Feed Price Outlook and Risk Management for Dairy Producers

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Feed Price Outlook

Feed prices are expected to moderate in the second-half and 2013 and heading into 2014. However all of this is depends on favorable weather and reasonable yields.

Corn

Corn and energy feed prices are expected to remain volatile between now and late August or early September when we will have a better idea of how the 2013 corn crop will fare. Some key points for feed users to consider:

- For crop year 2012-2013 (ends September 30, 2013), total domestic use and exports is expected to be 11.26 billion bushels.
- Ethanol usage is expected to approach 4.5 billion bushels or about 40% of production.
- Ending stocks are expected to decline to 633 million bushels or 5.6 percent stocks-to-use ration.
- Season average price for the US should range from $6.75-$7.45 per bushel. Florida and Southeastern US feed buyers can expect to pay more.
- Farmers intend to plant 97.2 billion acres in 2013.
- If yields return to normal, production should approach 13.5 billion bushels.
- Corn prices should average about $2.00 less for the coming crop year.

Soybean and Soybean Meal

Soybean, Soybean Meal (SBM) and protein prices are also expected to remain volatile between now and late August or early September when we will have a better idea of how the 2013 soybean crop fared. Some key points for feed users to consider:

- For crop year 2012-2013 (ends September 30, 2013), total domestic soybean use and exports is expected to be 3.1 billion bushels.
- Ending stocks are expected to decline to 125 million bushels.
- SBM usage and exports should total near 38.8 million tons
- Season average soybean price for the US should range from $13.80-$14.80 per bushel while SBM prices range from $425-$445 per ton. Florida and Southeastern US feed buyers can expect to pay more.
- Farmers intend to plant 77.1 billion acres in 2013, down slightly from 2012 but still 4th largest ever.
- With normal yields, production should approach 3.0+ billion bushels.
- Soybean and SBM prices should soften some after September/October.

Hay, silage and other forages

Some key points for hay, silage and other forage producers/users to consider:

- Fertilizer and fuel prices are expected to remain stable for most of the year.
- US Alfalfa hay prices are expected to decrease about $50 per ton as a result of larger acreages, increased production, and lower use.
- US Other hay prices are expected to decline by about $10 per ton also resulting from larger acreages, increased production, and lower use.
- Regionally, hay prices should also decline as improved moisture and moderate input prices should result in higher production and less utilization.

Risk and risk management

Dairy (and all agricultural) producers face five general types of risk. The five types of risk are:

1. Price
2. Production
3. Financial
4. Legal
5. Human Resources

This presentation will center on managing Price and Production Risks. However, Financial, Legal and Human Resources Risks should not be overlooked.

Risk is not uncertainty. However, risk does involve uncertainty. In layman's terms, risk is the likelihood that something bad will happen. In order to manage risk, dairymen must know what determines "bad" and what has to happen in order for "bad" to occur.

For example, if projected milk sales prices drop, that is not good. However, at some point a price decline will change from being an inconvenience or not what one had hoped for, to causing severe cash-flow and repayment problems (risk). This point is different for every operation.

To develop an effective risk-management program, dairy producers should perform the following steps:

1. Determine your goals,
2. Determine the potential risks (critical and not-so-critical) to those goals,
3. Develop and implement a risk management plan for the critical risk factors,
4. Develop and implement a risk management plan for the other factors, and
5. Reevaluate periodically.

Managing Price Risk

For dairy farmers the primary price risk factors are the changing price of milk, changing input prices, and the difference or margin between these two. To manage margin risk, milk producers can do any of the following:

- Lock-in purchase and/or sales prices,
- Set some type of ceiling price for purchasing, or

- Establishing a floor price for selling.

Obviously, each of these involves knowing something about production, cost of production, and potential market prices.

Using Futures and options to set prices

To "lock-in" a purchase or sales price, dairy farmers can use either cash contracts or futures. Typically, there is not widespread use of forward cash contracts in the dairy business. However, some cooperatives do offer this service to their members. Since cash contracts are not often available or attractive, futures can be used instead as a risk-management tool for dairymen.

Futures contracts are the most-straight-forward way to establish a firm purchase or sales price. A comprehensive discussion of futures and options is beyond the scope of this presentation. However, dairy producers interested in more information about using futures and options can either contact their local UF IFAS office, Dr. John VanSickle, IFAS Extension Economist, or the author. There are a few highlights that should be mentioned:

- Dairy futures are for 200,000 pounds of Class III (DC) or Class IV (GDK) milk.
- If you want to "pre-sell" milk using futures you would sell or "go short" at the time you want to set the price and then offset or take an opposite position when the final price is established.

Options give the holder of the option the right but not the obligation to sell or buy a futures contract at a pre-set price called a strike price. Options provide the benefit of having a price ceiling for buyers and price floor for sellers without being "locked" into price. They work then very much like price insurance.

A few highlights on options:

- DC or GDK options are also for 200,000 pounds
- If you want to set a price floor (sellers) you would purchase a put option.
- If you want to set a price ceiling (buyers) you would purchase a call option.

Seasonal prices

In addition to using futures and options, producers can also utilize seasonal price patterns to manage their price risk, especially when it comes to purchasing inputs such as feed. Figures 1 and 2 below indicate some of the seasonal price indices for some popular protein and energy feed co-products in the region. Using this information, milk producers can combine anticipated feeding needs and expected feed prices to make prudent feed purchasing decisions.

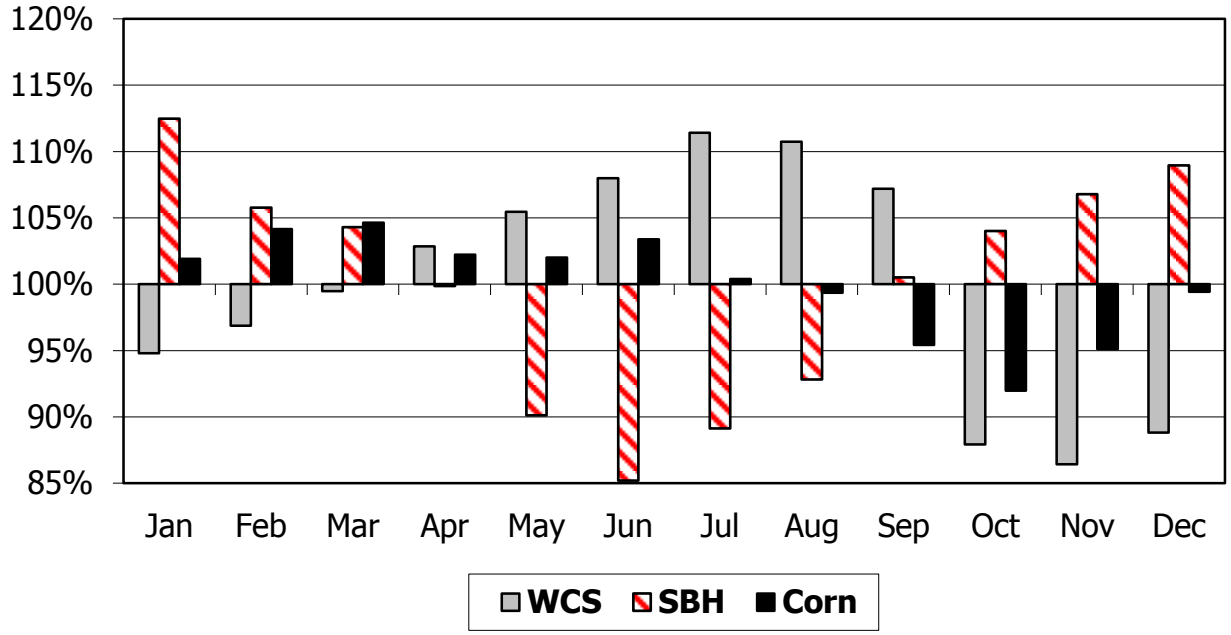

Figure 1. Seasonal indices for Whole Cottonseed (WCS), Soybean Hulls (SBH) and Corn

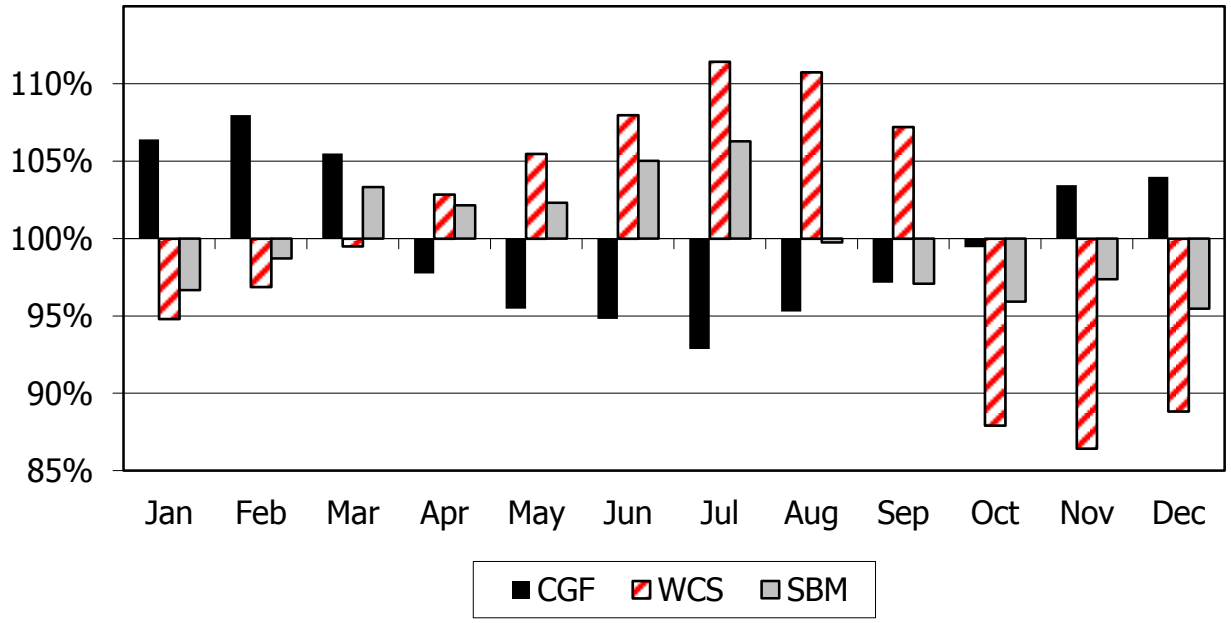

Figure 2. Seasonal indices for Corn Gluten Feed (CGF), Whole Cottonseed (WCS) and Soybean Meal (SBM)

Livestock Gross Margin (LGM) Insurance

LGM for dairy producers has been in existence for several years. The concept is to allow dairy producers to purchase insurance on the margin (difference) between milk and feed prices without having to directly deal in futures in options.

For more information, interested milk producers should consult their local crop insurance agent or go to the following web sites:

http://future.aae.wisc.edu/lgm_dairy.html
http://www.rma.usda.gov/livestock/

Managing Production Risk

There are numerous ways that dairy producers can manage their production risks. The most obvious way is to follow extension and university recommendations.
Since dairy production is forage-based (whether grazed or stored and delivered), it is inherently dependent on weather. While floods and cold weather can occasionally be a problem for southeastern forage producers, the predominant weather risk is dry weather.

Until just recently, forage producers who wanted to purchase insurance on forage production were essentially limited to NAP insurance and government disaster declarations. However, in the last several years USDA-RMA has approved Pasture, Range and Forage (PRF) insurance. With a PRF policy, producers purchase insurance on NOAA's rainfall index at production levels of 70-90 percent of normal at coverage levels of 100-150 percent of the value of the crop. In Florida, there are two types of crops for which one can purchase insurance: grazing and hay.

An excerpt from RMA's PRF Factsheet is given below.
The Rainfall Index uses National Oceanic and Atmospheric Administration Climate Prediction Center (NOAA CPC) data and each grid is 0.25 degrees in latitude by 0.25 degrees in longitude. You must select at least two, 2-month time periods where rain is important to your operation in your area. These time periods are called index intervals. Your insurance payments will be calculated using NOAA CPC data for the grid(s) and index interval(s) you have chosen to insure. When the final grid index falls below your "trigger grid index" (coverage level multiplied by the expected grid index), you may receive a loss payment. This insurance coverage is for a single peril—lack of rain. ***Coverage is based on the experience of the entire grid. It is NOT based on individual farms or ranches or specific weather stations in the general area.*** *(You can find more detailed information at the NOAA Web site: http://www.cpc.ncep.noaa.gov/products/ outreach/research_papers/ncep_cpc_atlas/7/ toc.html)*

To provide an illustration of how a policy would have fared in 2012, an Ex-Ante (after the fact) analysis for the Gainesville, FL grid is included below. It should be pointed out that the example below is for hay. Pasture land values are much lower. However, to qualify as hay land, one only needs to **be able** to harvest hay, not necessarily have a history or harvesting hay. Interested producers are encouraged to utilize the evaluation tools found at: http://agforceusa.com/rma/ri/prf/maps to conduct their own analyses.

Index Interval	Percent of Value (%)	Policy Protection per Unit	Premium Rate per $100	Total Premium	Premium Subsidy	Producer Premium	Actual Index Value	Indemnity
Jan-Feb	N/A	$0	16.58	$0	$0	$0	35.1	$0
Feb-Mar	50	$8,325	16.22	$1,350	$688	$662	39.0	$4,718
Mar-Apr	N/A	$0	18.86	$0	$0	$0	60.4	$0
Apr-May	50	$8,325	20.30	$1,689	$861	$828	153.9	$0
May-Jun	N/A	$0	10.66	$0	$0	$0	197.4	$0
Jun-Jul		$0	7.49	$0	$0	$0	117.4	$0
Jul-Aug		$0	7.75	$0	$0	$0	97.9	$0
Aug-Sep		$0	10.18	$0	$0	$0	132.6	$0
Sep-Oct		$0	16.28	$0	$0	$0	84.8	$0
Oct-Nov		$0	17.68	$0	$0	$0	21.1	$0
Nov-Dec		$0	22.38	$0	$0	$0	126.2	$0
Per Acre	N/A	N/A	N/A	$60.78	$30.98	$29.80	N/A	$94.36
Policy Total	50	$16,650	N/A	$3,039	$1,549	$1,490	N/A	$4,718

County Base Value	$370.00
Dollar Amount of Protection	$333.00
Total Insured Acres	50
Total Policy Protection	$16,650
Subsidy Level	51%
Maximum Percent of Value per Index Interval	50.0%

Calculate

Figure 3. Example results from 100 acres of hay insured with PRF in 2012 for Alachua County, Florida.

Summary

There is a tremendous amount of risk involved in stocker production. Producers are encouraged to determine those items that pose the biggest risk to their operation. They should then develop plans and strategies to mitigate these risks.

Additional Resources

- Georgia-Florida Dairy Benchmarking information: http://sedairiesproject.blogspot.com/
- USDA Risk Management Agency website: www.rma.usda.gov
- Rainfall and Vegetation Insurance: http://www.rma.usda.gov/policies/ri-vi/

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