

Planting Dates for Field Corn

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Planting date for field (silage) corn needs to take into account both the optimum date for establishment and the maturity date of the corn to ensure a cover crop can be planted for soil erosion control and end-of-season nutrient uptake. Farmers should aim to have at least 60% of corn planted by the optimum planting date which traditionally has been based on a soil temperature of 50°F at 8:00 a.m. Waiting longer means too much of the corn is planted after the optimum date reducing the yield potential of the crop. Planting before the optimum date has less risk since current field corn hybrids have good seed vigor and with seed fungal protectants can withstand harsh soil condition, both cool and wet.

Rather than basing planting decisions on soil temperature, planting should be based on soil condition and soil moisture. Soil should be worked in the spring as soon as it is dry enough to support tillage equipment without undue compaction that occurs when soils are too wet.

Research has shown that more yield is lost from late planting than from planting too early. Both total silage yield and grain contribution are reduced when corn is planted too late. This means besides the reduced total dry matter yield there is a further loss in energy derived from grain development. These principles are confirmed in our research at the UMass Amherst Crops Research and Education Center (Figure 1).

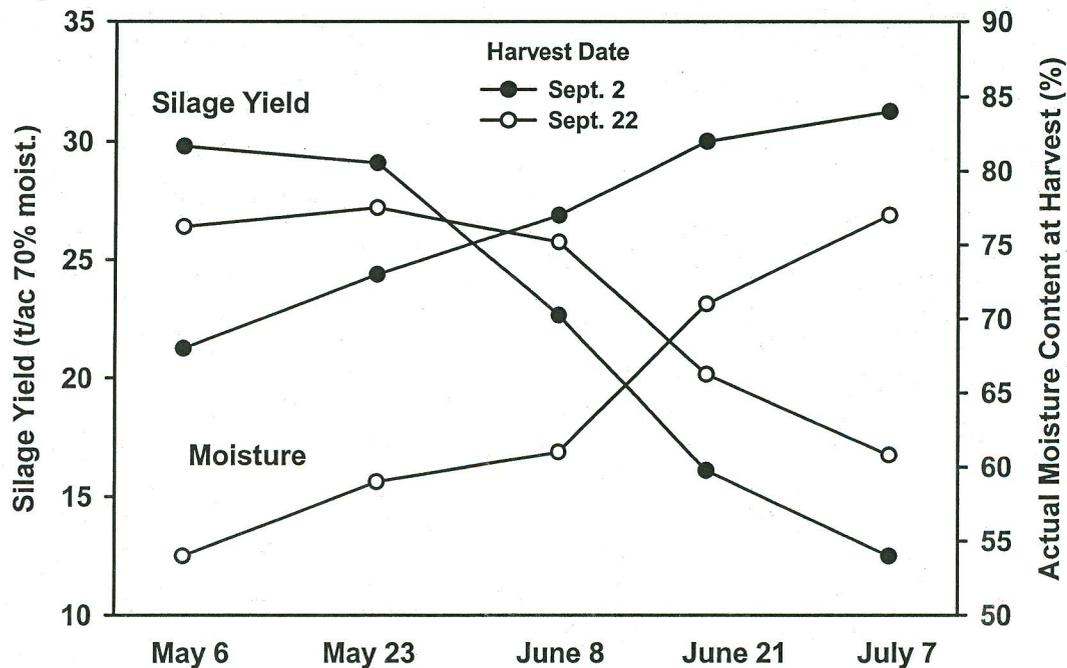


Figure 1. Yield and silage moisture content of corn planted at 7 dates for 2 fall harvest dates.

Any delay in seed in spring delays harvest maturity based on a maximum moisture content of 70% for bunk silos. While loss in yield from delayed planting is in part compensated for by a delay in harvest (Figure 1), such a delay precludes the establishment of an effective cover crop. Further, the grain contribution loss from later planting is not fully compensated for by a later harvest date (Figure 2). The delayed development of corn with late planting can be seen in Figure 3.

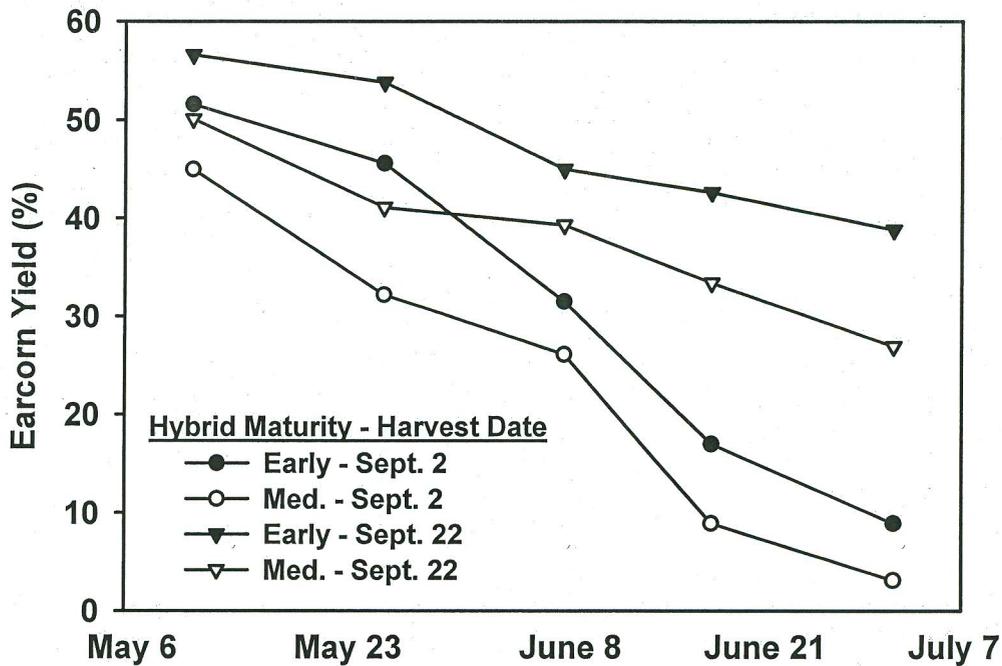


Figure 2. Earcorn yield of corn planted at 7 dates for 2 fall harvest dates.



June 16 June 2 May 19 May 5

Figure 3. Growth of corn in mid-late July when planted at the dates shown.