Guidelines given for making round bale silage

NEW HOLLAND — Round bale silage may have a place in your forage program it's not a cureall. For most North American producers, round bale silage will probably be a secondary system to gain more management flexibility, says Dick Salisbury of Sperry New Holland: Generally, it's less complicated to make hay. But round bale silage is useful when your silos are already full and rain threatens your windrows. It takes more management.

The use of individual plastic bags probably makes it easier to put up a small amount of round bale silage. The cost of good quality sacks takes some of the pep out of your planning if you're comparing systems, explains Salisbury, who is product manager for round balers at New Holland. But the cost of the bags isn't critical if you're only making a small amount of the round bale silage to try. It beats losing a crop to rain.

In fact, good quality feed, very low waste and moderate costs are reported by farmers who are already using their big round balers to make hay silage. As a bonus they harvest a day or two sooner and beat the leaf loss you normally get baling dry hay.

It's already on international practice. Farmers in England, Scotland, Holland, Belgium, Germany and the Canadian Prairies have been at it for years. The results have been pleasing.

There are important precautions to observe, no matter if you make silage in individual sacks or in stacks of bales. The critical item is sealing our air. A small hole in the bag will make the difference between a bag of good feed or a bag of rotten waste.

Salisbury suggests these guidelines for success if you're thinking about making round bale silage.

1. Start with good material. If you put poor-quality rain-damaged crop into a bag you won't get good feed. The results will be about what you'd get out of a conventional silo if you put up poor-quality feed.

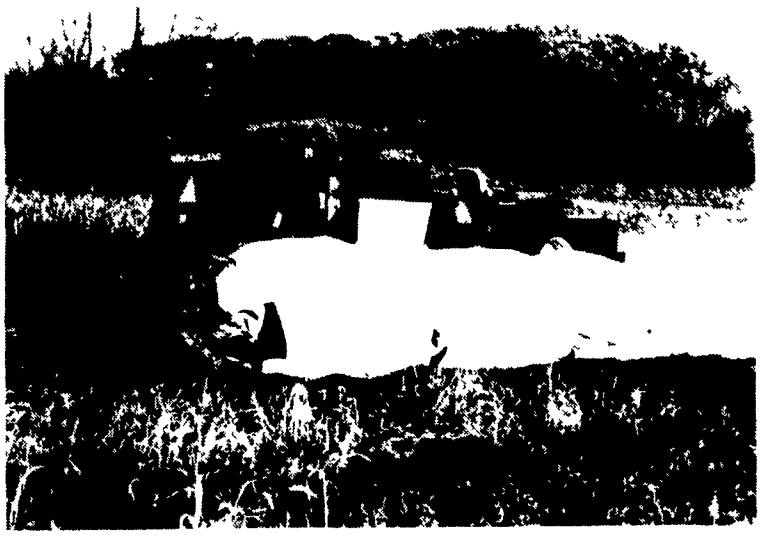
2. Wilt the crop to about 50% moisture. That's about half-dry. At this moisture content, the fermentation is a little more favorable in terms of sugar content than wetter material.

3. If the crop gets much dryer than 40% moisture, let it dry for hay. Too-dry hay silage will overheat in storage. This cuts down protein digestibility. That reduces feed value of the silage.

4. Have your equipment ready before you start. You'll want a minimum of 60 HP on the baler tractor because the bales are heavier than they appear to be. Make sure the hauling equipment is ready right away when you start baling. Haul the bales to storage just as soon as they're made. Be sure the loader can handle the heavy bales.

5. Make the bale from 40 to 48 inches in diameter. Try the loader on the first bale before you make the second bale to be sure it can handle the wet bales. Loader tines may need to be re-spaced. The smaller bales will weigh as much as a full-size bale of dry hay and that's all the baler is designed to make. Full-size bales of wet crop may be too heavy for your handler equipment.

6. Haul the bales to storage right away. Silage making with round bales is more practical as a 2-man operation, at least at the beginning. Any smooth, well-drained level spot will do for storage. Pack the bales together as closely as possible and only about three bales high. Land the bales square and solidly. Safety in handling may be a problem with higher stacks of wet bales.



Round bale silage can help solve some weather loss problems by beating the rain and getting wilted crop into plastic bags.

7. No matter if you use individual sacks or groups of bales, put bales into plastic the same day they are baled Use black 6-mil poly if you aren't using sacks. Put up about one to three weeks' worth of feed as a separate unit. Seal that group of bales separately and start the next unit against the previous unit. That helps avoid spoilage during the feeding period. If you keep the bales to about 40 inches, you can expect to cover about three dozen bales with a 40'x40' sheet of plastic. That's assuming you place three rows and to end and five bales wide on the bottom (15), four rows wide on the second layer (12) and three bales wide on the top tier (9). The plastic should be wrinkle-free and snug. Put a layer of sand all around the edge to seal and hold the plastic against the bales and ground. Successful silage-making requires successful sealing. The pile will rot if the air gets in. That's the reason it's a good idea to cover the bales with a second layer of strong, cross-laminated plastic, sealed over the first. This protects the inside plastic from damage.

8. If you use plastic sacks as individual packages, you will probably get best results with the multi-ply bags that are white outside and black inside. Single ply sacks should probably be stored under an additional group cover for protection. Mice, playing children and even crickets might put holes in the sacks and lead to spoilage. You have to be paying continual, close attention to keeping air sealed out. Individual sacks should be double-tied with plastic twine that won't weather and stretch to leak air through the tie. With careful use, you may be able to reuse the sacks several times.

9. Place baler twine over the stacks in both directions to hold the plastic in place and prevent the wind from whipping it around. Use sand bags or tires to weight the ends of the twines. The tires or sandbags should be about two feet above the ground to keep the plastic taut as the stack settles. Re-tie them higher if they sag down to the ground. If available, a surplus camouflage net may be easier to use than the baler twine hold-downs. Check the plastic for punctures from time to time, but don't peep under until you're ready to feed. Seal any holes with plastic tape to stop air leaks.

10. You can start to feed about three weeks after harvest. Take the top plastic cover off one unit of bales and store it for use next year. Then open the lower plastic cover just enough to take out one bale. Leave the cover on the rest to keep rain and snow out. Put the bale in a round feeder or feeding fence to reduce trampling damage.

There is less waste than you'd expect because there's a continuously fresh feeding face exposed as the cattle eat away at the silage bale. Experience indicates very little mold problem.

Interest in round bale silage seems to follow a pattern. Usually, the forage is for beef, but it has been used for dairy cattle. In most cases it has been used where farmers don't grow corn for silage and where they do not already own a forage harvester. On these farms the round bale silage is a weather-beating alternative to hay. And it is easier to handle than silage put up with a flail-type chopper (In the past, flail choppers are the ordinary hay silage makers in most of Northern Europe).

Take it easy with round bale silage at first, advises Salisbury. It may be a valuable additional way to handle forage on some farms. And on others, it may not fit at all. Trying it on a small scale is the best way to find out.

Swine manual available

KALAMAZOO, Mich. - A management reference manual on "Producing Hogs Economically" is now available from The Upjohn Company. This publication is the first in a series of management manuals to be made available on various aspects of profitable swine production. The other manuals, which will review swine scours, respiratory diseases and arthritis, will become available on a periodic basis in 1984.

The economic reference manual contains information for the swine producer to use in evaluating the strengths and weaknesses of his operation. It also discusses how to determine where to make changes to achieve more efficient and profitable production. Management checklists are included for the producer to use in systematically evaluating his operation. Local extension agents, university specialists, agricultural consultants, farm advisors and veterinarians should find this manual useful in assisting hog producers.

A single copy of the report may be obtained by writing: Swine Economic Manual, The Upjohn Company, P.O. Box 5087, Kalamazoo, MI 49003.