

Stages of Grading

APRIL 16/07
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R.W. K. adde pt

During the first few gradings the operator will only grade the portion of the road that is dry enough. This usually means staying in a few feet from the shoulders because they are too wet and soft. Trying to pick up material off a wet shoulder will cause large mud balls and also the grader will make ruts giving the water a place to collect if it rains. The first grading of the road is only intended to fill potholes as best as possible and loosen up surface material to promote drying. The windrowed material should be feathered off as best as possible since it is going to be left higher on the driving surface. This eliminates the concern of cars hitting large lumps or a pile left on the driving surface.

In the second stage of grading more slope or pulling of shoulders is done. This is best done in dry conditions and before the grass gets too tall. The material is pulled onto the road surface off the upper grade slope of the ditch. This is to recover lost material from the slope and also to re-shape the upper grade slope. This material is pulled onto the road surface and worked across the driving surface as many times as necessary to break up all the lumps and have the material blend into the road surface.

The third stage of road grading is more of a maintenance period. The windrowed material is moved across the road surface filling imperfections and holes leaving a smooth properly crowned driving surface. There should always be a minimum of 4% crown. There are times during this period that washboard and potholes will need to be cut out and re-layed. This process involves cutting an area deeper than would be done in regular maintenance grading. The cut off material or windrowed material is re-deposited on the road leaving a properly shaped road surface.

During the final stage of road maintenance, later in the fall, less material should be loosened. Too much loose material late in

the season causes greater losses of aggregate in the snow plowing season. In this stage the operator is just lightly blading the windrow across the road to fill holes and imperfections. During this stage it is also important to be sure all windrowed material is left a bit farther away from the shoulder and feathered off completely so no pile is left . If any piles of material are left late in fall, all this material will be lost to the snowplowing, and will be impossible to recover the next year. This is due to the speed we travel during snow plowing. The material will be thrown too far to recovered.