

2002 WSHGA ALFALFA VARIETY YIELD TRIALS

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W.S.H.G.A ALFALFA VARIETY TRIALS

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Five alfalfa trials were harvested for yield in irrigated central Washington State in 2002. The Washington State Hay Growers Association (WSHGA) conducted two trials (PE 63 and 65) with cooperation by WSU near Othello, WA. Three trials (PE 62, 64 and 66) were conducted by the WSHGA with cooperation by WSU near Pasco, WA.

The Othello site is located on the WSU Othello research farm 6 miles ESE of Othello, WA at 46° 28' N, 119° 3' W and at an elevation of 1191 feet. The Pasco site is located on Glade Road at the north edge of Pasco, WA at 46° 17' N, 119° 7' W at an elevation of 339 feet.

The soils were a Shano silt loam (coarse-silty, mixed-mesic Xerollic Camborthids) at Othello and a sand to loamy sand (series undetermined) at Pasco. All trials were sprinkler irrigated throughout the April-October growing season. The frost-free day's (32°F) period extended 156 days from 8 May to 11 October at Othello, and 156 days from 8 May to 11 October at Pasco.

A severe wind and hailstorm pounded the Pasco site on July 7. Winds gusted up to 75 mph and hailstones were ¾ inch in diameter. As a result the 3rd cut was destroyed and no data was taken.

Each trial was arranged in a randomized complete block (RCB) design with 4 replications. All were seeded at about 15lbs/A in rows spaced 6 inches apart with a 1-foot interplot separation. Plot lengths and widths are footnoted in the yield tables. Some trials contained experimental entries, which are not available for commercial planting.

Forage yields for each harvest in 2002, the total yield in 2002, and the total for all years of the trials to date are reported in Tables 4 through 11. Yields were determined from whole plot fresh weights converted to a dry matter basis using a constant dry matter fraction of 0.20.

Tables 1 and 2 are a summary of yields for alfalfa varieties currently on the market for 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 and pest resistance for the same varieties.

¹ Cooperative Extension Agronomist – WSU Pasco, Cooperative Extension Agronomist – WSU Ephrata, Extension Soil Scientist – WSU Prosser, Agricultural Research Technician – WSU Prosser, respectively.

Table 1: Summary of Alfalfa Yield Trials -- Pasco, Washington (varieties on the market)

Yield in % of mean of test

Entry	Pasco, Washington Seeded April 4, 1997					Pasco, Washington Seeded Sept. 4, 1997				Pasco, Washington Seeded September, 1998				Pasco, Washington Seeded August, 1999				Pasco, Washington Seeded August, 2000			
	1997 % of mean	1998 % of mean	1999 % of mean	2000 % of mean	4 yr. Percent of Mean	1998 % of mean	1999 % of mean	2000 % of mean	3 yr. Percent of Mean	1999 % of mean	2000 % of mean	2001 % of mean	3 yr. Percent of Mean	2000 % of mean	2001 % of mean	2002 % of mean	3 yr. Percent of Mean	2001 % of mean	2002 % of mean	2 Yr. Percent of mean	
329																					
6420						101.9%	97.2%	91.1%	97.0%												
53V08	100.0%	103.4%	100.0%	96.7%	100.3%	101.0%	106.5%	112.2%	106.3%	102.5%	103.3%	109.2%	104.8%	103.5%	107.2%	111.3%	106.9%	102.9%	101.1%	102.1%	
54Q25														101.7%	110.8%	116.3%	108.8%				
54Q53						99.0%	104.7%	111.1%	104.7%	105.1%	107.4%	106.1%	106.3%								
ABT 350										101.7%	104.1%	113.3%	106.0%								
ABT 400SCL										101.7%	98.3%	94.9%	98.5%								
Abundance						111.5%	98.1%	97.8%	102.7%												
Accord	102.2%	100.0%	97.0%	100.0%	99.4%	99.0%	103.7%	105.6%	102.7%												
Affinity+Z	97.8%	99.1%	103.0%	105.5%	101.7%																
Archer II										101.7%	102.5%	101.0%	101.8%								
Blazer XL																					
Cimarron SR																		99.0%	103.4%	101.0%	
Class	104.3%	102.6%	98.0%	95.6%	99.7%																
Depend+EV										99.2%	96.7%	102.0%	99.1%								
DK127																					
Dura 512																			99.0%	100.0%	99.5%
Imperial																					
Innovator+Z										99.2%	99.2%	103.1%	100.3%								
Key																					
LeafMaster	104.3%	106.9%	110.0%	106.6%	107.4%																
LegenDairy 2.0	104.3%	103.4%	104.0%	104.4%	104.0%																
Lobo	104.3%	96.6%	90.0%	93.4%	94.9%					101.7%	96.7%	94.9%	98.0%	99.1%	96.4%	102.5%	99.0%	99.0%	101.1%	100.0%	
Magnum III																					
Magnum IV	108.7%	99.1%	88.0%	97.8%	96.9%	95.2%	97.2%	91.1%	94.7%												
Magnum V										100.8%	95.9%	90.8%	96.2%					100.0%	101.1%	100.5%	
Masterpiece														105.2%	113.5%	122.5%	112.7%				
Millennia										103.4%	103.3%	108.2%	104.8%								
Mountaineer										104.2%	99.2%	98.0%	100.6%								
MP2000	104.3%	100.0%	101.0%	100.0%	100.8%																
MultiQueen	97.8%	100.0%	96.0%	93.4%	96.9%	105.8%	107.5%	101.1%	105.0%												
Perfect										104.2%	105.8%	116.3%	108.3%								
Plumas	108.7%	103.4%	109.0%	113.2%	108.2%									103.5%	108.1%	115.0%	108.2%	102.9%	102.3%	102.6%	
Radiant																		105.7%	100.0%	103.1%	
Rainier	97.8%	100.0%	105.0%	102.2%	101.7%																
Rebound 4.2										101.7%	109.9%	116.3%	108.9%								
Reno																					
Samurai														92.2%	98.2%	106.3%	98.0%				
Select										104.2%	105.8%	105.1%	105.1%								
Sendero						99.0%	88.8%	91.1%	93.1%												
Spur	95.7%	98.3%	97.0%	103.3%	98.9%																
Stellar						101.0%	104.7%	110.0%	105.0%												
Tango										101.7%	101.7%	101.0%	101.5%	103.5%	100.9%	102.5%	102.3%				
Vernal						87.5%	81.3%	82.2%	83.7%	87.3%	85.1%	79.6%	84.3%	87.8%	83.8%	81.3%	84.6%	89.5%	92.0%	90.6%	
Vernema						98.1%	98.1%	92.2%	96.4%	99.2%	91.7%	82.7%	91.7%	102.6%	91.0%	88.8%	94.8%	94.3%	92.0%	93.2%	
WinterGold																		106.7%	95.4%	101.6%	
WL 327														102.6%	104.5%	105.0%	103.9%				
WL325HQ	104.3%	100.0%	103.0%	103.3%	102.3%	104.8%	105.6%	107.8%	106.0%												
AV-TIAC	4.6	11.6	10.0	9.1	8.8	10.4	10.7	9.0	10.0	11.8	12.1	9.8	11.2	11.5	11.1	8.0	10.2	10.5	8.7	9.6	
LSD(0.05)	13.0%	7.8%	9.0%	11.0%	7.9%	7.7%	5.6%	8.9%	6.3%	3.4%	5.8%	8.2%	2.7%	6.1%	6.3%	6.3%	4.6%	8.6%	8.0%	7.3%	
CV(%)	9.4	5.3	6.5	7.9	5.1	5.5	3.7	6.3	4.7	2.5	4	5.7	2.4	4.5	4.5	4.8	3.3	6.1	5.4	5.3	

Table 2: 2002 Summary of Alfalfa Yield Trials -- Othello, Washington (varieties on the market)

Yield in % of mean of test

Entry	Othello, Washington Seeded Aug. 20, 1996				Othello, Washington Seeded August 22, 1997				Othello, Washington Seeded March 31, 1999				Othello, Washington Seeded April, 2001		
	1997 % of mean	1998 % of mean	1999 % of mean	3 yr. Percent of Mean	1998 % of mean	1999 % of mean	2000 % of mean	3 yr. Percent of Mean	1999 % of mean	2000 % of mean	2001 % of mean	3 yr. Percent of Mean	2001 % of mean	2002 % of mean	2 Yr. Percent of mean
329	91.8%	95.7%	94.6%	94.3%	104.7%	102.6%	100.0%	102.6%							
6420					107.1%	109.0%	104.2%	106.9%							
53V08					103.5%	110.3%	108.3%	107.3%	95.2%	109.1%	112.9%	106.7%	101.5%	101.1%	101.2%
54Q53					101.2%	103.8%	105.6%	103.4%	103.2%	102.3%	101.2%	102.1%			
ABT 350									101.6%	100.0%	101.2%	100.8%			
ABT 400SCL									103.2%	100.0%	97.6%	100.0%			
Abundance					104.7%	109.0%	105.6%	106.4%							
Accord					98.8%	97.4%	100.0%	98.8%							
Affinity+Z	103.3%	93.5%	101.4%	98.7%											
Archer II	108.2%	105.4%	112.2%	108.3%					101.6%	105.7%	110.6%	106.3%			
Blazer XL	100.0%	94.6%	90.5%	94.7%											
Cimarron SR													100.0%	101.1%	100.6%
Dakota													100.0%	96.8%	98.1%
DK127	106.6%	104.3%	105.4%	105.3%											
DK134									104.8%	100.0%	96.5%	100.0%			
Dura 512													98.5%	104.3%	101.9%
Emperor									96.8%	96.6%	96.5%	96.6%			
Forecast 1001									103.2%	103.4%	105.9%	104.2%	104.4%	104.3%	104.3%
Forecast 3001													100.0%	100.0%	100.0%
Goliath													101.5%	100.0%	100.6%
Imperial	103.3%	100.0%	105.4%	102.6%											
Innovator+Z									96.8%	97.7%	91.8%	95.3%			
Key	104.9%	98.9%	100.0%	100.9%											
LeafMaster	100.0%	97.8%	100.0%	99.1%											
LegenDairy 2.0	100.0%	92.5%	98.6%	96.5%											
Magnum III	100.0%	98.9%	100.0%	99.6%											
Magnum IV	106.6%	104.3%	112.2%	107.5%	95.3%	100.0%	98.6%	97.9%							
Magnum V									101.6%	102.3%	101.2%	101.7%	104.4%	100.0%	101.9%
Millennia									100.0%	100.0%	102.4%	100.8%			
Mountaineer									100.0%	106.8%	110.6%	106.3%			
MP2000	100.0%	103.2%	104.1%	102.6%											
MultiQueen					95.3%	92.3%	91.7%	93.2%							
Perfect									98.4%	102.3%	100.0%	100.4%			
Plumas	104.9%	103.2%	102.7%	103.5%									97.1%	100.0%	98.8%
Radiant													100.0%	97.9%	98.8%
Rebound 4.2									106.3%	103.4%	105.9%	105.0%			
Reno	106.6%	98.9%	93.2%	99.1%											
Select									104.8%	102.3%	102.4%	102.9%			
Stellar					92.9%	105.1%	105.6%	100.9%							
Vernal	85.2%	83.9%	81.1%	83.3%	87.1%	89.7%	91.7%	89.4%	95.2%	93.2%	89.4%	92.3%	86.8%	88.3%	87.7%
Vernema	96.7%	100.0%	97.3%	98.2%	97.6%	92.3%	93.1%	94.5%	98.4%	100.0%	98.8%	99.1%	100.0%	101.1%	100.6%
WinterGold	108.2%	105.4%	120.3%	111.0%									102.9%	102.1%	102.5%
WL325HQ	109.8%	107.5%	116.2%	111.0%	97.6%	105.1%	108.3%	103.4%							
AV-TIAC	6.1	9.3	7.4	7.6	8.5	7.8	7.2	7.8	6.3	8.8	8.5	7.9	6.8	9.4	8.1
LSD(0.05)	13.1%	8.6%	5.4%	6.6%	8.2%	5.1%	8.3%	8.9%	6.3%	4.5%	9.4%	6.8%	8.8%	5.3%	5.6%
CV(%)	9.3	6.1	10	4.7	5.9	3.7	5.4	3.4	4.4	3.2	6.5	4.7	5.9	3.8	3.7

**Table 3: Fall Dormancy & Pest Resistance Ratings for Alfalfa Varieties
Commerically Available in Washington**

Variety	Contact for Marketing Information	FD	BW	VW	FW	AN	PRR	SAA	PA	BAA	SN	APH	SRKN	NRKN
Vernal	Public	2	R		MR									MR
329	L&H Seeds	3	HR	HR	HR	HR	HR	R	HR		R	R		
53V08	Pioneer Hi-Bred International, Inc.	3	HR	HR	HR	HR	HR	R	HR	MR	HR	LR		HR
ABT350	Allied Seed	3	HR	HR	HR	HR	HR	R	R			HR		
Blazer XL	Croplan Genetics	3	R	R	HR	HR	HR	HR	R		R	R		
Class	Union Seed Co.	3	HR	R	R	HR	HR	R	R	MR	R			
DK127	Monsanto	3	HR	R	R	HR	HR	HR	HR	MR	R	HR		R
DK134	Monsanto	3	HR	HR	HR	HR	HR		R	MR	LR	HR		R
Forecast 3001	Dairyland Seed Co., Inc.	3	HR	R	HR	R	HR		R		R	R		R
Imperial	ABI Alfalfa, Inc.	3	HR	R	HR	HR	HR	MR	HR		LR	R		
Innovator+Z	America's Alfalfa	3	HR	HR	HR	HR	HR	MR	R	S	R	R		
Leafmaster	Union Seed Co.	3	R	HR	HR	HR	HR	R	R		HR	MR		MR
LegenDairy 2.0	Croplan Genetics	3	HR	R	HR	HR	HR	R	HR		MR	R		R
MP2000	Croplan Genetics	3	HR	R	HR	HR	HR		HR		R	HR		MR
Rainier	Syngenta	3	HR	R	HR	HR	HR	HR	HR		R	HR		R
Samurai	ABI Alfalfa, Inc.	3	HR	R	HR	HR	HR	MR	R			R		
WL 325HQ	W-L Research, Inc.	3	HR	R	HR	HR	HR	R	R	MR	R	R		
6420	Garst Seed Co.	4	HR	R	HR		HR	R	R		R	R		HR
54Q53	Pioneer Hi-Bred International, Inc.	4	HR	HR	R	R	HR	MR	MR		HR	MR		HR
ABT 400SCL	Allied Seed, L.L.C.	4	HR	HR		HR	HR	R	HR		MR	HR		MR
Abundance	BioPlantResearch/Cascade Hybrids	4	HR	MR	HR	R	HR	R	R	MR		R		
Accord	Union Seed Co./Chemgro seeds	4	HR	R	HR	HR	HR		HR		MR	R		MR
Affinity+Z	America's Alfalfa	4	HR	HR	HR	HR	HR		R		R	R		
Cimarron SR	Great Plains Research Co., Inc.	4	HR	HR	HR	HR	HR	R	HR	MR	R	MR	R	
Depend+EV	AgriPro Brand Seeds	4	HR	HR	HR	HR	HR	MR	R	S	MR	R		
Emperor	ABI Alfalfa, Inc.	4	HR	HR	HR	HR	HR	MR	R			HR		
Forecast 1001	Dairyland Seed Co., Inc.	4	HR	R	R	R	HR		R		R	R		HR
Goliath	Allied Seed, L.L.C.	4	HR	R	HR	HR	HR	HR	R		HR			
Key	Great Plains Research Co., Inc.	4	HR	HR	HR	HR	HR	HR	HR	MR	MR	MR	MR	
Magnum III	Dairyland Seed Co., Inc.	4	R	MR	R	MR	R	MR	R	MR	MR	LR		
Magnum IV	Dairyland Seed Co., Inc.	4	HR	R	HR	R	HR	MR		MR	R	MR		MR
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	HR	R	HR			R
Millennia	Union Seed Co.	4	HR	R	HR	HR	HR	HR	R		HR	R		MR
Mountaineer	Croplan Genetics	4	HR	R	HR	HR	HR	HR	R		HR			R
MultiQueen	L&H Seeds, Inc.	4	HR	R	HR	HR	HR	R	HR		MR	R		
Plumas	Eureka Seeds, Inc.	4	HR	R	HR	HR	HR	R	R		HR	R		MR
Radiant	Ampac Seed Co.	4	HR	HR	HR	HR	HR	R	R		R	HR		
Rebound 4.2	Croplan Genetics	4	HR	HR	HR	HR	HR	R	R		MR	HR		
Reno	Syngenta	4	HR	R	HR	HR	HR	R	R		HR	R		MR
Select	Union Seed Co.	4	HR	R	HR	HR	HR	R	R	MR	HR	R		R
Spur	Allied Seed, L.L.C./Wheatland Seed	4	HR	R	HR	HR	HR	R	HR		MR	R		MR
Stellar	Chemgro Seeds	4	HR	HR	HR	HR	HR					LR		
Vernema	Public	4	MR	MR		LR	LR	MR			HR			
WinterGold	L&H Seeds/Renk Seed/Tri-West Seed	4	HR	HR	HR	HR	R	R	R			HR		
WL 327	W-L Research, Inc.	4	HR	R	HR	HR		R			R	HR		
Archer II	America's Alfalfa	5	R	HR	HR	HR	R	R	MR	HR	R			R
Dura 512	Farm Valley Brand	5	HR	R	HR	HR	HR	R	R	HR	R	R		
Lobo	Eureka Seeds, Inc.	6	MR	R	HR	R	R	R	R	R	R			R
Sendero	Allied Seed, L.L.C.	6	MR	R	HR	HR	HR	HR	HR	R	MR			R
Tango	Eureka Seeds, Inc.	6	MR	HR	HR	HR	HR	HR	HR	R	MR			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 - P.E.-66
Washington State Hay Growers Association
Washington State University Alfalfa Yield Trials & Regrowth Ratings

Pasco, WA
Seeded August 2001

Five (5) Cuttings/Year – Dry Hay T/a

<u>Entry</u>	<u>Origin¹</u>	<u>5/14</u>	<u>6/21</u>	<u>7/11</u>	<u>8/16</u>	<u>9/27</u>	<u>Total 2002</u>	<u>Regrowth Rating²</u>
Dura 512	FV	2.8	2.3		1.7	1.9	8.7	4.5
WL 327	WL	3.2	2.1		1.6	1.7	8.6	6.8
DKA42-15	M	3.0	2.2	H	1.7	1.7	8.6	5.8
Reward II	PGI	3.1	2.2	A	1.6	1.6	8.5	7.8
Plumas	ES	3.0	2.2	I	1.7	1.6	8.5	4.3
Ameristand 403T	ABI	2.9	2.1	L	1.8	1.7	8.5	4.3
AL 352	UAP	3.0	2.2		1.5	1.7	8.4	5.5
Ruccus	T	3.0	2.1		1.6	1.6	8.3	5.5
Alliant	M	2.7	2.1		1.8	1.7	8.3	4.3
Vernema	USDA-WA	2.9	2.2	D	1.5	1.6	8.2	4.3
Tango	ES	3.0	2.1	A	1.5	1.6	8.2	5.3
Laser	AMP	2.8	2.1	M	1.7	1.6	8.2	5.8
5 Star	CG	3.0	2.3	A	1.4	1.5	8.2	7.3
*54Q25	P	2.7	2.1	G	1.7	1.7	8.2	6.0
WL 342	WL	2.9	2.1	E	1.4	1.7	8.1	4.8
AL 355	UAP	2.8	2.0		1.5	1.7	8.0	5.0
AL 223	UAP	3.0	1.9		1.3	1.5	7.7	4.5
53V08	P	2.6	2.0		1.5	1.6	7.7	4.3
*GP 00 TC	GP	2.6	1.8		1.6	1.7	7.7	4.8
Vernal	WI	2.5	2.0		1.6	1.4	7.5	3.0
*GP 98 FR	GP	2.7	2.0		1.2	1.5	7.4	4.0
Mean		2.9	2.1		1.6	1.6	8.1	5.0
CV%		8.7	7.6		14.6	8.1	6.3	25.3
L.S.D. (0.05)		0.4	0.2		0.3	0.2	0.7	1.1

¹ ABI	ABI Alfalfa, Inc.	PGI	PGI Alfalfa, Inc.
AMP	Ampac Seed Company	T	Target Seed, LLC
CG	Croplan Genetics	UAP	UAP Seeds
ES	Eureka Seeds, Inc.	USDA	U.S. Department of Agriculture
FV	Farm Valley Brand	WA	Washington State University
GP	Great Plains Res. Co., Inc.	WI	University of Wisconsin
M	Monsanto	WL	W-L Research, Inc.
P	Pioneer Hi-Bred Int'l, Inc.		

² Regrowth ratings taken 5/28/02. Scale: 1 = least, 9 = most

* Planted as experimental. 54Q25 was Y54Q25.

Soil: Sand to loamy sand.

Plots: 4' (6 rows spaced 6" apart) x 14', 4 replications, RCB

Table 5 - PE-65
Washington State Hay Growers Association
Washington State University Alfalfa Yield Trials & Regrowth Ratings

Othello, WA
Seeded August 2001

Four (4) Cuttings/Year – Dry Hay T/a

<u>Entry</u>	<u>Origin¹</u>	<u>5/29</u>	<u>7/3</u>	<u>8/8</u>	<u>9/19</u>	<u>Total 2002</u>	<u>Average Regrowth²</u>
WL 342	WL	3.9	2.0	1.6	1.2	8.8	7.5
*54Q25	P	3.6	2.0	1.6	1.2	8.5	8.0
Alliant	M	3.9	1.9	1.6	1.1	8.5	7.6
Tango	ES	3.8	1.9	1.5	1.2	8.5	7.1
DKA42-15	M	3.6	1.9	1.6	1.2	8.4	7.7
Magnum V	DS	3.6	1.9	1.6	1.2	8.4	7.3
53V08	P	3.7	1.9	1.5	1.2	8.3	6.9
WL 327	WL	3.7	2.0	1.5	1.1	8.3	7.2
Dura 512	FV	3.7	1.9	1.5	1.1	8.3	7.7
Ruccus	T	3.6	1.9	1.6	1.2	8.2	7.7
Rebel	T	3.6	1.9	1.5	1.1	8.1	6.5
AL 352	UAP	3.5	1.8	1.5	1.1	8.1	6.9
AL 355	UAP	3.6	1.8	1.5	1.1	8.1	6.6
A30-06	PGI	3.7	1.9	1.4	1.0	8.0	6.4
ZX0059D2	ABI	3.6	1.9	1.4	1.1	8.0	7.3
Plumas	ES	3.5	1.8	1.5	1.1	7.9	6.6
HybriForce-400™	DS	3.5	1.9	1.5	1.1	7.9	6.7
Magna 601	DS	3.3	1.9	1.6	1.2	7.9	8.4
Vernema	USDA-WA	3.6	1.7	1.4	1.1	7.8	6.8
Ameristand 403T	ABI	3.4	1.9	1.4	1.0	7.7	6.4
*GP 00 TC	GP	3.5	1.8	1.4	1.1	7.7	6.8
AL 223	UAP	3.3	1.8	1.5	1.1	7.7	6.8
DS120HYB	DS	3.1	1.8	1.5	1.2	7.6	7.1
*GP 98 FR	GP	3.3	1.8	1.4	1.1	7.5	6.7
Vernal	WI	3.2	1.6	1.2	0.9	7.0	5.5
Mean		3.6	1.9	1.5	1.1	8.1	7.0
CV%		7.4	7.2	7.3	10.7	5.3	5.5
L.S.D. (0.05)		0.4	0.2	0.2	0.2	0.6	0.9

¹ ABI	ABI Alfalfa, Inc.	P	Pioneer Hi-Bred Int'l, Inc.
DS	Dairyland Seed Co., Inc.	PGI	PGI Alfalfa, Inc.
ES	Eureka Seeds, Inc.	T	Target Seed, LLC
FV	Farm Valley Brand	UAP	UAP Seeds
GP	Great Plains Res. Co., Inc.	USDA	U.S. Department of Agriculture
M	Monsanto	WI	University of Wisconsin
		WL	W-L Research, Inc.

² Regrowth ratings taken 6/12/02 and 10/15/02. Scale: 1 = least, 9 = most

* Planted as experimental. 54Q25 was Y54Q25.

Soil: Shano silt loam.

Plots: 4' (6 rows spaced 6" apart) x 14', 4 replications, RCB

Table 6 - P.E.-64.1
Washington State Hay Growers Association
Washington State University Alfalfa Yield Trials & Regrowth Ratings

Pasco, WA
Seeded August 2000

Five (5) Cuttings/Year – Dry Hay T/a

<u>Entry</u>	<u>Origin¹</u>	<u>Total 2001</u>	<u>Total 2002</u>	<u>Total 2 Years</u>
*FG3R134	FG	10.9	9.1	20.0
Radiant	AMP	11.1	8.7	19.8
Plumas	ES	10.8	8.9	19.7
*FG3R129	FG	10.7	9.0	19.7
*Y54V03	P	10.5	9.2	19.7
53V08	P	10.8	8.8	19.6
WinterGold	LH	11.2	8.3	19.5
*DS 014	DS	10.7	8.7	19.4
Cimarron SR	GP	10.4	9.0	19.4
*CW60008	CW	10.3	9.1	19.4
*DS 013	DS	10.6	8.7	19.3
Magnum V	DS	10.5	8.8	19.3
DK 142	M	10.4	8.8	19.2
Lobo	ES	10.4	8.8	19.2
*DS 9833	DS	10.3	8.9	19.2
*DS 015	DS	10.6	8.5	19.1
Dura 512	FV	10.4	8.7	19.1
*DS 9705	DS	10.4	8.4	18.8
*DS 9703	DS	10.4	8.4	18.8
*Winema	USDA-WA	10.4	8.3	18.7
Dakota	GP	10.3	8.4	18.7
Baralfa 42IQ	B	9.8	8.7	18.5
Vernema	USDA-WA	9.9	8.0	17.9
Vernal	WI	9.4	8.0	17.4
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	Mean	10.5	8.7	19.2
	CV%	6.1	5.4	5.3
	L.S.D. (0.05)	0.9	0.7	1.4

¹ ABI	ABI Alfalfa, Inc.	GP	Great Plains Res. Co., Inc.
AMP	Ampac Seed Co.	LH	L&H Seeds, Inc.
B	Barenbrug USA	M	Monsanto
CW	Cal/West Seeds	P	Pioneer Hi-Bred Int'l, Inc.
DS	Dairyland Seed Co., Inc.	USDA	U.S. Department of Agriculture
ES	Eureka Seeds, Inc.	WA	Washington State University
FG	Forage Genetics	WI	University of Wisconsin
FV	Farm Valley Brand		

Soil: Sand to loamy sand.

Plots: 4' (7 rows spaced 6" apart) x 14', 4 replications, RCB.

* Planted as experimental. Winema planted as experimental W45.

Table 7 - P.E.-64-2
Washington State Hay Growers Association
Washington State University Alfalfa Yield Trials & Regrowth Ratings

Pasco, WA

Seeded August 2000

Five (5) Cuttings/Year – Dry Hay T/a

<u>Entry</u>	<u>Origin¹</u>	<u>5/14</u>	<u>6/21</u>	<u>7/11</u>	<u>8/16</u>	<u>9/27</u>	<u>Total 2002</u>	<u>Regrowth Rating²</u>
*Y54V03	P	3.0	2.4		1.9	1.9	9.2	7.5
*FG3R134	FG	2.9	2.3		2.0	1.9	9.1	6.5
*CW60008	CW	3.0	2.3		2.0	1.8	9.1	5.0
*FG3R129	FG	2.9	2.2		2.0	1.9	9.0	5.0
Cimarron SR	GP	3.0	2.2	H	1.9	1.9	9.0	4.3
Plumas	ES	2.9	2.3	A	2.0	1.7	8.9	4.0
*DS 9833	DS	2.8	2.2	I	2.1	1.8	8.9	5.5
53V08	P	2.9	2.2	L	2.1	1.6	8.8	6.0
Magnum V	DS	3.0	2.2		1.9	1.7	8.8	8.3
DK 142	M	2.9	2.2		2.0	1.7	8.8	4.8
Lobo	ES	2.6	2.3		2.0	1.9	8.8	7.8
Radiant	AMP	2.8	2.3	D	1.7	1.9	8.7	6.0
*DS 014	DS	2.9	2.2	A	1.8	1.8	8.7	7.3
*DS 013	DS	3.0	2.1	M	1.9	1.7	8.7	6.5
Dura 512	FV	2.9	2.2	A	1.9	1.7	8.7	4.8
Baralfa 42IQ	B	2.8	2.1	G	2.1	1.7	8.7	3.3
*DS 015	DS	2.8	2.1	E	1.9	1.7	8.5	8.0
*DS 9705	DS	2.7	2.0		2.0	1.7	8.4	6.0
*DS 9703	DS	2.9	2.1		1.9	1.5	8.4	5.8
Dakota	GP	2.8	2.0		1.8	1.8	8.4	3.3
WinterGold	LH	2.1	2.4		1.9	1.9	8.3	7.5
*Winema	USDA-WA	2.5	2.1		1.9	1.8	8.3	5.5
Vernema	USDA-WA	2.5	1.9		2.1	1.5	8.0	4.0
Vernal	WI	2.4	1.9		2.2	1.5	8.0	3.0
Mean		2.8	2.2		2.0	1.7	8.7	5.6
CV%		6.3	6.4		12.5	11.6	5.4	16.2
L.S.D. (0.05)		0.3	0.2		0.4	0.3	0.7	1.0

¹ ABI	ABI Alfalfa, Inc.	GP	Great Plains Res. Co., Inc.
AMP	Ampac Seed Co.	LH	L&H Seeds, Inc.
B	Barenbrug USA	M	Monsanto
CW	Cal/West Seeds	P	Pioneer Hi-Bred Int'l, Inc.
DS	Dairyland Seed Co., Inc.	USDA	U.S. Department of Agriculture
ES	Eureka Seeds, Inc.	WA	Washington State University
FG	Forage Genetics	WI	University of Wisconsin
FV	Farm Valley Brand		

² Regrowth ratings taken 5/28/02. Scale: 1 = least, 9 = most

* Planted as experimental. Winema planted as experimental W45.

Soil: Sand to loamy sand.

Plots: 4' (7 rows spaced 6" apart) x 14', 4 replications, RCB

Table 8 - P.E.-63.1
Washington State Hay Growers Association
Washington State University Alfalfa Yield Trials & Regrowth Ratings

Othello, WA
Seeded April 2001

Four (4) Cuttings/Year – Dry Hay T/a

<u>Entry</u>	<u>Origin¹</u>	<u>Total 2001</u>	<u>Total 2002</u>	<u>Total 2 Years</u>
*CW60008	CW	7.3	9.8	17.1
Forecast 1001	DS	7.1	9.8	16.9
DK142	M	7.1	9.8	16.9
Y54V03	P	7.0	9.8	16.8
WinterGold	LH	7.0	9.6	16.6
Magnum V	DS	7.1	9.4	16.5
*FG3R134	FG	7.0	9.5	16.5
Dura 512	FV	6.7	9.8	16.5
53V08	P	6.9	9.5	16.4
*DS 9705	DS	6.8	9.6	16.4
Goliath	AS	6.9	9.4	16.3
Cimarron SR	GP	6.8	9.5	16.3
Vernema	USDA-WA	6.8	9.5	16.3
Forecast 3001	DS	6.8	9.4	16.2
Radiant	AMP	6.8	9.2	16.0
Laser	AMP	6.8	9.2	16.0
Plumas	ES	6.6	9.4	16.0
Dakota	GP	6.8	9.1	15.9
*Winema	USDA-WA	6.6	9.2	15.8
Baralfa 42IQ	B	6.6	9.1	15.7
Vernal	WI	5.9	8.3	14.2
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	Mean	6.8	9.8	16.3
	CV%	5.9	3.8	3.7
	L.S.D. (0.05)	0.6	0.5	0.9
¹ AMP	Ampac Seed Co.		GP	Great Plains Res. Co., Inc.
AS	Allied Seed, L.L.C.		LH	L&H Seeds, Inc.
B	Barenbrug USA		M	Monsanto
CW	Cal/West		P	Pioneer Hi-Bred Int'l, Inc.
DS	Dairyland Seed Co., Inc.		USDA	U.S. Department of Agriculture
ES	Eureka Seeds, Inc.		WA	Washington State University
FG	Forage Genetics		WI	University of Wisconsin
FV	Farm Valley Brand			

Soil: Sand to loamy sand.

Plots: 4' (7 rows spaced 6" apart) x 14', 4 replications, RCB.

* Planted as experimental. Winema planted as experimental W45.

Table 9 - P.E.-63.2
Washington State Hay Growers Association
Washington State University Alfalfa Yield Trials & Regrowth Ratings

Othello, WA
Seeded April 2001

Four (4) Cuttings/Year – Dry Hay T/a

<u>Entry</u>	<u>Origin¹</u>	<u>5/29</u>	<u>7/02</u>	<u>8/07</u>	<u>9/10</u>	<u>Total 2002</u>	<u>Average Regrowth²</u>
*CW60008	G	4.2	2.3	1.9	1.4	9.8	7.7
Forecast 1001	DS	4.1	2.3	1.9	1.5	9.8	7.6
DK142	M	4.2	2.3	1.9	1.4	9.8	7.4
Y54V03	P	4.0	2.3	1.9	1.6	9.8	8.2
Dura 512	FV	4.1	2.2	1.9	1.6	9.8	7.9
WinterGold	LH	4.0	2.3	1.9	1.4	9.6	7.9
*DS 9705	DS	4.1	2.2	1.8	1.5	9.6	7.7
*FG3R134	FG	3.8	2.3	1.9	1.5	9.5	7.8
53V08	P	3.8	2.3	1.9	1.5	9.5	7.7
Cimarron SR	GP	4.0	2.1	1.8	1.6	9.5	7.2
Vernema	USDA-WA	4.0	2.3	1.8	1.4	9.5	7.7
Magnum V	DS	3.9	2.2	1.8	1.5	9.4	7.9
Goliath	AS	4.0	2.2	1.8	1.4	9.4	7.3
Forecast 3001	DS	3.9	2.2	1.8	1.5	9.4	7.6
Plumas	ES	3.9	2.2	1.8	1.5	9.4	7.4
Radiant	AMP	3.8	2.2	1.8	1.4	9.2	7.2
Laser	AMP	3.9	2.2	1.8	1.3	9.2	7.4
*Winema	USDA-WA	3.7	2.2	1.8	1.5	9.2	7.9
Dakota	GP	3.9	2.0	1.7	1.5	9.1	6.8
Baralfa 42IQ	B	3.9	2.2	1.7	1.3	9.1	7.0
Vernal	WI	3.7	1.9	1.5	1.2	8.3	6.1
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	Mean	4.0	2.2	1.8	1.8	9.8	7.5
	CV%	7.5	4.9	4.3	10.7	3.8	6.2
	L.S.D. (0.05)	0.4	0.2	0.1	0.1	0.5	1.1

¹ AMP	Ampac Seed Co.	GP	Great Plains Res. Co., Inc.
AS	Allied Seed, L.L.C.	LH	L&H Seeds, Inc.
B	Barenbrug USA	M	Monsanto
CW	Cal/West	P	Pioneer Hi-Bred Int'l, Inc.
DS	Dairyland Seed Co., Inc.	USDA	U.S. Department of Agriculture
ES	Eureka Seeds, Inc.	WA	Washington State University
FG	Forage Genetics	WI	University of Wisconsin
FV	Farm Valley Brand		

² Regrowth ratings taken 6/12/02 and 10/15/02. Scale: 1 = least, 9 = most

* Planted as experimental. Winema planted as experimental W45.

Soil: Shano silt loam.

Plots: 4' (7 rows spaced 6" apart) x 14', 4 replications, RCB

Table 10 - P.E.-62.1
Washington State Hay Growers Association
Washington State University Alfalfa Yield Trials & Regrowth Ratings

Pasco, WA
Seeded August 1999

Five (5) Cuttings/Year – Dry Hay T/a

<u>Entry</u>	<u>Origin¹</u>	<u>Total 2000</u>	<u>Total 2001</u>	<u>Total 2002</u>	<u>Total 3 Years</u>	<u>Final % Stand</u>
Masterpiece	S	12.1	12.6	9.8	34.4	86.4
*54Q25	P	11.7	12.3	9.3	33.3	90.2
Plumas	ES	11.9	12.0	9.2	33.2	86.5
53V08	P	11.9	11.9	8.9	32.7	87.1
WL 327	WL	11.8	11.6	8.4	31.8	82.6
*983808	DS	11.6	11.2	8.6	31.4	62.8
Tango	ES	11.9	11.2	8.2	31.3	73.5
WL 334 RK	WL	11.6	11.0	8.5	31.1	86.9
*983809	DS	11.7	11.1	7.6	30.5	53.1
Lobo	ES	11.4	10.7	8.2	30.3	70.3
*983810	DS	11.6	10.9	7.5	30.1	48.5
*983811	DS	11.5	10.7	7.7	30.0	55.8
Samurai	ABI	10.6	10.9	8.5	30.0	89.8
*983812	DS	11.4	11.0	7.2	29.6	52.2
*983813	DS	11.3	10.7	7.3	29.3	49.2
Vernema	USDA-WA	11.8	10.1	7.1	29.0	55.4
*Winema	USDA-WA	10.4	9.9	7.0	27.3	64.0
Vernal	WI	10.1	9.3	6.5	25.9	29.8
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Mean		11.5	11.1	8.0	30.6	68.0
CV%		4.5	4.5	4.8	3.3	9.4
L.S.D. (0.05)		0.7	0.7	0.5	1.4	9.0

¹ ABI – ABI Alfalfa
 DS – Dairyland Seed Co., Inc.
 ES – Eureka Seeds, Inc.
 P – Pioneer Hi-Bred Int'l, Inc.
 S – JR Simplot Company
 USDA – US Department of Agriculture
 WA – Washington State University
 WI – University of Wisconsin
 WL – W-L Research, Inc.

Soil: Sand to loamy sand.

Plots: 4' (7 rows spaced 6" apart) x 14', 4 replications, RCB.

* Planted as experimental. Winema planted as experimental W45. 54Q25 planted as experimental Y54Q25.

Table 11 - P.E.-62.2
Washington State Hay Growers Association
Washington State University Alfalfa Yield Trials & Regrowth Ratings

Pasco, WA
Seeded August 1999

Five (5) Cuttings/Year – Dry Hay T/a

<u>Entry</u>	<u>Origin¹</u>	<u>5/14</u>	<u>6/21</u>	<u>7/11</u>	<u>8/16</u>	<u>9/27</u>	<u>Total 2002</u>	<u>Regrowth Rating²</u>
Masterpiece	S	3.1	2.6		2.0	2.1	9.8	8.8
*54Q25	P	3.2	2.4	H	1.8	1.9	9.3	8.5
Plumas	ES	2.9	2.4	A	2.0	1.9	9.2	5.3
53V08	P	3.1	2.2	I	1.9	1.7	8.9	5.5
*983808	DS	3.6	1.6	L	1.8	1.6	8.6	6.3
WL 334 RK	WL	2.7	2.0		2.0	1.8	8.5	3.3
Samurai	ABI	2.9	2.0	D	1.8	1.8	8.5	3.5
WL 327	WL	2.8	2.1	A	1.6	1.9	8.4	5.8
Tango	ES	2.7	1.9	M	1.7	1.9	8.2	6.8
Lobo	ES	2.7	1.9	A	1.8	1.8	8.2	6.8
*983811	DS	2.7	1.6	G	1.7	1.7	7.7	6.5
*983809	DS	2.6	1.6	E	1.8	1.6	7.6	6.0
*983810	DS	2.6	1.6		1.8	1.5	7.5	7.5
*983813	DS	2.5	1.6		1.6	1.6	7.3	5.0
*983812	DS	2.4	1.5		1.7	1.6	7.2	6.3
Vernema	USDA-WA	2.4	1.5		1.6	1.6	7.1	3.3
*Winema	USDA-WA	2.3	1.5		1.6	1.6	7.0	5.5
Vernal	WI	2.1	1.5		1.5	1.4	6.5	4.3
Mean		2.7	1.9		1.8	1.7	8.0	5.8
CV%		5.7	10.0		14.7	8.2	4.8	16.7
L.S.D. (0.05)		0.2	0.3		0.4	0.2	0.5	1.0

¹ Origin – See P.E.-62.1

² Regrowth ratings taken 5/28/02. Scale: 1 = least, 9 = most

Soil: Sand to loamy sand.

Plots: 4' (7 rows spaced 6" apart) x 14', 4 replications, RCB.

* Planted as experimental. Winema planted as experimental W45. 54Q25 planted as experimental Y54Q25.