

UTILIZING BAGGED AND BALED ALFALFA ON THE DAIRY FARM

Clyde King
Areias Dairy Farms
Los Banos, CA

Because we have historically had early and late cuttings of hay rained on in the windrow and because of the high quality of hay harvested in the spring and fall, we began looking for better ways of harvesting those cuttings.

While we were making alfalfa silage in the spring and fall and putting it into the pit, we were never satisfied because of the two to four inches of slime on the entire surface. The quality was not always consistent and required a preservative, and our losses were always 15 - 20%.

We grow alfalfa on 1,500 acres for 1,850 milk cows and 1,950 replacements. We put chopped alfalfa into bags at 50 - 70% moisture content. The bags are 9 feet diameter by 200 feet long; single ply, 9 MIL plastic, with ultra violet ray protection.

We bale 6,500 tons of alfalfa hay per year. We attempt to bale the cuttings between May 1st and September 1st. While the baled alfalfa we process is our standby feed, we have found that bagged haylage has enhanced quality and is highly desired by our cows. Haylage is very compatible with our ground, baled alfalfa and tends to cool the feed down in the hot summer, thereby increasing consumptions.

RESULTS

Advantages Of Bagged Silage

- Alfalfa can be direct chopped and bagged if weather doesn't permit wilting to 55 - 70%.
- Small amounts can be bagged, say 35 to 50 tons, if you have a small field or you only need one bag which holds 135 - 200 tons.
- No need for preservatives.
- When feeding, only the end of the bag is exposed which virtually eliminates secondary spoilage.
- Hay from various fields can be identified in bag by spray painting on bag.
- We can change from one type silage to another in the same bag.
- We can get back on the field with water quicker if needed.
- We can space the irrigations better in order to cut down on water grass pressure.
- In the two full years we have bagged, we haven't had any hay rained on.

Disadvantages Of Bagged Silage

- Disposal of plastic.
- Bags must be on firm surface to work with in the winter.
- Vandalism; bags are easily cut or punctured.
- Bags take a lot of space; they can't be stacked.
- Bags take more time to load feed from.

MOST OF ALL GOOD BAG MANAGEMENT IS ESSENTIAL!

Quality Of Haylage

Bagged alfalfa silage appears to enhance quality somewhat. It had been our feeling that overall, we had the poorest quality hay in the bags and the best quality hay baled. We bagged most of our 3rd cutting in July and bagged the years cutting on 185 acres of grassy hay.

On November 1st, we tested 10 stacks of baled hay (3,000 tons), and 16 bags of haylage (3,200 tons). Of the baled hay, we have saved 1,500 tons of our best milk cow hay for December, January and February, figuring the balance to be average. Surprisingly, both baled hay and haylage samples average nearly identical analysis' as follows:

	<u>Crude Fiber</u>	<u>Crude Protein</u>	<u>Ton</u>
Alfalfa baled	22.51	19.94	54.4
Alfalfa haylage bagged	22.07	19.94	54.4

Not reflected in the above analysis is 2,500 tons of haylage harvested from October 20th to October 31st which we have not tested yet.

Yield Comparison

If we were to bag our entire acreage, we would gain one full cutting per year based upon the harvest period lasting from March 20th to October 20th. Also we have some measurable gain in dry matter harvested as haylage over baled because we have less leaf shatter when green chopping.

Milk Production

We can't really say that haylage is the sole reason for our production increases, however, during the period of feeding haylage November 1984 to October 1986, our production has increased as follows:

<u>Year</u>	<u># Cows</u>	<u>lbs. milk</u>	<u>FCM milk</u>	<u>BF test</u>
1986	1886	20,154 #	20,983 #	3.76
1984	1789	17,991 #	18,534 #	3.69

CONCLUSION

Baled alfalfa hay will always be a major method of processing and feeding alfalfa hay on our operation. Bagged alfalfa silage works very well on our farm and dairy because it provides great flexibility in harvesting and feeding.

In the case of a hay grower who markets alfalfa commercially, haylage would be a difficult alternative. If the grower had dairymen close by, he might utilize bagged haylage by hauling it from the field direct to the dairy to be bagged.