

HOEGEMEYER HIGH PH RESEARCH - 2024

High soil pH is a common problem in the Western Corn Belt. At Hoegemeyer, we are committed to providing you products that can tolerate these stressful conditions. High pH soils cause a symptom known as Iron Deficiency Chlorosis (IDC). Several nutrients become harder for the plant to extract from

| LOCATION | Average pH of Site by Year | | | | |
|----------------|----------------------------|------|------|------|------|
| LOOAHON | 2017 | 2018 | 2019 | 2020 | 2021 |
| North Bend, NE | 8.1 | 8.0 | | | |
| Alda, NE | | | 8.1 | 8.1 | 8.1 |

the soil at a pH above 7.5 including phosphorus, zinc, iron, and manganese. This may cause stunting, yellowing, interveinal chlorosis, and even plant death in some hybrids. Decreasing soil pH through management practices is very difficult and typically not economical, so what should a grower do?

The best management practice is usually to plant a hybrid proven to have good tolerance to high soil pH. Hoegemeyer began screening each of our corn products for high pH tolerance in 2014 and we've continued to add to our data set each year. The table above shows the soil pH levels in our trials in recent years. Please refer to the table below for a list of corn hybrids that we have found to demonstrate good suitability on high pH soils. If you have any questions related to pH tolerant hybrids, feel free to contact your local Hoegemeyer DSM or Agronomist.

| Maturity | Highly Suitable (Rating 6 or better) | Suitable (Rating 5) |
|----------|---|---|
| 87 | | 5702 Family |
| 91 | | 6108 Family |
| 92 | | 6287 Family |
| 93 | | 6357 Family |
| 95 | | 6532 Family |
| 97 | | 6775 Family |
| 98 | 6850 Family | |
| 99 | | 6941 Family / 6963 Family |
| 100 | 7027 Family / 7088 Family | 7094 Family |
| 101 | | 7138 Family |
| 102 | | 7209 Family / 7224 Family |
| 103 | 7329 Family | 7322 Family |
| 104 | 7402 Family / 7478 Family | 7434 Family |
| 105 | | 7523 Family / 7549 Family |
| 106 | 7692 Family | 7667 Family |
| 107 | | 7772 Family |
| 108 | 7835 Family / 7843 Family / 7869 Family | 7858 Family |
| 109 | 7917 Family / 7921 Family / 7990 Family | 7900 Family / 7955 Family |
| 110 | 8052 Family / 8084 Family | 8009 Family / 8066 Family / 8073 Family |
| 111 | 8110 Family / 8125 Family / 8188 Family | 8156 Family |
| 112 | 8205 Family / 8233 Family / 8255 Family | 8268 Family |
| 113 | 8303 Family / 8397 Family | 8348 Family |
| 114 | 8418 Family | 8453 Family / 8490 Family |
| 115 | 8576 Family | 8511 Family / 8529 Family / 8560 Family / 8595 Family |
| 116 | 8637 Family | 8683 Family |
| 117 | 8707 Family | 8750 Family |



IMPORTANT: Characteristic scores provide key information useful in selecting and managing products in your area. Information and ratings are based on comparisons with other products sold by

Information and scores are assigned by Hoegemeyer and are based on period-of-years testing through 2023 harvest, and were the latest available at time of printing. Some scores may change after 2023 harvest. Scores represent an average of performance data across areas of adaptation, multiple growing conditions, and a wide range of both climate and soil types, and may not predict future results. Individual product responses are variable and subject to a variety of environmental, disease and pest pressures. Please use this information as only one component of your product positioning decision.



AM - Optimum® AcreMax® Insect Protection system with YGCB, HX1, LL, RR2. Contains a single-bag integrated refuge solution for above-ground insects. In EPA-designated cotton growing counties, a 20% separate corn borer refuge must be planted with Optimum AcreMax products.



AML - Optimum® AcreMax® Leptra® products with AVBL, YGCB, HX1, LL, RR2. Contains a single-bag integrated refuge solution for above-ground insects. In EPA-designated cotton growing countries, a 20% separate corn borere refuge must be planted with Optimum AcreMax Leptra products.



AMXT (Optimum® AcreMax® XTreme) - Contains a single-bag integrated refuge solution for above- and below-ground insects. The major component contains the Agrisure® RW trait, a Bt trait, and the Herculex® XTRA genes. In EPA-designated cotton growing counties, a 20% separate corn borer refuge must be planted with Optimum AcreMax XTreme products.



Q (Qrome®) - Contains a single-bag integrated refuge solution for above- and below-ground insects. The major component contains the Agrisure® RW trait, the Bt trait, and the Herculex® XTRA genes. In EPA-designated cotton growing counties, a 20% separate corn borer refuge must be planted with Qrome products. Qrome® products are approved for cultivation in the U.S. and Canada. They have also received approval in a number of importing countries, most recently China. For additional information about the status of regulatory authorizations, visit http://www.biotradestatus.com/



V - Vorceed™ Enlist® products with V, LL, RR, ENL. Contains a single-bag integrated refuge solution with multiple modes of action for above- and below-ground insects. The major component contains the Herculex® XTRA genes, the RW3 trait and the VTP trait. In EPA-designated cotton growing counties, a 20% separate corn borer refuge must be planted for Vorceed Enlist products. Enlist Duo® and Enlist One® herbicides are not registered for sale or use in all states or counties. Contact your state pesticide regulatory agency to determine if a product is registered for sale or use in your area. Enlist Duo and Enlist One are the only 2,4-D products authorized for use with Enlist crops. Consult Enlist herbicide labels for weed species controlled. Always read and follow label directions.



PCE - PowerCore® Enlist® corn products with HX1, VTP, ENL, LL, RR. A separate 5% corn borer refuge in the corn belt, and a separate 20% corn borer refuge in EPA-designated cottongrowing counties must be planted PowerCore Enlist products.



LL - Liberty®, LibertyLink® and the Water Droplet Design are registered trademarks of BASF.



RR2 - Contains the Roundup Ready® Corn 2 trait that provides crop safety for over-the-top applications of labeled glyphosate herbicides when applied according to label directions.



AO - Optimum® AQUAmax® 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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