



2010

Washington State Hay Growers Association

ALFALFA VARIETY

YIELD TRIALS

Conducted by Washington State University Extension

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Alfalfa Variety Trials

Conducted by Washington State University Extension

Six alfalfa trials were harvested for yield in irrigated central Washington State in 2010. 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 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, and a Sagehill very fine sandy loam (coarse-loamy, mixed, mesic Xerillic Camborthids) 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 collected for each submitted entry for three years on each planting.

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.

Forage yields for each harvest and total season yield for 2010 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. Regrowth is recorded in inches of height at the date of measurement on Tables 4, 5, 6, 7 and 9.

The region experienced unusually cold spring conditions during 2010. These conditions delayed normal alfalfa greenup and spring growth. Below seasonal temperatures persisted well into June affecting both first and second cutting alfalfa yields. First cutting yields are the single largest harvest of the growing season but delayed and low first cutting yields reduced overall tonnages in 2010. Traditionally the Pasco trials are managed as a five-cut system, however this was not possible in 2010 because of the cold conditions from March through May. Tonnages presented in the following tables are accurate and relevant, just lower than expected. Note that every year is different and that is why each test is conducted over a three-year intensive harvest period. The WSHGA-WSU goal for the alfalfa variety testing project is to identify varieties for growers that are adapted to the Columbia Basin region that will tolerate both biotic (pests) and abiotic (environmental) stresses. 2010 was an excellent year to test abiotic stresses in the Basin.

Table 3: 2010 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
1S-1055	1st Select Seeds, Inc.	5	HR	HR	HR	R	HR	R	R	R	HR	MR		HR
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
54V09	Pioneer Hi-Bred International, Inc.	4	HR	HR	R	HR	HR	R	HR		HR	R		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
64Q22	Syngenta Seeds	4	HR	HR	HR	HR	HR		R		R	HR		
5-Star	CROPLAN GENETICS	5	R	R	HR	R	R	R	R	R	R	R		
A30-06	PGI Brand, Producer's Choice	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 407TQ	America's Alfalfa	4	HR	HR	HR	HR	HR	R	HR		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	HR			R
Archer III	America's Alfalfa	5	HR	HR	HR	HR	HR		HR		HR	HR		HR
Baraifa 53HR	Barenbrug USA	5	HR	R	HR	HR	HR		R		R	HR		
Blazer 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 Brand, Producer's Choice	4	HR	HR	HR	HR	HR	MR	LR	MR	R	MR		HR
Class	Union Seed Co.	3	HR	R	R	HR	HR	R	R	MR	R			
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	Producer's Choice	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
FSG 406	Allied Seeds, L.L.C	4	HR	HR	HR	HR	HR	R	R			HR		R
FSG 408DP	Allied Seeds, L.L.C	4	HR	R	HR	HR	HR		R		R	R		
FSG 429SN	Allied Seeds, L.L.C	4	HR	HR	HR	HR	HR	R	HR		HR	HR		R
FSG 528SF	Allied Seeds, L.L.C	5	HR	HR	HR	HR	R		R	R		R		
FSG 639ST	Farm Science Genetics	6	HR	R	R	R	HR		R		HR	MR	R	HR
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		
Integra 8300	Wilbur Ellis Company	3	HR	HR	HR	HR	HR		HR		R	HR		R
Integra 8400	Wilbur Ellis Company	4	HR	MR	R	R	R	HR	HR	HR	R			HR
Key	Great Plains Research Co., Inc.	4	HR	HR	HR	HR	HR	HR	HR	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
Magna 551	Dairyland Seed Co., Inc.	5	HR	HR	HR	R	HR				R	HR		HR
Magna 601	Dairyland Seed Co., 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
Marvel	Allied Seeds, L.L.C	4	HR	HR	HR	HR	HR	R	R					
Masterpiece	J. R. Simplot Company	4	HR	R	HR	HR	HR	HR		R	HR	R		R
MasterPiece II	J. R. Simplot Company	5	HR	HR	HR	HR	HR		HR		HR	HR		
Medalist	Monsanto	4	HR	HR	HR	HR	HR	HR	R		HR	R		HR
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	Producer's Choice	4	HR	HR	HR	HR	HR	R	R		R	HR		
Perform	Dairyland Seed Co., Inc.	4	HR	HR	HR	HR	HR		R			HR		
PGI 424	Producer's Choice	4	HR		HR	HR	HR		R		HR	R		
PGI459	Producer's Choice	4	HR	HR	HR	HR	HR	R	R			R		
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 Brand, Producer's Choice	4	HR	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 Brand, Producer's Choice	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 Brand, Producer's Choice	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
Somerseset	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	Eureka Seeds, Inc.	4	HR	HR	HR	HR	HR	R	HR		HR			HR
Whitney (FG40W203)	Eureka Seeds, Inc.	4	HR	HR	HR	HR	HR	R	HR		HR			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 343 HQ	W-L Research, Inc.	4	HR	HR	HR	HR	HR		HR		R	HR		
WL 357HQ	W-L Research, Inc.	5	HR	HR	HR	HR	HR		HR			HR		
WL 363HQ	W-L Research, Inc.	5	HR	HR	HR	HR	HR		HR		HR	HR		HR
XTRA-3	Union Seed Co.	4	HR	R	HR	HR	HR	R	HR	R	HR	R		

FD Fall Dormancy
 BW Bacterial Wilt
 VW Verticillium Wilt
 FW Fusarium Wilt
 AN Anthracnose 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

Table 4: Three-Year Forage Yield-2008 Alfalfa Variety Trial Pasco, Franklin County, WA
Forage Yield (Tons DM/ac)

Seeded 3/18/08

Entry	08 Harvest		09 Harvests		2010 Harvests				3-year Total		6/15/2010		
	2008	2008%	2009	2009					2010	2010		3-yr	3-Yr
	Total	Mean	Total	% Mean	Cut 1	Cut 2	Cut 3	Cut 4	Total	% Mean	Total	% Mean	Regrowth
IS-1055	6.5	105.6%	9.6	93.8%	2.3	1.4	1.5	1.4	6.6	95.4%	22.7	93.58%	21.5
FSG 528SF	7.0	105.6%	10.5	102.0%	2.4	1.5	1.5	1.5	6.8	97.2%	24.3	99.89%	24.8
Archer III	7.0	105.6%	10.1	98.5%	2.4	1.6	1.6	1.6	7.1	101.8%	24.2	99.55%	25.3
Ameristand 444NT	7.4	104.2%	10.7	104.0%	2.5	1.7	1.7	1.3	7.1	102.8%	25.2	103.81%	25.5
Rebound 5.0	6.9	104.2%	10.1	98.1%	2.1	1.7	1.7	1.5	6.5	94.1%	23.5	96.75%	24.8
DS707-5	7.1	101.4%	10.4	101.7%	2.5	1.6	1.4	1.3	6.9	99.8%	24.5	100.78%	24.8
Plumas	6.8	101.4%	9.9	96.8%	2.5	1.3	1.4	1.3	6.6	94.5%	23.3	96.05%	21.0
Whitney	7.1	100.0%	9.5	92.5%	1.9	1.3	1.4	1.4	6.1	88.5%	22.8	93.81%	23.3
FG 44W204	7.5	100.0%	10.1	98.1%	2.3	1.6	1.6	1.5	6.7	97.0%	24.3	99.88%	24.3
Medalist	7.0	100.0%	10.8	105.5%	2.4	1.6	1.8	1.6	7.1	101.9%	25.0	102.73%	24.3
MasterPiece	7.0	98.6%	9.9	96.7%	2.5	1.5	1.5	1.3	7.0	100.6%	23.9	98.36%	23.5
54V09	7.2	98.6%	10.4	101.2%	2.6	1.6	1.6	1.4	7.1	102.7%	24.8	101.94%	23.5
TS-5026	6.9	98.6%	10.0	97.8%	2.6	1.5	1.6	1.4	7.2	103.2%	24.2	99.41%	23.8
TS-4028	6.8	98.6%	10.2	99.2%	2.7	1.5	1.6	1.6	7.2	103.6%	24.2	99.48%	23.8
LS401	7.4	98.6%	10.4	101.6%	2.5	1.4	1.2	1.5	7.0	100.6%	24.8	102.18%	22.0
GrandStand	7.1	97.2%	10.6	103.5%	2.8	1.5	1.5	1.4	7.5	108.5%	25.3	104.18%	25.0
WL 363HQ	7.6	97.2%	10.7	104.0%	2.8	1.6	1.5	1.4	7.5	107.3%	25.7	105.84%	25.8
WL 343HQ	7.0	97.2%	10.0	97.5%	2.3	1.4	1.5	1.2	6.5	94.2%	23.6	97.12%	24.8
Integra 8400	7.4	97.2%	10.5	101.9%	2.8	1.5	1.5	1.5	7.4	106.3%	25.3	104.14%	24.3
CW 044018	7.0	97.2%	10.6	103.0%	2.5	1.7	1.7	1.5	7.1	101.9%	24.7	101.66%	26.0
CW 25006	6.9	95.8%	10.6	103.5%	2.6	1.5	1.4	1.5	7.0	100.4%	24.5	100.95%	24.8
Vernal	6.9	93.0%	10.2	98.9%	2.4	1.5	1.4	1.5	6.8	97.53%	23.8	97.92%	22.8
Mean	7.1	100.0%	10.3	100.0%	2.5	1.5	1.5	1.4	6.9	100.0%	24.3	100.00%	24.0
CV%	18.7	18.7	4.9	4.9	13.3	10.5	14.5	9.7	7.8	7.8	4.0	4.0	5.8
LDS 5%	NS	NS	0.7	6.9	NS	0.2	NS	0.2	NS	NS	1.4	5.7	2.0

Table 5: Three-Year Forage Yield: 2008 Alfalfa Variety Trial, Othello, Grant County, WA
Forage Yield (Tons DM/ac)

Seeded 8/24/07

Entry	2008 Harvest		2009 Harvests		2010 Harvest						3-year Total		6/15/2010
	2008 Total	2008 % Mean	2009 Total	2009 % Mean	Cut 1	Cut 2	Cut3	Cut 4	2010 Total	% Mean	3-yr Total	3-Yr % Mean	Spring Regrowth
IS-1055	6.7	93.1%	6.2	83.0%	2.1	1.4	1.4	0.8	5.7	86.5%	18.6	87.5%	15.5
FSG 528SF	7.0	98.2%	7.0	92.9%	2.2	1.6	1.3	0.9	6.0	90.5%	20.0	93.9%	17.8
Archer III	7.3	102.3%	8.0	107.1%	2.3	2.0	1.7	1.1	7.1	107.2%	22.4	105.5%	18.5
Ameristand 444NT	7.7	108.2%	7.7	102.5%	2.5	1.8	1.6	1.0	6.9	103.8%	22.3	104.8%	17.5
LegenDairy 5.0	7.3	101.4%	8.0	107.5%	2.4	1.9	1.6	1.1	7.0	105.4%	22.3	104.8%	17.8
Plumas	6.8	95.0%	6.5	86.9%	2.2	1.3	1.2	0.9	5.6	84.3%	18.9	88.8%	13.3
Whitney	7.3	101.8%	6.8	91.2%	2.3	1.7	1.4	1.0	6.4	97.0%	20.5	96.6%	16.8
FG 42M134	7.5	105.0%	7.7	102.4%	2.2	1.8	1.6	1.1	6.7	101.2%	21.9	102.9%	16.8
FG 44W204	7.2	101.2%	8.2	109.8%	2.2	1.9	1.7	1.2	7.0	105.8%	22.5	105.7%	18.5
Medalist	7.4	103.7%	7.6	101.2%	2.3	1.7	1.6	1.0	6.5	98.6%	21.5	101.3%	17.0
Lariat	6.9	96.4%	7.6	102.2%	2.1	1.7	1.4	0.9	6.2	94.4%	20.8	97.8%	17.3
MasterPiece	7.2	101.3%	7.1	94.9%	2.3	1.6	1.3	1.0	6.2	93.0%	20.5	96.5%	15.8
54V09	7.4	103.3%	7.4	98.6%	2.5	1.6	1.4	0.9	6.5	97.9%	21.2	100.0%	15.8
TS-5026	7.4	103.7%	7.1	94.8%	2.5	1.5	1.5	1.0	6.5	98.3%	21.0	98.9%	17.3
TS-4028	7.1	99.8%	7.1	95.0%	2.4	1.6	1.5	1.0	6.6	100.2%	20.9	98.2%	17.8
GrandStand	7.1	99.4%	8.0	106.9%	2.2	1.9	1.6	1.0	6.7	101.7%	21.8	102.7%	17.3
WL 363HQ	7.5	105.5%	8.3	110.6%	2.4	2.0	2.0	1.1	7.5	113.6%	23.3	109.8%	19.5
WL 343HQ	6.8	95.2%	7.7	103.4%	2.3	1.9	1.6	1.0	6.9	104.0%	21.4	100.8%	18.5
Integra 8400	7.2	101.1%	7.5	100.1%	2.4	1.8	1.6	0.9	6.7	101.7%	21.5	100.9%	18.0
Integra 8300	7.0	97.5%	8.0	106.6%	2.2	1.8	1.6	1.0	6.8	102.2%	21.7	102.1%	19.0
CW 044018	6.5	90.5%	7.5	100.8%	2.6	1.9	1.5	1.1	7.1	107.7%	21.1	99.5%	17.0
CW 043003	6.9	96.4%	7.6	101.5%	2.5	1.8	1.6	1.0	6.9	105.0%	21.4	100.9%	17.5
Mean	7.2	100.0%	7.5	100.0%	2.3	1.7	1.5	1.0	6.6	100.0%	21.3	100.00%	17.3
CV %	6.5	6.5	5.8	5.8	8.4	11.3	10.4	9.3	7.1	7.1	7.3	4.2	4.2
LSD 5%	0.7	9.2	0.6	8.3	0.3	0.3	0.2	0.1	0.7	10.0	1.8	1.3	6.0

Table 6: Two-Year Forage Yield--2009 Alfalfa Variety Trial, Othello, Grant, WA
Forage Yield (Ton DM/ac)

Seeded 8/28/08	2010 Harvests										
	2009 Total	2009 % Mean	Cut 1	Cut 2	Cut 3	Cut4	2010 Total	2010 % Mean	2-yr Total	2010 spring % Mean	Regrowth
FSG 429SN	7.4	98.2%	2.6	1.8	1.4	1.0	6.8	101.4%	14.1	99.7%	17.3
FSG 639ST	7.0	94.0%	2.6	1.8	1.5	1.0	6.8	101.8%	13.8	97.7%	16.3
Mountaineer 2.0	7.5	100.6%	2.7	1.7	1.5	0.9	6.8	101.7%	14.3	101.1%	15.5
Rebound 5.0	7.4	98.7%	2.7	1.9	1.7	1.0	7.3	109.2%	14.7	103.6%	15.5
Lightning IV	7.7	102.5%	2.4	1.9	1.5	1.0	6.9	102.9%	14.6	102.7%	16.3
Plot	8.1	108.2%	2.4	2.0	2.0	1.1	7.4	111.5%	15.6	109.8%	18.5
FG 45W271	8.3	110.4%	2.6	1.8	1.5	1.0	7.0	104.8%	15.3	107.8%	17.8
FG 46W202	7.7	102.2%	2.4	1.9	1.6	1.0	6.9	103.3%	14.6	102.7%	17.5
FG 55W277	7.5	99.9%	2.2	1.7	1.5	1.0	4.8	72.4%	12.3	86.9%	17.5
DKA 43-13	7.9	105.3%	2.5	1.9	1.6	1.0	7.0	104.4%	14.9	104.8%	18.0
DKA 50-18	7.4	99.3%	2.5	1.6	1.5	1.0	6.7	99.9%	14.1	99.6%	17.5
54V09	7.0	94.0%	2.8	1.6	1.4	0.8	6.6	99.3%	13.7	96.5%	14.0
TS 5026	7.4	98.7%	2.7	1.7	1.4	0.9	6.7	99.6%	14.1	99.2%	15.0
TS 4028	7.8	104.2%	2.8	1.9	1.5	1.0	5.5	82.8%	13.3	94.1%	15.8
TS 4027	7.4	98.3%	2.6	1.7	1.4	0.9	6.7	100.5%	14.1	99.3%	15.8
LS401	7.5	100.0%	2.7	1.7	1.4	0.9	6.7	101.0%	14.2	100.4%	15.3
U-223	7.2	96.0%	2.5	1.6	1.5	1.0	6.6	98.7%	13.8	97.3%	14.8
WL 363HQ	7.4	98.4%	2.6	1.9	1.7	1.1	7.2	108.4%	14.6	103.1%	17.5
GrandStand	8.1	108.6%	2.7	2.0	1.6	1.1	7.4	110.3%	15.5	109.4%	16.3
Ranger	6.2	82.5%	2.4	1.2	1.3	0.8	5.7	86.0%	11.9	84.1%	11.8
Mean	7.5	100.0%	2.6	1.8	1.5	1.0	6.7	100.0%	14.2	100.0%	16.2
CV %	6.9	6.9	8.2	11.4	14.2	11.1	17.0	17.0	10.3	10.3	7.4
LSD 5%	0.7	0.1	0.3	0.3	0.3	0.2	NS	NS	NS	NS	1.7

Table 7: Two-Year Forage Yield-2009 Garfield Alfalfa Variety Trial, Franklin Co. WA
Forage Yield (Ton DM/A)

Seeded 3/18/08

Entry	2009 Harvests		2010 Harvests				2010 Harvests		2-yr	2-yr	6/15/2010
	2009 Total	2009 % Mean	Cut 1	Cut 2	Cut 3	Cut 4	2010 Total	2010 % Mean	Total	% Mean	Regrowth
FSG 429SN	9.7	102.2%	2.8	1.6	1.4	1.6	7.4	105.4%	17.1	103.6%	24.5
FSG 639ST	9.2	97.0%	2.4	1.4	1.3	1.6	6.8	96.5%	16.0	96.8%	23.0
Mountaineer 2.0	8.9	94.2%	2.5	1.4	1.4	1.5	6.8	97.1%	15.7	95.4%	23.3
Rebound 5.0	9.2	97.5%	2.6	1.5	1.5	1.6	7.2	101.9%	16.4	99.4%	23.0
Lightning IV	9.4	99.7%	2.6	1.4	1.5	1.6	7.1	100.8%	16.5	100.2%	24.5
FG 44W204	9.1	96.0%	2.4	1.6	1.6	1.6	7.1	101.6%	16.2	98.4%	25.3
FG 45W271	9.9	104.2%	2.6	1.4	1.5	1.5	7.1	106.1%	17.0	102.9%	24.3
FG 46W202	9.8	103.3%	2.5	1.6	1.7	1.6	7.5	106.1%	17.2	104.5%	25.5
DKA 43-13	10.0	105.8%	2.6	1.4	1.6	1.6	7.3	103.0%	17.3	104.6%	24.8
DKA 50-18	10.2	108.1%	2.6	1.5	1.6	1.7	7.3	103.9%	17.5	106.3%	25.0
54V09	10.0	106.2%	2.7	1.4	1.3	1.6	6.9	98.4%	17.0	102.9%	22.8
TS 5026	9.5	100.2%	2.6	1.3	1.4	1.5	6.7	95.2%	16.2	98.1%	22.0
TS 4028	9.7	102.3%	2.8	1.3	1.4	1.6	7.0	100.1%	16.7	101.4%	22.3
TS 4027	9.0	95.3%	2.5	1.4	1.5	1.5	6.9	97.5%	15.9	96.2%	22.8
WL 363HQ	9.4	99.1%	2.4	1.4	1.5	1.6	6.8	97.3%	16.2	98.3%	23.8
GrandStand	10.2	107.7%	2.6	1.5	1.6	1.6	7.2	102.6%	17.4	105.5%	23.5
Vernal	7.7	81.4%	2.5	1.1	1.4	1.5	6.4	91.4%	14.1	85.7%	19.8
Mean	9.5	100.0%	2.6	1.4	1.5	1.6	7.0	100.0%	16.5	100.0%	23.5
CV%	7.3	7.3	8.0	14.9	13.1	8.3	6.4	6.4	5.0	5.0	0.3
LSD 5%	0.9	0.1	NS	NS	NS	NS	NS	NS	1.2	7.0	1.4

Table 8: One-Year Forage Yield-Fall 2010 Planting Garfield Road, Franklin Co. WA
Forage Yield (Ton DM/A)

Seeded 4/15/10

Entry	2010 Harvests				
	Cut 1	Cut 2	Cut 3	2010 Total	2010 % Mean
AmeriStand 407TQ	0.6	1.3	1.6	3.4	109.1%
CW 064004	0.6	1.0	1.4	2.9	94.1%
Summit	0.4	0.9	1.3	2.7	86.2%
Mountaineer 2.0	0.6	1.4	1.5	3.4	109.5%
HybriForce Exp 802	0.5	1.2	1.5	3.1	100.2%
HybriForce Exp 807	0.6	1.1	1.4	3.0	97.6%
DKA 42-15	0.5	1.0	1.4	2.9	92.3%
FG 46W201	0.4	1.2	1.5	3.1	98.9%
FG 46W202	0.6	1.3	1.5	3.4	108.1%
FG 45W271	0.6	1.2	1.3	3.1	100.3%
FG 45W273	0.6	1.2	1.4	3.1	100.5%
45417	0.6	1.2	1.5	3.4	108.9%
PGI 557	0.5	1.1	1.4	3.0	96.9%
64Q22	0.5	1.3	1.3	3.1	100.0%
MasterPiece II	0.6	1.1	1.4	3.1	99.6%
GrandStand	0.5	1.3	1.5	3.4	108.2%
Archer III	0.5	1.1	1.4	3.0	96.2%
Integra 8400	0.5	1.1	1.5	3.1	97.8%
WL 363 HQ	0.4	1.4	1.4	3.2	103.5%
Prosementi	0.5	1.1	1.4	3.0	96.3%
Vernal	0.5	1.0	1.2	2.8	88.5%
Magna 551	0.5	1.3	1.6	3.3	107.2%
Mean	0.5	1.2	1.4	3.1	100.0%
CV%	17.5	18.1	9.9	8.5	8.5
LSD 5%	NS	NS	0.2	0.4	12.3

Table 9: One-Year Forage Yield-2010 Alfalfa Variety Trial, Othello, Grant, WA
Forage Yield (Ton DM/A)

Seeded 8/17/09

Entry	2010 Harvests.						29-Jun-10
	Cut 1	Cut 2	Cut 3	Cut 4	Total	% Mean	Spring regrowth
AmeriStand 407TQ	1.3	1.4	0.9	0.8	4.4	97.6%	22.3
CW 064004	1.3	1.5	1.0	0.9	4.7	103.4%	21.8
Summit	1.3	1.5	1.0	0.8	4.6	102.1%	23.8
Rebound 5.0	1.3	1.4	1.1	0.8	4.7	103.0%	22.3
HybriForce Exp 802	1.4	1.4	0.8	0.7	4.2	93.6%	21.0
HybriForce Exp 807	1.3	1.3	0.8	0.8	4.2	93.0%	21.0
DKA 42-15	1.5	1.4	0.9	0.7	4.4	97.7%	21.5
FG 46W201	1.5	1.4	1.0	0.8	4.7	103.3%	22.5
FG 46W202	1.3	1.5	1.2	0.9	4.9	107.4%	25.0
FG 45W271	1.3	1.3	1.0	0.8	4.5	98.4%	23.8
FG 45W273	1.2	1.4	1.0	0.8	4.4	98.2%	24.3
45417	1.7	1.3	0.9	0.7	4.7	103.0%	21.8
PGI 557	1.6	1.4	0.9	0.8	4.8	105.5%	22.8
64Q22	1.3	1.5	1.0	0.8	4.6	102.2%	24.8
63Q05	1.4	1.4	0.9	0.7	4.5	98.8%	21.5
GrandStand	1.3	1.6	1.0	0.9	4.8	105.1%	22.8
Integra 8300	1.2	1.6	1.1	0.8	4.7	103.8%	24.0
Integra 8400	1.2	1.5	1.0	0.9	4.5	99.5%	23.0
WL 343 HQ	0.9	1.5	1.0	0.8	4.3	94.1%	24.5
Prosementi	1.2	1.4	0.9	0.7	4.3	95.1%	25.5
Vernal	1.6	1.2	0.8	0.8	4.3	95.3%	19.3
Mean	1.3	1.4	1.0	0.8	4.5	100.0%	22.8
CV %	24.5	9.8	13.6	12.7	10.8	10.8	5.3
LSD 5%	NS	0.2	0.2	NS	NS	NS	1.7