Delayed Harvest by Ed Lentz, Hancock County Extension

The weather has caused problems for many local farmers to harvest their crops this fall. Days suitable for harvest have been limited during October and drying conditions to lower grain moistures to desired levels have been lacking in many fields.

It is not only an Ohio problem. Most of the eastern Corn Belt has large amounts of corn and soybean acres waiting to be harvested, unusual for this time of year.

The longer the crop stays in the field the greater potential for yield losses. Corn may lodge or drop ears on the ground and soybeans may shatter or decrease grain quality.

One of the responsibilities of OSU Extension is to complete applied research that may assist farmers in predicting how a crop may respond in certain situations. Dr. Peter Thomison, the OSU Extension State Corn Specialist, completed a study several years ago to provide insights on yield losses and changes in grain moisture and stalk quality associated with delayed harvests.

He evaluated the effects of four plant populations (24,000, 30,000, 36,000, and 42,000 plants/acre) and three harvest dates (early-mid October, November and December) on the agronomic performance of four hybrids differing in maturity and stalk quality. The study was conducted at three locations in Ohio (northeast, northwest, and southwest) over a three year period for a total of eight experiments. Results of this research showed the following key findings:

- Nearly 90% of the yield loss associated with delayed corn harvest occurred when delays extended beyond mid-November.
- Grain moisture decreased nearly 6% between harvest dates in October and November. Harvests delayed after early to mid-November achieved almost no additional grain drying.
- Higher plant populations resulted in increased grain yields when harvest occurred in early to mid-October. Corn yields declined at plant populations above 30,000/acre when harvest was delayed until mid-November or later,
- Hybrids with lower stalk strength ratings exhibited greater stalk rot, lodging, and yield loss when harvest was delayed. Early harvest of these hybrids eliminated this effect.
- The greatest increase in stalk rot incidence came between harvest dates in October and November. In contrast, stalk lodging increased the most after early-mid November.
- Harvest delays had little or no effect on grain quality characteristics such as oil, protein, starch, and kernel breakage.
• Yields averaged across experiments, populations and hybrids, decreased about 13% between the October and December harvest dates. Most of the yield loss, about 11%, occurred after the early-mid November harvest date.

• In three of the eight experiments, yield losses between October and December harvest dates ranged from 21 - 24%. In the other five experiments, yield losses ranged from 5 - 12%.

• Grain moisture content showed a decrease from the October to November harvest dates but little or no change beyond the November harvest dates.

• Grain moisture, averaged across experiments, hybrids, and plant populations, decreased 6.3% points between the October and December harvest dates, with most of the decrease occurring between the October and November harvest dates (5.8 % points); only a 0.5 % point decrease occurred after early-mid November.

• Population effects on grain moisture content were not consistent. Differences in grain moisture were evident among hybrids on the first harvest date in early-mid October but were generally negligible on the later dates.

The results confirm that farmers have the greatest potential for yield loss once the harvest season moves into mid-November. Local farmers hope the weather will cooperate and they can harvest the rest of their fields in the next few weeks.

Agronomists at the University of Wisconsin have developed a “Field Loss Calculator”. It is available at: (http://corn.agronomy.wisc.edu/Season/DSS.aspx). The program allows producers to calculate the costs of harvesting today versus allowing the crop to stand in the field and harvesting later.

The spreadsheet accounts for higher drying costs versus grain losses during field drying. It allows the user to account for elevator discounts and grain shrink.

Drivers need to be careful on rural roads in the county with the recent time change. It will be dark an hour earlier and farmers will be on these roads moving grain and equipment.