



Soybeans



2012 Operation Level Product Summary

Prepared By: Triple D Seed

Characteristics, Disease and Suitability Ratings*

PIONEER® BRAND PRODUCTS			RM	Field Emergence	Harvest Standability	Canopy Width	Plant Height for Maturity	Aphid Antibiosis	Brown Stem Rot	Iron Def. Chlorosis	Hila Color	Phytoph. Resist. Gene	Phytoph. Field Tol.	Seed Size Range	Sudden Death Syndrome	Shattering	Drought-Prone Soils	Early Planting/ Cold Soils	Wide Rows: Greater than 30 in.	Total Units
93Y05	RR/SCN		30	8	8	6	5	A	2	5	BL	1k	5	2500-3000	6	9	S	HS	S	
93Y41	SCN		33	9	7	6	7	A		4	BR	1c	5	2450-2950		9	S	HS	HS	
93M42	RR/SCN		34	8	8	5	8	A	6	2	BL	-	5	2650-3150	6	9	HS	S	HS	
93Y40	RR/SCN		34	8	8	5	5	BA	6	3	BL	1k	5	2450-2950	7	8	S	HS	S	
93Y72	RR/SCN		37	8	6	6	7	A		4	BF	-	5	2250-2750	6	7	S	S	S	
93Y82	RR/SCN		38	8	7	6	6	AA		2	BL	-	5	2300-2800	6		S	S	S	
93Y83	SCN		38	9	7	6	8	A		4	BL	1c	5	2500-3000	7		S	S	HS	
94Y01	RR/SCN		40	8	6	6	7	A		3	BL	1k	5	2750-3250	7	8	HS	HS	HS	

Comments/Notes:

Products in GREEN are new.

* See reverse side for complete definitions and disclaimers related to product descriptions and ratings.

Pioneer® brand products are provided subject to the terms and conditions of purchase which are part of the labeling and purchase documents. Pioneer is a brand name; numbers identify products. ®, TM, SM Trademarks and service marks of Pioneer Hi-Bred. © 2011 PHIL.



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NOTES AND EXPLANATIONS:

Trait ratings provide key information useful in selection and management of Pioneer® brand products in your area. Scores are based on period-of-years testing through 2009 harvest and were the latest available at time of printing. Some scores may change after 2010 harvest. Contact your Pioneer sales professional before planting for the latest trait rating information.

IMPORTANT: Information and ratings are based on comparisons with other Pioneer brand varieties, not competitive varieties. Information and ratings are assigned by Pioneer Agronomists and Research Managers, based on average performance across area of adaptation under normal conditions, over a wide range of both climate and soil types, and may not predict future results. Product responses are variable and subject to any number of environmental, disease and pest pressures. Please use this information as only part of your product positioning decision. Refer to www.pioneer.com/growingpoint or contact a Pioneer sales professional for the latest and most complete listing of traits and scores for each Pioneer brand product.

NUMERIC RATINGS: 9 = Excellent; 1 = Poor; Blank = Insufficient Data or variety not tested for that particular trait.
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 variety with a relative maturity rating of 17 would be a mid-late variety in Group I maturity.

HERBICIDE RESISTANCE: Varieties with the original Roundup Ready® gene (RR) are resistant to labeled glyphosate herbicides. This technology allows for post-emergent applications of glyphosate herbicide without crop injury or stress (see herbicide label). Labeled glyphosate herbicides should only be used over the top of those varieties that carry the Roundup Ready gene designation. **NOTE:** A soybean variety with a herbicide resistance trait does not confer resistance 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. Varieties with the DuPont™ STS™ gene (STS) are tolerant to DuPont™ Synchrony® STS™ and DuPont™ Classic® herbicides. This technology allows post-emergent applications of sulfonylureas (see herbicide product labels) without crop injury or stress. **NOTE:** A soybean variety with a herbicide resistance trait does not confer resistance 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. (-) = Variety does not contain a herbicide resistant gene.

® Roundup Ready is a registered trademark used under license from Monsanto Company.

DuPont™, STSTM, Synchrony® STSTM and Classic® are trademarks or registered trademarks of DuPont or its affiliates.

FIELD EMERGENCE: Rating based on speed and strength of emergence in sub-optimal temperatures.

1-3 = Below Average; 4-6 = Average; 7-9 = Excellent.

HYPOCOTYL LENGTH: Ratings based on relative length of hypocotyls, which is the portion of the seedling between the cotyledons and the root. S = Short; M = Medium; L = Long.

PHYTOPHTHORA RESISTANCE GENE:

(-) = No specific gene for resistance.

1a = Provides resistance to races 1-2, 10-11, 13-18, 24.

1c = Provides resistance to races 1-3, 6-11, 13, 15, 17, 21, 23, 24, 26, 28-30, 32, 34, 36.

1k = Provides resistance to races 1-11, 13-15, 17, 18, 21-24, 26, 36, 37.

6 = Provides resistance to races 1-4, 10, 12, 14-16, 18-21, 25, 28, 33-35.

PHYTOPHTHORA FIELD TOLERANCE: Varieties with high tolerance scores have demonstrated an ability to thrive in the presence of Phytophthora races to which they lack specific resistance. In some varieties, tolerance is expressed only after the early seedling growth stage, making such varieties susceptible to damping off during emergence and early seed growth.

WHITE MOLD: Scores based on Pioneer research observations of comparative white mold tolerance among various soybean varieties across multiple locations and years. All varieties are capable of developing white mold symptoms under severe infestations. To our knowledge, there are no totally resistant varieties in the industry. However, differences exist in the ability of varieties to tolerate white mold (i.e., the rate at which the infection develops and the extent of damage it causes). These scores reflect those differences.

SCN RESISTANCE SOURCE: There are three sources of genetic resistance to SCN currently deployed in the marketplace: PI88788; PI548402 (also known as Peking); and PI437654 (also known as Hartwig).

SOYBEAN CYST NEMATODE [SCN]: Resistance to each of the major SCN races is scored on a 1-9 scale.

9 = Excellent resistance; 8-7 = Very good resistance; 6 = Good resistance; 5 = Average resistance; 4 = Below average resistance; 3-2 = Susceptible; 1 = Highly susceptible; to the specific race indicated.

APHID ANTIBIOSIS: A type of resistance that measures the plant's ability to naturally reduce the rate of growth, survival and reproduction of soybean aphids on soybean plants. Antibiosis is measured by comparing the rate of aphid reproduction on different varieties. Since no varieties currently on the market offer complete resistance to aphids, growers should use these antibiosis ratings as a pest management tool (not a variety selection tool) to help determine field scouting and insecticide application priorities. "E" = exceptional, "AA" = above average, "A" = average and "BA" = below average antibiosis ratings. For example, varieties with exceptional ratings display much lower aphid reproduction compared to varieties with average and below average ratings.

CHARCOAL ROT DISEASE COMPLEX: A fungal disease that is enhanced by hot and dry conditions, especially during reproductive growth stages. Scores based on Pioneer research observations of the comparative ability to tolerate drought and limit losses from charcoal rot infection among various soybean varieties.

STEM CANCKER GENE:

"9" = provides resistance.

"5" = provides moderate resistance.

"1" = no specific gene for resistance.

STEM CANCKER FIELD TOLERANCE: Varieties with high field tolerance scores have demonstrated an ability to thrive in the presence of stem canker although they do not contain a specific stem canker resistance gene.

CHLORIDE SENSITIVITY: This score tracks the ability of the soybean variety screened for this trait to be able to grow and have normal yields in soils that have high levels of chloride salts.

CANOPY WIDTH: 9 = Extremely bushy; 1 = Very narrow.

SHATTERING: 9 = Excellent tolerance to shattering; 1 = Poor tolerance to shattering.

PLANT HEIGHT FOR MATURITY: 9 = Tall; 1 = Short.

PLANT HABIT: IND = INDETERMINATE-type soybeans grown in Group OO-IV regions. These plants typically continue to grow as they flower, resulting in a longer pod fill time. You may find nearly mature seeds at the bottom of a plant that is still flowering at the top. DET = DETERMINATE soybeans grown in Group V and later maturities. These plants typically stop growing once they begin to flower, and all flowering occurs within a more defined timeframe.

OIL/MEAL TYPE: Designates varieties specially developed with the following oil traits: HLC = High Oleic oil; LLC = Low Linolenic oil [3% linolenic content]; ULC = Ultra Low Linolenic oil [1% linolenic content]; HSC = High Sucrose meal; LPA = Low Phytic Acid; LST = Low Saturate oil; Blank = Conventional variety/oil composition.

% PROTEIN AT 13% MOISTURE: Compare data within table only. Values can vary widely by growing season and region.

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SEED SIZE RANGE: Expressed in seeds per pound under normal growing conditions. Range is calculated over multiple years and locations. Since seed size may vary by growing season and region, check the "seeds/pound" information printed on the bag for actual seed count.

FLOWER COLOR: P = Purple; W = White.

PUBESCENCE COLOR: T = Tawny; G = Gray; L = Light tawny.

HILA COLOR: BL = Black; BR = Brown; TN = Tan; G = Gray; IB = Imperfect black; BF = Buff; Y = Yellow (Clear).

POD COLOR: BR = Brown; TN = Tan.

SEED COAT LUSTER: S = Shiny; D = Dull; I = Intermediate.

PATENT STATUS (as of 12/10/09): I = Patent issued; A = Patent applied for. Pioneer soybean varieties protected by patents or containing a patented gene or trait are licensed to a purchaser solely for the purpose of producing a single commercial crop.

MISCELLANEOUS PATENT STATUS (variety contains a patented gene or trait): RR = original Roundup Ready gene; DuPont™ STS® = STS® gene; AFA = Altered fatty acid (low saturate, low linolenic); HLC = High oleic; HSC = High sucrose. Pioneer soybean varieties protected by patents or containing a patented gene or trait are licensed to a purchaser solely for the purpose of producing a single commercial crop.

PLANT VARIETY PROTECTION (PVP) STATUS (as of 12/10/09): PVP = Certificate issued under updated PVP Act provisions enacted in 1994 (application filed/certificate issued after April 4, 1995); A = PVP certificate applied for. This version of the PVP Act permits only saving and planting of seed by a grower on his own farm ... and no excess seed can be sold for planting purposes. Note: U.S. patents, Plant Variety Protection Act (PVPA) applications and certificates, or other limitations on use may be used to protect Pioneer soybean varieties from unauthorized growing, selling or use of the seed. These protections help assure that growers will continue to have access to new and improved varieties through the research efforts of plant scientists in the years ahead. Refer to the seed bag, bag tag and invoice for additional information specific to each variety regarding U.S. patent or PVPA protection and for other limitations on use.