

Plato Brook Farms, LLC

Driving the Dairy industry @

www.platobrookfarms.com

kentmiller@platobrookfarms.com

Plato Brook Farms

- Partnership with parents, Russ and Janet
- Dwight Hess, Machinery Manager, Team Leader
- John Francisco, Crop Manager
- Steve Markham, General Manager
- Jerry George, Josh Carpenter, Chris Nickerson
- Kent Miller, Organizational Management

Plato Brook Farms

- Planning – Western NY Crop Association
- What are our goals?
- What are our resources?
- Who will do it?
- When will we do it?
- Measure, Analyze, Change on the fly

What are our resources?

- 900 acres good gravel
- 700 acres medium quality
- 500 acres poorer quality
- Rain/Snow Belt
- Low sunlight in some years – short windows for harvest
- Elevations

Design the System

- Meet your goals by design
 - The need for speed
 - 30 ft mower with finger conditioner 20-25 acre/hr
 - 30 ft merger 20 acres/hr
 - Chopper 20 acres/ hr
 - Corn Chopping
 - 50 acres/day
 - Pack, Pack, Pack – Double Cover fast
 - Get enough trucks and labor

Design the System

- Rules are meant to be broken
- Don't do what everyone else does unless it works for you
- Micro climates are a real thing and really effect forage quality and timing
- Meet the goals of the personnel
- Don't under staff at critical times

Execute

- Communicate effectively
- Deploy resources
- Everyone knows their part in the plan



Questions?

What are our goals?

- Alfalfa Haylage
 - 20,30,40 or better >35% DM
- Grass Haylage
 - Late cut for heifers - >35% DM
- Corn Silage
 - Dent, Whole plant DM>30% DM
 - 33% BMR,



Questions?

Who will do it?

- Crop Planning, CAFO, Big Picture Stuff
 - John, Kent, David –WNYCA, Dwight
- Machinery Maintenance, Rebuild
 - Dwight, Chris, Josh, Jerry
- What equipment?
 - Dwight, John, Kent
- Land Resource
 - Kent, Russ, John, Steve

Who will do it?

- Spring into action!
 - Manure - ? First year of injection
 - Zone build – Jerry, Josh, Chris, Dwight
 - Burn Down – Russ, John
 - Seeding – Chris, Jerry, Josh, Russ
 - Planting – John, Dwight, Josh, Jerry
 - Mowing – Chris, Kent, Bob
 - Merging – Josh, John
 - Chopping – Dwight, John
 - Packing – Jerry, Kent, Barn crew

When will we do it?

- Manure – ASAP
- Zone – ASAP
- Seeding – April
- Corn Planting – Last week of April
- Haylage
 - Alfalfa, by height and cutting NDF
 - Grass, after everything is done
- Oats, grass seeding in between

Plato Brook Farms

- Measure, Analyze, Change on the fly
 - Everyone!!

Equipment



Equipment





Questions?

Equipment



Equipment



Equipment



Equipment



Equipment



Traffic Jam?



Equipment



Machinery Cost per Tillable Acre

	Depreciation	Interest	Repairs	Labor	Fuel
Chopper	12.11	2.12	2.93	3.23	7.11
2 Planters	3.35	0.82	1.98	0.00	0.00
3 Zone Builders	1.22	0.30	2.39	0.00	0.00
Sprayer	0.83	0.20	0.33	0.00	0.00
Big M Mower	6.69	1.17	3.61	1.73	2.77
Oxbo Merger	4.23	0.74	1.74	0.00	0.00
Stieger	5.21	1.28	0.93	4.05	6.48
Fendt	6.04	1.48	3.09	7.80	9.36
Tractor 8270	4.30	0.75	2.69	4.18	5.86
Tractor 8160 #2	4.58	0.80	1.12	2.86	2.86
Tractor 8160 #1	1.06	0.18	0.58	2.94	2.94
Tractor 4255	1.01	0.15	0.33	2.96	2.37

Machinery Cash Costs

	Total	Per Tillable Acre
• Repairs	\$61,672	\$21.71
• Fuel	\$112,872	\$39.74
• Labor	\$84,500	\$29.75
• Custom Trucks	\$100,988	\$35.55
	Total per Tillable Acre	\$126.77

Machinery Fixed Costs

	Per Tillable Acre
• Depreciation	\$50.61
• Interest – opportunity	\$10
• Total Annual Machinery Costs	\$187.38
Per Acre	

Other Crop Costs

	Per Tillable Acre
• Fertilizer	\$34.11
• Seed	\$23.51
• Spray and Chemical	\$26.7
• Professional	\$3.67
Total	\$88.00

Crop Costs

	Per Tillable Acre
• Machinery	\$187.38
• Crop Input	\$ 88.00
Total per Acre before land	\$277.91
Total Dry matter harvested	
10,941 Pounds	3.85 per Acre
Cost per dry matter ton.	\$71.48
Cost per as fed ton, 35% dm, packed in bunk, before land charges	\$25.02



Questions?

2005 Legume Bunker


17.8 lbs./ft³ (sample 53%DM @ 10.5'height) → ●

26.6 lbs./ft³ (sample 61%DM @ 8'height) → ●


● ← 16.5 lbs./ft³ (sample 36%DM @ 4'height)

2005 1st Crop Grass/Oatlage Bunker (Heifer)

● ← 18.3 lbs./ft³ (sample 44%DM)



2005 Corn Silage Bunker (junction wall)



14.5 lbs./ft³ (sample 30% DM)
(composite of 2 samples)



Questions?