



THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

Hardin County Extension News Release

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Corn Management Practices for Later Planting Dates – Changes to Consider

Hardin County – 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. Keep in mind that we typically do not see significant yield reductions due to late planting until mid-May or even later in some years. In 2017, favorable growing conditions allowed many growers to achieve exceptionally high grain yields in corn planted as late as early June.

If you originally planned to apply nitrogen pre-plant, 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 urea ammonium nitrate liquid solutions) and applying a minimum of 30 pounds nitrogen per acre broadcast or banded to stimulate early seedling growth. These approaches will allow greater time for planting.

Similarly, crop requirements for phosphorus and potassium can often be met with starter applications placed in bands two inches to the side and two inches below the seed. Application of phosphorus and potassium is only necessary with the starter if they are deficient in the soil, and the greatest probability of yield response from phosphorus and potassium starter is in a no-till situation. Remember the longer

our planting is delayed, the less beneficial a starter with phosphorus and potassium 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. 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.

Don't worry about switching hybrid maturities 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, remember that later planting dates generally increase the possibility of damage from European corn borer and western bean cutworm and warrant planting Bt hybrids that provide protection from these lepidopteran pests if suitable maturities are available.

In delayed planting situations, consider 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 to account for reduced germination and 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. So, as planting is delayed, growers may be able to reduce seeding rates 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 Peter Thomison, OSU Extension-Corn Specialist and Steve Culman, OSU Extension-Soil Fertility Specialist