

**A LITTLE BIT COUNTRY
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Time to Make Hay

Over the years I often have heard people my senior say "When it is time to make hay one must make hay." Such is the case with this spring's crop seeding. Although mid-April is a bit early for this area, soil temperatures and soil moisture conditions tell us we should be planting. Although not always the case, most farmers bet on the early seeded crops to produce better yields. Early seeded cool season crops can take advantage of the moderate temperatures of late May, June and early July when these crops enter the early reproductive stage.

Mother Nature seems to have woken many biological organisms much earlier than normal. This probably will hold true for many of the pests that are known to attack valuable crops. One pest that comes to mind is the cutworm which caused considerable damage to pulse crops about three years ago. I mention this only to bring attention to the importance of starting to scout fields earlier this year.

Cutworm damage first appears on hilltops, south facing slopes or in areas of light soil which warm up earlier in the spring. Larvae will cut young plants in the seedling to 6-8 leaf stages. Cut plants can be found drying up and lying on the soil surface. If the damage continues, fields will have areas of bare soil where plants have disappeared. In a severe infestation, the entire field can be destroyed.

When scouting fields, look for freshly damaged plants. Then dig down three or more inches around the cut-off plant and search for larvae. When disturbed, the cutworm larvae curl up and hide under soil debris. Pulse crops are more susceptible to damage than small grains because cut plants do not grow back whereas grains compensate by tillering. Two to three cutworms per square yard justifies an insecticide treatment. Cutworm larvae actively feed at night so an evening application is best.

Adult cutworms are a moth. They have brown to gray wings that are about 1.5 inches long. A mature cutworm larvae also is about 1.5 inches long and about the size of a pencil in width.

An Underground Mystery

Last week I concentrated my writing on the techniques of planting a tree. This week I want to share some thoughts on site selection because sometimes we choose planting areas which provides little hope for survival. The soil below the tree holds many mysteries of physical and chemical principles that affect tree growth. The root system and its mass of roots, root hairs and associated microbes are critical to the plants survival and growth.

It is very important the tree has a massive healthy root system. Soil particle size affects soil porosity and water holding capacity. Generally, the soil composition is 50% pore space and 50% solid material. The solid portion of the soil should be 45% mineral and 5% organic matter. The pore space should be 25% air and 25% water for optimum root growth.

Soils with less than 50% pore space would have deficient levels and slower water movement, which would limit root growth. This situation tends to describe soil with heavy amounts of clay. The small pore space associated with clay soils inhibits root growth and ultimately tree health. The clay soils will retain moisture for longer periods of time and could become water logged thus reducing the amount of air necessary for root growth.

On the other hand, soils with more than 50% pore space contain higher oxygen levels and allow faster water movement, permitting greater and deeper root growth than normally found in clay soils. Such soils for example, coarse sands, are well drained, contain less organic matter and are more droughty. These soils tend to favor tree growth. The arsenal of tree species increase as supplemental water can be provided.

For most trees, the greatest portion of the feeder roots will be in the top 1 to 3 feet of soil where oxygen levels are higher. Thus, soil compaction is an issue for trees, especially those very sensitive to the lack of pore space and water. When I think of this situation the Paper Birch quickly come to mind.