

# Nebraska

## FARMER

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# Stover gets a boost



**PERFORMANCE PLUS:** Casey Macken, a feedlot nutritionist, has come up with a novel way to treat cornstalks with calcium oxide and water.

By **DON McCABE**

**N**EBRASKA cattle feeders are looking for ways to offset some of the high-priced corn in their feedlot rations. Corn stover, made more palatable by mixing it with wet distillers grain with solubles, has replaced alfalfa as the roughage source in many feedlot rations. But stover accounts for only about 5% of those rations.

That percentage could climb to as high as 20%, based on research at the University of Nebraska-Lincoln and the experiments of a Nebraska feedlot nutritionist and several feeders. Doing so would offset 15% of the corn in the cattle's diets.

Galen Erickson, a UNL beef feedlot specialist, says treating ground corn stover with calcium oxide, which is quicklime, breaks down the stover fibers, making them more digestible.

#### Less need for corn

In a half-dozen experiments at the UNL Agriculture Research and Development Center near Mead, rations with 5% untreated corn stover were compared to rations of 20% corn stover with the alkaline treatment. Each ration also contained wet distillers grain with solubles. "We obtained the same animal performance in both feed efficiency and gain," Erickson says. "We can offset 15% of the corn needs in the diets by feeding the treated stalks at the higher level. It is quite economical."

Casey Macken, a feedlot nutrition consultant in Palmer, has developed a process to grind stover while applying a solu-

tion of water and calcium oxide to it. The process involves two Roto Grind tub grinders to do the grinding and solution mixing. He has been testing the system with four feeders in Nebraska and Colorado since January.

Once the quicklime is mixed with water, it becomes calcium hydroxide.

The key to the system is a portable applicator that meters the solution to the tub grinders. Macken, president of Performance Plus Liquids, has a patent pending on the system.

Erickson says the lower cost of a ration with treated 20% corn stover and less corn results in an estimated \$20 to \$30 extra return per finished animal. That's assuming a cost of \$55 to \$60 a ton for the corn stover, plus treatment costs of grinding it and applying the alkaline treatment.

"Increasing the inclusion of corn stover in the diet is our aim," he says. "And making these rations even more competitive is the combining of treated corn stover with wet distillers grain with solubles, at the 35% to 40% inclusion level, on a dry-matter basis, for the latter. That is another reason we can feed corn stover at the 20% level."

Treated stover is best stored for five to seven days to allow the reaction to occur. If it is fed within two weeks, there are no storage problems, but Erickson recommends storing it anaerobically if it has to sit longer than three weeks.

Nebraska's plentiful supply of corn stover is part of a new vision for the state's beef industry.

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