

# Build a Better Mousetrap

## Installing a reciprocating chute

*Editor's Note: The "Reciprocating Chute" is the second in a series of several winning innovations from the "Better Mousetrap" competition at the Iowa Maintenance Training Expo in 2003. In each issue of Technology News we'll highlight one of the winners. For information about other winning "mousetraps," see CTRE's website: [www.ctre.iastate.edu/](http://www.ctre.iastate.edu/) (see "Popular Links").*

LYLE HABURN AND BRIAN CERNY with the Iowa DOT in Spencer wanted snowplows to lay salt more evenly and prevent it from bouncing off the road during salting.

So, they connected a chute to a spinner motor on the back of a snowplow, allowing the chute to move back and forth (reciprocate). The operator controls the chute's direction from the truck cab, and rubber on the bottom of the chute allows it to drag directly on the road.

Haburn and Cerny installed the chute using stainless steel, a conveyor belt, hydraulic hoses, a hydraulic spinner motor, and miscellaneous hardware.

For more information about installing a reciprocating chute, contact Lyle Haburn, 712-336-2112. •



The stainless steel and rubber reciprocating chute spreads salt more evenly on the road.



Roger Vigdal explains how the reciprocating chute works.

NOTE: The Better Mousetraps submitted by Iowa DOT personnel have not been officially approved by the Iowa DOT and will undergo further testing and evaluation before being considered for statewide implementation.

## "Build a Better Mousetrap" winners for 2003

CITY, COUNTY, AND STATE WORKERS submitted 11 innovations in the "Build a Better Mousetrap" competition on September 9, 2003, during the Iowa Maintenance Training Expo in Ames.

Six winners were selected, each receiving \$100.

Articles about winning "mousetraps" are being published in *Technology News* throughout the year:

- Heavy-duty wing wheel, maintenance crew, Iowa DOT—Elkader (see September–October 2003 issue)
- Reciprocating chute, Lyle Haburn and Brian Cerny, Iowa DOT—Spencer (see article on this page)

- Salt shed door, Dale Sexton, Iowa DOT—Cedar Rapids
- Sign trailer modification, Ed Black, Iowa DOT—Council Bluffs
- Portable stop sign trailer, Bob Sledge, City of Ankeny
- Telspar hand driver, Phil Brumm and Mark Mullenbach, Iowa DOT—Osage

Congratulations to the winners, and thanks to everyone who submitted entries. •