



Optimum® AQUAmax™ Products from DuPont Pioneer

Help Minimize Risk Maximize Productivity

Optimum® AQUAmax™ products are equipped with strong agronomics and the latest technology packages. The 2013 product offering features 45 products in the 89- to 115-day comparative relative maturity (CRM). Integrated refuge options include the latest product offerings from the Optimum® AcreMax® family of products. Contact your Pioneer Sales Professional to learn about Optimum AQUAmax products in your area.

2012 Yield Data*

Yield Environment	# of Comps	Pioneer Yield	Pioneer Yield Adv	Yield % Wins
Water-limited	3,606	94.6	8.9%	69%
Favorable	7,663	222.2	1.9%	59%

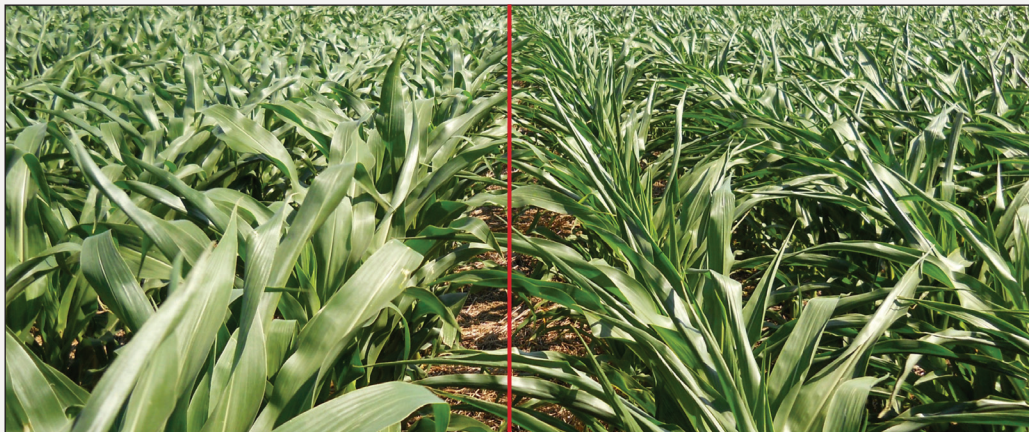
Optimum AQUAmax Product Performance

- Provide top-end yield potential under optimal growing conditions and improve yield stability under drought stress.
- Offer growers additional choices to help minimize risk and maximize productivity on every acre.
- Developed using our proprietary Accelerated Yield Technology (AYT™) system.

Native Trait Technology

- Optimum AQUAmax products can help minimize risk through key native traits
 - More fibrous root system
 - Vigorous ear silking
 - Improved staygreen
- Optimum AQUAmax products advanced on a local level
 - All products tested locally
 - Products must meet agronomic criteria to advance for that area

Optimum AQUAmax product side-by-side comparison



Pioneer® brand Optimum®
AQUAmax™ product P1151HR

Competitor



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V11 stage dryland corn, Nuckolls County, NE

What makes Optimum® AQUAmax™ products different?

Key native traits that improve performance.

Optimum AQUAmax products include key native traits that improve mechanisms associated with better performance under water-limited environments. Drought tolerance is controlled by a large number of genes and heavily influenced by environmental factors such as heat, water stress, and soil type. Mechanisms in Optimum AQUAmax products include stomatal control which conserves excess water use, maintenance of photosynthesis under water-limited conditions, preservation of leaf area under heat and drought stress (staygreen) and others.

Can I expect increased yields when planting Optimum AQUAmax products? **Validated in extensive research and on-farm trials.**

On more than 11,250 side-by-side comparisons with competitive products, 2012 yield data from DuPont Pioneer shows an advantage of 8.9 percent with Optimum AQUAmax products in water-limited environments; and 1.9 percent yield advantage in favorable growing environments*. Extensive research testing and on-farm comparisons confirm superior performance identified in research pipeline.

How would you detail the agronomic characteristics of Optimum AQUAmax products? **Total Product Performance.**

A basis of differentiation is the intensive cropping systems management approach, developed specifically for Optimum AQUAmax products. Everything from hybrid selection by maturity, seed treatment, planting date, row spacing, plant population, planting depth, tillage practices, residue and nutrient management are factored into the Optimum AQUAmax product systems approach.

At what plant population do Optimum AQUAmax products excel? **Increased stability in higher populations.**

Increased plant population trials have concluded that Optimum AQUAmax products show increased stability even with increased populations across a wide range of environmental conditions. Current trials encourage a standard field population trial increased by 5,000 plants per acre. Hundreds of growers in the western Corn Belt conducted split-planter trials across a wide range of environments and production systems. Results prove when both genetics and management are combined, growers can optimize their potential return on investment.

Do Optimum AQUAmax products require additional/ altered fertility programs? **Based on yield goals.**

Pioneer recommends a fertility program based on yield goals. Optimum AQUAmax products offer the opportunity to increase plant populations which lend to a greater opportunity to increase yield goals, fertilize accordingly. For more specific management recommendations in your area, contact your Pioneer sales professional.

Are there any marketing or livestock feeding restrictions with Optimum AQUAmax products?

Optimum AQUAmax products include key native traits, therefore there are no restrictions beyond those of the technology traits in each product. These products have been approved for use in Europe and other countries around the world. These products do not contain any transgenic traits that would prevent feeding to livestock.

Contact your Pioneer Sales Professional for a list of Optimum AQUAmax products in your maturity range; the recommendations will help you place the right product on the right acre.

*In 2012, Optimum® AQUAmax™ products were grown in on-farm comparisons against competitive hybrids (+/- 4 CRM) in 3,606 water-limited environments with a win ratio of 69 percent; and 7,663 comparisons under favorable growing conditions with a win ratio of 59 percent in the United States. Cumulative claim includes all 2011 and 2012 on-farm comparisons across the United States. Water-limited environments are those in which the water supply/demand ratio during flowering or grain fill was less than 0.66 on a 0-1 scale (1=adequate moisture as determined by DuPont Pioneer) using the Pioneer proprietary EnClass® system and in which the average yield of competitive brand hybrids was less than 150 bu/acre. Moisture levels were measured at the nearest weather station. Favorable growing conditions are locations where yield levels were at or above 180 bu/acre on average, regardless of moisture levels. **Product performance in water-limited environments is variable and depends on many factors such as the severity and timing of moisture deficiency, heat stress, soil type, management practices and environmental stress as well as disease and pest pressures. All hybrids may exhibit reduced yield under water and heat stress. Individual results may vary.**



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