

## Successfully Establishing Forage Stands

When establishing a forage stand, you must first consider if it is the best time to try and get a new stand growing. Planting in early spring or late summer will work for most species however; a few such as birdsfoot trefoil and reed canarygrass do not work very well in late summer. If considering a summer planting, make sure there is enough time for the plants to get established before winter. A nurse crop is not recommended for summer seeding, and when used in the spring, do so at a reduced seeding rate to give the forage seedlings the best chance to establish. The proper selection of species for the soil type, climate and end use will also increase the odds of having a good stand that will last a long time.

Conventional till or no-till can both work well with the right equipment and conditions. The seed bed should be firm and level with no weeds or other crop to compete with and good soil fertility. Conventional tilled fields should be firm; packing before and after planting can greatly improve the seed to soil contact. The smaller the seed, the more important that becomes, such as with timothy. Broadcast seeding can work well in good conditions; ideally an air boom spreader is best for uniform coverage. A properly calibrated spinner spreader can work as well; plant at half rate and split passes to achieve a more uniform seeding. Spread on a firm seedbed and use a packer to press the seed into the soil (harrows, disks and cultivators tend to get seed buried too deep). In no-till fields, ensure that residue has been evenly spread and that the seeding equipment being used can cut through any trash while maintaining proper depth and not leaving bunches of residue behind.

Seeding depth is critical to get an even and thick stand to emerge and compete with weeds. Fine seeds such as alfalfas, clovers and timothy should be planted  $\frac{1}{8}$  -  $\frac{1}{4}$  " deep, and can be deeper in lighter sandy soils. It is better to have a few seeds on top of ground than too many seeds buried too deep. Most grasses can emerge from  $\frac{1}{4}$  to  $\frac{1}{2}$  " deep. If they are mixed with a nurse crop such as oats, be sure to keep seeding depth shallow. This is the most common cause of poor and uneven grass stands.

Direct seeding can work well, with weed control being the main challenge. Chemical choices are limited and if planting a mix, might not be an option. Mowing the weeds can be the best option but must be done before the weeds are too tall and have begun to out compete the forage crop. Ideally mow when the weeds are 8—10" tall and cut above the forage seedlings. Using a nurse crop can help with weed control, but it should be harvested as soon as possible to reduce the risk of lodging that can smother the new forage stand.

Poor stands can be a result of many factors such as weather, soil conditions, chemical carryover, and planting depth. If dry weather is the problem, quite often in late summer or fall, enough moisture will get the new seeds germinating and many times in the following spring there will be a good stand. Small hard seeds like alfalfa and clovers do require more moisture than a lot of people realize. PH and soil fertility issues must also be corrected. Soil testing and fertilizing are important to establish a forage crop.

