



Beef Fat Protects Round Bales

Covering big round bales with a layer of melted beef fat does just as good a job preventing spoilage as plastic wrap and eliminates the problems of disposal because cattle eat the fat right along with the hay.

University of Missouri researcher Dale Watson tried the new method for the first time last summer. He got the idea after another U of M researcher got a plastic bale cover tangled up in his mower. The incident prompted him to look for a new way to protect bales stored outside without using plastic.

After coating a batch of bales with melted tallow, Watson let them sit until the middle of winter. More than 8 in. of rain had fallen on the bales when he finally cut into them. He was pleasantly surprised to find that the alfalfa was bright green and fresh right to the top of the outer rim of the bale. There was no rain damage at all.

For his experiment, Watson used food-

grade tallow flakes that are normally used by bakers and food processors. He melted the tallow and applied it with a garden sprinkler. Now that his first tests have proven successful, he plans to mechanize the application process for next season.

Treatment cost was about \$3.00 per bale for the initial test but he figures he can use less than half as much tallow and do as good a job and possibly find a cheaper form of fat such as lard or chicken fat. However, tallow works ideal because it has a higher melting point and should stay in place even under the hot summer sun.

Watson says there is a surplus of tallow on the market right now because many fast food chains have switched to vegetable oil for cooking fried foods. He hopes to interest tallow manufacturers in his research.

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Burning Bales Keep Cattle Warm

When it gets cold on Ted Thimling's farm near Arnett, Okla., cattle gather around a big bale fire to keep warm.

"It takes the chill off. Many times it's helped prevent frostbite," says Thimling who makes about 50 round bales out of wheat straw every year to use for his frosty night bonfires. When it gets particularly cold out, he places one of the bales in a corral or pasture and sets it afire. "It flames up for a while and then it just smolders away. One bale will usually last all night. Cattle line up down wind of it and once the bale burns down, they go lay right next to

the embers or even right in the ashes to keep warm. It's surprising how long the ground will stay warm after the bale burns down."

Thimling has also tried unrolling a bale in a long line along the ground and then setting it afire. That works but the straw burns up too fast. "When I tried that, I ended up with a long line of cattle lying on the ground in the ashes because the ground stayed warm for a while after the fire died out. But it didn't keep them warm for long."

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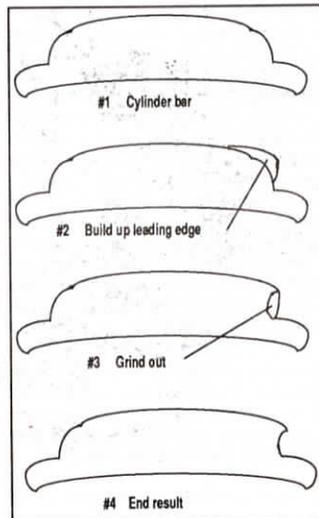
Rebuilt Rasp Bars

"I extend the life of rasp bars on my combine cylinder by rebuilding the leading edge of each rib on the bars," says Edwin H. Bredemeier, Steinauer, Neb., who says he's used the idea for years with excellent results.

"I build up the leading edge of each rib at the wear point with hardsurfacing material (#2) and then use an electric grinder to grind out a half-moon shaped area on the leading edge (#3). The end result is that the cylinder bar pulls the crop through the cylinder better without any bunching up in front of cylinder. Makes it much more aggressive. The modification also boosts capacity and takes less power because grain doesn't stay in the cylinder so long," says Bredemeier.

"I've used this idea on Case combines but see no reason it would not work on any combine with rasp bars."

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"Best Ideas"

Sow "Bra" Prevents Damage To Teats

An 8-year-old Iowa farm boy won a national inventions contest for second graders with a sow "bra" he developed to keep teats from being damaged on sows reared in raised crates.

Curtis Schroeder of Lost Nation, says his father, Alan, had been experiencing damaged teats on sows for some time. "It usually happens a few hours before they farrow. They get up and down a lot on the metal flooring, tearing their teats so that they can't produce milk and their pigs starve," he says.

His solution was to make a large sling that runs under the body of the sow. It comes off when pigs start arriving.

"I sewed two standard size bath towels together and then attached three 37-in. long narrow strips of cloth to one side, spaced evenly. I attached curtain rings to the other side of the cloth. The ends of the strips fit through the rings and are held in place by velcro strips fastened to the cloth. The velcro strips are 12 in. long so the jacket can be adjusted to fit gilts and 5th litter sows.



"It took me about 2 hrs. to make the first one and it cost about \$15.50. The first time I used it we had it on the sow for about 10 hrs. with no problems. I took it to our invention convention at school and placed first. I also won at the regional and state level. My family and I won a trip to Washington, D.C., where I won the national prize for second graders. Now my parents and I are looking for a market for the jacket and we plan to patent it."

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He Makes Cheap Cattle Feed From Chaff And Manure

Mixing straw chaff with manure and water provides a cheap, nutritious feed, says Ken Nelson, Herbert, Sask., who calls the product "feedlot wastelage".

Nelson uses a front-end loader to scrape manure off a concrete feedlot into a 32-ft. dia., 12-ft. deep holding tank. The manure is agitated, then mixed with water and pumped through a 1 1/2-in. dia. hose to the top of a 90-ft. Harvestore silo. The mixture is then sprayed onto chaff blown up through a conventional silo blower.

"It makes a cheap feed that's very good for cows. We haven't had any problems with it," says Nelson, who along with his brother and family has fed the chaff and manure combination for four years to about 1,000 cows and calves. "It looks like haylage but smells better. Cows will eat it before they'll eat hay. Urine has a lot of good minerals in it and the ammonia in the manure provides a lot of feed value. The chaff contains nutritious weed seeds and cracked grain. The mixture that's pumped into the silo has to be as fine as a milkshake so it'll go through the hose without plugging up. Chaff makes up 50% of the feed's weight and manure makes up only 10%. The rest is water. We have to use an oxygen controlled silo so that bacteria can break

down the straw and manure mixture and cause it to ferment. We unload the chaff and manure combination into an automatic feed bunk and mix it with haylage from another Harvestore.

"We had been using a tub grinder to grind up round straw bales to mix with manure but chaff is a better feed than straw and we're now able to use our straw bales for bedding. Chaff is collected at the back of the combine by a tag-along cart that automatically dumps piles onto the ground when it fills up (Reckop Chaff Systems Ltd., Box 178A, RR 4, Saskatoon, Sask. Canada S7K 3J7 ph 306 931-6664). We have a machine that augers chaff up from the ground and blows it into a 24-ft. long 5th wheel trailer. The trailer rear unloads onto a blowdeck at the silo that's equipped with a live bottom floor. The blowdeck feeds chaff into the silo blower at an even pace. We can't control the speed of the screw-type pump so we have to run the blower fairly fast to keep the blower pipe full. We use a high capacity Gehl 1580 blower equipped with paddles on both sides of the fan."

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