

April 12, 2011

Corn Planting -- Soil Temperature and black cutworms

It is past the crop insurance starting date to plant corn and with memories of planting problems in previous years, farmers are anxious to start. With the ups and downs of soil temperature however there is some question as to whether corn should be planted when the soil is still cold. In general, the soil is in good condition and other than the soil temperature, conditions look favorable to plant. With a few words of caution, planting can proceed according to Emerson Nafziger, University of Illinois agronomist.

First, corn planted in the first week of April should not be expected to yield higher than corn planted the third or fourth week of April. In fact, in a few instances, corn planted in early April yielded less than corn planted later in April. The main reason to plant in early April is to get done by late April and avoid late-planting yield loss. Plant early only when seedbed conditions stay favorable. If it rains or is still wet, growers should not try to get back in the fields too soon.

Corn typically requires about 110 to 120 growing degree days (GDD) to emerge. With highs in the mid-60s and lows in the 40s to low 50s, we accumulate less than 10 GDD per day, so it can take two to three weeks for the crop to emerge. Normally the delay in emergence isn't a problem but early corn should be watched especially when GDD pickup and the crop approaches emergence.

Low soil temperatures are not the major risk factor that planted corn faces according to Nafziger. Heavy rainfall soon after planting, with seeds or seedlings dying from lack of oxygen, is the major cause of replanting. Chances of this happening are no higher for early than for later planting. Planting into cooler soils may even improve chances for emergence following rainfall. Seeds are not triggered to germinate and emerge as rapidly in cool soils, so they often survive longer in cool, wet soils than in warm, wet soils.

Another advantage of very early planting is that if you need to replant, it can be done early enough to avoid large penalties from late planting.

Trapping to monitor black cutworm flights is being conducted now. Potentially significant captures of black cutworm have been reported in southwest and northwest Missouri. Moth captures do not indicate that treatment is necessary, but that fields should be scouted. We have traps in our area but have not had significant captures yet. We will update you on trapping results as the season progresses.

Wayne Crook, Agronomy Specialist