

Will Spring Corn Planting Delays Influence Fall Fieldwork?

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The recent 2018 planting season was challenging for many farmers. The cool, wet spring delayed planting in many areas of the northern U.S. One telephone call I received was from a consultant who had a dairyman worried about the planting delays and the impact it would have on fall fieldwork. Interestingly, he was not concerned about the impact of planting delays on silage yield and quality. He was most concerned about being able to spread manure and emptying manure pits in the fall, harvesting corn and soybean for grain, performing fall tillage, and establishing cover crops. Over the last few seasons, this farmer had experienced significant spring planting delays and had difficulty completing his fall fieldwork.

His dilemma is typical of the interaction between planting date and hybrid maturity and its effect on the following fall harvest. The ideal corn maturity is a full-season hybrid, which takes advantage of the entire growing season and produces high grain and stover yields with excellent forage quality. Often risk is managed by spreading out hybrid maturity so plants are at different growth stages when environmental stresses typically occur. Specific UW guidelines for switching corn hybrid relative maturities (RM) at various planting dates are found in Table 1. In general, farmers growing corn for grain should shorten hybrid RM beginning about May 20 by ~5-10 days RM. In southern WI, hybrid RM can be shortened again on June 1 and June 10, while in northern WI, hybrid RM can only be shortened on May 20 and still achieve grain production.

Table 1. RM of adapted corn hybrids for different planting dates and RM zones in Wisconsin. Derived from UWEX A3353.

Full-Season RM Zone	May 20	June 1	June 10	June 20
85 and earlier	75-80	75-80 (silage)	---	---
85-90	80-85	75-80 (silage)	---	---
90-95	85-90	75-80	75-80 (silage)	---
95-100	90-95	80-85	75-80 (silage)	---
100-105	95-100	85-90	75-80	75-80
105-110	100-105	90-95	80-85	75-80
110-115	105-110	95-100	85-90	75-80

A full-season corn hybrid is also best for silage purposes, although RM can be lengthened slightly because we are not as concerned about immature grain with an early killing frost. In general, in southern WI (110-115 days RM), hybrid RM switching begins around May 20. Corn planted between May 20 and June 20 can be harvested for either grain or silage if hybrid RM is adjusted appropriately. By June 20, only corn silage should be harvested with ultra-short-season RM hybrids. In northern WI (85 days RM and earlier), full-season hybrids can be planted for silage until around June 1, after which corn should not be planted. If corn hybrid RM is not adjusted appropriately for the planting date, significant effects will occur for forage yield, forage moisture, and starch content due to poor grain yield. Little effect is seen on neutral detergent fiber digestibility (NDFD).

As we head into the 2018 harvest season, keep in mind what you did last spring and how those decisions might match up with the planting date and RM switch guidelines in Table 1, which are for corn to be harvested or mature at a similar fall date (about September 15 for silage and October 1 for grain). This should allow a normal time frame to complete fall fieldwork. If full-season hybrids are planted beyond May 20, completing fall fieldwork might be difficult. Of course, all of this depends on weather and the growing season we have.