

## Snowplowing tips from a couple of old hands

SNOWPLOWING TIPS and techniques were the focus of a panel discussion held at the Iowa Maintenance Training Expo in September. Bill Feldhahn, a panel representative and heavy equipment operator/foreman for the City of Bettendorf Public Works, offered these tips:

- For years I've noticed that our trucks had difficulty turning left when pushing a heavy accumulation of snow. If you turn your reversible plow in the direction the truck is turning (left), it suddenly turns easier. As soon as you've completed the turn, return your plow to its proper angle.
- Practice good housekeeping in your truck's interior. Try to secure all necessary items, such as tools, pens, pads, and lunch boxes. Get rid of the stuff you don't need. Clear refuse like pop cans and food containers immediately. These are hard-hitting flying objects if you have an accident.
- Most important, wear that seat belt. To properly control your vehicle, you must remain seated. When you come out of that seat in an accident, you become a hard-hitting flying object.

Denny Amoss, equipment operator for the Iowa Department of Transportation office in Albia, was also a panel representative at the expo. His presentation was on techniques for winging, the process of clearing snow from the road shoulders to make room for disabled vehicles and snow from the next storm.

## Removing snow traps with one person and one machine

ONE PERSON and one machine can remove a snow trap more quickly and efficiently than five people using five machines, says Ray Scherrman, maintenance manager of the Dubuque County Highway Department. A snow trap is a road location that traps drifting snow.

### Old method of eliminating snow traps

Scherrman says that when he began working with the department 18 years ago, it took five workers to

Amoss pointed out that this process requires two people in the truck because the passenger operates the wing, allowing the driver to concentrate on the traffic. Amoss offers the following suggestions:

- There are a lot of times you must move back onto the roadway to get around objects. Having a new operator operate the wing gives him or her a chance to learn how and to become familiar with the operations of the truck, so he or she can operate it when the time comes.
- Most shops will put some sort of shoe on the wing to keep it from digging into the shoulder. Just talking to operators after the presentation, I found there are a lot of good ideas out there. Some have even put a wheel on the wing to keep it at a certain level.
- A good way to learn the winging process is to ask any seasoned veteran operator in your shop. They are more than happy to teach you.

For more information about snowplowing techniques, a video called *Plowing Techniques* is an excellent resource. Developed by the Iowa Department of Transportation for its winter operations training program, this video served as a springboard for the panel discussion at the expo. The video is available for loan at the Center for Transportation Research and Education's (CTRE's) library. Contact Jim Hogan, library coordinator, 515-294-9481.

You can also contact Denny Amoss, 641-932-7171, or Bill Feldhahn, 319-344-4086. •

remove a snow trap. One person drove an excavator to dig the soil, three people drove single-axle dump trucks to haul the soil away, and one drove a road grader to straighten up the ditch.

Scherrman says that often the equipment operators would accomplish little in a day because of soil hauling problems. Back then, instead of being spread over the field, the excavated soil was hauled

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### LTAP Advisory Board

The people listed below help guide and direct the policies and activities of the Center for Transportation Research and Education's Local Technical Assistance Program (LTAP). The board meets at least annually.

Contact any of the advisory committee members to comment, make suggestions, or ask questions about any aspect of LTAP.

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to any site the landowner chose, free of charge. Because the soil was usually wet, it would stick in the beds of the dump trucks, so less and less soil was being hauled and dumped each trip.

Such inefficiencies are what prompted Scherrman to search for a better solution and to develop his “one person, one machine” approach for removing snow traps.

**New method of eliminating snow traps**

Scherrman says this is the third season that Dubuque County has used the one person, one machine approach, and it has been working well. They’ve found that the machine that works best for eliminating snow traps is a 140-horsepower bulldozer.

The first task is usually to remove fencing that borders the roadway. Once the fence is removed, it’s rolled up and tightly compacted into a small mass and buried in a deep hole in the field so it’s not likely to get caught in machinery later on.

The next step is to strip off all the top layer of black soil and push it back



been done to the field once we get done with it,” says Scherrman.

Because of last year’s mild winter, the Dubuque County Highway Department was able to remove more snow traps than normal by using this method. Although Dubuque County does most of its snow trap removal in the fall and winter months, Scherrman says the work can be done in the summer if crops aren’t growing in the affected fields.

**Preliminary steps**

Of course, there are some preliminary steps the Dubuque County Highway Department must take before any excavation work can begin. First, a representative from the department must obtain the landowner’s signature on the encroachment agreement. This agreement gives the secondary road department authority to do the work and relieves the county of any liability for damages that might occur. If a landowner won’t sign the agreement, the snow trap can’t be removed.

The representative also informs the landowner that the county does not pay for any fencing and that fencing will be removed with a bulldozer and buried in the field. Landowners who don’t want the fencing buried can haul it to a landfill themselves. “Farming is changing,” says Scherrman. “Most farmers these days don’t have livestock, or if they do, it’s in a confinement. So, fences aren’t needed anymore.”

The county and landowner also need to agree on what to do with the excess soil once the hills are leveled off. If a landowner doesn’t want the soil left on the field, the county can put it on a road right-of-way or haul it to another farm. Landowners who want the soil moved to another part of their own farm must hire a contractor for the job.

Once the landowner agrees to have the work done, the Dubuque County Highway Department notifies any utility companies that might be affected. Knowing where underground utility lines are located helps reduce the chances of accidentally cutting into them. To prevent utility poles from falling down once the soil around them has been removed, the electric company either lowers them or installs new ones.

For more information about removing snow traps, contact Ray Scherrman, 319-557-7283. •

Above, beginning the work of eliminating a snow trap. At right, the left side of the road has been leveled off to eliminate a snow trap.

*Photos courtesy of Ray Scherrman.*

into a stockpile. If unsuitable soil like red gravel remains when the hill is leveled, the black soil can be used to cover it up.

When the bulldozer gets down to the clay bed, the operator pushes the clay into the low spots or valleys of the field. Once the hill has been reduced to the appropriate depth and slope, the topsoil stockpile is leveled off over the field to cover the clay or gravel.

The final step in the operation is to seed the newly formed ditch. “You can’t even tell that anything has