CORN SILAGE HARVEST

Timely Harvest Is Key to Quality Corn Silage

SITUATION

An important part of corn silage production is proper and timely harvest management. Follow these guidelines when harvesting Mycogen® brand silage hybrids to be rewarded with corn silage that can help add profit to the bottom line.

FACTORS TO CONSIDER

- Recommended whole-plant moisture content for BMR hybrids (see Tables 1 and 2)
- Storage type
- Accurate measurement of whole-plant moisture
- Harvest start and end dates
- Desired fermentation pattern

ACTION PLAN

1 **PLAN FOR SILAGE HARVEST.** A general rule of thumb is to begin harvest when the kernels reach one-third to one-half milkline and to finish before the kernels are at two-thirds milkline. However, because of the individual characteristics of hybrids, this method is not always an accurate indicator of harvest timing. More satisfactory results will be obtained by harvesting at the moisture percentage that ensures the desired fermentation pattern in the storage type that will be used.

2 **CALCULATE MOISTURE LEVELS.** There are several methods available to determine whole-plant moisture levels. Two common devices used are Koster testers and microwave ovens. The Koster tester is a portable, forced air, electric drying unit. Silage samples take about a half-hour to dry to receive an accurate moisture level reading. The microwave oven also allows forage moisture readings to be achieved accurately and easily.

3 **DETERMINE CHOP LENGTH.** Silage harvesting equipment should be set to attain the desired chop length. This is called theoretical length of cut (TLC). See Table 3 for length recommendations. Particle size at harvest will be affected by knife sharpness, harvest speed, shear bar setting and crop moisture. Drier materials need to be cut shorter to ease packing.

If the crop is living, monitor dry matter (DM) and harvest as usual. Treat with the heterolactic bacteria *Lactobacillus buchneri* to aid fermentation. During storage, *L. buchneri* converts lactic acid into acetic acid — a potent inhibitor of yeasts and molds.

4 **PACK HARVESTED MATERIAL.** Proper packing provides the anaerobic environment necessary for effective fermentation to occur. Silage that is more densely packed will have reduced DM loss and higher feeding quality than silage less densely packed. It also is important to adequately cover stored silage to reduce or prevent spoilage.

TABLE 1.
Recommended whole-plant moisture content for harvesting BMR corn silage*

SILO TYPE	RECOMMENDED MOISTURE
Top-unloading upright	63% to 67%
Bunker or pile	66% to 70%
Bag	66% to 68%

TABLE 2.
Recommended whole-plant moisture content for harvesting TMF corn silage*

SILO TYPE	RECOMMENDED MOISTURE
Upright	62% to 65%
Bunker or pile	65% to 68%
Bag	62% to 68%

TABLE 3.
Theoretical length of cut recommendations

Unprocessed TMF corn silage	3/8 to 3/4 inch
Unprocessed BMR corn silage	3/4 to 1 inch
Processed TMF corn silage	3/4 to 1 inch
Processed BMR corn silage	1 to 1½ inch

SUMMARY

Proper harvest management can help obtain the quality and tonnage that Mycogen® brand BMR hybrids are designed to bring, and help maximize efficiency and profits from using high-quality corn silages on your dairy.

For more information, contact your local Mycogen Seeds customer agronomist or trusted agronomic adviser.

*Adapted from Corn silage production, management and feeding. North Central Regional (NCR) Publication 574.