

Roundup Ready Contamination of Feral Alfalfa

Introduction and Affidavit By Phillip Geertson

I, Phillip Geertson, during September, October and November of 2008, gathered seed samples from feral alfalfa plants that had gone to seed during the summer of 2008 at various locations in Twin Falls and Canyon County, Idaho, and Malheur County, Oregon. At each sampling site, I recorded latitude and longitude using a GPS unit, and took one or more photographs of the alfalfa plants and the surrounding area. I subsequently cleaned the samples, very carefully keeping each sample separate to prevent sample mixing or contamination by any other seed. I then sent the seed samples to Genetic ID to conduct qualitative PCR tests for the presence of the genetically engineered Roundup Ready (RR) gene. I sampled seed from one field known to be RR. I sampled ten feral plants that should have been RR free. Nine of ten feral alfalfa samples (all but the one labeled S1) tested positive for RR, indicating widespread contamination by RR alfalfa pollen. The results of tests, the GPS locations and pictures taken during the sample collection are shown on the following pages.

Phillip Geertson



May 28, 2009

BUEL N 42 34.730' W 114 52.979'

This is an alfalfa field grown for forage that is Roundup Ready. Note the alfalfa at the top of the field that was not cut and allowed to flower and set seed. Seed gathered from plants tested positive for the RR gene by Genetic ID. This field is about ½ mile from where I took sample TFB (see next item).



TFB N 42 35.033' W 114 59.381'

This site is the edge of an alfalfa field cut for forage that was not reported as RR alfalfa. The field-edge plants that were sampled were not harvested, but rather allowed to flower and make seed. This site is approximately ½ mile from the RR alfalfa field BUEL described above. Seeds sampled from this site tested positive at the Genetic ID lab. Given the proximity to the BUEL site, it is likely that the pollen from BUEL contaminated this sample.



CB N43 30.174' W 116 38.026'
Feral alfalfa plants growing on county right of way south of Lake Lowell in Canyon County, Idaho. Note good seed set on plants. These seeds tested positive for the RR gene.



MA N 43 30.418 W 116 40.638'
Volunteer, feral alfalfa plants growing in subdivision land south of Lake Lowell in Canyon County, Idaho. Seeds tested positive for the RR gene



KM N43 33.434' W 116 25.491'
Feral alfalfa plants growing on canal right of way near Meridian in Ada County, Idaho. The canal company may have sprayed the right of way with glyphosate because all the weeds susceptible to glyphosate were dead. Seeds tested positive for RR.



S1 Snow Wolf & Corral Way

Feral alfalfa plants growing in subdivision near Star in Ada County, Idaho. Note nice seed set. Seeds tested negative for RR.



BD N43 58.909' W 117 06.519'

Feral alfalfa plants growing along right of way of US Highway 20/26 east of Vale, Oregon in Malheur County. Seeds tested positive for RR.



JH#2 N43 47.038' W117 08.865'

Feral alfalfa growing in corner of non-farmed field. Approximately 1/2 mile from an RR alfalfa seed field. Note the large number of ripe seed pods on plants. This is near Nyssa, Oregon in Malheur County. Seeds tested positive for RR.



JH N 43 47.072' W117 09.258

Feral alfalfa growing in unfarmed field used as a stack yard. This field is next to an RR seed production field. Sample JH and JH#2 were taken from the same farm. This farm is in a leading alfalfa seed producing area. Seeds tested positive for RR.



DC3 N 43 28.711' W 116 38.194'
Feral alfalfa growing on canal right of way
in Canyon County, Idaho. Seeds tested
positive for RR.



AA N42 33.571' W 116 43.954
This field was reportedly planted to RR
alfalfa by a land speculator and then for
some reason abandoned. Even though the
field doesn't get irrigated, some of the
alfalfa continues to grow, flower and set
seed. The fields in the background are
conventional alfalfa seed fields. The good
stewardship practices promised by
Monsanto and Forage Genetic were not
followed in this case. Seeds tested positive
for RR.



Cover Notes to Analysis Reports

Order Number 69903

Issued: 2/12/2009



Analysis Performed For: **Geertson Seed Farms**
Attention: **Phillip Geertson, JoAnn Behrends**
Sent To Email/Fax: **phillipgeertson@yahoo.com; Joann@seeds4forage.com**

These cover notes list the tests performed on the 11 sample(s) received for analysis on 1/28/2009. Individual Analytical Reports for each sample follow separately. For your information and where applicable, additional notes pertaining to each sample's result are detailed below. These notes are not included on the assay report.

We thank you for the opportunity to serve you.

Customer Sample ID	GID Sample Code Test Components	Date Issued	Test Package Result(s)	Result Comments
KM	090128 Q027	02/12/2009	Custom Qualitative PCR Analysis <i>Limit of Detection (per Test Component): 0.01% (Seed/Plant Reference Material)</i>	
	Alfalfa Reference Gene		Alfalfa DNA detected at normal levels	
	Inhibition Test		No inhibition observed	
	Alfalfa Mon J101/J163 (Roundup Ready®) Qualitative		Detected	
MA	090128 Q028	02/12/2009	Custom Qualitative PCR Analysis <i>Limit of Detection (per Test Component): 0.01% (Seed/Plant Reference Material)</i>	
	Alfalfa Reference Gene		Alfalfa DNA detected at normal levels	
	Inhibition Test		No inhibition observed	
	Alfalfa Mon J101/J163 (Roundup Ready®) Qualitative		Detected	

Genetic ID optimizes the DNA extraction process for each sample matrix, achieving maximum sensitivity and reliability.

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Cover Notes to PCR Analysis Reports

Order Number 69903 continued



Continued from previous page	GID Sample Code Test Components	Date Issued	Test Package Result(s)	Result Comments
BUE L	090128 Q029	02/12/2009	Custom Qualitative PCR Analysis <i>Limit of Detection (per Test Component): 0.01% (Seed/Plant Reference Material)</i>	
	Alfalfa Reference Gene		Alfalfa DNA detected at normal levels	
	Inhibition Test		No inhibition observed	
	Alfalfa Mon J101/J163 (Roundup Ready®) Qualitative		Detected	
S1	090128 Q030	02/12/2009	Custom Qualitative PCR Analysis <i>Limit of Detection (per Test Component): 0.01% (Seed/Plant Reference Material)</i>	
	Alfalfa Reference Gene		Alfalfa DNA detected at normal levels	
	Inhibition Test		No inhibition observed	
	Alfalfa Mon J101/J163 (Roundup Ready®) Qualitative		Not detected	
AA	090128 Q031	02/12/2009	Custom Qualitative PCR Analysis <i>Limit of Detection (per Test Component): 0.01% (Seed/Plant Reference Material)</i>	
	Alfalfa Reference Gene		Alfalfa DNA detected at normal levels	
	Inhibition Test		No inhibition observed	
	Alfalfa Mon J101/J163 (Roundup Ready®) Qualitative		Detected	
DC3	090128 Q032	02/12/2009	Custom Qualitative PCR Analysis <i>Limit of Detection (per Test Component): 0.01% (Seed/Plant Reference Material)</i>	
	Alfalfa Reference Gene		Alfalfa DNA detected at normal levels	

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Cover Notes to PCR Analysis Reports

Order Number 69903 continued

<i>Continued from previous page</i>	GID Sample Code Test Components	Date Issued	Test Package Result(s)	Result Comments
	Inhibition Test		No inhibition observed	
	Alfalfa Mon J101/J163 (Roundup Ready®) Qualitative		Detected	
CB	090128 Q033	02/12/2009	Custom Qualitative PCR Analysis <i>Limit of Detection (per Test Component): 0.01% (Seed/Plant Reference Material)</i>	
	Alfalfa Reference Gene		Alfalfa DNA detected at normal levels	
	Inhibition Test		No inhibition observed	
	Alfalfa Mon J101/J163 (Roundup Ready®) Qualitative		Detected	
JH #2	090128 Q034	02/12/2009	Custom Qualitative PCR Analysis <i>Limit of Detection (per Test Component): 0.01% (Seed/Plant Reference Material)</i>	
	Alfalfa Reference Gene		Alfalfa DNA detected at normal levels	
	Inhibition Test		No inhibition observed	
	Alfalfa Mon J101/J163 (Roundup Ready®) Qualitative		Detected	
BD	090128 Q035	02/12/2009	Custom Qualitative PCR Analysis <i>Limit of Detection (per Test Component): 0.01% (Seed/Plant Reference Material)</i>	
	Alfalfa Reference Gene		Alfalfa DNA detected at normal levels	
	Inhibition Test		No inhibition observed	
	Alfalfa Mon J101/J163 (Roundup Ready®) Qualitative		Detected	

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Cover Notes to PCR Analysis Reports

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<i>Continued from previous page</i>	GID Sample Code Test Components	Date Issued	Test Package Result(s)	Result Comments
TFB KP	090128 Q036	02/12/2009	Custom Qualitative PCR Analysis <i>Limit of Detection (per Test Component): 0.01% (Seed/Plant Reference Material)</i>	
	Alfalfa Reference Gene		Alfalfa DNA detected at normal levels	
	Inhibition Test		No inhibition observed	
	Alfalfa Mon J101/J163 (Roundup Ready®) Qualitative		Detected	
JH	090128 Q037	02/12/2009	Custom Qualitative PCR Analysis <i>Limit of Detection (per Test Component): 0.01% (Seed/Plant Reference Material)</i>	
	Alfalfa Reference Gene		Alfalfa DNA detected at normal levels	
	Inhibition Test		No inhibition observed	
	Alfalfa Mon J101/J163 (Roundup Ready®) Qualitative		Detected	

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