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
<table>
<thead>
<tr>
<th>Equipment</th>
<th>Depreciation</th>
<th>Interest</th>
<th>Repairs</th>
<th>Labor</th>
<th>Fuel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chopper</td>
<td>12.11</td>
<td>2.12</td>
<td>2.93</td>
<td>3.23</td>
<td>7.11</td>
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<td>2 Planters</td>
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<td>Oxbo Merger</td>
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<td>Fendt</td>
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## Machinery Cash Costs

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<thead>
<tr>
<th>Item</th>
<th>Total</th>
<th>Per Tillable Acre</th>
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<tbody>
<tr>
<td>Repairs</td>
<td>$61,672</td>
<td>$21.71</td>
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<tr>
<td>Fuel</td>
<td>$112,872</td>
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<td>Labor</td>
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<td>Custom Trucks</td>
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<tr>
<td><strong>Total per Tillable Acre</strong></td>
<td><strong>$126.77</strong></td>
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Machinery Fixed Costs

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<th>Per Tillable Acre</th>
<th>Description</th>
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<tr>
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<td>Depreciation</td>
<td>$50.61</td>
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<td>Interest – opportunity</td>
<td>$10</td>
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<td>Total Annual Machinery Costs</td>
<td>$187.38</td>
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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./ft\(^3\) (sample 30% DM)
(composite of 2 samples)
Questions?