Crop Information

By Peter Jay Lanthier, Farm Management Advisor

iapo-peter@on.aibn.com

CORN HARVEST DELAYED

Many growers are currently weighing the risk of allowing corn to field dry. Leaving corn to dry in the field exposes a crop to unfavorable weather conditions, as well as wildlife damage. A crop with weak plant integrity is more vulnerable to yield losses from stalk lodging and ear drop when weathering conditions occur. Additional losses may occur when ear rots reduce grain quality and can lead to significant dockage when the grain is marketed. Some ear rots produce mycotoxins, which may cause major health problems if fed to livestock. University studies over the past several years observing the agronomic performance of four hybrids differing in maturity and stalk quality have provided some insight on yield losses and changes in grain moisture and stalk quality associated with delaying harvest.

Some of the major findings from this research were;

1)Nearly 90% of the yield loss associated with delayed corn harvest occurred when delays extended beyond mid-November.
2)Grain moisture decreased nearly six percent between harvest dates in October and November.
3) Delaying harvest after early to mid November achieved almost no additional grain drying.
4)Higher plant populations resulted in increased grain yields when harvest occurred in early to mid-October; only when harvest was delayed until mid-November or later did yields decline at plant populations above 30,000/acre.
5)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.
6)The greatest increase in stalk rot incidence came between harvest dates in October and November. In contrast, stalk lodging increased most after early-mid November.
7)Harvest delays had little or no effect on grain quality characteristics such as oil, protein, starch, and kernel breakage.

In this study average yields 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. 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 decreased an average of 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 to mid October but were generally negligible on the later dates.

FALL DISCING WORKS

There is a growing amount of field evidence, and research from the University of Guelph, that no-till soys are yielding less than fields that are worked. Many growers have mentioned that some of the best soybean yields this year came from fields with primary tillage done last fall. Work done at the U of G Elora research station has shown that over a ten year period, on a corn soybean rotation, no-till with fall or spring tillage constantly ranks in the top three for plant stand and yield. Some years mouldboard plow works best and some years straight no-till has the best yields but no-till with fall tillage ranks high year after year after year. Producers across Ontario are finding that working land with a chisel plow, disc ripper or an offset disc on land that was compacted, rutted or just where corn came off under tough conditions results in better seed germination and an improved plant stand.

More corn stalks are shredded as a consequence of increased use of stalk choppers, resulting in less stalks left standing and more trash covering the soil. The end result is a thick mat of trash that can keep the soil wet and cold in the spring. This can also impede proper planting, germination and eventual plant stand population. Grower experience is showing that fall tillage that buries a good portion of the trash is better than spring tillage. There is enough frost action to undo the compaction left by the discing in the fall.

SOYBEAN RATINGS

The soybean industry is reverting back to rating soybean maturity by relative maturity. This system works on day length and intensity of sunlight that the soybean plant receives not the heat accumulated. Be sure to check with your seed dealer to understand this change.

Ontario CHU	New Maturity Group
2550-2800	0
2800-3000	I
3000-3300	II