



Welcome to Miller Hybrids™ Newsletter for August 2005 By Bob Miller

We are pleased to introduce the Miller Hybrids, Inc.™ seed corn company. Miller Hybrids was formed to offer our customers a diverse set of elite genetics uniquely adapted for Eastern Iowa. Please visit us regularly at www.millerhybrids.com, to stay current about our products and performance data. In the related links page of www.millerhybrids.com you will find useful links which bring the markets, market commentary, weather, and independent variety test information to your fingertips. This <http://www.millerhybrids.com/RelatedLinks.htm> will make a great home page for your computer.

Your Sales Directors

I am the President of Miller Hybrids, Inc. and this year I will serve as your sales director for direct sales in the East Central and Southeast areas of Iowa. I have been a commercial plant breeder for 23 years and a farmer since 1991. I have enjoyed much success developing and selecting hybrids for two major seed companies. I now am utilizing my expert knowledge of genetics and hybrid corn performance, to select the hybrids best adapted to your individual farms and agronomic practices. I will help you choose hybrids specifically for the farming practices and soil characteristics of your individual fields.

Your sales director for Northeast Iowa is Monty Burns. Monty has 29 years of experience in Northeast Iowa as a sales agronomist, district seed sales manager, and as a retail seed and fertilizer manager. Monty has an excellent grasp of the seed needs and issues facing farmers in Northeast Iowa. Monty is well trained to answer any question you may have regarding Miller Hybrids products or other agronomic issues on your farm.

Hybrid Observation Opportunities

Monty and I would be glad to visit with you individually to observe any current conditions occurring in your 2005 fields and to discuss possible strategies to implement. We also will offer show plot tours for small groups of farmers to observe the Miller Hybrid lineup. Our show plots have hybrids grown in 12 row blocks under

normal tillage or no-till. Show plots are located near Washington, Iowa City, and Stanwood, Iowa. Our Stanwood, Iowa plot withstood considerable drought stress and hybrids are grown on both corn-following-corn and corn-following-soybean ground.

Please contact Monty or me if you would like to join one of these tours.

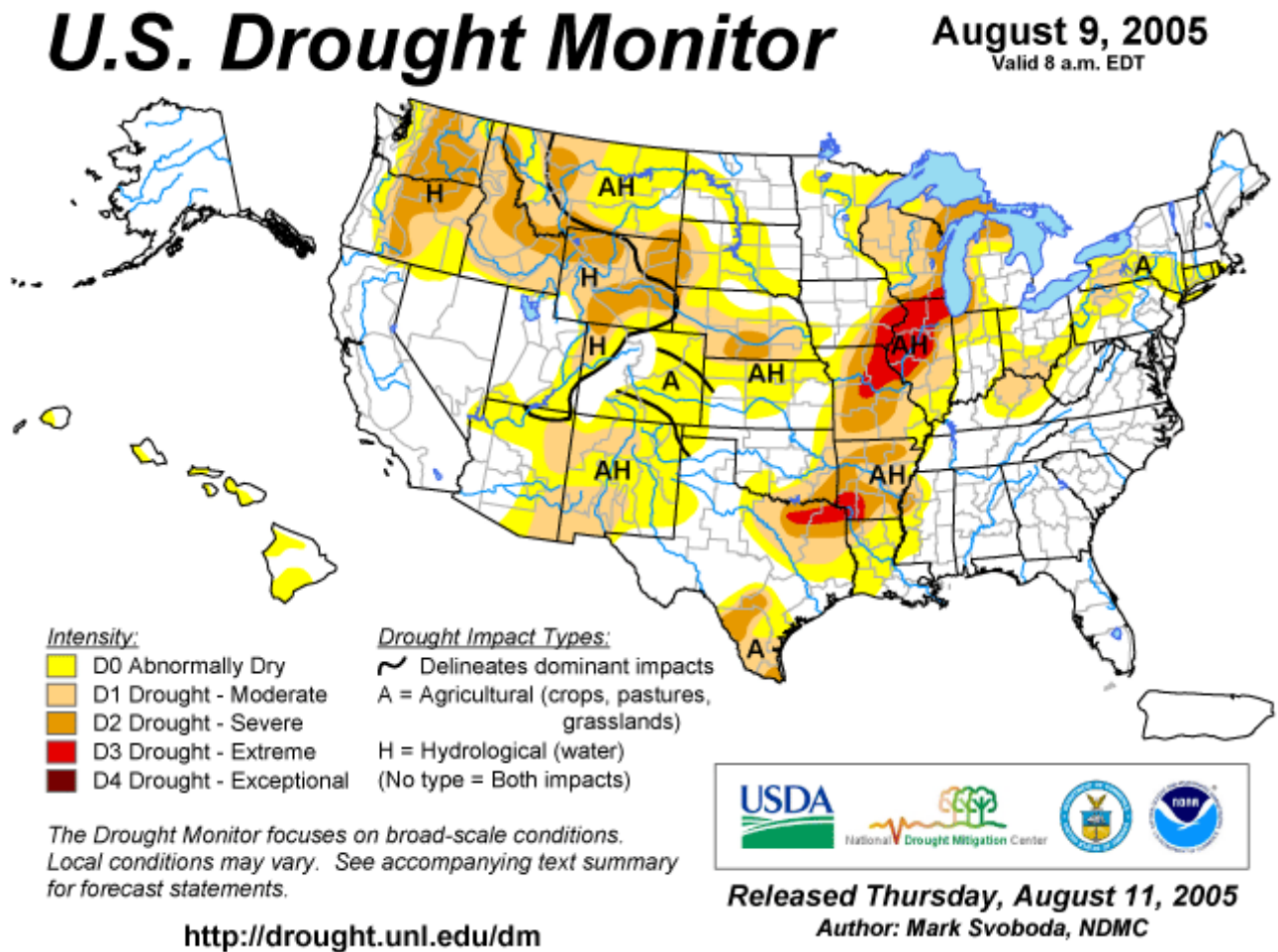
Products Offered by Miller Hybrids

We are pleased to offer an elite set of 12 diverse hybrids ranging from 102 to 113 days in maturity. All hybrids will carry the Liberty Link trait for post-emergence herbicide flexibility. Our corn borer tolerant hybrids are available as Agrisure CB™ YieldGuard® or Herculex I™. Our seed will have Cruiser Extreme Pac™ (CEP) applied to maximize your emergence. Because Miller Hybrid™ seed has CEP, you will qualify for \$8 per unit rebate through Syngenta's Agriedge™ program, when you also use Force insecticide for your corn rootworm. Additional money is also available as a rebate, when you use herbicide programs that qualify under Agriedge™.

This year we are testing many new products in independent tests in Eastern Iowa and Northern Illinois, as well as in our own eastern Iowa independent testing program. Data from independent state yield trials and F.I.R.S.T. trials will be available this fall.

Drought Stressed Corn

Soil moisture in east central and southeast Iowa, and northern Illinois; have ranged from normal to severely drought stressed in 2005. This drought monitor link: <http://www.drought.unl.edu/dm/monitor.html> shows the general pattern of the drought (see the map below). This summer, narrow bands of scattered rains provided some neighboring fields with small differences in rainfall at critical times. This resulted in drastically different yield potential.



It appears that the stage of kernel development when corn was subject to extreme temperatures from, July 23rd thru the 25th, was important in determining tip back. Often the earlier planting dates (except where frost damage required replanting) have better yield potential. This year also showed the value of planting hybrids which flower at different times. Agronomic conditions that led to poor early root development

such as compaction, poor or excessive drainage, poor fertility, poor insect control or poor weed control; have significantly increased the potential yield loss from drought. It appears that corn borer tolerant corn and a good corn rootworm program will pay a high premium in 2005. When choosing your 2006 hybrid portfolio, you must consider hybrid differences in response to drought in 2005. You should also consider multiple year results, or performance from non-drought stressed fields this year.

Harvesting Drought Stressed Corn

It is important that you do not harvest your drought stress corn too early, just because it looks poor, as it may still be adding dry matter and feed value. Corn stalks between 60% and 70% are suitable for ensiling. If corn is too dry, consider letting it dry down to 20% or less for baling. A nitrate test should be done before baling. I will end this newsletter with two partial articles Steve Barnhart, Iowa State extension, to help manage your harvest plans.

Dry summer corn forage harvest options and management strategies (10/6/2003)

by [Steve Barnhart](#), extension forage agronomist, Iowa State U. Dept. of Agronomy

<http://www.ipm.iastate.edu/ipm/icm/2003/10-6-2003/cornforage.html>

If planning to use the corn crop for forage, what yields and nutritive values can you expect?

For comparison sake, normal, full-grain corn will yield about 5.5 to 7.5 tons/acre of dry matter (DM) in the standing crop; after grain harvest, the stover yield is about half that of the unharvested crop. Nearly normal sized stalks with little or no grain will yield about 3.5 to 4.2 tons DM/acre. Stunted corn (4 to 6 feet tall) with little or no grain would yield about 2 to 3.5 tons DM/acre.

In addition to dry matter, other factors also should be assessed. Stage of development or condition of growth also has an influence on the feed value of the harvested crop. Compared with normal corn, corn that would yield about 20 to 40 bu/acre has about the same pound-for-pound feed value. Stalks with very poorly pollinated ears that have 0 to 20 bu/acre yield potential have about 80 to 90 percent the feeding value of normal corn. Short, barren stalks have only about 70 to 80 percent the feed value of normal corn.

How will the corn be harvested or used?

Most fields are too dry for harvest as silage, but they can be used for daily direct chopping and feeding, grazing of standing corn, baling harvested or unharvested dry corn residue, and grazing of harvested crop residues. Producers should consider the herbicides or insecticides used in their corn production and carefully check their labels for restrictions that may affect harvest or grazing timing. Timeliness is not as critical when stacking or baling as dry corn stover as when making silage. Corn should be dried to 20 percent moisture or less to avoid spoilage in storage and harvested before excessive leaf loss occurs.

Stover should be stored at a dry location near the site of feeding, and livestock should have limited access to stover during feeding in order to stretch feed supplies and minimize feeding waste.

If you are planning to allow livestock to graze unharvested corn fields or harvested corn crop residues, consider limiting animal access to small strips to encourage safe and more uniform use of the forage resource. You also should consider fencing and water availability before you decide on in-field grazing.

Elevated nitrate concentration can be a concern in the crop destined for grazing and in harvested stover. If this is your case, have a nitrate test done on a representative sample of the forage being grazed or baled.

Late-Summer Forage Options & Management Strategies in Drought / Dry Summer by Stephen K. Barnhart (July 2005)

<http://www.extension.iastate.edu/ag/drought/ForageDrought2005.pdf>

Forage Options and Strategies for the remainder of the year

The specific strategies adopted by a particular producer will depend upon many very local conditions and objectives. Among the factors influencing planning decisions are: recent rainfall and soil moisture conditions; the nutritional requirements of the various types of livestock being fed; the quantity and quality of 'new crop' hay available; condition and availability of drought stressed corn and other grain crops; and the possible herbicide residues in drought forage.

Harvest of Drought Damaged Corn

Livestock producers have been asking questions about the feasibility of grazing, green chopping, or ensiling drought-stressed corn. The strongest take-home lesson for livestock producers with drought-damaged corn is to not be too hasty to 'get in to the corn field'. As long as the corn plant is still alive it will be accumulating some additional dry matter.

Each developmental stage of corn growth – stalk elongation, ear formation, and grain fill -- will add several tons per acre of dry matter to the potential harvested product. For comparison sake, normal corn chopped for silage will yield about 16 - 24 tons/A (65 % moisture basis), nearly normal sized stalks with little or no grain will yield about 10 - 12 tons/A, and stunted corn (4 - 6 feet tall) with little or no grain would yield about 6 - 10 tons/A. In addition to the dry matter considerations, other factors should also be assessed. Stage of development or condition of growth also has an influence on the feed value of the harvested crop. Compared to normal corn, corn that would yield about 20 to 40 bu./ A would have about the same pound for pound feed value. Very poorly pollinated stalks with 0 to 20 bu/A yield potential would have about 80 to 90% the feeding value of normal corn. Short, barren stalks would have only about 70 to 80% the feed value of normal corn.

In what form will the corn be harvested and used?

The three most practical options for using drought-damaged corn are green chopping, ensiling and storing as dry stover. Each system has some advantages and disadvantages.

Green chopping corn provides an immediate source of feed for dry lot, or supplement on pasture. A disadvantage may be a potentially high level of nitrates in the drought-damaged, fresh forage. Producers are encouraged to have fresh chopped corn tested for nitrates at a nearby commercial feed testing laboratory if there is any concern about high levels.

Chopping corn for silage provides a less immediate feed source, but a form which can be stored and fed over a longer period of time. One of the main management challenges of harvesting drought damaged corn for silage is cutting the plant at the proper moisture content for the type of silo structure in which the forage will be stored. Corn should be stored at 65 - 70% moisture in a bunker or trench silo and at 60 - 65% moisture in upright silos. In plants with at least some grain, the dry down rate of the grain will provide a rough guide for predicting whole plant moisture. Using the 'milkline' on the maturing corn kernel may be the best visual indicator. Until the milkline is half way down toward the tip of the kernel, the whole plant moisture will likely still be greater than 70%. Hybrids vary somewhat in this trait. Plants with no grain, and some live green leaf tissue still evident, will have surprisingly high moisture content (75 - 80%); too high for direct cut and ensiling. In some cases even when all the visible leaves have turned brown, the whole plant moisture is still above 70% moisture. Plants, which have actually died, will lose moisture very quickly and could drop below 50% moisture in a short time; too low in this case for proper ensiling.

An accurate moisture test from a representative field sample is an important piece of information needed to manage a corn crop for silage. Moisture determinations can be made at a nearby feed testing laboratory, or with a home check using an accurate scale and a microwave oven or heat lamp to dry the sample. Nitrates are less of a concern when drought damaged corn is ensiled because some of the nitrate is converted to other forms of nitrogen in the ensiling process. Harvesting drought injured corn, as silage will not be a good option for everyone! Making good silage from a normal corn crop requires some degree of skill and attention to detail. If you do not already have the harvest machinery, a silage storage structure in good condition, experience in making corn silage, and a well defined plan for silage use, then making silage from drought damaged corn may be a high risk venture. The concern about plant moisture is large enough even when you have the proper equipment and can harvest the crop in a timely manner, but if you are depending on a custom operator, by the time they get to you your crop may be too dry for proper ensiling. Many well intentioned, first time silage makers end up with a lot of spoiled silage at a relatively high cost. Using a well-designed silage storage structure that is in good repair is a best management approach. Too often producers, who are looking for the cheap way, choose to store silage in a wide, low pile on the ground, possibly even bounded on each side by a row of large round hay bales. These piles may seem to be low cost initially but spoilage and waste is often high and as a result the cost per ton of usable, good quality silage is higher than expected.

Drought damaged corn that dries below 55-60% moisture should be considered for possible stacking or baling as dry corn stover. Timeliness is not quite as critical when harvesting stover. It should be dried to 20% moisture or less to avoid spoilage in storage, and should be harvested before excessive leaf loss occurs. High nitrates can be a concern in stover. If you're concerned, have a nitrate test done on a representative sample. Store stover at a dry location near the site of feeding, and provide for limited access during feeding to stretch feed supplies and minimize feeding waste

