

# Ag-Bag® Advantage



A publication on management practices and tips utilizing the AG-BAG® sealed storage system

Fall/Winter 99

## BYU and the Case of the Missing Feed

Have you ever noticed that the things you do want to shrink, i.e. a waistline or debt, don't, and the things you don't, i.e. savings or a favorite shirt, do. Shrink with feed, although a small amount may be inevitable, is one of those things you don't want. However, with sound management practices you can keep shrink from shrinking the bottom line.

Feed is the single largest operating expense on dairies, and despite this fact, few people track inventory closely enough to determine shrinkage and inventory discrepancies. You can detect excessive losses due to scale errors, rodent or pest damage, wind, weather, and ineffective storage methods if inventories are tracked.

And, through inventory tracking, you can determine the true cost of your feed. For example, if shrinkage for ground shelled corn is 10 percent and ground shelled corn is selling for \$100 per ton, what would the true cost be?

If there were zero shrinkage, the cost would be \$100 for 2,000 pounds. With 10 percent shrinkage, the true cost actually

Feature Farmer—

### Canadian Beef Operation Reaps Big Rewards Bagging

Riske Creek Ranch is located in British Columbia, Canada, and runs between 1200 and 1300 mother cows, backgrounding their calves until the following spring. With about 650 irrigated acres of alfalfa, corn silage and barley, Ranch Manager Grant Huffman knows good management is essential to

is \$100 for 1,800 pounds [2,000 pounds x (100% - 10%)]. This equates to \$111.11 actual cost per ton [\$100/1,800 pounds x 2,000 pounds]. Multiply that \$11.11 per ton hidden cost by the quantity consumed by your herd over a year's time and you can see where shrink effects the bottom line. Tracking clearly helps determine actual feed costs.

Doug Andrus, herd manager for Brigham Young University in Spanish Fork, Utah, says, "Pay attention to the details." With 425 holsteins and a rolling herd averaging 29,000 lbs., Andrus knows that paying attention pays off. "Good forages, good genetics, and milking three times a day are probably the top three that we look at."

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profitability.

"In the past we made some bunker silage, with the majority of the crop going into dry hay," said Huffman. "For the past six years, we have been bagging all our feed and put up from 20-25 11' x 250' bags per season. Faced with high input costs such

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### Come See Us . . .

- January 4-5 – York, PA  
**Keystone Farm Show**
- January 16-18 – Rock Island, IL  
**Quad Cities Farm Show**
- January 25-26 – Pasco, WA  
**Washington Hay Growers**
- January 26-27 – Roanoke, VA  
**Virginia Dairy Association**
- January 26-29 – Phoenix, AZ  
**NCBA**
- February 1-2 – Hastings, NE  
**Mid-America Alfalfa Expo**
- February 2-4 – Raleigh, NC  
**Southern Farm Show**
- February 8-10 – Tulare, CA  
**California Farm Show**
- February 8-11 – Toronto, ON  
**Canadian Int'l Farm Show**
- February 16-17 – Kearney, NE  
**Nebraska Grain & Feed**
- February 16-19 – Louisville, KY  
**Nat'l Farm Machinery**
- February 17-19 – Billings, MT  
**Montana Agri Trade Expo**
- February 17-19 – Abbotsford, BC  
**Pacific Ag Show**
- February 24-26 – Syracuse, NY  
**New York Farm Show**
- March 7-8 – Madison, WI  
**PDPW**
- March 14-16 – Madison, WI  
**Midwest Ag Expo**
- March 28-30 – Green Bay, WI  
**Public Service Farm Show**

## The Case of the Missing Feed –

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Alfalfa silage is their herd's basic forage and they also feed corn silage and earlage. "For our milking herd it has been earlage," he said. "There are a lot of changes that are made with our close monitoring. More than you would expect."

Andrus, who joined BYU just as they started bagging, said, "our Ag Bag® experience is that we consistently have good forages. If we didn't use the Ag-Bag® system, weather would play havoc with our forages." With bagging, BYU has taken the weather factor out of the picture. Plus, they get more production off their land.

Andrus talks about BYU's experience before they started bagging with Ag-Bag® over 17 years ago. "It became kind of a joke around here," Andrus said. "There was a year's harvest of corn silage in storage. They would

weigh all their feed into their bunker silo and weigh out as they fed it." The accountants wanted to know where the feed was disappearing. They could not account for more than 30% of the feed that went into the bunker. "The loss was so great they even suggested that one of the employees was taking feed for their own herd," Andrus said. For the three years prior to bagging, Rollo Jones, BYU's previous farm manager, reported in the early 80s that bunker losses were amounting to over \$26,000 per year.

Since they starting bagging, it is a different story. "In a typical alfalfa bale situation you cut the hay, let it wilt and dry, and then bale it and haul it off," says Andrus. "When we do the silage, we can get the crop off and water back on in a couple of days versus a week or more. We can get another cutting and it's a higher quality because cutting

sooner with more leaves. We bag everything and our losses are consistently between three and four percent, often getting as low as two percent."

"We are consistently the highest herd in the state for production and we are the highest in the country for university herds," reports Andrus. BYU knows that monitoring keeps them on track and Ag-Bag® gives them tangible, economic results.

## Canadian Beef Operation -

as pumping for irrigation and no additional available land suitable for crop production, Riske Creek's operation demands they make the most of what they have. "Bagging with Ag-Bag® has allowed us to maximize feed production," Huffman said.

Huffman said bagging has helped their operation by allowing them to get the crop off quickly and the water back on regardless of weather. They also like being able to store the crop closer to where it is harvested. Then they can spend the time hauling it to the feed yard in the winter when time is more available.

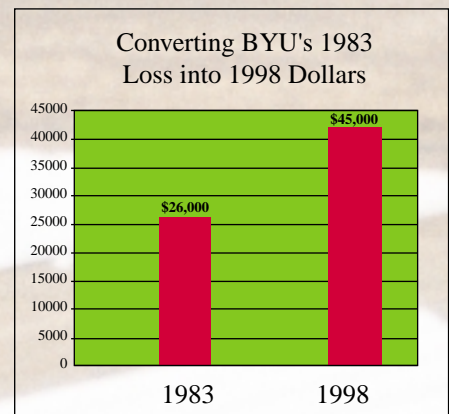
"When weather and other circumstances force us to stop chopping, there is no exposed feed that requires covering until chopping starts again," said Huffman. He also sees benefit from being able to segregate different feeds and feed qualities. "We are able to access the various kinds of feed we have at the same time by having a bag of each type

opened," he said. "This allows us to feed a more balanced ration."

Riske Creek has also significantly reduced dry matter field loss when compared to hay. According to Huffman, they "have reduced storage losses when compared to any other storage system, and we see an increased feed quality (retention of nutrients) when compared to any other storage system."

What this means to their operation is increased calf weight gains and improved herd health. All of the above factors allow them to feed 20-25% more cattle using the same acres and input costs. They have found that the annual bag costs are paid for many times over by the increase in feed volume, improved feed quality, and the ability to maximize the productivity of their land under cultivation. "Even in periods of very low cattle prices the reduction in field and storage losses, along with the increased feed quality that bagging produces, returns much more than it costs," said Huffman.

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## Nutrition in a Nutshell

By James DeMatteo, Nutritionist

### Now you see it, Now you don't!

Shrink is one of those evasive terms that talks about what you DON'T have. Shrink is, IN FACT, a true expense to your operation. Some of the decisions that you make regarding harvest, storage, and feeding of forage can be setting the stage for your vulnerability to the silent thief of shrink!

If you know what you harvest and what you actually feed, the difference will undoubtedly surprise you. Ask yourself what kind of shrink you have on your operation, and frequently you won't have the answer, or you'll guess that it's "not too bad" or you may answer, "I don't know, and I think I really don't want to know!"

The truth is, a truck scale is one of the biggest moneymakers on the farm. First you have to measure what the reality is today in shrink expense before you can measure your results in shrink control. If your corn silage costs you \$25.00/ton harvested, laid in the bunk and covered, every 1% shrink will cost you \$250.00/thousand tons. I've talked to dairymen who've said that once they've had scales installed, they have discovered shrink exceeding 20 %... That equates to a \$5,000.00 expense per 1,000 tons. So when you consider all of your options regarding forage

storage: A covered pile on the ground that may (at first sight) look like you are saving thousands when compared to bagging, may actually be COSTING you thousands.

Once nutrients are consumed, or product is lost through harvest, storage and feed-out management, it is gone forever. What is worse than the actual "disappearance" of product that you planned on having at feed-out, is the feeding of inferior forage products as a result of nutrient shrink. What is "leftover" from a poorly fermented stored forage is often costing the dairy producer milk production every day of the year.

Consider the forage that you are feeding now. Is it heating up at feed-out? If you can feel heat as you place your hand in the pile waiting to be fed, you are actually witnessing the robbery of nutrients from the diet that your cows will consume. "Oh, that's no big deal," you say. Well it can be a huge deal, if your objective is to maximize profitable milk production.

That "shrink" that robbed you of nutrients earlier, may have left you with a forage product containing far less nutrients than your nutritionist has considered in the formulation of your cows' diets. If protein is limiting in your lactating cow's diet, a 0.10 # of protein can cost you 1.00 # of milk... If energy is limiting in your diet, a one pound shortage of energy can equate to a 3.00 # loss of milk production per cow per day.

It either costs your operation in increased purchased feed expense to compensate for the lost nutrients in your "on farm" feedstuffs or it costs you in lost milk production due the feeding of feeds that have been robbed of nutrients.

Let's consider a diet where you are feeding 22 # of dry matter from forage. If you are 1% short in your estimate of the protein content, that's a 0.22 # of protein shortfall (or about 2 # of milk - IF protein is limiting in the diet). If the NEL is 63, instead of 66 mCALS,

that could equate to a 0.66 mCAL shortfall. IF energy is limiting, that could equate to another 2 # of milk loss.

At \$13.00 milk, that can mean over \$18,000.00 less income per 100 cows per year. Depending on face management, you could be feeding a much poorer quality product than what you put up at harvest. This only considers protein and energy. The cost of nutrient loss grows dramatically when you consider the expense of feeding forages that limit dry matter intake due to high levels of butyric acid, forages that are too wet or forages that exacerbate foot problems because they are chopped too fine.

By feeding that "marginal" forage and decreasing DMI correspondingly, you can drastically effect milk production. A decrease of DMI by one pound can equate to another 1-3# in sacrificed milk. That can mean another \$9,000 per 100 cows per year.

Certainly, some of these losses can be prevented by sound nutritional recommendations based on consistent wet chemistry laboratory analysis of your forages. The underlying point here is that even if you compensate for the damage done to forage through nutrient shrink, it remains that you are compensating for feed quality, and milk production that you have already paid for once... and then lost... through shrink!

We are in a pound business! One pound of milk, one pound of dry matter intake, and one pound of forage saved can translate to a major impact on your bottom line. Ignorance may be bliss, but it can also cost you a lot of money. What you don't know CAN hurt you!

Visit our web site  
[www.ag-bag.com](http://www.ag-bag.com)



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## Winterize your Bagger – Today

Like so many things in our busy lives, what we do today has impact for tomorrow. In order to have your bagging equipment ready to perform at peak efficiency next season, you should take the time now to prepare it for the winter months.

1. Remove all forage residue from the stripper bars, rotor, tunnel, conveyor, and the bag pan. A good steam-cleaning will clean most of this out. Old silage is very acidic and will erode the paint and steel.
2. Repair or spray the inside of the tunnel with a diesel or WD-40® to protect from rust. Paint over scratches and nicks to protect from rust.
3. Check the wear on the tine-caps on the rotor teeth. Replace if worn down and pointy, or if there is more than 1/4 inch spacing between the caps and stripper bars.
4. Remove the rotor chain guard and take the rotor chain off the sprocket. Soak the chain in diesel to clean it, then in oil to lubricate the rollers. Check the sprocket for signs of wear before replacing it.
5. Drain the gearbox and refill it with new oil. Change hydraulic and engine filters, and clean the air filter housing and prekleener. Lube all zirks, remove tires, and repack wheel bearings if machine has traveled a lot.
6. WD-40® the brake cable to protect against rust. Be careful not to get the WD-40® on the brake pad, brake drum or caliper because it will cause deterioration.
7. On all motorized units, check antifreeze levels, change engine oil, and fill fuel tanks.
8. Loosen all bungee cords and store them out of the weather. Secure bag pan with rope or wire.
9. Put brake-pump lever in *in* position to keep shaft from rusting.
10. Grease the chain which drives the pusher bar (on 5603 Flex-A-Tuber® models). Drain gas from motor.
11. Wrap remote control unit, motor, and hydraulic bank valve with plastic.

Taking care of your bagging equipment at the end of the fall harvest season is a good idea. Like bagging forages protects your feed investment, winterizing your bagger protects your capital investment and saves you time and stress at the beginning of next season.

Also, did you know that Ag-Bag® offers a free inspection for *all* your bagging equipment? Contact your Ag-Bag® sales representative or your local Ag-Bag® dealer about this complimentary service.

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[www.ag-bag.com](http://www.ag-bag.com)