

Communications

Communications are so important to the success of any grooming program that many areas have established formal communication policies and procedures. All are based on the need to communicate, communicate, and communicate some more! Operators must communicate the condition of equipment to other operators and the Manager. They must communicate the condition of the trails they have been over to relief operators and the Manager. They must communicate anything (weather, large groups, trail conditions, hazards, etc.) they even slightly suspect to be pertinent to the overall grooming program to the Manager. They must communicate to someone (dispatcher, family, or Manager) when they depart on a grooming run, their planned route, as well as their safe return. And when in doubt, they must feel safe to ASK, because there is no dumb question!

Grooming programs should invest in good communications equipment – whether cell phones, satellite phones, or two-way radios – to help ensure successful and effective communications within the program.

Preparing the Trail

Remove Bumps, Holes, and Debris Prior to Snowfall

Trail preparation prior to freeze-up and snowfall can be the single most important item to help provide a smooth and stable winter trail. The trail base should be made as smooth as practical since bumps and holes in the ground will also produce bumps in the trail after snowfall. Therefore, bumps and holes in the ground should be improved or removed prior to snowfall, with whatever equipment is practical and available, since removal after the ground is frozen or snow covered is much more difficult. Bumps located under the snow trail can reappear as bumps/moguls on heavily traveled trails almost immediately after grooming.



Photo 3.6 Trail maintenance prior to snowfall can help make trails smoother in the winter.

Brush, stumps, and debris should also be removed from the trail, as well as along the trail, in areas where it could be a hazard to traffic or block visibility. A wide, smooth, brush-free trail makes grooming easier. Keeping debris off the trail helps prevent hazards as well as premature thawing of the trail base since debris can attract heat that can accelerate thawing the snow around it. It is also good to set trail markers and signs that must be driven into the ground before the ground freezes.



Photo 3.7 It is easier to remove stumps, brush, and debris before snowfall accumulates.

Early Season Trail Preparation

The first snowfalls that are processed on the trail often create the base for the remainder of the winter. An early solid, smooth base of snow will help keep the trail smoother throughout the rest of the winter. Early winter snowfalls can contain more free water and can compact well. Therefore, vigorous smoothing and heavy compaction is often important for early snows. Newly fallen snow layers should ideally be cut to 6 inches (15 centimeters) or less before compacting to ensure full compaction throughout the layer. Thick layers of newly fallen snow typically do not compact well.

In areas prone to wetness, such as low swampy crossings, it is advantageous to keep the snow thickness to a minimum in the early part of the winter. This allows the underlying soil to freeze and become stable. This frozen layer of earth will also help to keep the trail solid later into the spring season. Since snow is an excellent insulator, these areas should be kept thin so the ground remains frozen. Banked snow can be pulled onto these areas later in the season if bare spots occur.

Some wet areas, such as springs or seeps, never freeze to any degree and should be of concern throughout the season, particularly if they result in ice flows. Sometimes these areas can be covered with wood chips or similar material to minimize the carryover of mud and dirt onto the adjacent trail surface. However, before using wood chips or similar materials, be sure to check with the land managing agency for their approval. The best scenario is to avoid these types of areas if at all possible with the trail route.

Chapter Four:

OPERATING GROOMING EQUIPMENT

As noted in Chapter Two, there are a very broad range of types and styles of grooming tractors, drags, and implements. Each has its own operating procedures and requirements, so it is important to become familiar with the peculiarities of all equipment by reading the equipment operating manual(s). The following tips provide valuable guidance for operators that should be followed, in addition to equipment specific guidelines and instructions provided by the manufacturer of the equipment.

General Operating Guidelines

How Much Snow is Required to Start Grooming Operations?

The amount of snow depth required to begin grooming operations will vary by area and is affected by the type of terrain and by the type of snow. Remember that it requires a lot more snow to safely and effectively operate a groomer than it does to operate a snowmobile. And it can be a good thing to let snowmobiles run on the snow first before you start grooming operations because it starts the de-aeration and compression process. Generally, at least 8 to 12 inches (20 to 30 centimeters) of wet snow on smooth terrain like a road is enough to begin grooming operations. However, if the snow is drier, or if the terrain is rough or uneven, at least 12 to 18 inches (30 to 45 centimeters) of snow (or more) may be required to safely begin effective grooming operations.

Best Grooming Temperatures

Generally when using a drag, grooming operations should be suspended when the temperature is below -25 degrees Fahrenheit (-32 degrees Celsius) or above +40 degrees Fahrenheit (+5 degrees Celsius) because it can cause snow to stick in the blades or build up on the packing pan enough of the time to make grooming a smooth trail impossible.

Wind and Shade Can be Beneficial for Grooming

Wind and the location or aspect of the trail to be groomed should also be considered. Wind, by blowing new snow into the trail, and overcast sky or shaded trail locations with cooler temperatures, can sometimes have a beneficial effect on grooming effectiveness.

Keep Blades Clean

It may be necessary to stop and scrape the frost or snow buildup off the blade(s) if they fail to scour (self-clean). {If this is a consistent problem, consider having the moldboard part of the blades – but not the cutting edge of the blades – covered with UHMW or a similar plastic material that will always scour and prevent frost or snow buildup.} If it appears that a good trail can no longer be produced, contact the Grooming Manager and consider shutting down until conditions improve. Night grooming can be the best way to minimize these types of effects from the weather.