parlor Washing Practices are:
  Wasteful of chemical, it could all be reused reducing chemical cost by up to 90%
  Wasteful of energy, if the recovered solution were stored in an insulated container less heat would be
  required for each wash

Because farm wash systems are set up to wash at sub optimal temperatures the chemicals used are much
stronger and more toxic to the environment than would be the case if we used higher temperatures. The
use of high levels of phosphates in farm cleaning is unfortunate as this is the major cause of algal bloom in
waterways.
Closing Note:

The Goal is!

Better Quality Milk for Cheese
More Cost Effective Milk for Cheese
Resulting in Better Cheese
A More Profitable Future