

Spring 2011: Roundup Ready® Alfalfa Seed to Return

Montana alfalfa producers will have the availability to plant Roundup Ready® alfalfa (RRA) seed again in the spring of 2011. In research trials conducted at MSU since 2004, the merits of the RRA + glyphosate system were compared to conventional herbicides and practices. Advantages of RRA were its crop safety and flexibility for spring planting - consistently successful stands with very low weed or volunteer grain interference were obtained after planting from early through late spring. To optimize seedling-year forage yields, growers can plant RR alfalfa as early as possible, without delaying for weeds to emerge for a spring “burndown” treatment. If planting is delayed to mid- or late spring, glyphosate can be safely applied to RR alfalfa seedlings at earlier growth stages than conventional herbicides. Further, conventional herbicides can still be used to control difficult weeds, for dormant applications and crop termination.

Many RRA varieties from numerous seed companies will be available in spring 2011, including four that were tested in the 2006 MAES variety trials (attached). Most (>90%) of all Montana’s hay is fed on-site, and much of the crop is an alfalfa-grass mixture. RR alfalfa was initially popular with commercial hay growers on irrigated land, but it will have application for many ranchers on both irrigated and dryland acres. Notwithstanding the 4-year ban of RRA, and its high levels of scrutiny and discourse, this technology offers a very effective new tool for alfalfa crop establishment and weed control.

<http://www.aphis.usda.gov/biotechnology/alfalfa.shtml>

On January 27, 2011, APHIS announced its decision to grant nonregulated status for alfalfa that has been genetically engineered to be resistant to the herbicide commercially known as Roundup. The final Environmental Impact Statement (EIS) for Roundup Ready® Alfalfa (RR alfalfa) was published on December 23, 2010. APHIS was required to wait at least 30 days after the EIS was published in the Federal Register before issuing its decision. APHIS made its decision after conducting a thorough and transparent examination of alfalfa through a multi-alternative EIS and several public comment opportunities, and determining that RR alfalfa does not pose a plant pest risk.

APHIS prepared the EIS to comply with a February 2007 judgment and order by the United States District Court for the Northern District of California. APHIS originally deregulated the lines of RR alfalfa in June 2005 and a lawsuit was subsequently filed. The judge vacated APHIS’ 2005 decision to deregulate RR alfalfa and determined that the Agency must prepare an EIS in support of a regulatory determination regarding RR alfalfa.

Table 1. Statewide summary of uniform alfalfa variety trials in Montana planted in **2006** and harvested in **2007-2009**.
(Yield in tons of dry matter/acre per year).

Location:	Huntley	Kalispell	Kalispell	Moccasin	Sidney	Statewide Average (%Mean)	
Irrigated/Dryland:	Irrigated	Irrigated	Dryland	Dryland	Irrigated	Irrigated	Dryland
Variety (Montana marketer)*							
GrandStand (Crop Production Services)	6.46	5.07	4.72	1.25	5.07	105	94
HB8400 (Wilbur-Ellis)	6.29	5.38	4.83	1.50	4.76	104	104
AmeriStand 407TQ (America's Alfalfa)	6.61	4.92	4.76	1.22	4.95	104	93
Lariat (Simplot)	6.46	5.08	4.97	1.29	4.83	103	98
Genoa (Syngenta)	6.75	5.07	4.70	1.27	4.61	103	94
WL 355RR (W-L Research)	6.15	4.84	5.16	1.38	5.16	102	103
Whitney (Eureka Seeds)	6.18	5.12	5.12	1.49	4.77	101	107
4R200 (Eureka Seeds)	6.33	5.10	5.26	1.35	4.64	101	103
HB8300 (Wilbur-Ellis)	6.55	4.78	5.01	1.21	4.73	101	95
54Q25 (Pioneer)	6.04	4.88	5.40	1.36	4.90	100	105
Impressive (UAP)	6.40	5.10	5.28	1.30	4.38	100	101
DKA34-17RR (DEKALB)	6.37	4.87	4.90	1.28	4.61	100	97
Shaw (MSU public)	5.58	5.04	5.13	1.35	4.97	99	102
Melton (MSU public)	5.56	5.14	5.23	1.13	4.86	99	95
WL 343HQ (W-L Research)	6.56	4.74	4.45	1.37	4.35	98	96
DKA41-18RR (DEKALB)	6.19	4.84	5.07	1.57	4.33	96	109
Cooper (Seed Source)	5.53	4.59	5.19	1.44	5.04	96	106
Ladak 65 (Westland)	5.16	4.34	4.87	1.34	4.51	89	99
Location Mean	6.18	4.94	5.00	1.34	4.75		

Roundup Ready alfalfa varieties

Trials were conducted with conventional herbicides or no weed control.

*Marketing Contacts:

America's Alfalfa (800-873-2532), Crop Production Services (559-436-2940), DEKALB (314-694-6152), Eureka Seeds (530-661-6995), MSU public (406-466-5553 and others), Pioneer Hi-Bred International, Inc. (406-326-2404, 800-247-6803), Seed Source, Inc. (406-266-5643), J.R. Simplot (800-635-9444), Syngenta Seeds (800-445-0956), UAP (208-454-0475), Westland Seeds, Inc. (800-547-3335), Wilbur-Ellis Co. (509-227-3525), W-L Research (800-406-7662).

Bold values within a column are not significantly different from the **highest** value (P = 0.05%).

Winter Survival, Fall Dormancy & Pest Resistance Ratings for Alfalfa Varieties

2011 Roundup® Ready Alfalfa Varieties Addendum



Variety	Contact for Marketing Information	= Fall Dormancy	= Winter Survival	= Bacterial Wilt	= Verticillium Wilt	= Fusarium Wilt	= Anthracnose Race 1	= Phytophthora Root Rot	= Spotted Alfalfa Aphid	= Pea Aphid	= Blue Alfalfa Aphid	= Stem Nematode	= Aphanomyces Race 1	= Aphanomyces Race 2	= Southern Root Knot Nematode	= Northern Root Knot Nematode	= Potato Leafhopper	= Multi-Foliolate Expression	= Continuous Grazing Tolerance	= Stability Expression
Alfagraze 300 RR	America's Alfalfa	3	3	HR	R	HR	HR	HR	MR				HR							
DKA34-17RR	DEKALB	3	2	HR	HR	HR	HR	HR		HR		R	HR			R		H		
Graze N Hay 3.10RR	CROPLAN GENETICS	3	2	HR	HR	HR	HR	HR	R				HR							
Maxi-Pro 3.10RR	CROPLAN GENETICS	3	2	HR	HR	HR	HR	HR	R			R	HR			R		H		
425RR	Farm Science Genetics	4	2	HR	HR	HR	HR	HR	R	HR		HR	HR			R		H		
54R01	Pioneer Hi-Bred Int'l	4	2	HR	HR	HR	HR	HR	R	R		R	HR			R		H		
54R02	Pioneer Hi-Bred Int'l	4	2	HR	HR	HR	HR	HR	HR	MR		R	HR			R		H		
6443RR	Syngenta Seeds	4	2	HR	HR	HR	HR	HR	MR	HR		R	HR			R		H		
Integra 8401RR	Wilbur-Ellis Company	4	2	HR	HR	HR	HR	HR		R		R	HR			R		H		
AmeriStand 405TRR	America's Alfalfa	4	2	HR	HR	HR	HR	HR				R	HR			HR		H		
ClearGold RR	Renk Seed Company	4	2	HR	HR	HR	HR	HR		R		R	HR					H		
Consistency 4.10 RR	CROPLAN GENETICS	4	2	HR	HR	HR	HR	HR	HR	HR		R	HR			R		H		
Denali 4.10 RR	CROPLAN GENETICS	4	2	HR	HR	HR	HR	HR				HR	HR			R		H		
DKA41-18RR	DEKALB	4	2	HR	HR	HR	HR	HR	HR	HR		R	HR			R		H		
DKA43-22RR	DEKALB	4	2	HR	HR	HR	HR	HR				HR	HR			R		H		
GH709RR	Syngenta Seeds	4	2	HR	HR	HR	HR	HR	R	HR		R	HR			R		H		
Liberator	Syngenta Seeds	4	2	HR	HR	HR	HR	HR	R	R		R	HR			MR		H		
Mutiny	Syngenta Seeds	4	2	HR	HR	HR	HR	HR				HR	HR			R		H		
PGI 447RR	Producer's Choice	4	2	HR	HR	HR	HR	HR		HR		R	HR			R		H		
RR405	Channel	4	2	HR	HR	HR	HR	HR	MR			R	HR			R		H		
RRALF 4R100	*See Marketer note below	4	2	HR	HR	HR	HR	HR	MR	R		MR	HR			R		H		
RRALF 4R200	Eureka Seeds	4	2	HR	HR	HR	HR	HR	MR			HR	HR			R		H		
WL 350LH.RR	W-L Research	4	2	HR	HR	HR	HR	HR		R		MR	HR				HR			
WL 355RR	W-L Research	4	2	HR	HR	HR	HR	HR	HR	R		R	HR			MR		H		
YieldMasterRR	Jung Seed Company	4	2	HR	HR	HR	HR	HR		R		R	HR			R		H		
WL 367RR/HQ	W-L Research	5	2	HR	HR	HR	HR	HR				R	HR			R		H		
Alfagraze 600 RR	America's Alfalfa	6			R	HR	R	R	R			MR			HR	HR				
RRALF 6R100	Eureka Seeds	6		HR	R	HR	HR	HR	HR	R	HR	R				HR		M		
Transition 6.10RR	CROPLAN GENETICS	6		R	R	R	R	HR	R	HR		MR				R				
AmeriStand 815TRR	America's Alfalfa	7		R		R	R	HR	R			R	LR		R	R				
AmeriStand 855TRR	America's Alfalfa	8		R		R	R	HR	HR			R			R	R				
Desert Sun 8.10RR	CROPLAN GENETICS	8		R		MR	R	HR	HR			MR			R	HR				
DKA84-10RR	DEKALB	8		R	MR	HR	HR	HR	HR	HR	HR	HR			R	HR				
Revolution	Syngenta Seeds	8		HR	MR	HR	HR	HR	HR	HR	HR	HR			HR	HR				
RRALF 8R100	Eureka Seeds	8		R		R	R	HR	HR			MR			R	HR				
WL 550RR	W-L Research	8		HR	MR	HR	HR	R	R	HR	HR	R			HR	R				
Pinal 9	Syngenta Seeds	9		R		R	R	HR	HR			R				HR				
WL 660RR	W-L Research	9		R		R	R	HR	R			R	LR		HR	HR				

*RRALF 4R100 Marketed by: Fontanelle, Gold Country, Heritage, Hubner, Kruger, Lewis, REA, Stewart, Stone, and Trelay seed companies.

To view the full 2011 Variety Leaflet, visit the National Alfalfa & Forage Alliance website: www.alfalfa-forage.org