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Small Scale Dairy with Cows or Goats

Part of a series on raising dairy animals and small scale farming

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Agenda

- 1 Picking your species: Cow vs Goat
- 2 What are your needs: Composition
- 3 Animal Needs
- 4 Equipment – Keeping it simple
- 5 Pasture & Feeds
- 6 Housing, Fencing & Predators

Cow or Goat..... Cow

- Picking the Species that meets your needs



Holstein

One of the largest breeds, 1,500 lbs
High milk production



Jersey

Smallest Breed, 900 lbs.
Know for their butterfat



Brown Swiss

One of the largest, 1,500 lbs.
Know for longevity and calm temperament



Guernsey

Weighing in 1,200 lbs. Golden colored milk, high protein and butterfat



Ayrshire

Medium stature, 1,200 lbs. Strong and rugged

Goat....

Picking the Species that meets your needs



Alpine
Medium to large
size, from French
Alpines.



LaMancha
From USA, high
butterfat.



Nubian
Large breed from
Asia, African, and
Europe. High
quality, high
butterfat, and milk
production.



Toggenburg
Medium size
from Switzerland,
rugged, sturdy.



Nigerian Dwarf
Miniature breed
from West
Africa.

Small Scale Dairy



What are your end goals

- Personal Consumption
- Herd shares
- Artisanal cheesemaker
- Soap making



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Cow vs. Goat Milk composition

- Very similar in milk composition (lactose, protein, fat)
- Differences in protein structure
 - People with allergies to milk can often drink goats milk
 - Smaller fat globules in goat milk stay in suspension longer, perception of “natural homogenization”.
 - Goats browsers, consuming plants containing aromatic or flavor compounds, adding smell or flavor to milk or cheese.

Milk and by-products



Personal
Herd shares
Grade B permit

Fluid Milk
Cheeses
Yogurts

Goats Milk Soap = Niche Markets with Great Marketing



Equipment: Keeping it simple

- Milking by hand
- Machine
 - One at a time – pail machine
 - Multiple milking – pipeline and small bulk tank



Combo Parlor



Milk House Facility

- Producing a high quality, safe product requires proper facilities.
 - Hot Water
 - Washable walls
 - Chilling milk quickly
 - Milk comes out of the animal at 101 degrees and needs to be quickly cooled to 36 degrees.
 - Separate rooms for milking animals and producing a product.

If your end goal is to become a grade A or B farm start working with the State Milking Inspector from the beginning.

Small Farm Milk House



WATER is also very important for washing milking equipment. – Need large quantities
Need place for wash water to go.

Small Farm Footprint

- How to help determine cow vs goat
- What is your acreage?
- What is type of facilities are available?
- How many animals do you need or want?



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Dairy goat production is an alternative enterprise for small-scale or part-time operations.

Pasture Stocking Rate

- Ratio for stocking is 0.5 (500lbs of animal grazing pre acre).

Example – Jersey cow =1 animal unit (1000 lbs.) would require 2 acres of “average” pasture.

Or 5 to 15 goats would be the equivalent

So a small farm with 20 acres of average pasture possibly could support 10 (1000 lbs.) cows.

Pasture Management is Key!

- Prevent overgrazing by
 - Establishing high quality pastures
 - Rotational grazing
 - Providing access to hay year round
 - Providing a sacrifice lot

Overgrazing leads to
Soil compaction
Erosion
Weed problems
Water contamination



Parasite Prevention

- Clean Environment
- Avoid overcrowding
- Avoid Overgrazing
- Reduce the presence of insects and pests that transmit

Become FAMACHA trained for small ruminants

Hay Production or Purchase

- Good quality hay is needed for animals producing milk.
- Small scale farms usually do not have silage in a diet.
- If not making own hay do you have hay resources to purchase hay.
- Buying in large quantities can help reduce the cost, need storage.

Water = Most Important Essential Nutrient

- Providing access to clean water to all ages of animals on the farm is critical!
- A lactating cow required 4.5–5 lbs. of water per pound of milk production
- A lactating goat requires 1 quart of water for every pint of milk produced.

Normal Needs

- Dehorning or Disbudding
- Hoof trimming
- Breeding
 - Bull
 - Buck
 - Artificial insemination
 - Cost
 - Safety



Fencing



- Cows will stay in single strand electric or 3-5 strand high tensile
- Goats like to climb and are escape artists, most require hot line and web fencing

Predators



- Susceptible to predators
- Small farms need to utilize herd protection animals (dogs & llamas)

Housing –What is BEST

- It all comes down to MANAGEMENT
- Clean, dry, well ventilated.
- Bedding with shavings, sawdust, straw
- Seen it all, single hutch, mega hutch, group pens.
- Cows tend to be grouped by weight and age
- Goats live in a “colony” all together



An Ounce of Prevention

- Providing Quality feed and Clean Housing can reduce sickness
- Sanitization – clean bottles after each use, clean buckets after milk, clean daily.
- Signs of sickness
 - Temperature (hot or cold)
 - Droopy ears
 - Loose or smelly manure
 - Changing in respiration
 - Lucid or not getting up and moving around

Prevention reduces health problems

- Scours
- Pneumonia & respiratory disease
- Clostridial infections
- Umbilical hernias & abscesses
- Bloat
- Broken limbs
- Pink-eye

Small Farm Costs

- With any farm know your costs
- Costs of
 - Feed
 - Raising young stock
 - Equipment/facilities
 - Veterinarian
 - Production of products (milk, cheese, soap)
 - Marketing costs

Establishing Relationships

- Veterinarian
 - Specialist
 - Extension Agents
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- WE ALL HAVE A ROLL IN HELPING YOUR SUCCEED!



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and
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**For providing pictures and guidance for
information new small dairy farmers should
know!**

Thank you

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