



## 2019 Herbicide x Variety Guide

The purpose of this guide is to assist you in managing herbicide programs with Pioneer® brand soybeans. Pioneer uses molecular markers, lab, and/or field testing to evaluate soybean variety tolerance to several herbicides.

- Research has shown good correlation between molecular markers and varietal response to **preplant or pre-emergence applications** of the PPO herbicides sulfentrazone and saflufenacil, but low correlation with response to the PPO herbicide flumioxazin (e.g. Afforia, Enlite, Envive, Trivence, Surveil, and Valor) when the herbicides are used at normal field rates.
- Research has also shown good correlation between lab assays and field tolerance to preplant and preemergence applications of metribuzin.
- Research has also shown good correlation between molecular markers and tolerance to preplant or preemergence applications of rimsulfuron.

**Please note that these ratings are not correlated with tolerance to exposure or application of these herbicides after soybean emergence.** Metribuzin, rimsulfuron, and all PPO herbicides can injure soybeans when applied after emergence. Crop injury can also occur when metribuzin or PPO-treated soils are splashed onto soybean stems, cotyledons, or foliage.

Challenging environments such as heavy rainfall during seed germination or seedling emergence; sandy soils, soils low in organic matter or high pH soils; or during periods of excessively cold, hot, dry or wet weather can result in higher herbicide activity or reduced crop tolerance. In such cases, crop injury may occur on varieties rated as having acceptable tolerance to the herbicide. University research indicates herbicides within an herbicide class may vary in their degree of crop selectivity. The potential for herbicide injury may also be impacted by the labeled herbicide rate used and the method or timing of application.

Herbicides that contain **Sulfentrazone and Saflufenacil** include Spartan brands, Authority brands, Sonic, Optill, Optill PRO, Sharpen, and Verdict. **Always read and follow herbicide label directions.**

Herbicides that contain **Metribuzin** include DuPont™ Canopy® Blend herbicide, DuPont™ Trivence® herbicide, Sencor, Axiom, Boundary, Domain, and Authority MTZ. **Always read and follow herbicide label directions.**

### The following herbicide sensitivity ratings are for sulfentrazone, saflufenacil, and metribuzin:

- **Adequate Tolerance.** Available research and/or field observations suggest this herbicide is unlikely to result in material crop injury to this particular variety under normal circumstances.
- ▼ **Requires Careful Management.** Available research and/or field observations suggest this herbicide may exhibit crop injury to this particular variety in challenging environments.
- **Response Warning.** Available research and/or field observations suggest this herbicide has a high potential for crop injury to this variety.
- **Insufficient Data.** Additional testing is needed to evaluate this variety.

Herbicides that contain **Rimsulfuron** include DuPont™ LeadOff® and Basis® Blend. **Always read and follow herbicide label directions.**

### The following herbicide sensitivity ratings are for rimsulfuron:

- ++++ **Varieties with BOLT™ technology.** Growers may apply DuPont™ LeadOff® or Basis® Blend herbicides 0 days or more prior to planting this particular variety.
- +++ **Varieties with the DuPont™ STS® gene.** This particular variety has a shorter plant-back interval for DuPont™ LeadOff® and Basis® Blend herbicides. See product labels for details on plant-back intervals.
- ++ **High degree of rimsulfuron tolerance.** Available research and/or field observations suggest these herbicides are unlikely to result in material crop injury to this particular variety under normal circumstances. See product labels for details on plant-back intervals.
- + **Low degree of rimsulfuron tolerance.** Available research and/or field observations suggest these herbicides have a high potential for crop injury to this particular variety. Do not plant this particular variety into rimsulfuron-treated fields within 10 months of application if soil is excessively cold or wet or if soil pH exceeds 6.5. Soil temperature should be >50 °F and trending warmer. See product labels for details on plant-back intervals.
- **Insufficient Data.** Additional testing is needed to evaluate this variety.



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Pioneer makes no warranty regarding the herbicide crop response information in this guide. Other varieties may be added when data become available.

			Herbicide Sensitivity Ratings		
Variety/Brand**	Relative Maturity <sup>1</sup>	Technology Segment <sup>2</sup>	Sulfentrazone and Saflufenacil	Metribuzin	Rimsulfuron
P0007A43R	0007	R	●	▼	++
P0007A65R	0007	R	●	▼	++
<b>P0007A73X*</b>	<b>0007</b>	<b>RR2X</b>	●	▼	++
<b>P000A52R*</b>	<b>000</b>	<b>R</b>	●	●	++
P000A87R	000	R	●	●	++
<b>P001A48X*</b>	<b>001</b>	<b>RR2X</b>	●	▼	++
P002A19X	002	RR2X	●	●	++
P002A63R	002	R	●	▼	++
<b>P003A97X*</b>	<b>003</b>	<b>RR2X</b>	●	●	++
P005A27X	005	RR2X	●	▼	++
<b>P005A83X*</b>	<b>005</b>	<b>RR2X</b>	●	●	++
P006A37X	006	RR2X	●	●	++
P006T46R	006	R	●	●	++
P006T78R	006	R	●	●	++
<b>P007A08X*</b>	<b>007</b>	<b>RR2X</b>	●	●	++
P007A90R	007	R	●	▼	++
P008T22R2	008	RR2Y	■	●	+
P00A49X	00	RR2X	●	●	++
<b>P00A75X*</b>	<b>00</b>	<b>RR2X</b>	●	●	++
P01A84X	01	RR2X	●	●	++
P02A33X	02	RR2X	●	●	++
P02T97L™ brand	02	LL	●	●	++
P03A17X	02	RR2X	●	●	++
<b>P03A26X*</b>	<b>03</b>	<b>RR2X</b>	●	▼	++
P03T68R2	03	RR2Y	●	▼	++
P04A60R	04	R	●	▼	++
P04A77X	04	RR2X	●	▼	++
<b>P05A35X*</b>	<b>05</b>	<b>RR2X</b>	●	●	++
P05A93X	05	RR2X	●	●	++
P05T80	05	-	□	●	
P06A13R	06	R	●	●	++
P06A45X	06	RR2X	●	▼	++
P06A51X	06	RR2X	●	●	++
P06T28R	06	R	●	●	++
P09T15L™ brand	07	LL	●	▼	++
P08A72X	08	RR2X	●	●	++
P08T96R	08	R	●	▼	++
P09A53X	09	RR2X	●	●	++
P09A62X	09	RR2X	●	▼	++
P09T62L™ brand	09	LL	■	●	+



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Variety/Brand**	Relative Maturity <sup>1</sup>	Technology Segment <sup>2</sup>	Sulfentrazone and Saflufenacil	Metribuzin	Rimsulfuron
P09T74R2	09	RR2Y	●	●	++
P10A76X	10	RR2X	●	●	++
P10T48R	10	R	●	▼	++
91M10	11	-	●	▼	++
P11A10	11	-	■	▼	+
<b>P11A44X*</b>	<b>11</b>	<b>RR2X</b>	●	●	++
P11A67	11	-	□	□	
P11T22R2	11	RR2Y	●	▼	++
P12A59X	12	RR2X	●	●	++
P13T06L™ brand	13	LL	●	●	++
P14A23L	14	LL	●	●	++
<b>P14A30X*</b>	<b>14</b>	<b>RR2X</b>	●	●	++
P14A92X	14	RR2X	●	●	++
P14T70R2	14	RR2Y	●	■	++
P16T75L™ brand	14	LL	●	●	++
<b>P15A09X*</b>	<b>15</b>	<b>RR2X</b>	■	▼	+
P15A63X	15	RR2X	●	●	++
<b>P15A88X*</b>	<b>15</b>	<b>RR2X</b>	●	●	++
P15T46R2	15	RR2Y	●	●	++
P16A13X	16	RR2X	●	●	++
P16A49X	16	RR2X	●	●	++
<b>P17A21L*</b>	<b>17</b>	<b>LL</b>	●	●	++
P17A42X	17	RR2X	●	●	++
P18A98X	18	RR2X	●	●	++
P18T26R2	18	RR2Y	●	●	++
P19A14X	19	RR2X	●	●	++
P19T01R	19	R	●	▼	++
P19T39R2	19	RR2Y	●	▼	++
P20T53PR	20	Plenish,R	●	●	++
P20T79R2	20	RR2Y	●	●	++
P21A20	21	-	●	▼	++
P21A28X	21	RR2X	●	●	++
<b>P21A47PR*</b>	<b>21</b>	<b>Plenish,R</b>	●	●	++
P21A81L	21	LL	●	●	++
P22A36PR	22	Plenish,R	●	●	++
P22T10L™ brand	22	LL	●	●	++
P22T24X	22	RR2X	●	■	++
P22T41R2	22	RR2Y	■	▼	+
P22T69R	22	R	●	●	++
P22T73R	22	R	●	●	++
P23A15X	23	RR2X	●	●	++
P23A32X	23	RR2X	●	●	++



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Variety/Brand**	Relative Maturity <sup>1</sup>	Technology Segment <sup>2</sup>	Sulfentrazone and Saflufenacil	Metribuzin	Rimsulfuron
P24A80X	24	RR2X	●	●	++
P24A99X	24	RR2X	●	●	++
P24T05R	24	R	●	●	++
<b>P25A04X*</b>	<b>25</b>	<b>RR2X</b>	●	●	++
P25A27X	25	RR2X	●	●	++
P25A54X	25	RR2X	●	▼	++
P25A65R	25	R	●	▼	++
P25A70R	25	R	●	●	++
P25A82L	25	LL	●	●	++
P25A90PR	25	Plenish,R	●	●	++
<b>P25A96L*</b>	<b>25</b>	<b>LL</b>	●	●	++
P25T01S™ brand	25	STS	□	●	+++
P26A61X	26	RR2X	●	●	++
P26T07L™ brand	26	LL	●	●	++
P27A17X	27	RR2X	●	●	++
<b>P27A30X*</b>	<b>27</b>	<b>RR2X</b>	●	●	++
P27T03R	27	R	●	●	++
P27T47R	27	R	●	●	++
P27T59R	27	R	●	●	++
P27T91PR	27	Plenish,R	●	●	++
<b>P28A94X*</b>	<b>28</b>	<b>RR2X</b>	●	●	++
P28A74PR	28	Plenish,R	●	●	++
P28A94X	28	RR2X	●	●	++
P28T08R	28	R	●	●	++
P28T62R	28	R	●	●	++
P28T71X	28	RR2X	●	●	++
P28A42X	28	RR2X	●	●	++
P29A25X	29	RR2X	●	●	++
P29A85L	29	LL	●	●	++
P29T40PR	29	Plenish,R	●	●	++
P29T50	29	-	●	▼	++
93Y05	30	R	●	●	++
P30A46PR	30	Plenish,R	●	●	++
P31A06L	31	LL	●	●	++
P31A22X	31	RR2X	●	●	++
<b>P31A29L*</b>	<b>31</b>	<b>LL</b>	●	●	++
<b>P31A95BX*</b>	<b>31</b>	<b>Bolt,RR2X</b>	●	●	++++
P31T02L	31	LL	■	■	+
P31T11R	31	R	●	●	++
P31T77R	31	R	●	●	++
<b>P32A71X*</b>	<b>32</b>	<b>RR2X</b>	●	●	++
<b>P32A87L*</b>	<b>32</b>	<b>LL</b>	●	●	++



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Variety/Brand**	Relative Maturity <sup>1</sup>	Technology Segment <sup>2</sup>	Sulfentrazone and Saflufenacil	Metribuzin	Rimsulfuron
P33A24X	33	RR2X	●	●	++
P33A53X	33	RR2X	■	●	+
P33A81PR	33	Plenish,R	●	●	++
P33T19X	33	RR2X	■	■	+
P33T34PR	33	Plenish,R	●	●	++
P33T60	33	-	●	●	++
P33T72R	33	R	●	●	++
93Y41	34	-	●	●	++
P34A13X	34	RR2X	■	●	+
<b>P34A50*</b>	<b>34</b>	-	●	●	++
<b>P34A59PR*</b>	<b>34</b>	<b>Plenish,R</b>	●	●	++
<b>P34A79X*</b>	<b>34</b>	<b>RR2X</b>	■	●	+
P34T04LS™ brand	34	LL,STS	●	▼	+++
P34T07R2	34	RR2Y	■	●	+
P35A33X	35	RR2X	■	●	+
P35A41	35	-	●	▼	++
P35A91BX	35	Bolt,RR2X	●	●	++++
P35T58R	35	R	●	■	++
P35T75X	35	RR2X	■	▼	+
P36A18X	36	RR2X	●	●	++
<b>P36A83X*</b>	<b>36</b>	<b>RR2X</b>	●	▼	++
P36T36X	36	RR2X	■	▼	+
P36T86R	36	R	●	●	++
P37A27X	37	RR2X	■	●	+
P37A56L	37	LL	●	●	++
<b>P37A63L*</b>	<b>37</b>	<b>LL</b>	●	●	++
P37A69X	37	RR2X	●	●	++
P37A78X	37	RR2X	●	●	++
P37T09L™ brand	37	LL	■	●	+
P37T32X	37	RR2X	■	■	+
P37T51PR	37	Plenish,R	●	●	++
P38A10	38	-	●	▼	++
<b>P38A49L*</b>	<b>38</b>	<b>LL</b>	●	●	++
P38A98X	38	RR2X	■	▼	+
P38T20X	38	RR2X	■	▼	+
P38T42R	38	R	●	●	++
<b>P39A58X*</b>	<b>39</b>	<b>RR2X</b>	■	●	+
P39A82S™ brand	39	STS	■	▼	+++
P39T28X	39	RR2X	■	●	+
P39T67R	39	R	●	▼	++
P40A03L	40	LL	●	▼	++
P40A40	40	-	●	●	++



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Variety/Brand**	Relative Maturity <sup>1</sup>	Technology Segment <sup>2</sup>	Sulfentrazone and Saflufenacil	Metribuzin	Rimsulfuron
P40A47X	40	RR2X	■	▼	+
P40T84X	40	RR2X	■	▼	+
P41T65PR	41	Plenish,R	■	●	+
P41T79L™ brand	41	LL	■	●	+
P42A52X	42	RR2X	●	▼	++
P42A96X	42	RR2X	■	▼	+
P42T71PR	42	Plenish,R	●	●	++
P43A42X	43	RR2X	■	●	+
P43A68SX	43	STS,RR2X	■	▼	+++
P44A08L	44	LL	●	●	++
P44A37L	44	LL	■	●	+
P44A72BX	44	Bolt,RR2X	●	●	++++
P44T63R	44	R	●	▼	++
<b>P45A02X*</b>	<b>45</b>	<b>RR2X</b>	●	●	++
P45A19X	45	RR2X	●	●	++
P45A23X	45	RR2X	●	●	++
P45A29L	45	LL	■	▼	+
<b>P45T25LS™ brand*</b>	<b>45</b>	<b>LL,STS</b>	□	▼	+++
P46A16R	46	R	●	●	++
P46A45PR	46	Plenish,R	●	●	++
P46A57BX	46	Bolt,RR2X	●	●	++++
<b>P46A70L*</b>	<b>46</b>	<b>LL</b>	●	▼	++
<b>P46A86X*</b>	<b>46</b>	<b>RR2X</b>	●	●	++
P46A93X	46	RR2X	●	▼	++
<b>P47A12L*</b>	<b>47</b>	<b>LL</b>	●	●	++
P47A76L	47	LL	●	▼	++
P47A81SX	47	STS,RR2X	■	●	+++
P47T36R	47	R	●	■	++
P47T44X	47	RR2X	■	●	+
P47T89R	47	R	●	▼	++
P48A32X	48	RR2X	●	●	++
P48A60X	48	RR2X	■	▼	+
<b>P48A94PR*</b>	<b>48</b>	<b>Plenish,R</b>	●	●	++
P48A99L	48	LL	●	●	++
P48T53R	48	R	●	■	++
<b>P49A10S*</b>	<b>49</b>	<b>STS</b>	■	●	+++
P49A34X	49	RR2X	●	▼	++
<b>P49A41L*</b>	<b>49</b>	<b>LL</b>	●	●	++
P49T09BR	49	Bolt,R	■	●	++++
P50A78L	50	LL	●	▼	++
P50A85X	50	RR2X	■	▼	+
P50T15BR	50	Bolt,RR	■	●	++++



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Variety/Brand**	Relative Maturity <sup>1</sup>	Technology Segment <sup>2</sup>	Sulfentrazone and Saflufenacil	Metribuzin	Rimsulfuron
<b>P50T18LS™ brand*</b>	<b>50</b>	<b>LL,STS</b>	■	●	+++
P51A61X	51	RR2X	●	●	++
<b>P52A05X*</b>	<b>52</b>	<b>RR2X</b>	■	●	+
P52A26R	52	R	●	●	++
P52A43L	52	LL	■	▼	+
P52T50R	52	R	●	▼	++
<b>P53A67X*</b>	<b>53</b>	<b>RR2X</b>	●	▼	++
P53T73SR	53	STS,R	■	●	+++
P54A54X	54	RR2X	●	●	++
P54A75X	54	RR2X	●	▼	++
P55A49X	55	RR2X	●	●	++
P55T81R	55	R	■	●	+
95Y70	57	STS,R	■	▼	+++
95M82	58	R	●	▼	++
P60T95X	60	RR2X	■	■	+
P63A47X	63	RR2X	●	●	++
<b>P67A16X*</b>	<b>67</b>	<b>RR2X</b>	●	●	++
P67T90R2	67	RR2Y	■	●	+
P72A21X	72	RR2X	●	▼	++
P76T54R2	76	RR2Y	■	●	+

\*NEW product.

† New Product. Not Available for sale until 2020 orders and invoicing are available. Quantities may be limited.

\*\* All Pioneer products are varieties unless designated with LL, in which case some are brands.

**1 RELATIVE MATURITY:** Shows the relative maturity group rating, with the first digit representing the general maturity group, and the second digit showing relative maturity within the group on a scale of 0 to 9, with 0 early and 9 late. For example, a soybean product with a relative maturity rating of 17 would be a mid-late product in Group 1 maturity.

### 2 TECHNOLOGY SEGMENT:



Always follow stewardship practices in accordance with the Product Use Guide (PUG) or other product-specific stewardship requirements including grain marketing and pesticide label directions. **Varieties with BOLT™ technology** provide excellent plant-back flexibility for soybeans following application of SU (sulfonylurea) herbicides such as DuPont™ LeadOff® or DuPont™ Basis® Blend as a component of a burndown program or for double-crop soybeans following SU herbicides such as DuPont™ Finesse® applied to wheat the previous fall.

## Glyphosate Tolerant

Always follow grain marketing, stewardship practices and pesticide label directions. **Varieties with the Glyphosate Tolerant trait** (including those designated by the letter "R" in the product number) contain genes that confer tolerance to glyphosate herbicides. Glyphosate herbicides will kill crops that are not tolerant to glyphosate.





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Always follow grain marketing, stewardship practices and pesticide label directions. **Varieties with the Genuity® Roundup Ready 2 Yield® (RR2Y) trait** contain genes that confer tolerance to glyphosate, the active ingredient in Roundup® brand agricultural herbicides. Roundup® brand agricultural herbicides will kill crops that are not tolerant to glyphosate. Genuity®, Roundup® and Roundup Ready 2 Yield® are registered trademarks of Monsanto Technology LLC used under license. Individual results may vary, and performance may vary from location to location and from year to year. This result may not be an indicator of results you may obtain as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible.

**DuPont™  
STS®**

herbicide tolerant gene

**Varieties with the DuPont™ STS® gene (STS)** are tolerant to certain SU (sulfonyleurea) herbicides. This technology allows post-emergent applications of DuPont™ Synchrony® XP and DuPont™ Classic® herbicides without crop injury or stress (see herbicide product labels). NOTE: A soybean variety with a herbicide tolerant trait does not confer tolerance to all herbicides. Spraying herbicides not labeled for a specific soybean variety will result in severe plant injury or plant death. Always read and follow herbicide label directions and precautions for use.

**LIBERTY  
LINK®**

**Varieties with the LibertyLink® gene (LL)** are resistant to Liberty® herbicide.

Liberty®, LibertyLink® and the Water Droplet Design are trademarks of Bayer.

**ROUNDUP READY 2  
XTEND®  
SOYBEANS**

**DO NOT APPLY DICAMBA HERBICIDE IN-CROP TO SOYBEANS WITH Roundup Ready 2 Xtend® technology unless you use a dicamba herbicide product that is specifically labeled for that use in the location where you intend to make the application. IT IS A VIOLATION OF FEDERAL AND STATE LAW TO MAKE AN IN-CROP APPLICATION OF ANY DICAMBA HERBICIDE PRODUCT ON SOYBEANS WITH Roundup Ready 2 Xtend® technology, OR ANY OTHER PESTICIDE APPLICATION, UNLESS THE PRODUCT LABELING SPECIFICALLY AUTHORIZES THE USE. Contact the U.S. EPA and your state pesticide regulatory agency with any questions about the approval status of dicamba herbicide products for in-crop use with soybeans with Roundup Ready 2 Xtend® technology.**

**ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS.** Soybeans with Roundup Ready 2 Xtend® technology contain genes that confer tolerance to glyphosate and dicamba. Glyphosate herbicides will kill crops that are not tolerant to glyphosate. Dicamba will kill crops that are not tolerant to dicamba.

Roundup Ready 2 Xtend® is a registered trademark of Monsanto Technology LLC used under license.

**plenish™**  
High Oleic Soybean Oil

**Plenish/P** = Plenish® high oleic soybeans for contract production only. Plenish® high oleic soybeans have an enhanced oil profile and are produced and channeled under contract to specific grain markets. Growers should refer to the Pioneer Product Use Guide on [www.pioneer.com/stewardship](http://www.pioneer.com/stewardship) for more information.

(-) = Variety does not contain a herbicide resistant gene.

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