



# Asgrow® Soybeans

## AG23X8 Brand

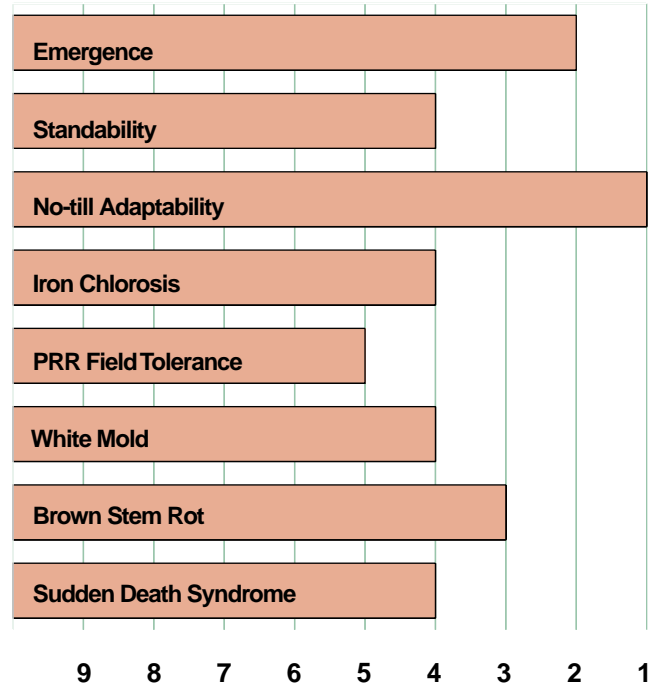


**NEW** AG23X8 Brand **EARLY II**

Asgrow® AG23X8 brand is an early group II soybean with the Roundup Ready 2 Xtend® herbicide tolerance trait. Defensively, AG23X8 offers resistance to SCN and Phytophthora rot, as well as tolerance to sudden death syndrome and brown stem rot.

### Product Brand Characteristics

Category	Characteristic	Value
MANAGEMENT	Maturity Group	2
	Relative Maturity	2.3
	Herbicide Tolerant Trait	RR2X
P L A N T DESCRIPTION	Canopy	MB
	Growth Habit	I
	Flower Color	P
	Pubescence Color	G
	Hilum Color	IB
	Pod Wall Color	BR
	Plant Height Category	MT
	Protein Content @ 13%	35.3
	Oil Content @ 13%	18.0
	PRODUCTION	Emergence
Standability		4
No-till Adaptability		1
Iron Chlorosis		4
DISEASES/INSECTS	Soybean Cyst Nematode	R3
	PRR Resistance	Rps1 <sup>c</sup>
	PRR Field Tolerance	5
	White Mold	4
	Brown Stem Rot	3
	Sudden Death Syndrome	4
	Southern Stem Canker	-
	Frogeye Leaf Spot	-
	Aerial Blight	-
	Southern Root Knot ( <i>M. incognita</i> )	-
SENSITIVITY	Chloride Sensitivity	Inc.



### Key Strengths

- Medium-tall to tall plant with quick canopy
- Rps1<sup>c</sup> gene for Phytophthora rot resistance
- Tolerance to sudden death syndrome

### Management Tips

- Agronomic package offers flexibility across tillage practices and row spacings
- Average to slightly below average tolerance to white mold; avoid fields with a history of severe disease pressure

Patented germplasm is licensed only to grow a single commercial crop of harvested material for use or sale for food, feed, processing or fiber. No license is granted for subsequent generations of seed or plants for any purpose.

Based on Asgrow conducted trials. Relative to other Asgrow brand products. Rating Scale: 1=Excellent, 9=Poor. Tolerance ratings refer to PRR races not covered by specific PRR resistant genes.

• As of this printing no dicamba herbicide product has been approved for commercial in-crop use with Roundup Ready 2 Xtend® soybeans.  
 • **DO NOT APPLY DICAMBA HERBICIDE IN-CROP TO Roundup Ready 2 Xtend® Soybeans IN 2016 unless you use a dicamba herbicide product that is specifically labeled for that use in the location where you intend to make the application.**

## Asgrow Brand Soybean Legend

### Rating Scale:

1-2 = Excellent      3-4 = Very Good  
 5-6 = Good          7-8 = Fair  
 9 = Poor              N/A = Not Available

A rating of "1" in standability is a soybean product with excellent standability. A rating of "1" in brown stem rot is a product with excellent tolerance to brown stem rot.

### Soybean Cyst Nematode

R = Resistance  
 MR = Moderate Resistance  
 MR/MS = Moderate Resistance to Moderately Susceptible  
 S = Susceptible  
 # = Race 1, 3, 5, 9 or 14

A recent publication suggests that soybean cyst nematode populations should be described by a different method called HG type, instead of races. The Race 3 population used in our evaluations would be equivalent to "HG Type 0" and the Race 14 population would be equivalent to "HG Type 1.3" under the direction of the paper.

### White Mold

White mold, caused by *Sclerotinia sclerotiorum*, is a soybean disease for which there is currently no known form of complete genetic resistance. Scores represent relative levels of tolerance to the disease, as outlined below.

<4 = Very Good  
 4 = Good  
 5 = Above Average  
 6 = Average  
 7 = Below Average  
 >7 = Poor

### Canopy

Th = Thin  
 M = Medium  
 MB = Medium Bushy  
 B = Bushy

### Phytophthora Gene Specific Resistance

Susc. = Susceptible  
 Rps1<sup>R</sup> denotes resistance to Races 1, 2, 10, 11, 13-18, 24, 26, 27, 31, 32 & 36.  
 Rps1<sup>F</sup> denotes resistance to Races 1-3, 6-11, 13, 15, 17, 21, 23, 24, 26, 28-30, 32, 34 & 36.  
 Rps1<sup>K</sup> denotes resistance to Races 1-11, 13-15, 17, 18, 21-24, 26, 36 & 37.  
 Rps2 denotes resistance to Races 1-5, 9-29, 33, 34, 36-39. Rps3<sup>R</sup> denotes resistance to Races 1-5, 8, 9, 11, 13, 14, 16, 18, 23, 25, 28, 29 & 31-35.  
 Rps6 denotes resistance to Races 1-4, 10, 12, 14-16, 18-21 & 25.  
 Rps7 denotes resistance to Races 2, 12, 16, 18, 19, 33, 35 & 36.

### Phytophthora Field Tolerance

Phytophthora field tolerance is a form of partial genetic resistance whereby the plant can maintain some level of productivity while infected with the pathogen. Phytophthora field tolerance scores represent relative responses to the following races of Phytophthora sojae.

Reaction to Phytophthora sojae Race 25 for products with Rps1<sup>R</sup>, Rps1<sup>F</sup>, Rps1<sup>K</sup> and Rps7.

Reaction to Phytophthora sojae Race 17 and/or Race 30 for products with Rps2, Rps3<sup>R</sup> and Rps6.

Phytophthora field tolerance scores indicate the following levels of tolerance:

<4 = Very Good  
 4 = Good  
 5 = Above Average  
 6 = Average  
 7 = Below Average  
 >7 = Poor

### Pubescence

G = Gray  
 T = Tawny  
 LT = Light Tawny

### Flower Color

P = Purple  
 W = White

### Traits

CONV = Conventional  
 GENRR2Y=Genuity<sup>®</sup> Roundup Ready 2 Yield<sup>®</sup>  
 RR2X = Roundup Ready 2 Xtend<sup>™</sup>  
 SR = Sulfonyleurea Ready (Sulfonyleurea-based Herbicide Tolerance)  
 VG = Vistive<sup>®</sup> Gold

### Chloride Sensitivity

Inc. = Includer  
 Exc. = Excluder

Excluder products have increased tolerance to elevated soil chloride levels compared to includers. Excluder products partition chloride in root systems and reduce the amount transported to more sensitive above-ground tissue.

### Southern Root Knot

R = Resistant  
 MR = Moderately Resistant  
 MS = Moderately Susceptible  
 S = Susceptible

### Hilum Color

BL = Black  
 G = Gray  
 IB = Imperfect Black  
 IY = Imperfect Yellow  
 BR = Brown  
 BF = Buff  
 Y = Yellow  
 M = Mix

### Pod Wall Color

BR = Brown  
 TN = Tan

As of this printing no dicamba herbicide product has been approved for commercial in-crop use with Roundup Ready 2 Xtend<sup>™</sup> soybeans. **DO NOT APPLY DICAMBA HERBICIDE IN-CROP TO Roundup Ready 2 Xtend<sup>™</sup> soybeans IN 2016 unless you use a dicamba herbicide product that is specifically labeled for that use in the location where you intend to make the application. While no in-crop use of dicamba is currently approved, some dicamba products may be labeled for weed control prior to planting a crop and subject to minimum plant back restrictions. IT IS A VIOLATION OF FEDERAL AND STATE LAW TO MAKE AN IN-CROP APPLICATION OF ANY DICAMBA HERBICIDE PRODUCT ON Roundup Ready 2 Xtend Soybeans, OR ANY OTHER PESTICIDE APPLICATION, UNLESS THE PRODUCT LABELING SPECIFICALLY AUTHORIZES THAT 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 Roundup Ready 2 Xtend<sup>™</sup> Soybeans and follow all pesticide product labeling.**

Roundup Ready 2 Xtend<sup>™</sup> soybeans has been approved for cultivation in the U.S. and Canada, and for import in Australia/New Zealand, Colombia, China, Japan, Korea, Mexico, Taiwan, and Vietnam. The single events in this product have been approved for import in the EU. As of February 2, 2016, E.U. stack approval is in the final stage of approval and is expected but not guaranteed to be received in the near future. Growers should refer to <http://www.biotradestatus.com/> for any updated information on import country approvals.

**Roundup Ready 2 Xtend<sup>™</sup> soybeans contains 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. Contact your Monsanto dealer or refer to Monsanto's Technology Use Guide for recommended Roundup Ready<sup>®</sup> Xtend Crop System weed control programs.

At this time, Vistive<sup>®</sup> Gold soybeans have received full approval for planting in the United States but have not yet received import approval in certain export markets. While certain export approvals are pending, Vistive<sup>®</sup> Gold soybeans will be available in limited geographies only to growers who have signed a 2016 Vistive<sup>®</sup> Gold Soybean Grain Production Grower Agreement and agree to follow the stewardship requirements. Upon receipt of appropriate approvals, Monsanto will inform growers and determine whether the stewardship requirements will need to remain in place.

**Monsanto Company is a member of Excellence Through Stewardship<sup>®</sup> (ETS).** Monsanto products are commercialized in accordance with ETS Product Launch Stewardship Guidance, and in compliance with Monsanto's Policy for Commercialization of Biotechnology-

Derived Plant Products in Commodity Crops. Certain products have been approved for import into key export markets with functioning regulatory systems. Any crop or material produced from this product can only be exported to, or used, processed or sold in countries where all necessary regulatory approvals have been granted. It is a violation of national and international law to move material containing biotech traits across boundaries into nations where import is not permitted. Growers should talk to their grain handler or product purchaser to confirm their buying position for this product. Excellence Through Stewardship<sup>®</sup> is a registered trademark of Biotechnology Industry Organization.

**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.

For more information regarding the intellectual property protection for the seed products identified in this publication, please see [www.asgrowanddekalb.com](http://www.asgrowanddekalb.com).

**ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS.** Roundup Ready technology contains genes that confer tolerance to glyphosate, an active ingredient in Roundup<sup>®</sup> brand agricultural herbicides. Agricultural herbicides containing glyphosate will kill crops that are not tolerant to glyphosate. Genuity Design<sup>®</sup>, Genuity<sup>®</sup>, Roundup Ready 2 Xtend<sup>™</sup>, Roundup Ready 2 Yield<sup>®</sup>, Roundup Ready<sup>®</sup>, Roundup<sup>®</sup>, SR and Design<sup>®</sup>, Vistive and Design<sup>®</sup> and Vistive<sup>®</sup> are trademarks of Monsanto Technology LLC. All other trademarks are the property of their respective owners.

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The purchase/bailment/transfer of these seeds conveys no license under said patents to use these seeds or perform any of the methods covered by these patents. A license must first be obtained before these seeds can be used in any way. See your seed dealer to sign a Monsanto Technology/Stewardship Agreement ("MTSA"). Progeny of these seeds cannot be cleaned or used as planting seed or transferred to others for planting. These seeds may only be offered for sale and distribution by authorized seed companies or their dealers. Before opening a bag of seed, be sure you read, understand and accept the stewardship requirements for the biotechnology traits expressed in the seed as set forth in the Monsanto Technology/Stewardship Agreement that you signed. By opening and using the bag of seed, you are reaffirming your obligation to comply with the most recent stewardship requirements.

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