



COLORADO STATE UNIVERSITY
EXTENSION

County Extension Offices

Logan County
508 South 10th Avenue
Sterling, CO 80751
970-522-3200

Morgan County
914 East Railroad Avenue
Fort Morgan, CO 80701
970-542-3540

For Immediate Release

By Wilma Trujillo

Area Agronomist

Phone: (719) 522-3200

wilma.trujillo@colostate.edu

Tips to Select Corn Hybrids in 2018

By Wilma Trujillo

Hybrid selection is one of the most important management decisions a corn grower can make. Selecting a hybrid deserves a careful comparison of performance data by locations and years. Choosing the wrong hybrid or one not suitable for a particular environment or farm operation will limit yield potential before the field is even planted.

As observed in the Colorado State University (CSU) Corn Performance Trials (<http://www.extsoilcrop.colostate.edu/CropVar/corn.html>), hybrid entries vary in their performance in different locations. For example, in the 2017 CSU Irrigated Corn Performance Trials, yield of Pioneer 1151AM was 94.4 bushels higher per acre in Yuma than in Burlington.

As commodity prices continue falling, another important consideration in hybrid selection is seed costs per acre. From 2006 to 2014, seed costs per acre increased about 11% per year. This increase rate was much higher than the rates for fertilizers and pesticides. Since 2014, seed costs per acre have decreased slightly (USDA Economic Research Service), from \$102 per acre in 2015 to \$99 per acre in 2016, a decrease of \$3 per acre.

When selecting corn hybrids, growers should also keep in mind their farm operation. Acreage, previous crop, soil type, tillage practices and desired harvest moisture are as important considerations as yield, insect and disease resistance, herbicide tolerance and early plant vigor. Other considerations could be the end uses of the crop, is corn to be used for grain or silage? Is the grain to be sold directly to the elevator or used on the farm? Are there premiums available at nearby elevators, or from end users, for specialty corns such as food grade or non-GMO corn? Capacity to harvest and store also needs consideration.

The following are some tips to consider in choosing hybrids that are best suited to various production systems.

1. Select hybrids with maturity ratings appropriate for your geographic area. Corn for grain should reach physiological maturity one to two weeks before the first killing frost in the fall. Use days-to-maturity, growing degree day (GDD) ratings, and harvest grain moisture data from performance trials to determine differences in hybrid maturity.

One of the most effective strategies for spreading and managing risk, and widening the harvest interval, is planting multiple hybrids of varying maturity.

2. Choose hybrids that have produced consistently high yields across a number of locations. Selecting a hybrid simply because it contains the most stacked traits will not guarantee high yields. Growers should not rely solely on one hybrid characteristic, or transgenic traits, to make their hybrid selection. Select hybrids with consistent yield across different environments. Hybrids will perform differently based on region, soils and environmental conditions.
3. Plant hybrids with good standability to minimize stalk lodging (stalk breakage below the ear). This is particularly important where field drying is anticipated. There are hybrids that have outstanding yield potential, but may be more susceptible to lodging problems under certain environmental conditions after they reach harvest maturity.
4. Select hybrids with resistance and/or tolerance to most common diseases. These include gray leaf spot, bacterial leaf streak and Goss's wilt.
5. Do not purchase a hybrid without reviewing performance data from the CSU Crop Testing Program or the seed companies. Results from replicated hybrid performance trials should be considered before purchasing hybrids. Because weather conditions are unpredictable, the most reliable way to select superior hybrids is to consider performance during the last two years and over a wide range of locations and climatic conditions as possible. Hybrids that consistently perform well across a range of environmental conditions, including different soil and weather conditions, have a much greater probability of performing well the next year, compared to hybrids that have exhibited more variable performance. To assess a hybrid's yield/performance across multiple years and locations in Colorado, visit the CSU Crop Testing Program web page at: <http://www.extsoilcrop.colostate.edu/CropVar/corn.html> or obtain a copy of the Annual Colorado Corn Hybrid Performance Trial Technical Reports.

Source: Selecting Corn Hybrids for 2018: Some Considerations by Dr. Peter Thomison. C.O.R.N. Newsletter, The Ohio State University.
