



MAKE THE MOST OUT OF EVERY ACRE



PIONEER® BRAND ALFALFA VARIETIES

Variety/Brand**	Forage Yield	Relative Forage Quality	Milk Yield Per Acre	Field Appearance	Herbicide Resistance	Fall Dormancy	Winterhardness	Disease Resistance Index	Bacterial Wilt	Vert. Wilt	Fusarium Wilt	Anthraxnose	Aphanomyces (Race 1)	Aphanomyces (Race 2)	Phytophthora Root Rot	Spotted Aphid	Pea Aphid	Blue Aphid 1	No. Root-knot Nematode	So. Ro. of-knot Nematode	Stem Nematode	Standability/Lodging Resistance	Leafhopper
55V50	9	7	8	9	5	VH	34	HR	HR	R	HR	HR	HR	HR	R	R					R		
55Q27	9	8	9	9	5	VH	34	HR	HR	HR	HR	HR	R	HR	R	R					HR		
55H94 ^A	9 ^A	8	9	9 ^A	5	H	34	HR	HR	HR	HR	HR	R	HR	R	R			HR		R		HR
54B66™ brand	7	7	7	7	4	VH	30	R	R	HR	HR	HR	LR	HR	R	R			R		MR		
54Q14 ^A	8	9	9	9	4	VH	34	HR	HR	HR	HR	HR	R	HR	R	R			R		MR	R	
55VR06 ^A	8	8	9	9	RR	5	VH	32	HR	HR	R	HR	MR	HR	R	R					MR		

PIONEER® BRAND SORGHUM-SUDANGRASS HYBRID

Hybrid	Relative Maturity	Yield for RM	Yield Under Stress	Yield for Hay	Yield for Green Chop	Yield for Pasture	Yield for Regrowth	Plant Height in feet	Stem Sweetness	Stem Juiciness	Head Type	Regrowth Score	Charcoal Rot	Fusarium Rot
877F	72	9	9	9	7	9	8	7-9	7	7	Open	9	5	5

PIONEER® BRAND FORAGE SORGHUM HYBRID

Hybrid	Relative Maturity	Yield for Silage	Yield for Hay	Plant Height (feet)	Stem Sweetness	Stem Juiciness	Percent Grain in Forage	Head Type	Grain Color	Regrowth Score	Stalk Strength	Root Strength
849F	71	7	5	7-10	6	7	30-35%	Semi-open	Red-Brown	5	8	7

PIONEER® BRAND INOCULANTS OFFER CHOICES CROP-SPECIFIC INOCULANTS Patented, Proprietary Bacterial Strains.

Key Benefits and Recommended Product Usage	Corn Fiber Technology			Corn Silage		Alfalfa Fiber Technology	Alfalfa Silage	Grass Fiber Technology	Grass/Cereal	High-Moisture Corn		Multi-Crop	
	11CFT	11C33	1132	11AFT	11H50	11GFT	11G22	11B91	11B91	11B91	11A44	1174/1177	
	Contains <i>L. buchneri</i>	Contains <i>L. buchneri</i>		Contains <i>L. buchneri</i>		Contains <i>L. buchneri</i>		Contains <i>L. buchneri</i>	Contains <i>L. buchneri</i>	Contains <i>L. buchneri</i>	Contains <i>L. buchneri</i>		
Reduces dry matter loss by rapidly lowering pH. Also contains <i>L. buchneri</i> to significantly reduce aerobic losses at feedout.	Improves silage quality and bunklife by rapidly lowering pH and significantly improves bunklife as a result of the inclusion of a <i>L. buchneri</i> strain.	Rapidly lowers silage pH and incrementally improves rate of nutrient digestion.	Fiber Technology product which reduces dry matter loss and protein degradation by rapidly lowering alfalfa silage pH. Also contains an <i>L. buchneri</i> strain to significantly improve bunklife.	Reduces dry matter loss by promoting a faster and more efficient fermentation.	Reduces dry matter loss by rapidly lowering grass or cereal silage pH and improving bunklife by including a <i>L. buchneri</i> strain.	Fiber Technology product which improves fiber digestibility with an enzyme that is produced by a novel <i>L. buchneri</i> strain making this product an excellent choice for high-production animals fed high levels of forage.	Significantly reduces protein degradation in alfalfa silages.	Helps protect nutritional quality in grass or cereal silages by rapidly lowering pH and improving bunklife by including a <i>L. buchneri</i> strain.	Combines the benefits of 1189 with greatly improved bunklife as a result of the inclusion of a <i>L. buchneri</i> strain.	Rapidly reduces pH and increases the starch digestibility in high-moisture corn, snaplage or earlage.	Helps improve feed efficiency and rate of gain in animals fed high-moisture shelled corn, snaplage or earlage.	Contains a <i>L. buchneri</i> strain to significantly improve silage bunklife.	Basic fermentation product which rapidly lowers silage pH conserving valuable crop sugars while reducing protein degradation.
Fiber Technology product which improves fiber digestibility with an enzyme that is produced by a novel <i>L. buchneri</i> strain making this product an excellent choice for high-production animals fed high levels of forage.	Best suited for silages that have excellent face management.	Best suited for silages that have excellent face management.	Fiber Technology product which improves fiber digestibility with an enzyme that is produced by a novel <i>L. buchneri</i> strain making this product an excellent choice for high-production animals fed high levels of forage.			Allows for reduction of protein and/or concentrate supplementation to reduce overall feed cost.		Fiber Technology product containing a novel <i>L. buchneri</i> strain to improve bunklife and significantly increases fiber digestibility. Best suited to high-production animals fed high levels of forage.				Best suited to silages and management situations where silage face management and aerobic stability is a challenge.	
Allows for reduction in concentrate and protein supplementation to reduce total feed costs.	of a <i>L. buchneri</i> strain.							Allows for reduction in ration concentrate and protein supplementation costs.					
Improves fermentation	**	**	***	**	***	**	***	**	**	***	***	***	Varies by crop
Enhances bunklife	***	***	*	***	**	***	***	***	***	***	*		
Improves fiber digestibility	***	**	**	***	*	***	*	*	*	*	*		

Relative ratings: *** = Outstanding; ** = Excellent; * = Good; Blank = Insufficient Data.

IMPORTANT: Information and ratings are based on relative comparisons with other Pioneer® brand inoculants within each specific crop, not competitive products. Information and ratings are assigned by DuPont Pioneer Forage Additive Research, based on average performance across area of use under normal conditions, over a wide range of both environment and management conditions, and may not predict future results. Product responses are variable and subject to any number of environmental and management conditions. Please use this information as only part of your product positioning decision. Refer to www.pioneer.com 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.

Fermentation – rate and extent of pH decline and the composition of fermentation acids occurring in silage.

Bunklife – relative heat development compared to ambient temperature. Bunklife considers both how quickly silage begins to heat and the amount of heat generated while remaining above ambient temperature.

Fiber Digestibility – the digestibility of neutral detergent fiber (NDF) by the ruminant animal expressed as a percentage of the total NDF.

U.S. Alfalfa Footnotes

* NEW

** All Pioneer products are varieties unless designated with Brand, in which case it is comprised of more than one Pioneer brand variety.

^ Scores taken in moderate to heavy leafhopper infestation, with no insecticide applied.

Agronomic ratings based on period-of-years testing through 2014 harvest. Pest resistance, dormancy and winterhardiness ratings based on standard test protocols prescribed by the North American Alfalfa Improvement Conference (NAAIC). Ratings may change over additional years of data collection, or if NAAIC protocols change. 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 DuPont 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/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.

RATINGS: 9 = Outstanding; 1 = Poor; **Blank** = Insufficient Data.

DISEASE/PEST RESISTANCE KEY: **HR** = Highly Resistant; **R** = Resistant; **MR** = Moderately Resistant; **LR** = Low Resistance; **S** = Susceptible; **Blank** = Insufficient Data.

FORAGE YIELD: For Pioneer® variety 55H94 alfalfa, scores taken in moderate to heavy leafhopper infestation, with no insecticide applied.

MILK YIELD PER ACRE: 9 = Outstanding; 1 = Poor. Estimated milk yield per acre is based on Wisconsin Milk2000 formula representing the combined impact of forage yield, nutrient content and fiber digestibility.

FIELD APPEARANCE: For Pioneer® variety 55H94 alfalfa, scores taken in moderate to heavy leafhopper infestation, with no insecticide applied.

HERBICIDE RESISTANCE: Monsanto Company is a member of Excellence Through Stewardship® (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. This product has 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. Do not export Genuity® Roundup Ready® Alfalfa seed or crop, including hay or hay products, to China pending import approval. 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. Always read and follow pesticide label directions. Crops that contain the Roundup Ready gene confer tolerance to glyphosate, the active ingredient in Roundup® agricultural herbicides. Roundup agricultural herbicides will kill plants that are not tolerant to glyphosate. Excellence Through Stewardship® is a registered trademark of Biotechnology Industry Organization.

Roundup Ready® and Genuity® are registered trademarks used under license from Monsanto Company.

WINTERHARDINESS: **EH** = Extremely Hardy; **VH** = Very Hardy; **H** = Hardy; **MH** = Moderately Hardy; **NH** = Non-hardy; **VNH** = Very Non-hardy.

DISEASE RESISTANCE INDEX: DRI is a disease index based on the following pests: Bacterial wilt, Verticillium wilt, Fusarium wilt, Anthracnose, Phytophthora and Aphanomyces (Race 1) and Aphanomyces (Race 2). **HR** = 5 points; **R** = 4 points; **MR** = 3 points; **LR** = 2 points; **S** = 1 point. Highest possible **DRI** = 35 points.

STANDABILITY/LODGING RESISTANCE: Score based on standard test requirements where rating classes are assigned as **R** = Resistant, **MR** = Moderate Resistant and **S** = Susceptible.

All Pioneer® brand alfalfa varieties in the U.S. are treated with Apron XL® to help protect against seedling damping off diseases and Phytophthora root rot for good stand establishment. Apron XL® is a registered trademark of a Syngenta Group Company.

Sorghum-Sudangrass Footnotes

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 2014 harvest and were the latest available at time of printing. Some scores may change after 2015 harvest. Contact your Pioneer sales professional before planting for the latest trait rating information.

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RATINGS: 9 = Excellent; 1 = Poor; **Blank** = Insufficient Data.

RM (RELATIVE MATURITY): Approximate length of time in days until flowering.

STEM SWEETNESS: 1 = Bitter; 9 = Sweet.

STEM JUICINESS: 1 = Dry; 9 = Wet.

Forage Sorghum Footnotes

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Pioneer® hybrids 849F and 841F forage sorghum are available with Concep® safened seed. Concep® is a registered trademark of a Syngenta Group Company.



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