



Hybrids for Ethanol Production

Ethanol production is expanding at a very rapid pace with new plants coming on line and more in the planning and construction phases. As a seed company, Hoegemeyer is working to supply the hybrids and the agronomic information that our producers need to maximize production for themselves and for the ethanol plants. First, it is important to understand that there are three main elements that contribute to the amount of ethanol that a bushel of corn produces. High extractable starch (HES) is the key ingredient in corn that is needed to produce ethanol. The three main elements that determine the amount of HES are:

- 1 – Overall grain quality
- 2 – The hybrid's characteristics
- 3 – Agronomic practices

We recently tested 10 Hoegemeyer corn hybrids at a central Nebraska ethanol plant to determine their HES rating. A Near Infrared (NIR) test is done on every load of corn that enters the plant. The test takes about one to two minutes. The samples we tested were all from high yielding test plots. Several of our hybrids were rated very high in extractable starch and some of them were among our highest yielding hybrids, too. In fact, one of the hybrids (2679) had the second highest HES rating of all the hybrids ever tested to date by this ethanol facility.

We tested another sample of this same hybrid that had a barely noticeable amount of mold in it. The mold caused the extractable starch content to drop dramatically, making it one of the lower tested samples. So, it appears that producing very clean, high quality grain is the first step in ensuring your corn will have a high extractable starch (HES) rating.

Why would poorer quality grain reduce ethanol production? One of the reasons is that it takes enzymes to help in the starch extraction process and poorer grain quality, with mold and foreign matter, interferes with the enzymes and their action. As a result, the efficiency and productivity of the ethanol plant is affected. Damage from insects, harvesting and heat drying will also decrease extractable starch. So, care must be taken in how the corn is handled during harvest and in storage.

Hoegemeyer is currently working to collect hybrid samples so we can make accurate and specific recommendations to those customers who sell their corn for ethanol production.

There are a multitude of websites on ethanol if you want to learn more. One you might check out is ethanolfacts.com.