Economics of Organic Dairy

Torray and Erin Wilson
January 18, 2019
PFI
We live here
Seven W Farm

Jaron and Liz: Organic Crops, Computer Services

Dan and Lorna: Crops, Hogs, Beef

Torray and Erin: Organic Dairy, Lamb

April: Milking Help, Hogs, Chickens

Land
Overview of Wilson Dairy

● ≈190 acres for pasture/crops
● 100 Jersey and JerseyX
● Fall calving
● Home-raised replacement heifers
● Home-raised bulls for cleanup
● Steers for grass-fed beef
VALUES
“Do what you can where you are with what you have”
-Teddy Roosevelt
Sustainability
Profitability
Profitability
Triple Bottom Line
ENVIRONMENTAL
A Year in the Life of Torray & Erin

- Let’s take a drive…
“The plans of the diligent lead to profit, as surely as haste leads to poverty”

-Proverbs 21:5
Holistic Management
Financial Plan
# ANNUAL INCOME AND EXPENSE PLAN

<table>
<thead>
<tr>
<th></th>
<th>Start Balance</th>
<th>End Balance</th>
<th>Income</th>
<th>Expenses</th>
<th>Net Income</th>
<th>Net Income Rate</th>
<th>Percent Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Month</strong></td>
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<td><strong>$</strong></td>
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<tr>
<td>January</td>
<td>39</td>
<td>39</td>
<td>65,670</td>
<td>64,600</td>
<td>1,070</td>
<td>2.7%</td>
<td>0.0%</td>
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<tr>
<td>February</td>
<td>39</td>
<td>39</td>
<td>65,670</td>
<td>64,600</td>
<td>1,070</td>
<td>2.7%</td>
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<td>March</td>
<td>39</td>
<td>39</td>
<td>65,670</td>
<td>64,600</td>
<td>1,070</td>
<td>2.7%</td>
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<td>April</td>
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<td>May</td>
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<td>June</td>
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<td>65,670</td>
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<td>1,070</td>
<td>2.7%</td>
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<td>July</td>
<td>39</td>
<td>39</td>
<td>65,670</td>
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<td>1,070</td>
<td>2.7%</td>
<td>0.0%</td>
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<td>August</td>
<td>39</td>
<td>39</td>
<td>65,670</td>
<td>64,600</td>
<td>1,070</td>
<td>2.7%</td>
<td>0.0%</td>
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<tr>
<td>September</td>
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<td>39</td>
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<td>December</td>
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<td>1,070</td>
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<td>0.0%</td>
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</tbody>
</table>

**Net Profit:** $10,400

**Total Income:** $78,840

**Total Expenses:** $77,730

**Net Income Rate:** 1.43%
Reward:
### Early Warning Signs:

<table>
<thead>
<tr>
<th>Control Sheet</th>
<th>Amount Adverse to Plan</th>
<th>Amount Adverse YTD</th>
<th>Cause of Deviation from Plan</th>
<th>Proposed Action to Return to Plan</th>
<th>Who Act</th>
<th>Action Deadline (date)</th>
<th>Complete?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 APR/MAY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Total Income</td>
<td>2075</td>
<td></td>
<td>Est milk income high in April (quota settlement) and low in May</td>
<td>drop in milk price, need to readjust est milk income bc the cushion of the settlement will quickly be used up</td>
<td>TW</td>
<td>30-Jun</td>
<td></td>
</tr>
<tr>
<td>10 Planned Profit</td>
<td>-600</td>
<td></td>
<td>forgot to transfer e-fund to savings</td>
<td>plan says it was deducted in March, but not April or May. Set up automatic deduct w back pay mt for Apr/May</td>
<td>EW</td>
<td>30-Jun</td>
<td></td>
</tr>
<tr>
<td>11 Liability</td>
<td>-235</td>
<td></td>
<td>Beard cow pymt hard to est</td>
<td>continue to watch, no change needed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 Overhead</td>
<td>918</td>
<td></td>
<td>Owner's Draw &amp; Shared Exp less than budgeted</td>
<td>No Change, nice cushion for upcoming exp</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
No one plans to fail, but many people fail to plan.
But a “Plan” is NOT Enough…
Windshield or Rear View Mirror
Blue Sky Dairy Calf-raising
YEAR-END
2018
DAIRY TRANS-
On a Scale of Superb, Great, Good, Average, Fair, Poor, Dire…

- We are:

  ![Profit Status is FAIR 35% Asset Return Rate -1.67%](image1)
  OR
  ![Profit Status is GOOD 63% Asset Return Rate 4.82%](image2)
## 2018 Income per Cow

<table>
<thead>
<tr>
<th>Farm Cash Incomes</th>
<th>Yours</th>
<th>/Cwt.Eq.</th>
<th>/Cow</th>
<th>/Cow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk Sales</td>
<td>Hi</td>
<td>$232,977</td>
<td>6,970</td>
<td>$2,240</td>
</tr>
<tr>
<td>Cull Cow Sales</td>
<td>Cc</td>
<td>$19,014</td>
<td>569</td>
<td>$183</td>
</tr>
<tr>
<td>Calf Sales</td>
<td>De</td>
<td>$2,475</td>
<td>74</td>
<td>$24</td>
</tr>
<tr>
<td>Crop Sales</td>
<td></td>
<td>$0</td>
<td>0</td>
<td>$0</td>
</tr>
<tr>
<td>Other Income</td>
<td></td>
<td>$31,901</td>
<td>954</td>
<td>$307</td>
</tr>
<tr>
<td>Total Cash Income</td>
<td></td>
<td>$286,367</td>
<td>33.43</td>
<td>$2,754</td>
</tr>
<tr>
<td>Plan Column #</td>
<td>Amount Adverse to Plan</td>
<td>Amount Adverse YTD</td>
<td>Cause of Deviation from Plan</td>
<td>Proposed Action to Return to Plan</td>
</tr>
<tr>
<td>--------------</td>
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</tr>
<tr>
<td>DEC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Income</td>
<td>-3453</td>
<td>-4650</td>
<td>2000 short on milk, 4000 short on beef- sold dan's beef instead of ours(2 animals)</td>
<td>sell 2 more beef in march of 2019, sell the rest of steers on open market</td>
</tr>
<tr>
<td>Liability</td>
<td>2926</td>
<td>1315</td>
<td>short 3400 on repayment in operating loan, but paid extra on Beard cows &amp; Dairy</td>
<td>schedule new op loan pay schedule once dairy loan paid off</td>
</tr>
<tr>
<td>Overhead</td>
<td>1489</td>
<td>14928</td>
<td>3100 overbudget on household, 19,000 of enbe land rent unpaid</td>
<td>redo household budget. Increase to 4500 for 2019? Pay 2019 land rent asap in 2019</td>
</tr>
<tr>
<td>Dairy &amp; Beef</td>
<td>-2226</td>
<td>-12581</td>
<td>10,000 over on feed cost(forgot to put hay in the budget). 1800 over on labor?? 1800 over on repairs and supplies- building calf pens &amp; repairs</td>
<td>sell extra animals. Do feed budget to match amount of feed. Work with nutritionist- feed for butterfat. Look at labor. Some Leadstone exp in this total that should be in vet/breeding</td>
</tr>
<tr>
<td>Crop &amp; Forage</td>
<td>4969</td>
<td>20288</td>
<td>10,700 not paid in custom, 2575 in crop inputs not spent</td>
<td>pay off custom- wittrock, van tilberg, hofman ASAP. Take care of out soils- develop soil fertility plan, read soil books.</td>
</tr>
</tbody>
</table>
What is the Weak Link?

The Chain of Production

Resource Conversion
Sunlight and/or Raw Resources Including Money

Product Conversion
Products and/or Services

Marketing (Money Conversion)
Marketing of Products and/or Services
Human creativity first needs to utilize raw resources—sunlight in particular—and money to create a product or service. Then the product or service needs to be perfected and finally marketed to produce money. The chain is only as strong as its weakest link.

-HMI
Fill Up Your Tool Box:

- Yearly Plan: Holistic Management Financial Plan
- Monthly Budgeting/Tracking: YNAB (You Need A Budget)
- Dairy TRANS: Year- End Analysis & Benchmarks
- Recordkeeping: FarmLogs
- Management Team
The prudent sees danger and hides himself, but the simple go on and suffer for it.

-Proverbs 22:3
MISTAKES, LESSONS, CHANGES
Mistakes

- Failed to control at earliest warning sign
- WITB rather than WOTB
- Retained too many calves

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>39</td>
<td>46</td>
<td>70</td>
</tr>
</tbody>
</table>
Lessons

- There are early warning signs if we are watching
- Respond quickly!
- Monitor more often during difficult times.
- Ask questions & be problem solvers
- Feed- know what we have
- Keep only the calves we can feed well
Easier with Others
Changes to Consider

- Increase profit per cow
- Work with nutritionist again
- Raise fewer calves
- Fall- seasonal calving vs year-round production
- Hire part-time non-family labor
- Management Mindset- WOTB vs WITB

Test each decision to see which are possible and have best return
How to *FAIL* to Make a Profit

1. Fail to Plan.
2. Allow production costs to rise to optimistically anticipated income.
3. Borrow heavily against optimistically anticipated income.
4. Let immediate profits mask damaging side effects.
5. Not figuring out your “unfair advantage.”
“If you have not accomplished your goals, adjust! Don’t keep doing the same over and over.”

- Allan Savory