

The Artesian difference

When you choose an Artesian™ corn hybrid, you're not just choosing a trait or technology. You're selecting a high-performing hybrid with elite genetics, a hybrid that has the potential to deliver top-end yields whether the crop receives enough water or not because it contains multiple genes for season-long drought protection.

Artesian corn hybrids offer season-long drought protection and top-end yield potential. Widely adapted across a variety of yield environments and soil types, and available stacked with traits for insect protection and herbicide tolerance, Artesian hybrids can help achieve improved yield consistency on virtually any corn acre.

Artesian vs. competitors: the landscape

We encourage you to compare the proven benefits and attributes of Artesian hybrids with the competitive offerings – Genuity® DroughtGard® hybrids from Monsanto and Optimum® AQUAmax® hybrids from DuPont Pioneer – to see for yourself.

	Artesian	Genuity DroughtGard	Optimum AQUAmax
COMPANY	Syngenta	Monsanto	Pioneer
TRAIT TYPE	Native	GM	Native
METHOD OF DEVELOPMENT	Candidate gene	Transformation	Marker-assisted breeding
MODES OF ACTION	Multiple	Single*	Undocumented
HISTORICAL FIELD PERFORMANCE (increase/plot average)	11.8%	4-7%	6.5%
YIELD CONSISTENCY ACROSS ENVIRONMENTS	Very consistent	Somewhat consistent	Somewhat consistent

*Limited documentation available. Performance evaluations vs. competitive products based upon interpretation of publicly available information, public presentations, regulatory submissions and/or field observations.

A closer look

Artesian corn hybrids

Approach: Syngenta employs a unique scientific process to select, validate and deploy multiple natural corn genes that improve water stress tolerance.

Advantage: All Artesian corn hybrids carry elite genetics that allow plants to manage gaps in rainfall season-long and yield exceptionally well in good conditions.

Performance: Artesian corn hybrids consistently match or exceed comparable hybrid yields in optimal growing conditions or under moderate drought stress. Under severe and extreme drought stress, Artesian corn hybrids out-performed trial averages by nearly 12 percent over a period of five years.¹

DroughtGard hybrids

Approach: Genuity DroughtGard hybrids from Monsanto are genetically modified to allow plants to better tolerate water stress via a single gene.

Disadvantage: The corn plant may not be fully protected from weather variability by the mode of action of a single gene.

Performance: Monsanto reports Genuity DroughtGard hybrids will increase yield by an average of 5 bushels per acre (bu/A) in a water-stressed area where yields average 70–130 bu/A.

AQUAmax hybrids

Approach: Optimum AQUAmax hybrids from DuPont Pioneer are products of marker-assisted breeding. Corn genetics that appear to perform well under water stress are moved into breeding lines to produce hybrids that are more likely to withstand water stress.

Disadvantage: Current marker-assisted breeding techniques cannot accurately identify the genes that provide drought protection. An AQUAmax hybrid may – or may not – have multiple ways of managing drought during the growing season.

Performance: Pioneer reports AQUAmax hybrids yield about 6.5 percent higher under water stress.

FOR MORE INFORMATION
about Artesian corn hybrids, visit www.agrisureartesian.com.

¹ Data is based on 7,613 Syngenta on-farm strip trials across the Corn Belt, 2010-2014. For this research, Syngenta defines a yield environment of 50–99 bu/A as “severe” and fewer than 50 bu/A as “extreme”.



Artesian corn hybrid (left) vs. competitive hybrid (right).
Elkville, Illinois; August 2012.



Artesian corn hybrid vs. competitive hybrid – Lakefield, Minnesota; September 2013. Artesian is the far left strip and every second strip (green). Competitive hybrids every strip in between (brown).



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