THE OHIO STATE UNIVERSITY
COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

Hardin County Extension News Release

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Later Corn Planting Considerations

Hardin County – There was little progress made on corn planting last two weeks due to persistent rains and saturated field conditions. As prospects for a timely start to spring planting diminish, growers need to reassess their planting strategies and consider adjustments. Since delayed planting reduces the yield potential of corn, the foremost attention should be given to management practices that will expedite crop establishment. The following are some suggestions and guidelines to consider in dealing with a late planting season.

Although the penalty for late planting is important, care should be taken to avoid tillage and planting operations when soil is wet. Yield reductions resulting from "mudding the seed in" are usually much greater than those resulting from a slight planting delay. Yields may be reduced somewhat this year due to delayed planting, but effects of soil compaction can reduce yield for several years to come. Typically, we don't see significant yield reductions due to late planting until mid-May or even later in some years.

If farmers planned to apply nitrogen (N) pre-plant, they should consider alternatives so that planting is not further delayed when favorable planting conditions occur. Although application of anhydrous ammonia is usually recommended prior to April 15 in order to minimize potential injury to emerging corn, anhydrous ammonia may be applied as close as a week before planting, unless hot, dry weather is predicted. In late planting seasons associated with wet cool soil conditions, growers should consider side-dressing anhydrous ammonia or liquid nitrogen along with applying a minimum of 30 lb/N per acre broadcast or banded to stimulate early seedling growth. These approaches will allow greater time for planting. Crop requirements for phosphorus (P) and potassium (K) can often be met with starter applications placed in bands two inches to the side and two inches below the seed.

Application of P and K is only necessary with the starter if they are deficient in the soil, and the greatest probability of yield response from P and K starter is in a no-till situation. It is important to remember that the longer planting is delayed, the less beneficial a starter with P and K will be, because later planting dates typically have higher soil temperatures.

Keep time expended on tillage passes and other preparatory operations to a minimum. The above work will provide minimal benefits if it results in further planting delays. No-till offers the best option for planting on time this year. Field seedbed preparation should be limited to leveling ruts that may have been left by the previous year's harvest - disk or field cultivate very lightly to level. Most newer planters provide relatively good seed placement in "trashy" or crusted seedbeds.

Switching hybrid maturities is not necessary unless planting is delayed to late May. If planting is possible before May 20 to 25, plant full season hybrids first to allow them to exploit the growing season more fully. Research in Ohio and other Corn Belt states generally indicates that earlier maturity hybrids lose less yield potential with late plantings than the later maturing, full season hybrids. Also, later May and June planting dates generally increase the possibility of damage from European corn borer (ECB) so planting ECB Bt hybrids is often beneficial.

In delayed planting situations, use the optimal seeding rates for the yield potential of each field. Recommended seeding rates for early planting dates are often 5-10% higher than the desired harvest population because of the potential for greater seedling mortality. However, soil temperatures are usually warmer in late planted fields, and as a result germination and emergence should be more rapid and uniform. As planting is delayed, seeding rates may be lowered (decreased to 3% higher than the desired harvest population) in anticipation of a higher percentage of seedlings emerging. Adjust seeding depth according to soil conditions and monitor planting depth periodically during the planting operation and adjust for varying soil conditions. Planting depth recommendations for corn in Ohio are 1.5 to 2 inches deep to ensure adequate moisture uptake and seed-soil contact. Planting shallower than 1.5 inches is generally not recommended at any planting date or in any soil type. Deeper planting may be recommended as the season progresses and soils become warmer and drier.

Article written by Dr. Peter Thomison, OSU Extension State Corn Specialist, and Dr. Steve Culman, OSU Extension State Soil Fertility Specialist. It was edited by Mark Badertscher, OSU Extension Agriculture and Natural Resources Educator-Hardin County.