



2010 Corn Hybrid-Herbicide Management Guide for Illinois and Indiana

Under certain environmental conditions any hybrid can be injured by any herbicide. This guide can assist in selecting and managing herbicide programs. It is based on replicated research trials and field observations. See your Pioneer sales professional or herbicide representative regarding hybrid-herbicide combinations that require careful management.

| Product | CRM ¹ | Technology Segment ² | Hybrid Family ³ |  End-Use Segment ⁴ | Herbicide Families | | | |
|------------------|------------------|---------------------------------|----------------------------|---|--------------------|---------------------------------------|------------------------|-----------------|
| | | | | | Amide ⁵ | Benzoic Acid and Phenoxy ⁶ | Isoxazole ⁷ | SU ⁸ |
| 39B94 | 79 | HX1,LL,RR2 | 39B93 | | ● | ■ | ● | ▼ |
| 38B14^ | 89 | HXX,LL,RR2 | 38B12 | | ● | ● | ● | ● |
| 38N88 | 92 | HX1,LL,RR2 | 38N86 | HAE | ● | ● | ● | ● |
| 38M60^ | 94 | HXX,LL,RR2 | 38M59 | YFC,HTF | ▼ | ▼ | ● | ● |
| P9990XR^A | 99 | HXX,LL,RR2 | P9990 | | | | | |
| 37Y12 | 99 | | 37Y12 | HAE,HTF | ● | ● | ● | ● |
| 37Y14^ | 99 | HXX,LL,RR2 | 37Y12 | HAE,HTF | ● | ● | ● | ● |
| 37Y11 | 99 | RR2 | 37Y12 | HAE,HTF | ● | ● | ● | ● |
| 36Y26^ | 101 | HXX,LL,RR2 | 36Y26 | YFC,HAE | ● | ● | ● | ● |
| 36V73 | 102 | RR2 | 36V75 | HAE,HTF | ● | ● | ● | ● |
| 36V51 | 102 | RR2 | 36V51 | | ▼ | ▼ | ● | ● |
| P0377XR^A | 103 | HXX,LL,RR2 | P0377 | HAE,HTF | | | | |
| 36Y86^ | 103 | HXX,LL,RR2 | 36Y84 | YFC,HAE,HTF | ● | ● | ● | ● |
| P0461XR^ | 104 | HXX,LL,RR2 | P0461 | HTF,HES | | | | |
| P0541XR^A | 105 | HXX,LL,RR2 | P0541 | HAE,HTF | | | | |
| P0541HR* | 105 | HX1,LL,RR2 | P0541 | HAE,HTF | | | | |
| P0528XR^A | 105 | HXX,LL,RR2 | P0528 | YFC,HAE,HTF,HES | | | | |
| 35K33^ | 105 | HXX,LL,RR2 | 35K33 | HAE,HTF | ● | ▼ | ● | ● |
| 35F38 | 105 | | 35F38 | YFC,HAE,HTF | ● | ● | ● | ● |
| 35F44^ | 105 | HXX,LL,RR2 | 35F38 | YFC,HAE,HTF | ● | ● | ● | ● |
| 35F40 | 105 | HX1,LL,RR2 | 35F38 | YFC,HAE,HTF | ● | ● | ● | ● |
| 35F37 | 105 | RR2 | 35F38 | YFC,HAE,HTF | ● | ● | ● | ● |
| 35F36 | 105 | | 35F38 | WX,HAE,HTF | ● | ● | ● | ● |
| 35F35^A | 105 | HXX,LL,RR2 | 35F38 | WX,HAE,HTF | ● | ● | ● | ● |
| 35K01 | 106 | RR2 | 35K01 | HAE,HTF | ● | ● | ● | ● |
| 35K08* | 106 | | 35K01 | WX,HAE,HTF | ● | ● | ● | ● |
| 35K06^A | 106 | HXX,LL,RR2 | 35K01 | WX,HAE,HTF | ● | ● | ● | ● |
| 35K04^ | 106 | HXX,LL,RR2 | 35K01 | HAE,HTF | ● | ● | ● | ● |
| 35K02 | 106 | | 35K01 | HAE,HTF | ● | ● | ● | ● |
| 35H40 | 107 | RR2 | 35H40 | YFC,HTF,HES | ● | ● | ● | ● |
| 35H42 | 107 | HX1,LL,RR2 | 35H40 | YFC,HTF,HES | ● | ● | ● | ● |
| 35D24 | 107 | | 35D28 | WX,HTF,HES | ● | ▼ | ● | ● |
| 34M78 | 107 | | 34M78 | YFC,HAE,HTF | ● | ▼ | ● | ● |
| P0891XR^A | 108 | HXX,LL,RR2 | P0891 | YFC,HTF | ● | ▼ | ▼ | ▼ |
| 34Y02 | 108 | | 34Y02 | HTF,HES | ● | ● | ● | ● |
| 34F29^ | 108 | HXX,LL,RR2 | 34F29 | HTF,HES | ● | ▼ | ● | ● |
| 34F26 | 108 | RR2 | 34F29 | HTF,HES | ● | ▼ | ● | ● |
| P0916XR^ | 109 | HXX,LL,RR2 | P0916 | HTF,HES | ● | ● | ● | ● |
| 34R65 | 109 | RR2 | 34R65 | HAE,HTF,HES | ● | ▼ | ● | ● |
| 34R67 | 109 | HX1,LL,RR2 | 34R65 | HAE,HTF,HES | ● | ▼ | ● | ● |
| 34A89^ | 109 | HXX,LL,RR2 | 34A85 | HAE | ● | ● | ● | ● |
| 34A12 | 109 | HX1,LL | 34A15 | WX,HTF | ● | ● | ● | ● |
| 34A11 | 109 | | 34A15 | WX,HTF | ● | ● | ● | ● |
| P1018XR^A | 110 | HXX,LL,RR2 | P1018 | HTF,HES | | | | |
| 34H33 | 110 | LL | 34H31 | YFC,HAE,HTF | ● | ▼ | ● | ● |
| P1184* | 111 | | P1184 | YFC,HTF | ● | ● | ● | ● |
| P1184XR^A | 111 | HXX,LL,RR2 | P1184 | YFC,HTF | ● | ● | ● | ● |
| P1184HR* | 111 | HX1,LL,RR2 | P1184 | YFC,HTF | ● | ● | ● | ● |
| P1184R* | 111 | RR2 | P1184 | YFC,HTF | ● | ● | ● | ● |
| P1162XR^ | 111 | HXX,LL,RR2 | P1162 | | ● | ● | ● | ● |
| 34P88 | 111 | | 34P88 | | ● | ● | ● | ● |


● Adequate Tolerance ▼ Requires Careful Management ■ Crop Response Warning □ Insufficient Data

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| | | | | | Herbicide Families | | | |
|-------------------|------------------|---------------------------------|----------------------------|---|--------------------|---------------------------------------|------------------------|-----------------|
| Product | CRM ¹ | Technology Segment ² | Hybrid Family ³ |  End-Use Segment ⁴ | Amide ⁵ | Benzoic Acid and Phenoxy ⁶ | Isoxazole ⁷ | SU ⁸ |
| 34P95* | 111 | RR2 | 34P88 | | ● | ● | ● | ● |
| 34P94^ | 111 | HXX,LL | 34P88 | | ● | ● | ● | ● |
| 34P92^ | 111 | HXX,LL,RR2 | 34P88 | | ● | ● | ● | ● |
| 34P91 | 111 | | 34P88 | WX | ● | ● | ● | ● |
| 34P87 | 111 | RR2 | 34P88 | | ● | ● | ● | ● |
| 34F94 | 111 | RR2 | 34F94 | HTF | ▼ | ▼ | ● | ● |
| 34F97^ | 111 | HXX,LL,RR2 | 34F94 | HTF | ▼ | ▼ | ● | ● |
| 34F96 | 111 | HX1,LL,RR2 | 34F94 | HTF | ▼ | ▼ | ● | ● |
| 33W80 | 111 | RR2 | 33W80 | YFC,HTF,HES | ● | ▼ | ● | ● |
| 33W84^ | 111 | HXX,LL,RR2 | 33W80 | YFC,HTF,HES | ● | ▼ | ● | ● |
| 33W83 | 111 | HX1,LL,RR2 | 33W80 | WX,HTF,HES | ● | ▼ | ● | ● |
| 33W82 | 111 | | 33W80 | YFC,HTF,HES | ● | ▼ | ● | ● |
| 33W79* | 111 | | 33W80 | WX,HTF,HES | ● | ▼ | ● | ● |
| 33W78** | 111 | HXX,LL,RR2 | 33W80 | WX,HTF,HES | ● | ▼ | ● | ● |
| 33P83^ | 111 | HXX,LL,RR2 | 33P83 | YFC,HTF,HES | ● | ▼ | ● | ● |
| P1253* | 112 | | P1253 | YFC,HTF | ● | ● | ● | ● |
| P1253XR** | 112 | HXX,LL,RR2 | P1253 | YFC,HTF | ● | ● | ● | ● |
| P1253HR* | 112 | HX1,LL,RR2 | P1253 | YFC,HTF | ● | ● | ● | ● |
| P1253R* | 112 | RR2 | P1253 | YFC,HTF | ● | ● | ● | ● |
| P1236XR^ | 112 | HXX,LL,RR2 | P1236 | HAE,HTF,HES | ● | ▼ | ● | ● |
| P1228WXR** | 112 | HXX,LL,RR2 | P1228W | WH,HAE,HTF | | | | |
| P1395XR^ | 113 | HXX,LL,RR2 | P1395 | YFC,HAE,HTF | ● | ● | ● | ● |
| P1395HR* | 113 | HX1,LL,RR2 | P1395 | YFC,HAE,HTF | ● | ● | ● | ● |
| P1395R* | 113 | RR2 | P1395 | YFC,HAE,HTF | ● | ● | ● | ● |
| P1314HR* | 113 | HX1,LL,RR2 | P1314 | HAE,HTF | ▼ | ▼ | ▼ | ■ |
| 33Z74^ | 113 | HXX,LL,RR2 | 33Z74 | HTF | ▼ | ▼ | ● | ▼ |
| 33T56 | 113 | | 33T56 | | ● | ▼ | ● | ▼ |
| 33T59^ | 113 | HXX,LL | 33T56 | | ● | ▼ | ● | ▼ |
| 33T57 | 113 | HX1,LL,RR2 | 33T56 | | ● | ▼ | ● | ▼ |
| 33T55 | 113 | RR2 | 33T56 | | ● | ▼ | ● | ▼ |
| 33T54 | 113 | | 33T56 | WX | ● | ▼ | ● | ▼ |
| 33T53 | 113 | HX1,LL,RR2 | 33T56 | WX | ● | ▼ | ● | ▼ |
| 33N56 | 113 | | 33N56 | YFC,HAE,HTF | ● | ▼ | ▼ | ● |
| 33N60** | 113 | HXX,LL,RR2 | 33N56 | YFC,HAE,HTF | ● | ▼ | ▼ | ● |
| 33N59 | 113 | HX1,LL | 33N56 | YFC,HAE,HTF | ● | ▼ | ▼ | ● |
| 33N58 | 113 | HX1,LL,RR2 | 33N56 | YFC,HAE,HTF | ● | ▼ | ▼ | ● |
| 33H82 | 113 | | 33H82 | WH | ● | ● | ● | ● |
| 33H83 | 113 | HX1,LL | 33H82 | WH | ● | ● | ● | ● |
| 33H81* | 113 | RR2 | 33H82 | WH | ● | ● | ● | ● |
| 33D14^ | 113 | HXX,LL,RR2 | 33D11 | HAE | ▼ | ● | ▼ | ● |
| P1480HR* | 114 | HX1,LL,RR2 | P1480 | YFC | ● | ▼ | ● | ● |
| P1431W | 114 | | P1431W | WH,HAE | ● | ▼ | ● | ● |
| P1406HR* | 114 | HX1,LL,RR2 | P1406 | HAE | | | | |
| 33K39 | 114 | | 33K39 | YFC | ● | ▼ | ▼ | ▼ |
| 33K44 | 114 | HX1,LL,RR2 | 33K39 | YFC | ● | ▼ | ▼ | ▼ |
| 33K40 | 114 | HX1,LL | 33K39 | YFC | ● | ▼ | ▼ | ▼ |
| 33G58 | 114 | | 33G58 | WH,HAE,HTF | ● | ● | ● | ● |
| 33G61** | 114 | HXX,LL,RR2 | 33G58 | WH,HAE,HTF | ● | ● | ● | ● |
| 33G60* | 114 | HX1,LL,RR2 | 33G58 | WH,HAE,HTF | ● | ● | ● | ● |
| 33G59 | 114 | HX1,LL | 33G58 | WH,HAE,HTF | ● | ● | ● | ● |
| 33F85 | 114 | RR2 | 33F85 | YFC,HTF,HES | ● | ▼ | ● | ● |
| 33F88^ | 114 | HXX,LL,RR2 | 33F85 | YFC,HTF,HES | ● | ▼ | ● | ● |
| 33F87 | 114 | HX1,LL,RR2 | 33F85 | YFC,HTF,HES | ● | ▼ | ● | ● |
| 32N89 | 114 | | 33F85 | YFC,HTF,HES | ● | ▼ | ● | ● |
| 33F12 | 114 | | 33F12 | WH | ● | ● | ● | ● |
| P1517WXR** | 115 | HXX,LL,RR2 | P1517W | WH | | | | |

● Adequate Tolerance
 ▼ Requires Careful Management
 ■ Crop Response Warning
 Insufficient Data

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| Product | CRM ¹ | Technology Segment ² | Hybrid Family ³ |  End-Use Segment ⁴ | Herbicide Families | | | |
|-----------------|------------------|---------------------------------|----------------------------|---|--------------------|---------------------------------------|------------------------|-----------------|
| | | | | | Amide ⁵ | Benzoic Acid and Phenoxy ⁶ | Isoxazole ⁷ | SU ⁸ |
| P1508HR* | 115 | HX1,LL,RR2 | P1508 | YFC,HAE,HTF,HES | ● | ● | ● | ● |
| 33M54 | 115 | | 33M54 | YFC,HAE | ● | ▼ | ▼ | ● |
| 33M57 | 115 | HX1,LL,RR2 | 33M54 | YFC,HAE | ● | ▼ | ▼ | ● |
| 33H27 | 115 | HX1,LL,RR2 | 33H25 | YFC,HTF,HES | ● | ● | ● | ● |
| 33H26 | 115 | HX1,LL | 33H25 | YFC,HTF,HES | ● | ● | ● | ● |
| 33D47 | 115 | RR2 | 33D47 | YFC,HTF,HES | ● | ▼ | ● | ● |
| 33D49 | 115 | HX1,LL,RR2 | 33D47 | YFC,HTF,HES | ● | ▼ | ● | ● |
| 32T16 | 115 | | 33D47 | YFC,HTF,HES | ● | ▼ | ● | ● |
| 33A82 | 115 | | 33A84 | WX,HAE,HTF | ● | ● | ● | ● |
| 32T82 | 115 | RR2 | 32T82 | HTF,HES | ● | ● | ▼ | ● |
| 32T85^ | 115 | HXX,LL,RR2 | 32T82 | HTF,HES | ● | ● | ▼ | ● |
| 32T84 | 115 | HX1,LL,RR2 | 32T82 | HTF,HES | ● | ● | ▼ | ● |
| 32B81 | 115 | | 32B81 | YFC | ● | ▼ | ● | ● |
| 32B83^ | 115 | HXX,LL,RR2 | 32B81 | YFC | ● | ▼ | ● | ● |
| P1615HR | 116 | HX1,LL,RR2 | P1615 | YFC | ● | ● | ● | ● |
| 32D78 | 116 | | 32D78 | YFC,HTF | ● | ▼ | ● | ▼ |
| 32D81*^ | 116 | HXX,LL,RR2 | 32D78 | YFC,HTF | ● | ▼ | ● | ▼ |
| 32D79 | 116 | HX1,LL,RR2 | 32D78 | YFC,HTF | ● | ▼ | ● | ▼ |
| 32D77* | 116 | RR2 | 32D78 | YFC,HTF | ● | ▼ | ● | ▼ |
| P1707HR* | 117 | HX1,LL,RR2 | P1707 | HTF | ● | ● | ● | ● |
| 32N73^ | 117 | HXX,LL,RR2 | 32N73 | HAE | ● | ▼ | ● | ● |
| 32B10 | 117 | | 32B10 | WH,HAE,HTF | ● | ● | ▼ | ● |
| 32B12 | 117 | HX1,LL,RR2 | 32B10 | WH,HAE,HTF | ● | ● | ▼ | ● |
| 32B11 | 117 | HX1,LL | 32B10 | WH,HAE,HTF | ● | ● | ▼ | ● |
| 32B09 | 117 | RR2 | 32B10 | WH,HAE,HTF | ● | ● | ▼ | ● |
| 31P41 | 119 | | 31P41 | YFC,HAE,HTF | ● | ● | ● | ● |
| 31P44^ | 119 | HXX,LL,RR2 | 31P41 | YFC,HAE,HTF | ● | ● | ● | ● |
| 31P42 | 119 | HX1,LL,RR2 | 31P41 | YFC,HAE,HTF | ● | ● | ● | ● |
| 31P40 | 119 | RR2 | 31P41 | YFC,HAE,HTF | ● | ● | ● | ● |
| 31N27 | 119 | | 31N27 | YFC | ▼ | ▼ | ▼ | ● |
| 31G70^ | 119 | HXX,LL,RR2 | 31G66 | YFC,HTF | ● | ▼ | ▼ | ● |
| 31D58 | 120 | | 31D58 | YFC,HAE,HTF | ● | ● | ● | ● |
| 31D59 | 120 | HX1,LL,RR2 | 31D58 | YFC,HAE,HTF | ● | ● | ● | ● |

* **NEW** for 2010.

^ EXPORT APPROVAL NOTICE

Although fully approved in the United States, Canada and Japan, grain and certain grain by-products from THESE HYBRIDS MAY NOT BE APPROVED for all markets. Pioneer customers are advised to discuss trait acceptance policies with their local grain handler prior to delivering grain containing biotech traits.

● **Adequate Tolerance.** Available research and field observations suggest this herbicide-seed product combination is unlikely to result in crop injury.

▼ **Requires Careful Management.** This herbicide-seed product combination may exhibit crop injury in challenging environments such as heavy rainfall during seed germination or seedling emergence, sandy soils, soils low in organic matter, high pH soils, or during periods of excessively cold, hot, dry or wet weather. University research indicates products within a herbicide class may vary in their degree of crop selectivity. The potential for seed product-herbicide interaction may also be impacted by the labeled herbicide rate used and the method or timing of application. For Benzoic Acid and Phenoxy herbicides, these hybrids may exhibit greater early season stalk breakage when applied prior to a significant windstorm.

■ **Crop Response Warning.** In field observations and research, crop injury has occurred with this herbicide-seed product combination.

□ **Insufficient Data.** Additional testing is needed to evaluate this herbicide-seed product combination.

Always read and follow all label instructions and precautions.

Pioneer makes no warranty regarding the herbicide crop response information in this guide.

● Adequate Tolerance ▼ Requires Careful Management ■ Crop Response Warning □ Insufficient Data

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¹ Comparative Relative Maturity

² **TECHNOLOGY SEGMENT: HX1** – The Herculex® I insect protection trait offers a high level of resistance to European corn borer, southwestern corn borer and fall armyworm; very good resistance to black cutworm and western bean cutworm; and moderate resistance to corn earworm. **HXRW** – Contains the Herculex® RW gene for protection against Northern, Western 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. **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. **LL** – Contains the LibertyLink® gene for resistance to Ignite® herbicide.



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³ **HYBRID FAMILY:** Hybrid family identifies hybrids that have the same base genetics. Manage hybrids within the same family similarly.

⁴ **Pioneer IndustrySelect® Products for END-USE SEGMENT:** Designations indicate hybrid is also suitable for the following end uses: **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.

⁵ **Amide** (Chloroacetamide and Others) tested was Harness. This family also includes Surpass, Dual II Magnum, Outlook, Define, Lasso, TopNotch, Degree, Ramrod, DuPont™ Cinch® and others in pre-packaged mixes.

⁶ **Benzoic Acid** (Synthetic Auxins) tested was Banvel or Clarity. The Phenoxy family includes 2,4-D. The rating represents these products and others in pre-packaged mixes. Hybrids may exhibit greater early-season stalk breakage when Benzoic Acid or Phenoxy herbicides are applied prior to a significant windstorm.

⁷ **Isoxazole** (4-HPPD Inhibitors) tested was Balance Pro. The herbicide prevents the biosynthesis of a photosynthetic pigment (carotenoid). The carotenoid pigment prevents the degradation of chlorophyll. Susceptible plant will turn white and chlorotic.

⁸ **SU** (sulfonylureas, ALS Inhibitors) tested was DuPont™ Basis Gold®, DuPont™ Resolve® or DuPont™ Steadfast®. This family also includes DuPont™ Accent®, DuPont™ Basis®, Beacon, Permit, Elim, Option and others in pre-packaged mixes. A similar family called sulfonanilides includes Python. CAUTION: Some sulfonylurea products have label restrictions on hybrids with maturity shorter than 88 CRM. Review the herbicide label before applying any sulfonylurea product to hybrids less than 88 CRM.

Ratings in this guide based on data collected through 2009 harvest.

Basis Gold® is a restricted-use pesticide.

All herbicides are trademarks of their respective manufacturers.

**References: (1) 2007 Iowa State University Herbicide Manual for Ag Professionals, Extension Publication WC-92, B. Hartzler & M. Owen; (2) Weed Control Guide for Ohio Field Crops 2007 Edition, Bulletin 789, The Ohio State University Extension, M. M. Loux and J. M. Stachler; (3) 2007 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland, Bulletin 977, Kansas State University, Agricultural Experiment Station & Cooperative Extension Service, D. L. Regher, D. E. Peterson, W. H. Fick, P. W. Stahlman, & R. E. Wolf.

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