



Hay Chief bale spike spins the bale, which is partially supported by a rear support arm.

## New Hydraulic Spike "Unwraps" Big Bales

Big bale handling and feeding devices keep getting better and better, and the new Apache "Hay Chief" is no exception. It's a hydraulic bale spike with something extra — a paddle type side fork that peels off the hay, regardless of how tangled or tightly packed, placing it right where it's needed.

"You can lay out a long, narrow, fluffy windrow that produces less waste when feeding cattle. Animals won't walk all over it, as with a wider windrow, and you can space animals out better with a longer line of hay," says Vern Delp, of Apache Enterprises, Norfolk, Neb.

Another advantage is that the spike picks bales up and spins them, rather than unrolling them along the ground. Thus, it makes no difference

if one side is flat from sitting in the field. Snow on the ground won't bother it either — you just drop the hay on top, Delp points out.

The Hay Chief has a rear, hydraulically controlled arm that supports the back end of the bale.

"There's a cable attached to the rear arm that runs to the side fork to peel off hay as the bale turns," explains Delp. "When you raise the arm, the fork lifts out of the way."

The unit fits category II and III tractor hitches and can also be used to transport bales. The just-introduced Chief sells for \$2,383.

For more information, contact: FARM SHOW Followup, Apache Enterprises, P.O. Box 306, Norfolk, Neb. 68701 (ph 402 371-5952).



New ramp folds up flat, adding four extra feet to the truck bed.

## ADDS VERSATILITY, CARGO CAPACITY

## Loading Ramp For Farm Trucks

Your farm truck can do extra duty with a new combination portable loading ramp and bed extension from J-T-B Mfg., Jeffersonton, Ky.

The new ramp weighs less than 1,000 lbs., yet can support a payload of up to 14,000 lbs. It eliminates the need for an extra low-type implement trailer behind the truck or a "roll-back" bed. As a bed extension, the ramp adds four extra feet to the truck-bed for added cargo capacity.

Since the ramp angle is adjustable, it may add versatility to "tilt-bed" trucks that are too steep to load implements normally. The angle is low enough that low-slung tractors and implements with as little as 12 in. of bottom clearance can be driven onto the truck bed.

To install, a mounting bracket is welded or bolted onto the back of the truck. Then, just four pull-pins attach the ramp to the bracket. "It takes one

man just 10 minutes to attach or detach the ramp from the truck," explains Bill Power, co-owner of J-T-B Mfg. After detaching, the legs extend down to make the ramp free-standing and ready to hook up the next time.

The heavy, steel spring-assisted wheel ramps can be raised and lowered by one man. Then, the bed extension can be locked in place horizontally and used to extend the truck bed for carrying extra hay, lumber, feed or other supplies. With plywood overlays across the wheel ramps, the J-T-B ramp can also be used to run livestock into a truck.

Power points out that the ramp is legal in every state. A safety light package is included. Sells for \$1,995.

For more information, contact: FARM SHOW Followup, J-T-B Mfg. Co., 9801 Taylorsville Road, Jeffersonton, Ky. 40299 (ph 502 267-9163).

## "Colostrometer" Can Reduce Dairy Calf Losses

Most dairymen know that a newborn calf needs colostrum, or "first milk", from its mother in the first hours after birth in order to survive.

"What many dairymen don't know, however, is that colostrum varies a great deal from one individual to another in its protection against disease," says an Arizona dairy scientist who has devised a way to measure the difference in effectiveness of colostrum.

Gary Stott, professor of dairy science at the University of Arizona, developed an instrument he calls a "colostrometer" which measures the amount of disease-fighting antibodies or immunoglobulins in colostrum. The more antibodies present, the greater is the density or specific gravity of the milk.

The colostrometer works like a hydrometer used to test the battery or anti-freeze in a car. The more dense the liquid is, the higher the instrument floats. The specific gravity reads directly on a color-coded scale.

"The concentration of immunoglobulins or antibodies in colostrum milk varies greatly from cow to cow,"

explains Stott. "An average is 60 milligrams per milliliter, and it ranges from a low of 20 to a high of 100. Calves that get colostrum which is low in antibodies will not get good disease protection."

Timing is as important as quality of the first milk. Calves should get high quality colostrum within an hour after birth. Stott suggests that they get about 2 quarts of colostrum in their first drink, but they may get by with less if the quality is good. By the second milking, antibody content decreases 50% and keeps dropping steadily after that.

"Feeding high quality colostrum early in the life of every newborn calf could do much to cut the 15-20% death loss we now experience," Stott says. "Losing a bull calf is a \$50-\$60 loss, and a heifer calf is worth \$200 and up."

Stott believes that the colostrometer will be especially valuable in dairy herds where farmers pool large amounts of colostrum and freeze or ferment it for future use. "Up to now we didn't know whether the mixture from different cows contained low



Gary Stott's colostrometer measures the amount of disease-fighting antibodies in colostrum.

grade colostrum or how much antibody content it lost over a period of time."

Stott anticipates some interest in his new instrument for testing first milk of sows, mares, ewes, and beef cows. He hopes to be able to refine the colostrum test so he can tell what specific antibodies may be present or absent in the colostrum.

The colostrometer is being manufactured by a group called Biogenics, Ltd. and is being distributed by several dairy supply companies. Suggested retail is just under \$50.

For more information, contact: FARM SHOW Followup, Biogenics Ltd., P.O. Box 610, San Mateo, Calif. 94401 (ph 415 347-8161).