

Cornell's Winter Dairy Management 2006  
Enhance Dairy Profitability: Achieve Balance Between Crops and Cows

Case Farm:  
*Stanton Farms*  
*Coeyman's Hollow, NY*



# Farm Overview

- Located in Coeyman's Hollow, NY
- Albany County
- Owned by two brothers
- 357 cows
- 320 heifers



Neil



Michael



Mark



# Farm Overview

## Our Farm History

Stanton Family has farmed here since 1873

- Mark & Neil are 5<sup>th</sup> generation farmers
- Michael is the 6<sup>th</sup> generation



# How We Got Here

## ■ Prior to 1990

- Small dairy and grain farm doing some custom work

## ■ 1990

- Built a new complex across road from original farm
- 115 cow stall
- 4 row freestall barn

## ■ 1992

- Built bunk silo
- Remodeled old dairy barn for heifers/dry cows

## ■ 1995

- Built 1<sup>st</sup> heifer barn

## ■ 1996

- Built new dry cow/heifer facility

# How We Got Here

- **1997**
  - Constructed manure storage
- **1998**
  - Expanded original barn to fit 300 milking cows
- **2000**
  - Completed bedded pack fresh cow barn
- **2001**
  - Built 2nd heifer barn
- **2001-2003**
  - Built 3rd heifer barn
- **2005**
  - CAFO plan fully implemented

# Goals

- Quantity to always allow for a 15-20% buffer
- High quality
- Highly profitable farm (top 20%)
- Low cost crop programs
- Grow farm size in steps that make sense

# Challenges

- Grass vs. Alfalfa
- Feeding higher forage diets
- Keeping our resources in balance  
(growing more crops than we have cow numbers)



Questions?



# Feeding

## Stanton Farms Forage Lab Results

### Key Feeding and Storage Quality Factors

Date	DM %	NDF	Starch	NEL	NFC	Sol Pro
<b>Corn Silage</b>						
10/24/05 (2004 crop)	30.7	38.1	37.8	.79	48.2	59
10/31/05 (2004 crop)	30.6	40.7	36.9	.77	45.2	67
12/5/05 (2004 crop)	32.3	38.5	34.3	.79	46.7	45
1/23/06 (2004 crop)	33.3	32.18	41.7	.83	53.9	64.7
<b>MML Silage</b>			<b>Adj. CP</b>			
6/30/05 (2003 crop)	36.4	38.9	23.5	.64	25.6	63.8
10/21/05 (2003 crop)	37.7	46.1	20.5	.6	23.3	55
10/31/05(2005 crop)	38.3	44.4	20.3	.62	24.4	57
12/15/05(2005 crop)	44.8	42.1	21.4	.58	24.3	56.5
1/23/06 (2005 crop)	36.5	44	21.25	.55	22.2	58.9
<b>Grass Haylage</b>						
6/20/05 (2005 crop)	30.9	44.9	17.1	.7	25.4	64.7

# Ration Objective

- Maximize forage intake (1% bodyweight as NDF capacity) and keep cows healthy
- High group currently .88%
- Bottom Line FORAGE QUALITY!

# Challenges That We Faced

- Particle size- one year our forage was too fine
- Managing body condition of our heifers (too heavy)
- Fresh cows (current challenge)

# Bunk Face Management Counts



# Purchased Concentrate Costs

- 2005 \$4.52/cwt. purchased feed cost  
(All cow and heifer concentrates)
- Milk production 22,861 lbs./cow
- 2X milking
- 2006 Goal \$4.25/cwt.



Questions?

# Field Crops Get Big Emphasis on Our Farm





# Soils include:

- Excellent gravel outwash soils
- Sloping upland glacial till with extensive areas of Nunda soils
- Trying to reduce acres of lake laid, poorly drained Rhinebeck and Hudson Silty Clay soils

# Soils Drive the Rotation Which Determines What the Cows Are Fed

- Typical rotation is 2 yrs. Corn/ 4 yrs. Hay
- Currently switching rotation to reduce grass and increase alfalfa

# History of Improved Crop Yield

	Corn Silage tons/Acre	Forage Acres/cow
1993	10.36	3.13
1994	13.1	3.22
1995	10.26	3.21
1996	10.83	3.39
1997	12.56	5.17
1998	14.84	3.4
1999	12.63	2.41
2000	4.61	1.99
2001	18.72	2.51
2002	13.95	2.93
2003	22.6	1.99
2004	20.35	2.17
2005	17.3	2.26

# Crop Trends

- Corn Silage tons/acre

- 1993-2000 11.5

- 2001-2005 18.6

- Forage acres/cow

- 1993-2000 3.3

- 2001-2005 2.4

# Crop Program Goals

- Set up crop rotation by late summer/early fall for next year's crop
- Soil test all fields every other year
- Maximize use of manure nutrients
- Be timely in planting and harvesting
- **BOTTOM LINE:**
  - Excellent yields of high quality forage for lowest cost



Questions?

Harvest



Equipment is Important  
to Our Farm's Success

# Well Oiled Machine

- Machinery shop is equipped to do
  - Repairs
  - Maintenance
  - Retrofitting
  - and redesigns
- Keep spare parts on hand
- Going over every piece of equipment before the season
- ❖ **Prevents having to send machines out for repair**



# Machinery Inventory

## Stanton Farms

### ■ Tillage

- JD 4995 S.P. Disc Mower 14.6 head
- Case 6 Bot. On land plows
- Unverferth 6 shank zone builder
- White chisel plow
- Sunflower 24' disc
- Case Int. Field Cultivator Vibra shank 30' w/ finishing tines

### ■ Planting

- White 5100 grow corn planter
- JD 30' Roller Harrow model 970

### ■ Mowing

- JD 6910 Harvester w/ 6 row head 3 mil. Hay head (ordered bigger head)

### ■ Merging

- H&S 10' hay merger

### ■ Chopping

- 430 hp SP chopper

### ■ Hauling

- 1 Mack truck 20'
- 1 Mack truck 22'
- 1 Mack dump truck 28'
- 1 Mack dump truck 30'

### ■ Packing

- 2- 200hp 4WD tractors on bunk (1 w/ 13' blade)

### ■ Other

# 2005 Planting / Harvesting Dates

256 acres corn for silage	539 acres for hay
April 10	All seedings completed
May 7-13	Corn planted
May 18-21	1 <sup>st</sup> cut grass hay harvest
June 1-2	1 <sup>st</sup> cut alfalfa hay harvest
Sept 6-13	Corn silage harvest

# 2005 Crop Costs

## Lime & Fertilizer

■ Corn	
■ fertilizer applied	\$3355
■ Lime applied	<u>\$7926</u>
■ Total	\$11281
■ Hay	
■ Fertilizer (seedings)	\$4756
■ Fertilizer (top dress)	\$1743
■ Lime applied	<u>\$16093</u>
■ Total	\$33873

## Spray & Other Crop Expense

■ Corn	
■ Spray	\$20755
■ Seed	<u>\$8244</u>
■ Total	\$28999
■ Hay	
■ Spray	\$0
■ Seed	<u>\$14120</u>
■ Total	\$14120

- 2005 cost /cwt was .96/cwt.  
.30/cwt. was lime  
.12/cwt. was fertilizer

3 year average for crop expenses:  
.73/cwt  
\$54,945/year



Questions?

# Storage





**Old commodity shed**

**Old bunks**



# Feed Center New Bunks

- 5 bunker silos
- 150 feet long
- 12 foot T-walls
- 40-64 feet wide



# Feed Center Grain Bins

- 2- 28 tons
- 2- 12 tons





# Packing Results

## ■ Bunk Densities

- Grass HCS 14.1 lbs. DM/cu.ft.
- MML HCS 15.3 lbs. DM/cu.ft.
- Corn Silage 17.8 lbs. DM/cu.ft.

**COVER BUNK ASAP**

