



PIONEER® BRAND PRODUCTS	CRM	Technology Segment	Hybrid Family	GDUs to Silk	GDUs to Phy. Mat.	Grain Drydown	Stalk Strength	Root Strength	Stress Emergence	Staygreen	Drought Tol.	Ear Flex	Test Wt.	Plant Ht.	Ear Ht.	Mid-Season Brittle Stalk	Husk Cover	Gray Leaf Spot	No. Leaf Blight	So. Leaf Blight	Anthr. Stalk Rot	Fus. Ear Rot	Gibberella Ear Rot	Diplodia Ear Rot
P0339AM	103	AM, LL, RR2	P0339	1260	2420	6	6	8	7	6	9		5	3	4	5		5	6		5	5	4	4
P0506AM	105	AM, LL, RR2	P0506	1310	2530	7	6	4	5	7	9	7	5	6	5	6	3	5	6		5	4	5	3
P0825AM *	108	AM, LL, RR2	P0825	1380	2680	6	6	4	5	8	7		5	6	6	7	4	6	6	4	5	3	5	5
P0843AM	108	AM, LL, RR2	P0843	1330	2680	6	8	5	6	7	8		6	4	6	3	5	5	6	6	6	6		5
P0928	109		P0928	1380	2680	5	8	4	6	6	7		7	6	6	4	5	5	6	6	6	5	4	4
P1023AM	110	AM, LL, RR2	P1023	1380	2700	6	6	8	5	8	8	7	5	5	7	7	8	5	6	5	4	2	6	5
P1197AM	111	AM, LL, RR2	P1197	1400	2730	7	8	5	5	8	7	6	5	6	6	5	5	5	6	5	6	6	5	5
P1311AM	113	AM, LL, RR2	P1311	1440	2860	7	5	6	5	8	6		5	7	7	6	3	5	6	6	5	5		4
P1345 *	113		P1345	1400	2730	3	7	8	5	6	7		6	8	7	6	3	5	5	5	5	5		5
P1443AM	114	AM, LL, RR2	P1443	1340	2680	3	5	5	5	8	9		5	6	7	6	5	4	6	4	4	6		5

10 products in this guide

See subsequent pages for complete definitions and disclaimers related to the product descriptions and ratings.

All scores of integrated refuge products are based upon the major component.

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IMPORTANT

Trait rating scores provide key information useful in selection and management of Pioneer® brand products in your area. Information and ratings are based on comparisons with other Pioneer brand products, not competitive products. Information and scores are assigned by DuPont Pioneer Research Managers. Scores are based on period-of-years testing through 2014 harvest and were the latest available at time of printing. Some scores may change after 2015 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. All products within a hybrid family receive the same score unless observations indicate a significant difference. 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. Refer to www.pioneer.com/products or contact a Pioneer sales professional for the latest and most complete listing of traits and scores for each Pioneer brand product and for product placement and management suggestions specific to your operation and local conditions.

**All scores of integrated refuge products are based upon the major component.

***All Pioneer products are hybrids unless designated with AM1, AM, AMRW, AMT, AMX and AMXT, in which case they are brands.

RATINGS

9 = Outstanding; 1 = Poor; Blank = Insufficient Data.

TECHNOLOGY SEGMENT:

TECHNOLOGY SEGMENT: AM1 - Optimum® AcreMax® 1 Insect Protection System with an integrated corn rootworm refuge solution includes HXX, LL, RR2. Optimum AcreMax 1 products contain the LibertyLink® gene and can be sprayed with Liberty® herbicide. The required corn borer refuge can be planted up to half a mile away. **AMRW** - Optimum® AcreMax® RW Rootworm Protection system with a single-bag integrated corn rootworm refuge solution includes HXRW, LL, RR2. **AMRW-R** - Optimum® AcreMax® RW Rootworm Protection system with a single-bag integrated corn rootworm refuge solution includes HXRW, RR2. Do not spray with Liberty®. Not all seeds in the bag are tolerant to Liberty herbicide. **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. **AMX** - Optimum® AcreMax® Xtra Insect Protection system with YGCB, HXX, LL, RR2. Contains a single-bag integrated refuge solution for above- and below-ground insects. In EPA-designated cotton growing counties, a 20% separate corn borer refuge must be planted with Optimum AcreMax Xtra 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, the YieldGard® Corn Borer gene, 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. **YGCB,HX1,LL,RR2** (Optimum® Intrasect®) - Contains the YieldGard® Corn Borer gene and Herculex® I gene for resistance to corn borer. **YGCB,HXX,LL,RR2** (Optimum® Intrasect® Xtra) - Contains the YieldGard® Corn Borer gene and the Herculex® XTRA genes for resistance to corn borer and corn rootworm. **AMT** - Optimum® AcreMax® TRIssect® Insect Protection System with RW,YGCB,HX1,LL,RR2. Contains a single-bag refuge solution for above and below ground insects. The major component contains the Agrisure® RW trait, the YieldGard® Corn Borer gene, and the Herculex® I genes. In EPA-designated cotton growing counties, a 20% separate corn borer refuge must be planted with Optimum AcreMax TRIssect products. **RW,HX1,LL,RR2** (Optimum® TRIssect®) - Contains the Herculex® I gene for above-ground pests and the Agrisure® RW trait for resistance to corn rootworm. **AVBL,YGCB,HX1,LL,RR2** (Optimum® Leptra®) - Contains the Agrisure Viptera® trait, the YieldGard Corn Borer gene, the Herculex® I gene, the LibertyLink® gene, and the Roundup Ready® Corn 2 trait. **HX1** - Contains the Herculex® I Insect Protection gene which provides protection against European corn borer, southwestern corn borer, black cutworm, fall armyworm, western bean cutworm, lesser corn stalk borer, southern corn stalk borer, and sugarcane borer; and suppresses corn earworm. **HXRW** - The Herculex® RW insect protection trait contains proteins that provide enhanced resistance against western corn rootworm, northern corn rootworm and Mexican corn rootworm. **HXX** - Herculex® XTRA contains the Herculex® I and Herculex® RW genes. **YGCB** - The YieldGard® Corn Borer gene offers a high level of resistance to European corn borer, southwestern corn borer and southern cornstalk borer; moderate resistance to corn earworm and common stalk borer; and above average resistance to fall armyworm. **LL** - Contains the LibertyLink® gene for resistance to Liberty® herbicide. **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. **AVBL,CB,LL,GT** - Contains the Agrisure Viptera® 3110 trait stack: Agrisure Viptera®, Agrisure® CB and Agrisure® GT traits.



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RATINGS

9 = Outstanding; 1 = Poor; PAA = Predicts Above Average; PA = Predicts Average; PBA = Predicts Below Average; Blank = Insufficient Data.

WHITE AND WAXY CORN RATINGS:

Based on comparisons with other Pioneer brand hybrids, not competitive hybrids. Trait ratings for white and waxy hybrids reflect comparison with non-modified yellow hybrids of a similar maturity.

HYBRID FAMILY:

Hybrid family identifies hybrids that have the same base genetics. Manage hybrids within the same family similarly.

MARKET SEGMENT:

Designations indicate product is also suitable for the following market: **HAE** - High Available Energy (Pork & Poultry Feed); **HTF** - High Total Fermentables (Dry-Grind Ethanol); **HES** - High Extractable Starch (Wet Milling); **WX** - Waxy; **WH** - White food corn; **YFC** - Yellow food corn; **AQ** - Optimum® AQUAmax® product.

CRM (Comparative Relative Maturity):

There is not an industry standard for maturity ratings so comparing hybrid maturity and harvest moisture ratings between companies is usually difficult. Use the CRM rating to compare Pioneer hybrids with competitive hybrids of a similar maturity and harvest moisture. CRM ratings, and harvest moistures, for hybrids within a family may vary slightly, depending upon the level of insect (ECB and CRW) infestation. Conventional and straight hybrids with the RR2 gene within a family will usually be 1-2 CRMs earlier than indicated, when insect infestations are moderate to heavy. One CRM difference is about ½ point of moisture difference at harvest.

PHYSIOLOGICAL CRM:

Measures differences in maturity to zero milklime stage. To help decide if a new hybrid fits your area's growing season, compare its physiological CRM to a hybrid that you plant or one that is successfully used in your area.

GDUs TO PHYSIOLOGICAL MATURITY:

Measures differences in growing degree units (GDUs) required to zero milklime stage. To help decide if a new hybrid fits your area's growing season, compare its GDUs to physiological maturity to a hybrid that you plant or one that is successfully used in your area.

GRAIN DRYDOWN:

Compares hybrids of similar maturity for rate of moisture loss during grain drydown. A higher score indicates faster drydown. A lower score indicates slower drydown, or a wider opportunity for silage and high-moisture corn harvest.

STRESS EMERGENCE:	All hybrids are expected to establish normal stands under average soil conditions. Stress emergence is a measure of the genetic ability or potential to emerge in the stressful environmental conditions of cold, wet soils or short periods of severe low temperatures, relative to other Pioneer hybrids. Ratings of 7-9 indicate very good potential to establish normal stands under such conditions; a rating of 5-6 indicates average potential to establish normal stands under moderate stress conditions; and ratings of 1-4 indicate the hybrid has below average potential to establish normal stands under stress and should not be used if severe cold conditions are expected immediately after planting. Stress emergence is not a rating for seedling disease susceptibility, early growth or speed of emergence.
DROUGHT TOLERANCE:	Drought tolerance is a complex trait, determined by a platform's ability to maintain yield in limited-moisture environments. A higher score indicates the potential for higher yields vs. other platforms of similar maturity in limited-moisture environments.
HIGH RESIDUE SUITABILITY:	HS - Highly Suitable; S ? Suitable; MA ? Manage Appropriately; X - Poorly Suited. Suitability rating based on field observations and a weighted calculation of gray leaf spot, stress emergence, anthracnose stalk rot, northern corn leaf blight, and Diplodia ear rot scores. High Residue Suitability ratings may vary by environment and geography.
EAR FLEX:	Score reflects the ability of a hybrid to flex ear size as plant density is reduced, or as growing conditions improve.
TEST WEIGHT:	Higher score indicates heavier test weight.
PLANT HEIGHT:	9 = Very Tall; 1 = Short.
EAR HEIGHT:	9 = High; 1 = Low.
MID-SEASON BRITTLE STALK:	Ratings determined by frequency and severity of stalk snapping at lower to middle stalk internodes from conditions usually favored by rapid or optimum growth. Relative response of hybrids can be affected by planting date, stage of growth, rate of growth, wind severity and other variables. Scores derived from both natural observations and artificial evaluation immediately prior to tasseling. NOTE: Scores do not reflect snapping enhanced by or due to herbicide interaction. The use of growth regulator herbicides such as 2,4-D and dicamba can increase the brittle snap potential of corn hybrids. Hybrids with lower brittle stalk ratings will require more caution and have a higher risk associated with the use of growth regulator herbicides. Early application, proper rates and application methods, along with both hybrid and herbicide selection can help reduce this risk. BRITTLE STALK PRECAUTION: In areas with higher potential for brittle stalk breakage, growers must balance the risk of planting hybrids with brittle stalk ratings of less than 4 against the overall performance of more resistant hybrids with higher ratings. All hybrids have a period of susceptibility to brittle stalk. Hybrids with below average ratings may have a longer period of susceptibility, or may experience more severe breakage relative to hybrids with higher scores during period of susceptibility. + For Pioneer® brand hybrid 33M52, Southern rust score based upon resistance conferred by the Rpp9 gene.
DISEASE PRECAUTION:	Grower should balance hybrid yield potential, hybrid maturity and cultural practice selection against their anticipated risk of a specific disease and need for resistance. In high disease-risk conditions, consider planting hybrids with at least moderate resistance ratings of 4 or higher to help reduce risk. When susceptible hybrids with disease ratings of 1 to 3 are planted in conditions of high disease pressure, the grower assumes a higher level of risk. If conditions are severe, even hybrids rated as resistant can be adversely affected. Independent of yield reduction, diseases can predispose plants to secondary diseases such as stalk rots. This requires individual field and hybrid monitoring for stalk stability and timely harvest when warranted.
DISEASE & PEST RATINGS:	8-9 = Highly Resistant; 6-7 = Resistant; 4-5 = Moderately Resistant; 1-3 = Susceptible; Blank = Insufficient Data.
GRAY LEAF SPOT PRECAUTION:	Avoid planting hybrids with a lower gray leaf spot (GLS) rating in continuous corn fields that have a history of GLS infection, unless tillage operations that bury significant amounts of corn residue and inoculum are practiced.
FOLIAR FUNGICIDE RESPONSE - GLS:	Probability of positive yield response to foliar fungicide applications when significant levels of Gray Leaf Spot (GLS) leaf disease is present. HP - High Probability; MP ? Moderate Probability; LP ? Low Probability. Probabilities based upon product disease scores. Because of the unlimited number of growing environments, cropping practices, and foliar fungicide active ingredients combinations possible, DuPont Pioneer makes no warranty regarding this foliar fungicide crop response information.
NORTHERN LEAF BLIGHT CAUTION:	In conditions where northern leaf blight (NLB) risk is high, growers should consider planting only hybrids with at least moderate NLB resistance ratings of 4 or higher.
FOLIAR FUNGICIDE RESPONSE - NLB:	Probability of positive yield response to foliar fungicide applications when significant levels of Northern Leaf Blight (NLB) leaf disease is present. HP - High Probability; MP ? Moderate Probability; LP ? Low Probability. Probabilities based upon product disease scores. Because of the unlimited number of growing environments, cropping practices, and foliar fungicide active ingredients combinations possible, DuPont Pioneer makes no warranty regarding this foliar fungicide crop response information.
FUSARIUM EAR ROT CAUTION:	Ratings based upon visual symptoms at harvest. If Fusarium ear rot has caused significant damage in the past, growers should consider planting only hybrids with at least moderate Fusarium ear rot ratings of 5 or higher.
GIBBERELLA EAR ROT CAUTION:	Ratings based upon visual symptoms at harvest. If Gibberella ear rot has caused significant damage in the past, growers should consider planting only hybrids with at least moderate Gibberella ear rot ratings of 5 or higher.
DIPLODIA EAR ROT CAUTION:	Ratings based upon visual symptoms at harvest. If Diplodia ear rot has caused significant damage in the past, growers should consider planting only hybrids with a Diplodia ear rot rating of 4 or higher.
EYESPOT:	Degree of resistance to the disease under natural infestation. Data is limited by the number of observations, but it should provide a general ranking of resistance.