

**IT'S PORTABLE AND "GOES ANYWHERE" TO REDUCE HAY TRANSPORTATION COSTS**

## "Squeezer" Compacts Two Bales Into One

"It offers a tremendous cost advantage to anyone who transports hay," says Del Spiegelberg, Hortonville, Wis., hay dealer and inventor of the Hay Squeezer, said to be the first and only portable bale compacter on the market. It compacts 2 conventional hay bales into one at the rate of 180 compacted bales per hour. A larger model under development will compact 240 bales per hour (8 conventional bales in, and 4 compacted out, per minute).

The Hay Squeezer automatically ties each compacted bale with plastic twine. It's powered by a 70 hp. engine and generally requires 2 persons to feed bales in, 2 to stack and 1 person to operate controls inside the cab. Two conventional size bales, weighing 50 to 60 lbs., are pressed



**Hay "Squeeze" compacts two bales into one same-size bale weighing twice as much.**

into a single compacted bale which has the same dimensions as a standard bale except that it weighs twice as much (100 to 120 lbs.), allowing trucks or trailers to carry heavy pay

loads and thus reduce transportation costs.

"The machine makes a perfect bale every time. It has a gentle action which causes very little leaf loss, thus

maintaining quality," says Spiegelberg, who would like to compare notes with interested manufacturers. If bales to be compacted are tied with wire, the wire is removed first. If tied with twine, the twine is left intact.

Attempts to make compacted bales right in the field, thus eliminating the need for a second rebaling operation, have generally been unsuccessful. One reason is that most hay generally has to go through a 3 to 4 week curing before it can be squeezed together into a compacted bale.

For more details, contact: FARM SHOW Followup, Hay Squeezer, c/o Del Spiegelberg, Hortonville, Wis. 54944 (ph 414 779-6963).

**"VIRTUALLY ELIMINATES SPOILAGE"**

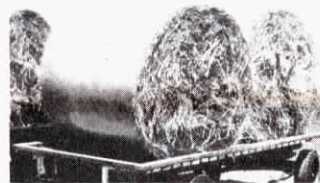
## Converted Baler Wraps Bales In Plastic

"Cuts spoilage down to practically zero," say company engineers about M & W Gear's new "Raincoat" baler, a big round bale machine that wraps bales in plastic, rather than twine, leaving only the ends exposed to the elements.

(Another plasti-wrap baler, produced by Lundell Mfg., Cherokee, Iowa, was featured in FARM SHOW one year ago.)

Along with the new-style baler (which is being manufactured for M & W by McKee Mfg.), the company may offer their plasti-wrap system as a retro-fit kit for do-it-yourselfers. Spokesmen say its design will adapt to any belt or roller-type big round baler.

According to M & W design en-



**Ends of bales are left uncovered, allowing bale to breathe.**

gineer, Ken Fackler, the new baler wraps bales "with about three layers of Saran Wrap-like plastic that adheres to itself while holding the bale. No twine is needed. Plastic per bale will range in price from \$1.50 to \$2.00, and will be more than paid for when spoilage is cut from 20% to practically zero. If you plan on feeding the bales soon after they're made,



**A Plasti-Wrap kit for converting existing big round balers of various makes and models may soon be available.**

just turn off the plasti-wrap and wrap them with twine."

Ends of the bales are not covered to allow the bale to breathe, yet they're protected when stacked end-to-end. The plastic is 1.5 mil., or about 4.5 mil. total with three layers, points out Fackler.

Limited production of the baler is

planned for 1980 with full production scheduled for 1981. The proposed retro-fit kit is not yet available.

For more information, contact: FARM SHOW Followup, M & W Gear, Route 47 South, Gibson City, Ill. 60936 (ph 217 784-4261, or toll-free 800 637-1144).

**NEW ALCOHOL ABSORPTION PROCESS**

## Research "Breakthrough" For Farm Alcohol Stills

A new process developed by Iowa State University researchers produces grain alcohol faster, cheaper and with less energy than the conventional distillation process incorporated into most on-farm stills now being sold commercially.

The new process absorbs alcohol from the fermentation beer, rather than using distillation and drying processes to manufacture alcohol, reports Colin Chriswell, associate chemist with Ames Laboratory, Department of Energy, Iowa State University, Ames, Iowa. "This new process is efficient and has high alcohol production capacity," he told FARM SHOW.

Chriswell explains that in typical

on-farm stills, or similar alcohol production systems, fermenter beer of about 9% alcohol content is run through a distillery to concentrate the alcohol to about 95%. Next, a drying process concentrates the alcohol to 200 proof, or pure alcohol.

Chriswell feels the new absorption method has several advantages over drying the distilled product to remove alcohol.

1. A major concern about on-farm alcohol production has been the large amount of energy needed in the distillation and drying process. This new absorption process uses considerably less energy to produce 200 proof alcohol.

2. Equipment used in the new ab-

sorption process is very simple, compared with distillation equipment.

3. Chriswell says the absorption process can remove alcohol from the beer as the fermentation process is going on, permitting continuous alcohol production. In current distillation processes, the fermentation system must be closed down to be emptied and refilled.

4. In the conventional still's fermentation-distillation process, yeasts that produce the beer are killed when the alcohol content reaches about 14%. The yeasts slow down and are less efficient, at even lower alcohol contents. With the absorption process, yeasts can remain viable because the alcohol is removed before

the yeasts become inefficient.

Will the new process make just-introduced commercial on-farm alcohol stills obsolete?

"Not in the near future," answers Chriswell. He predicts that "a moderate size prototype production unit, with production capacity of 5,000 to 10,000 gals. per year of 200 proof alcohol, could be in operation within one year. Our current rate of research could perfect the absorption process for commercial operation within 3 to 5 years.

For more details, contact: FARM SHOW Followup, Colin Chriswell, Associate Chemist, Ames Laboratory, Department of Energy, Ames, Iowa 50010.