

Precision Management on Hemdale Farm

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Hemdale Farms is a second generation farming operation that consists of a 750 cow high production dairy, 2800 acres of crops of which over 50% are specialty crops. In September '07, 220 cows were moved to a new minimal labor barn utilizing 4 LELY robotic milking stations and an innovative manure system. Today the dairy is 100% robotic milking with 12 LELY units. Hemdale has shipped well over 25,000 pounds of milk per cow per year for over 10 years and 27,000 pounds per cow per year recently.

Facilities

- 8 Lely units in new 4 row barns with feed on one side.
- 4 Lely units in retrofitted 6 row barn with 2 special needs areas (Jack Rodenburg input)
- All groups are over 100-120 cows on 2 milking units
- Manure system consists of alley scrapers running over a slotted tube that discharges at the center of the barns. (This system was developed by Mason Dixon Farms, Gettysburg, PA)

Operations and Cow Management with Robots

- Try not to treat cows with a group mentality. Treat cows more on an individual basis. Let each cow have her own routine, and try not to disrupt this.
- Volumes of Data collected on every cow each milking, including:
 - Activity – Used for breeding
 - Udder Health – Used for detection of mastitis
 - Failure Reports – Used for individual cow problems
 - Rumination – Used as early indicator of cow off feed
 - Weight – Can also be used as indicator of cow off feed
- All data can be charted over time to show trends that indicate the needs of certain cows. The data serves as a diagnostic tool for the Dairy Manager.
- Data collection is great, but analyzing data needs to be more refined to pull out individual cows. As software improves over time, full utilization will follow.
- Training staff is a challenge but there is a learning curve with any new technology.

Goals

Considerable reduction on labor needed with remaining jobs more attractive

- Less stress on cows, leading to improved body condition and longevity.
- Improved milk quality, and production

2010 Automation Technology Plans

- Computer controlled calf feeding. A joint venture with neighboring dairy to gain critical mass.
- Implementation of RTK/GPS guidance systems for primary tillage, corn and cabbage planting, and spraying. Includes autosteer features.