



NEWS COLUMN

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Should We Plant Corn Early in Cold Soils?

URBANA – Soil conditions in Illinois are among the best ever seen during the first week of April, said University of Illinois Extension agronomist Emerson Nafziger. But the question remains: should we plant corn early when the soil is still cold?

Nafziger said yes, but with a few cautions.

“We should not expect yields of corn planted in the first week of April to be higher than those of corn planted the third or fourth week of April,” he said. “We have had a few instances when corn planted in early April yielded less than corn planted later in April. This doesn’t happen often enough to rule out early planting, but it does mean the main reason to plant in early April is to get done by late April and avoid late-planting yield loss.”

Another caution is to 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.

“It typically requires about 110 to 120 growing degree days (GDD) for corn to emerge,” Nafziger said. “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 easily take two to three weeks for the crop to emerge.”

Typically, this isn’t a problem, he said. However, it is a long time, and problems can develop that hinder emergence. Early-planted corn should be watched carefully, especially when GDD accumulations pick up and the crop approaches emergence.

Low soil temperatures are not the major risk factor that planted corn faces. Instead, 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, he said.

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. There is some risk of damage from frost after the plants have emerged, but this is fairly rare.

“While we hope that we won’t need to replant, another advantage of very early planting is that if we need to replant it can be done early enough to avoid large penalties from late (re)planting,” Nafziger added.