"AGRICULTURE
IS THE MOST HEALTHFUL, MOST USEFUL
AND MOST NOBLE EMPLOYMENT OF
MAN."
- GEORGE WASHINGTON

NATIONAL AND REGIONAL DAIRY TRENDS AND IMPACTS ON FEED PRICES

2013 Alfalfa & Forage Symposium
Robert Hagevoort
Extension Dairy Specialist & Topliff Dairy Chair
New Mexico State University, Clovis NM
National Dairy Trends......
Regional Dairy Trends......
Dairy industry in 2009

ALRIGHT ALREADY, I GET IT!
THE DAIRY INDUSTRY SUCKS!
ARE WE DONE NOW?
Ok, we’re done here,
We’ve got 20 minutes till the next talk
let’s go and have some fun $$$!
No, for real....
What happened?
The Dairy Industry got smacked with the Perfect Storm

We call her: “Cowtrina”
And the sun set on the dairy industry
“I am just getting squeezed”!

WHAT ARE YOU TALKING ABOUT DUDE?
SO WHAT IS THIS PERFECT STORM?

- We are having the milk prices we dreamed of for years!!
A DREAM COME TRUE!

What will 2013 milk price be? Let’s ask USDA

WASDE 2014 forecast $17-$20cwt
USDA 2014 forecast $17.00-17.85cwt
SO WHAT IS THIS PERFECT STORM?

• We are having the milk prices we dreamed of for years!!
• We are having a feed cost problem driven by
  – Political decisions – food for fuel
  – Exacerbated by the drought
Percentage of U.S. Corn Crop Consumed by Ethanol Production and Corn Price per Bushel, 1980-2012

- Blue line: Percent of U.S. Corn Crop Used to Produce Ethanol
- Red line: Corn Price [USD per bushel]

**Energy Production Act of 2005** requires increasing levels of ethanol in U.S. gasoline.

**Typical Range for U.S. Corn Prices, 1980-2005**

Source: Iowa State University Agricultural Marketing Resource Center, Ethanol Usage Projections & Corn Balance Sheet and U.S.D.A. Agricultural Prices
SO WHAT IS THIS PERFECT STORM?

• We are having the milk prices we dreamed of for years!!
• We are having a feed cost problem driven by
  – Political decisions – food for fuel
  – Exacerbated by the drought
• We are having a lending/equity problem driven by
  – The recent economic crisis
  – Volatility and high risk/insecurity of milk prices vs. feed costs
  – Most of which are again political problems
    (lack of a working safety net)
THE RESULTS OF POLITICAL DROUGHT...
NEW MEXICO DAIRY INDUSTRY KEY INDICATORS (NOV. 2013)

- NM dairy numbers currently are down 39 compared to the peak in 2003
  - (186 vs. 147 today) – down 21%
- NM number of dairy cows is down 40,000 from its peak in Aug 2006
  - (362K vs. 322K) – down 11%
- However, milk production has continued to climb compared to 2006
  - up ~16%
EFFECTS ON NO. OF DAIRIES IN NEW MEXICO

A 21% drop:
a $421M impact to the NM economy
Almost 900 direct jobs lost
Almost 2,500 total jobs lost

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<tr>
<th>Year</th>
<th>No. Dairies</th>
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<td>2013</td>
<td>147</td>
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NEW MEXICO DAIRY INDUSTRY KEY INDICATORS (NOV. 2013)

• What do we lose if a NM dairy closes its doors:
  – $6.8M/dairy direct and $10.8M/dairy total - including processing
    • (based on 2009 IMPLAN data, NMSU unpublished data),
  – About 22 jobs direct and 64 jobs total including processing),
    • (based on 2009 IMPLAN data, NMSU unpublished data),
  – Generations’ worth of dairy management expertise and knowledge disappearing with the family leaving,
  – Generations’ worth of genetic herd improvement leading to these efficient and sustainable cows,
  – Even fewer businesses contributing to the rural local tax base, local communities, schools and churches,
  – It will not make any more water available since groundwater is adjudicated and will be put to alternative uses.
What about that Drought?
REALITY....
CLOVIS, NM SATURDAY MARCH 23, 2013 12:00 NOON
REALITY....

CLOVIS, NM SATURDAY MARCH 23, 2013 12:00 NOON
U.S. Drought Monitor

NOVEMBER 27, 2012

(Released Thursday, Nov. 29, 2012)
Valid 7 a.m. EST

Author:
Eric Luebehusen
U.S. Department of Agriculture

Drought Impact Types:

- Delineates dominant impacts
S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broadscale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

http://droughtmonitor.unl.edu/
CONCERN FOR 2014?

Is drought settling back into the Midwest?
What defines drought in Irrigated Ag?

Evapotranspiration Rates (inches/day) for Clovis, NM
(Cannon, AFB)

A 20-30% increase in water demand:
a 200gpm well all of a sudden needs to become a 250gpm well

Drought in Irrigated Ag is defined as:
When your evapotranspiration exceeds your well capacity!
DROUGHT IN IRRIGATED AG SITUATION
DROUGHT IN IRRIGATED AG SITUATION
ALTERNATIVE FIBER FEED STUFFS

Corn stalks: not for bedding!

Cotton burrs or Gin Trash: not for compost!
THE PINNACLE OF CREATIVITY!
Move over corn stalks....

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New Mexico State University
Feedcosts for Clovis, NM area dairies 2000-2012
(source Genske & Mulder)

Feedcosts/cwt

- Total Feed Expenses, $12.65
- Grain, $8.84
- Hay & Silage, $6.32

Feedcosts for Clovis, NM area dairies 2000-2012
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Feedcosts for Clovis, NM area dairies 2000-2012
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Baseline feed costs 2000-2006 at $5.07/cwt

Grain, $8.84

Hay & Silage, $6.32

Total Feed Expenses, $12.65
Feed costs for Clovis, NM area dairies 2000-2012
(source Genske & Mulder)

Baseline feed costs 2000-2006 at $5.07/cwt
Baseline Hay & Silage costs 2000-2006 at $2.95/cwt

Total Feed Expenses, $12.65
Grain, $8.84
Hay & Silage, $6.32
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Baseline feed costs 2000-2006 at $5.07/cwt

Baseline Hay & Silage costs 2000-2006 at $2.95/cwt

Hay & Silage costs up 11-12: 94% over baseline ($5.72)

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Baseline Hay & Silage costs 2000-2006 at $2.95/cwt

- Hay & Silage costs up 11-12: 94% over baseline ($5.72)
- Grain costs up 07-08-09: 77% over baseline ($5.22)
Feedcosts for Clovis, NM area dairies 2000-2012
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Baseline feed costs 2000-2006 at $5.07/cwt

Grain costs up 07-08-09: 77% over baseline ($5.22)

Grain costs up 11-12: 144% over baseline ($8.08)

Baseline Hay & Silage costs 2000-2006 at $2.95/cwt

Hay & Silage costs up 11-12: 94% over baseline ($5.72)

Hay & Silage, $6.32

Total Feed Expenses, $12.65
Feed costs for Clovis, NM area dairies 2000-2012
(source Genske & Mulder)

Baseline feed costs 2000-2006 at $5.07/cwt

Total feed costs up 11-12: 124% over baseline ($11.37)

Grain costs up 07-08-09: 77% over baseline ($5.22)

Grain costs up 11-12: 144% over baseline ($8.08)

Hay & Silage costs up 11-12: 94% over baseline ($5.72)

Total Feed Expenses, $12.65

Baseline Hay & Silage costs 2000-2006 at $2.95/cwt
SUMMARY FEED COSTS – 2500 COW DAIRY

- Hay & Silage: a 2500 cow dairy producing 75lbs of milk experienced an increase of hay and silage costs of $193K/mo or $2.3M/yr.
- Grain: a 2500 cow dairy producing 75lbs of milk experienced an increase in grain costs of $145K/mo or $1.7M/yr.
- Total feed costs: a 2500 cow dairy producing 75lbs of milk experienced an increase in total feed costs in 2012 of $434K/mo or $5.2M/yr.
- Extrapolating that on the 330,000 cows in NM: a negative $686M financial impact to the State of NM in 2012.
SO TO RECAP THE PERFECT STORM:

• Low milk prices at time of high feed costs
• Southwest Drought – high forage prices
• Midwest Drought – high grain prices
• Dairy equity eroded: banks nervous
  – Values on cows and inventory adjusted – loan to value crisis
  – Banks on the sideline: no equity and upside down ratios
  – Limited access to capital for contracting or paying for hay & silage
• Dairies on open market for commodities, no long term contract options
• Dairies on open market for forage, no capital for long term contract options
• Increased costs of production – water, fertilizer, fuel, etc.
• Immigration stalemate: limited access to good labor
• Extension of old farm bill = extension poor dairy price support programs
• Increased regulatory pressure & compliance costs (EPA, FDA, etc.)
SO WHAT’S THE FUTURE OF DAIRYING?

My Glass is Half Full!

I am very bullish on dairy!

WHY?
IT IS ESTIMATED THAT: 9 BILLION PEOPLE IN 2050 WILL NEED:

From Jeff Simmons’s Food Economics and Consumer Choice, 2011

New Mexico State University
2013: On Track for Another Record Year

U.S. Exports and Imports
(total value)

Exports $6.5B est.
Imports $3.2B est.
We are finally figuring out that not the whole world likes orange cheese!
And we are finally learning how to make what the world wants!
DAIRY IS LOOKING BETTER IN 2014!

- Milk prices look excellent right now!
- Beef prices should hold strong going forward
- Finally getting through the heifer supply
- We have learned (hard way) to constantly do more with less!
- Feed costs are retracting –I/F approaching positive right now
- Fuel costs are reasonable right now
- Plenty of silages in the pile (hay too expensive....)
- Solid export growth of high value products, solid long term markets
- Growth in production has been “acceptable”
- US no longer the “balancing plant” of the world
DAIRY IS LOOKING BETTER IN 2014!

- Hopefully US government will get out of the product buying business
- Hopefully we will get a farm bill with a security net which
- Hopefully will incentivize the banks to evaluate dairy different and open up access to capital
- Hopefully we can work on sensible milk marketing/milk pricing reform which
- Hopefully does not price milk based on the last lb produced but on the first lb produced
- Hopefully there is not enough equity in the industry to create unbridled expansion
WHY THE EXPORT SUCCESS STORY NOW-OFFERS OPPORTUNITIES?

• It’s not so much us, as it is them (new Rabobank report, Nov. 2013):
• Global milk production costs have converged between exporting countries as traditionally low-cost milk producers have seen their production costs increase
• Producers in pasture-based production regions have largely capitalized higher returns into higher valued assets - primarily land – bringing on-farm production costs to levels similar to intensive-feed based systems
• The cost of producing milk has become more volatile due to increased fluctuation of global feed prices and the increased use of these feeds in traditional pasture-based regions
• High labor costs and rising energy costs are a challenge for the future cost control of milk producers in Australia
• New Zealand milk producers are confronted with high debt levels being exposed by a rising interest rate market while grappling with the likely impact of future environmental regulations of farming systems and milk production levels.

Conclusion (unilateral):
Milk producers who want to stay competitive, face the issue of weather increased efficiency can outpace the rising costs of inputs.
QUESTIONS?