



2008

Washington State Hay Growers Association

ALFALFA VARIETY

YIELD TRIALS

Conducted by Washington State University Extension

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Six alfalfa trials were harvested for yield in irrigated central Washington State in 2008. The Washington State Hay Growers Association (WSHGA) sanctions the trials and contracts with Washington State University (WSU) Extension to conduct and report the research. Three trials are conducted near Othello, WA and three trials at two locations near Pasco, WA.

The Othello site is located on the WSU Othello research farm 6 miles ESE of Othello, WA at Lat: N46°47'41 Lng: W119°02'33 and at an elevation of 1154 feet. One Pasco site is located on Selph Landing Road about 8 miles North of Pasco, WA at Lat: N46°19'75, Lng: W119°09'94 at an elevation of 457 feet, the other west of Garfield Road at Lat: N46°28'999, Lng: W119°06'852.

The soils are a Shano silt loam (coarse-silty, mixed-mesic Xerollic Camborthids) at Othello, a Quincy loamy fine sand at Selph Landing and a Sagehill very fine sandy loam at the Garfield Road location. All trials were sprinkler irrigated throughout the April-October growing season. The frost-free (32°F) period at Othello averages 180 days and 209 days at Pasco.

Each trial is arranged in a randomized complete block (RCB) design with 4 replications. All are seeded at about 15 lbs/ac in rows spaced 6 inches apart with a 1-foot inter-plot separation. Plot size is 4 x 15 feet. The trials contain some experimental entries that are not available for commercial planting. Forage yields are taken for three years on each planting.

Forage yields for each harvest and total season yield for 2008 and the totals for all years of the trials to date are reported in Tables 4 through 9. Yields are determined from whole plot fresh weights converted to a dry matter basis using a constant dry matter fraction.

Tables 1 and 2 contain a summary of yields for alfalfa varieties that have been tested for three years at the Pasco and Othello locations. Yields are presented in percent of mean of the test for ease of comparison. Table 3 provides information on dormancy, pest resistance, and seed marketers for the same varieties.

¹WSU Extension Educator, Grant-Adams Counties, and ²WSU Extension Educator (retired), Grant-Adams Counties, respectively.

Table 3: 2008 Fall Dormancy & Pest Resistance Ratings for Alfalfa Varieties in these Trials*

Variety	Contact for Marketing information	FD	BW	VW	FW	AN	PRR	SAA	PA	BAA	SN	APH	SRKN	NRKN
512	Farm Valley Brand	5	HR	R	HR	HR	HR	R	R	HR	R	R		
9429	Eureka Seeds, Inc.	4	HR	R	HR	HR	HR	R	R	HR	R	HR		
53V08	Pioneer Hi-Bred International, Inc.	3	HR	HR	HR	HR	HR	R	HR	MR	HR	LR		HR
54H11	Pioneer Hi-Bred International, Inc.	4	R	HR	HR	HR	R	R	R		R	HR		R
54Q25	Pioneer Hi-Bred International, Inc.	4	HR	HR	HR	HR	HR	R	R		HR	R		HR
55H05	Pioneer Hi-Bred International, Inc.	5	R	HR	R	HR	HR	HR	HR	HR	HR	R		HR
5-Star	CROPLAN GENETICS	5	R	R	HR	R	R	R	R	R	R	R		
A30-06	PGI Alfalfa, Inc.	3	HR	HR	HR	HR	HR		R			HR		
Affinity+Z	America's Alfalfa	4	HR	HR	HR	HR	HR		R		R	R		
AmeriStand 403T	America's Alfalfa	4	HR	HR	HR	HR	HR	MR	R		MR	HR		
AmeriStand 444NT	America's Alfalfa	4	R	HR	HR	HR	HR	R	HR		HR	HR		HR
Archer II	America's Alfalfa	5	R	HR	HR	HR	R	HR	MR	HR				R
Baralfa 42 IQ	Barenbrug USA	4	HR	HR	HR	HR	HR	HR	R			HR		
Baralfa 53HR	Barenbrug USA	5	HR	R	HR	HR	HR	R			R	HR		
Biazer XL	CROPLAN GENETICS	3	R	R	HR	HR	HR	HR	R		R	R		
Boulder	Syngenta	4	HR	HR	HR	HR	HR	HR	HR		HR	R		R
Bullseye	Target Seed, LLC	4	HR	HR	HR	HR	HR	MR	LR	MR	R	MR		HR
Cimarron SR	Great Plains Research Co., Inc.	4	HR	HR	HR	HR	HR	R	HR	MR	R	MR	R	
Class	Union Seed Co.	3	HR	R	R	HR	HR	R	R	MR	R			
Dakota	Grassland Central/Northstar Seed Ltd.	4	R	MR	R	MR	HR		R		MR		MR	MR
DKA33-16	Monsanto	3	HR	HR	HR	HR	HR	R	R			HR		R
DKA42-15	Monsanto	4	HR	HR	HR	HR	HR	R	HR		R	HR		
DKA50-18	Monsanto	5	HR	HR	HR	HR	HR	R	R		R	HR		
Dynamic	Grassland Central/Grassland West	2	HR	HR	HR	HR	HR		R			HR		R
Emperor	ABI Alfalfa, Inc.	4	HR	HR	HR	HR	HR	MR	R			HR		
Escalade	Allied Seeds, L.L.C	5	HR	R	R	R	HR	MR	R			R		
Evermore	Allied Seed/Southern States	5	HR	HR	HR	HR	HR	HR	R		R	HR		MR
Expedition	Syngenta	5	R	HR	HR	HR	HR	R			R	HR		R
Forecast 1001	Dairyland Seed Co., Inc.	4	R	HR	R	R	R	MR		MR	R	R		HR
Forecast 3001	Dairyland Seed Co., Inc.	3	HR	R	HR	R	HR		R		R	R		R
FSG406	Allied Seeds, L.L.C	4	HR	HR	HR	HR	HR		R		R	HR		R
Genoa	Syngenta	4	HR	HR	HR	HR	HR		R		R	HR		
GrandStand	Western Farm Service	4	HR	HR	HR	HR	HR	R	HR		MR	HR		
HybridForce 420/wet	Dairyland Seed Co., Inc.	4	HR	R	HR	R	HR	R	R		HR	R		HR
Innovator+Z	America's Alfalfa	3	HR	HR	HR	HR	HR	MR	R	S	R	R		
Key	Great Plains Research Co., Inc.	4	HR	HR	HR	HR	HR	HR	MR	MR	MR	MR	MR	
Lariat	J. R. Simplot Company	3	HR	HR	HR	HR	HR		HR		R			R
LeafMaster	Union Seed Co.	3	R	HR	HR	HR	HR	R	R		HR	MR		MR
LegenDairy 5.0	CROPLAN GENETICS	3	HR	HR	HR	HR	HR	R	R		MR	HR		R
Lobo	Eureka Seeds, Inc.	6	MR	R	HR	R	R	R	R	R	R	R		R
Magna 601	Dairyland SeedCo., Inc.	6	R	MR	HR	R	HR	HR	R		R	MR	R	R
Magnum III	Dairyland Seed Co., Inc.	4	R	MR	R	MR	R	MR	R	MR	MR	LR		
Magnum V	Dairyland Seed Co., Inc.	4	HR	R	HR	R	HR	R	R	MR	R	MR		MR
Masterpiece	J. R. Simplot Company	4	HR	R	HR	HR	HR	HR		R	HR	R		R
Millennia	Union Seed Co.	4	HR	R	HR	HR	HR	R	R		HR	R		MR
Mountaineer 2.0	CROPLAN GENETICS	5	HR	R	HR	HR	HR	R	HR		HR	R		
MP2000	CROPLAN GENETICS	3	HR	R	HR	HR	HR	R	HR		R	HR		R
Perfect	Grassland Central/Grassland West	4	HR	HR	HR	HR	HR	R	R		R	HR		
Phirst	Cascade Hybrid/Proseed Inc.	4	HR	R	HR	HR	HR	R	R		R	R		HR
Phoenix	Allied Seeds, L.L.C	5	HR	HR	HR	HR	HR			HR	HR	R		
Plumas	Eureka Seeds, Inc.	4	HR	R	HR	HR	HR	R	R		HR	R		MR
Power 4.2	Power Seeds Inc.	4	HR	R	HR	HR	HR	R	R		HR	HR		R
Radiant	Ampac Seed Co.	4	HR	HR	HR	HR	HR	R	R		R	HR		
Rainier	Syngenta	3	HR	R	HR	HR	HR	HR	HR		R	HR		R
Rebel	Target Seed, LLC	4	HR	HR	HR	HR	HR			MR		HR		
Rebound 4.2	CROPLAN GENETICS	4	HR	HR	HR	HR	HR	R	R		MR	HR		
Rebound 5.0	CROPLAN GENETICS	4	HR	HR	HR	HR	HR	R	R		R	HR		R
Recover	Union Seed Co.	5	R	R	HR	R	R	R	R	R	R	R		
Reward II	PGI Alfalfa, Inc.	4	HR	R	HR	R	HR	R	R	R	R	R		HR
Robust T&N	Gooding Seed Co., Inc.	4	R	HR	HR	HR	HR	R	HR	MR	HR	MR		R
Ruccus	Target Seed, LLC	5	R	R	HR	MR	HR	R	R	LR	R			MR
Select	Union Seed Co.	4	HR	R	HR	HR	HR	R	R	MR	HR	R		R
Somerset	Syngenta	3	HR	HR	HR	HR	HR	R			R	HR		
SW 435	S&W Seed Co.	4	HR	R	HR	HR	HR	R	HR		HR	HR		R
Tango	Eureka Seeds, Inc.	6	MR	HR	HR	HR	HR	HR	HR	R	MR			R
Vernal	Public	2	R	S	MR	S	S				SN	S		MR
Vernema	Public	4	MR	MR		LR	LR	MR			HR			
Vitro	Eureka Seeds, Inc.	3	HR	HR	HR	HR	HR	R	R		R	R		
Whitney (FG40W203)	Eureka Seeds, Inc.	4	HR	HR	HR	HR	HR	R	HR		HR			HR
WinterGold	L&H Seeds/Reuk Seed/Tri-West Seed	4	HR	HR	HR	HR	R	R	R	HR	R	HR		
WL 319HQ	W-L Research, Inc.	3	HR	HR	HR	HR	HR	R	HR		MR	HR		
WL 327	W-L Research, Inc.	4	HR	R	HR	HR	HR	R	R	HR	R	HR		
WL 342	W-L Research, Inc.	4	HR	HR	HR	HR	HR	HR	HR		R	HR		
WL 357HQ	W-L Research, Inc.	5	HR	HR	HR	HR	HR					HR		
XTRA-3	Union Seed Co.	4	HR	R	HR	HR	HR	R	HR	R	HR	R		
Variety	Contact for Marketing Information	FD	BW	VW	FW	AN	PRR	SAA	PA	BAA	SN	APH	SRKN	NRKN

FD Fall Dormancy
 BW Bacterial Wilt
 VW Verticillium Wilt
 FW Fusarium Wilt
 AN Anthrocnose Race 1
 PRR Phytophthora Root Rot
 SAA Spotted Alfalfa Aphid

PA Pea Aphid
 BAA Blue Alfalfa Aphid
 SN Stem Nematode
 APH Aphanomyces
 SRKN Southern Root Knot Nematode
 NRKN Northern Root Knot Nematode

Blank spaces indicate variety is susceptible or has not been adequately tested

Source Winter Survival, Fall Dormancy & Pest Resistance Ratings NAFA
 * Only varieties included in this publication are included



Table 4: Three-year Forage Trial, 2005 Alfalfa Variety Trial, Pasco, Franklin Co., WA

Forage Yield (Tons DM/AC)															
Seeded 8/18/05	2006 Harvest		2007 Harvest		2008 Harvests						3-year total			5/29	10/22/2008
Entry	Total	2006%	Total	2007%	Cut1	Cut2	Cut3	Cut4	Total	Mean	Total	Mean	% Stand	Regrowth	Regrowth
Entry	Total	Mean	Total	Mean	Cut1	Cut2	Cut3	Cut4	Total	Mean	Total	Mean	% Stand	Regrowth	Regrowth
DKA 50-18	8.8	106.2%	10.4	112.4%	2.6	2.7	1.9	1.4	8.7	110.4%	27.8	109.7%	85.6	27.3	11.3
Genoa	8.2	99.8%	10.1	108.9%	2.7	2.7	1.8	1.4	8.7	110.6%	27.0	106.5%	93.1	26.3	10.0
FG41W206	8.8	107.0%	9.8	105.7%	2.5	2.7	1.8	1.4	8.3	106.1%	27.0	106.3%	95.5	25.8	9.5
Escalade	8.4	102.3%	9.9	107.6%	2.6	2.6	1.8	1.3	8.3	106.1%	26.7	105.4%	91.1	27.3	11.3
GrandStand (FG41M120)	8.6	104.1%	9.5	103.2%	2.6	2.7	1.9	1.3	8.4	107.2%	26.6	104.7%	91.5	26.0	9.3
DKA 42-15	8.5	103.4%	9.7	104.4%	2.7	2.5	1.8	1.3	8.3	106.1%	26.5	104.6%	95.0	25.3	9.0
FSG505	8.6	104.3%	9.4	102.1%	2.6	2.5	1.9	1.4	8.4	106.9%	26.5	104.3%	95.3	26.0	10.0
Phoenix	8.5	103.4%	9.5	103.0%	2.5	2.4	1.8	1.3	8.1	102.5%	26.1	103.0%	93.9	26.5	10.5
Boulder	8.6	103.7%	9.5	102.6%	2.3	2.6	1.8	1.3	8.0	102.1%	26.1	102.8%	88.0	25.5	9.8
Whitney (FG40W203)	8.3	100.5%	9.6	103.6%	2.6	2.6	1.7	1.3	8.1	102.9%	26.0	102.4%	93.4	26.5	11.5
55H05	8.4	102.1%	9.4	101.8%	2.4	2.5	1.8	1.2	7.9	100.0%	25.7	101.3%	94.4	26.0	10.3
FG42W205	8.3	100.9%	9.5	103.0%	2.4	2.4	1.7	1.2	7.8	98.6%	25.6	101.0%	87.5	26.3	11.0
Masterpiece	8.3	100.7%	9.3	101.1%	2.5	2.4	1.8	1.2	7.9	101.0%	25.6	100.9%	92.1	25.5	9.8
CB001	8.7	105.5%	8.6	93.3%	2.5	2.5	1.9	1.4	8.3	105.1%	25.6	100.9%	90.1	26.0	10.3
Lariat	8.3	100.7%	9.4	101.6%	2.4	2.3	1.7	1.2	7.7	97.8%	25.4	100.1%	83.5	25.0	7.3
Perfect	8.2	99.1%	9.2	99.7%	2.5	2.2	1.8	1.1	7.7	98.1%	25.1	99.0%	91.8	24.5	7.5
54Q25	7.9	96.1%	9.2	100.1%	2.4	2.3	1.6	1.2	7.5	95.3%	24.7	97.3%	90.0	24.8	7.8
AA209W	8.2	99.0%	9.1	98.1%	2.2	2.2	1.7	1.2	7.4	94.2%	24.7	97.2%	90.0	24.5	9.8
AA208W	8.1	97.5%	9.0	97.1%	2.3	2.3	1.7	1.2	7.6	96.0%	24.6	96.9%	90.3	23.8	9.8
AA210W	7.9	96.2%	8.9	95.8%	2.3	2.1	1.7	1.1	7.2	91.6%	24.0	94.6%	92.6	23.8	8.0
Reward II	8.0	96.4%	8.7	94.3%	2.3	2.1	1.7	1.2	7.3	93.1%	24.0	94.6%	89.9	24.0	9.0
AA207W	7.6	92.2%	8.6	92.8%	2.5	2.3	1.9	1.2	7.8	98.6%	24.0	94.4%	92.9	23.8	9.5
Vernema	7.9	95.9%	8.5	92.2%	2.1	2.1	1.6	1.1	6.9	88.1%	23.4	92.1%	85.1	21.8	7.8
Vernal	6.8	82.9%	7.0	75.8%	2.1	1.9	1.4	0.9	6.4	81.7%	20.3	79.9%	85.4	20.8	4.8
CV %	4.6	4.6	4.1	4.1	6.6	8.8	7.4	12.5	12.3	12.3	4.6	4.6	5.4	3.6	8.5
*** 2007 regrowth in inches															



Table 8: One-Year Forage Yield-Spring 2008 Planting Garfield Road, Franklin Co. WA

Entry	Forage Yield (Tons DM/ac)							
	2008 Harvests							
	Jun 18 08 Cut 1	Jul 16 08 Cut 2	Aug 16 08 Cut 3	Sept 16 08 Cut 4	2008 Total	2008.0% Mean	7/3/08 inches	10/22/08 inches
FG 44W204	2.0	1.7	2.10	1.7	7.5	105.6%	16.0	9.5
WL 363HQ	2.0	1.7	2.00	1.8	7.5	105.6%	16.0	7.3
Integra 8400	2.4	1.5	2.10	1.5	7.5	105.6%	12.8	3.5
Ameristand 444NT	2.2	1.7	2.00	1.5	7.4	104.2%	14.3	5.8
LS401	2.3	1.6	2.10	1.4	7.4	104.2%	12.5	3.5
Whitney	2.0	1.7	2.00	1.5	7.2	101.4%	14.5	7.8
54V09	2.1	1.6	2.10	1.4	7.2	101.4%	13.3	3.0
DS707-5	1.8	1.7	2.10	1.5	7.1	100.0%	14.8	5.5
GrandStand	1.9	1.6	2.00	1.6	7.1	100.0%	14.0	3.8
CW 044018	2.0	1.6	2.00	1.5	7.1	100.0%	14.0	5.5
FSG 528SF	2.1	1.5	2.00	1.4	7.0	98.6%	13.8	5.0
Archer III	2.0	1.6	2.00	1.4	7.0	98.6%	13.3	6.0
Medalist	1.9	1.6	2.00	1.5	7.0	98.6%	13.8	5.0
TS-5026	1.9	1.6	2.00	1.5	7.0	98.6%	14.5	5.5
WL 343HQ	2.0	1.6	1.90	1.5	7.0	98.6%	14.5	5.8
Rebound 5.0	2.0	1.5	1.90	1.5	6.9	97.2%	14.3	4.8
Plumas	2.1	1.6	1.90	1.3	6.9	97.2%	12.0	3.0
MasterPiece	2.0	1.6	1.90	1.4	6.9	97.2%	13.5	4.8
TS-4028	2.0	1.6	1.90	1.4	6.9	97.2%	13.5	4.8
A 5225 (CW 25006)	1.9	1.6	1.90	1.5	6.9	97.2%	14.0	6.5
Public	2.2	1.4	1.90	1.3	6.8	95.8%	11.8	4.3
IS-1055	1.7	1.6	1.90	1.4	6.6	93.0%	13.3	4.8
Mean	2.0	1.6	2.00	1.5	7.1	100.0%	13.8	5.2
LSD 5%	NS	0.2	NS	0.2	NS	NS	2.0	1.4
CV %	18.7	6.7	5.4	10.2	5.9	0.1	10.2	19.4

