

### Fertility Report

F13-0538

George DeRuyter & Sons (Y281)

U U	• • • •				7500
Field: GDS	-SU-01	<i>Acres:</i> 17.8	Sample Date:	10/9/2013	7 509
Crop: Alfal	fa	Irrigation: Wheel line	Previous Crop:	2013 Alfalfa	
- · · <b>· ·</b>			Current Crop:	2014 Alfalfa	
Soil series:	Scoon silt loam	Leach Hazard: Low	No. of Sites:	20	
Topography:	Gentle SW slope.	Av	g Sampling Depth:	1.8	
Restrictive lay	er? Y Where? Caliche	and rocks in scattered sites. The	west part of the fiel	d is the deepest.	

Residue Incorp? N Type?

*Comments:* Sampled a three foot field composite. At the time of sampling, the alfalfa had been cut and was still on the ground. Alfalfa at 2" tall and a 50% canopy.

		ppm	Mobile N	Nutrien	ts (lbs,	(ac)	Exch. /	Solut	ble Ba	ses (i	meq/1	(00g)	Other	Data
Sample Area	Depth	<u>NO</u> 3	NO <sub>3</sub>	NH₄	SO 4	B	Ca	Mg	K	Na	<i>T.B</i> .	CEC	VolWt	%AW
Field Composite	1'	12	42	12	44	1.1	17.80	3.80	0.66	0.24	22.50	15.9	1.25	72%
Field Composite	2'	7	24										1.25	85%
Field Composite	3'	5	16										1.25	88%
		Totals:	82	12	44	1.1								

*Comments:* Residual nitrates are low overall. Ammonium is at equilibrium. Sulfur is adequate, while boron is low. Sodium is favorably low.

		Imm	obile	Nuti	rients	(ppi	n)	Chemica	l Data	9	
Sample Area	Depth	<b>P</b> <sup>P(a</sup>	<sup>ice)</sup> K	Zn	Mn	Fe	Cu	О.М.	pН	EC mmhos/cm	Eff/Calc.
Field Composite	1'	<del>96</del>	258	16.9	1.6	41	2.2	3.4%	7.1	0.29	No

*Comments:* Soil P and Zn are quite high, while K is sufficient. Manganese is low, while Iron and Copper are adequate. Organic matter is high. Soil pH is favorably near neutral and salts are favorably low.



George DeRuvter & Sons (Y281)

AGRIMETRIC SERVICES – MEASURING CROP NEEDS FOR GREATER PROFITS 

## Fertility Report

F13-0600 

Ų	<i>.</i>	,				75
Field: GD	S-SU-02	Acres:	<b>99</b> .1	Sample Date:	10/17/2013	75
Cron: Triti	icale-Sudan	Irrigation:	Wheel line	Previous Crop:	2013 Alfalfa	
				Current Crop:	2014 Triticale Sudan	
Soil series:	Scoon silt loam	Leach	Hazard: Low	No. of Sites:	30	
Topography:	Gently undulating			Avg Sampling Depth:	3.0	

Restrictive layer? Y Where? Gravel on the surface, caliche layer.

Residue Incorp? N Type? Alfalfa cultivated, Triticale-Sudan planted.

*Comments:* Sampled a three foot field composite. At sampling the Triticale was at 2-4" tall. Volunteer alfalfa, corn, and weeds. Whitish soil color on the knolls and ridges.

		ppm	Mobile I	Nutrien	ts (Ibs,	/ac)	Exch. /	Solut	ole Ba	ses (I	meq/1	1 <b>00g)</b>	Other	Data
Sample Area	Depth	<u>NO</u> 3	NO 3	NH 4	SO 4	B	Ca	Mg	K	Na	<i>T.B</i> .	CEC	VolWt	%AW
Field Composite	1'	19	65	7	37	1.6	16.20	3.90	1.04	0.30	21.44	19.2	1.25	75%
Field Composite	2'	24	81										1.25	88%
Field Composite	3'	14	49										1.25	81%
		Totals:	195	7	37	1.6								

*Comments:* The residual nitrates are moderate. Ammonium is in equilibrium. Sulfur is adequate, while boron is possibly marginal. Sodium is favorably lower.

		Imm	obile	Nutr	rients	(ppr	<b>n)</b>	Chemica	l Data	7	
Sample Area	Depth	P <sup>P(ad</sup>	<sup>~e)</sup> K	Zn	Mn	Fe	Cu	О.М.	pН	EC mmhos/cm	Eff/Calc.
Field Composite	1	126	405	12.0	1.3	22	1.7	3.5%	7.3	0.35	Yes

*Comments:* The soil P, K, and Zn are sufficient. Mn is low, while Fe and Cu are sufficient. Organic matter is high. Soil pH is near neutral, while salts are low.

				_			ľ	-eri		y r	epo	VEC.	E40.050
George DeF	Ruyter &	k Sons	(Y281	)									F13-050 757
Field: GDS	S-SU-03			E.	l <i>cres:</i>	28.4		San	nple L	Date:	10/15/2	2013	
Crop: Alfa	lfa			1	rrigation:	Wheel line		Previ Curi	ious C rent C	rop: rop:	2013 A 2014 A	Nfalfa Nfalfa	
Soil series:	Scoor	silt loa	m		Leach I	Hazard: Low	/	N	o. of S	ites:	25		
Topography:	Flat						Avg S	Sampli	ing De	pth:	3.0		
Restrictive lay	er? Y	Where	? Very	rocky, g	ravelly at t	he surface.		-	•	-			
Residue Incor	7 <i>0?</i> N	Type?	Alfalfa	a at 2-4'	- -								
Comments:	Sampled	a three	foot field	d compo	site. Soil	surface dry.	The NE	E 1/3 is	s more	rocky	than th	ne rest o	f the fie
Comments:	Sampled /ery few	a three weeds.	foot field <b>Mobile I</b>	l compo Nutrien	site. Soil ts (Ibs/a	surface dry.	The NE ' <i>Solut</i>	E 1/3 is D <b>le Ba</b>	s more ses (I	rocky meq/.	than th 100g)	ne rest o	f the fie <i>Data</i>
Comments:	Sampled /ery few <i>Depth</i>	a three weeds. <i>ppm</i>	foot field <b>Mobile I</b> <u>NO 3</u>	d compo Nutrien <u>NH 4</u>	site. Soil ts (Ibs/a <u>SO₄</u>	surface dry. c) Exch. $p$ <u>B</u> Ca	The NE ' Solut <u>Mg</u>	E 1/3 is <b>ble Ba</b> <u>K</u>	s more ses (1 <u>Na</u>	neq/. T.B.	than th 100g) CEC	ne rest o Other VolWt	f the fie <i>Data</i> %AW
Comments: Sample Area	Sampled /ery few Depth	a three weeds. ppm <u>NO</u> 3 9	foot field <b>Mobile I</b> <u>NO 3</u> 29	d compo Nutrien <u>NH 4</u> 9	site. Soil ts (Ibs/a <u>SO 4</u> 54	surface dry. <i>Exch.</i> <i>B</i> 1.6 <i>Ca</i> 13.30	The NE 7 <i>Solut</i> <u><i>Mg</i></u> 3.30	E 1/3 is <b>ble Ba</b> <u>K</u> 0.49	s more ses (1 <u>Na</u> 0.16	<b>neq/</b> . <u><b>T.B.</b></u> 17.25	than th 100g) <u>CEC</u>	Other	f the fie <b>Data</b> <b>%AW</b> 74%
Comments: Sample Area Field Composite	Sampled /ery few <u>Depth</u> 1' 2' 3'	a three weeds. ppm <u>NO</u> 3 9 4	foot field Mobile I <u>NO 3</u> 29 12 11	d compo Nutrien <u>NH 4</u> 9	site. Soil ts (Ibs/a <u>SO 4</u> 54	surface dry. <b>c) Exch.</b> <b><u>B</u> <u>Ca</u> 1.6 13.30</b>	The NE 7 <i>Solut</i> <u><i>Mg</i></u> 3.30	E 1/3 is <b>ble Ba</b> <u>K</u> 0.49	s more ses (1 <u>Na</u> 0.16	meq/. <u>T.B.</u> 17.25	than th 100g) <u>CEC</u>	<b>Other</b> VolWt 1.25 1.25	f the fie <b>Data</b> <b>%AW</b> 74% 84% 77%
Comments: Sample Area ield Composite ield Composite ield Composite	Sampled /ery few $\frac{Depth}{1'}$ 2' 3'	a three weeds. ppm <u>NO</u> 3 9 4 3 Totals:	foot field Mobile I <u>NO 3</u> 29 12 11 52	i compo Nutrien <u>NH 4</u> 9 9	site. Soil <b>ts (Ibs/a</b> <u>SO ₄</u> <u>54</u>	surface dry. <b>c) Exch.</b> <b><u>B</u> <u>Ca</u> 1.6 13.30 1.6</b>	The NE 7 <b>Solut</b> <u>Mg</u> 3.30	E 1/3 is <b>ble Ba</b> <u><b>K</b></u> 0.49	s more ses (1 <u>Na</u> 0.16	nrocky meq/. <u>T.B.</u> 17.25	than th 100g) <u>CEC</u>	<b>Other</b> <b>VolWt</b> 1.25 1.25 1.25	f the fie <b>Data</b> <b>%AW</b> 74% 84% 77%
Comments: S Sample Area Field Composite Field Composite Field Composite Comments:	Sampled /ery few 	a three weeds. ppm NO 3 9 4 3 Totals: ual nitra favoral	foot field Mobile I <u>NO 3</u> 29 12 11 52 ates are bly low. ile Nutr	d compo Nutrien <u>NH 4</u> 9 low. An rients (	site. Soil ts (Ibs/a <u>SO 4</u> 54 54 monium i ppm)	surface dry. <b>c) Exch.</b> <b>B</b> <u>Ca</u> 1.6 13.30 1.6 s in equilibriu <b>Chemical I</b>	The NE 7 <b>Solut</b> <u>Mg</u> 3.30 m. Sul	E 1/3 is <b>ble Ba</b> <u>K</u> 0.49 fur is s	s more <i>ses (1</i> <u><i>Na</i></u> 0.16	meq/. <u>meq/.</u> <u>T.B.</u> 17.25	than th 100g) <u>CEC</u> ile borc	<b>Other</b> <b>VolWt</b> 1.25 1.25 1.25	f the fie
Comments: Sample Area	Sampled /ery few 	a three weeds. ppm NO 3 9 4 3 Totals: ual nitra favoral mmob	foot field Mobile I <u>NO 3</u> 29 12 11 52 ates are bly low. <i>ile Nutr</i>	d compo Nutrien <u>NH 4</u> 9 Iow. An rients ( Mn	site. Soil ts (Ibs/a <u>SO 4</u> 54 1 55 1	surface dry. <b>c) Exch.</b> <b>B</b> <u>Ca</u> 1.6 1.6 s in equilibriu <b>Chemical I</b> <b>O.M.</b>	The NE <b>Solut</b> <b>Mg</b> 3.30 m. Sul <b>Data</b> <b>Data</b>	E 1/3 is <b>ble Ba</b> <b>K</b> 0.49 fur is s	s more ses (1 <u>Na</u> 0.16 sufficie	meq/. <u>T.B.</u> 17.25	than th <b>100g)</b> <u>CEC</u> ille borc	<b>Other</b> <b>VolWt</b> 1.25 1.25 1.25 0n is ma	f the fie <b>Data</b> <b>%AW</b> 74% 84% 77% rginal.

Is: The soil P is high, while K is marginal. Zinc is high, while Mn is low, Fe and Cu are sufficient. Organic matter is well above average. Soil pH is near neutral and salts are favorably low.

AGRI	MANAGI	
	408 N. 1st St. Yakima, WA 98901	Tel: (509) 453-4851 Fax: (509) 588-1672
	Mob. og	rimat com

## Fertility Report

F13-0560

George DeRuyter & Sons (Y281)

Field: GDS	-SU-04	Acres:	135.6	Sample Date:	10/14	/2013	7572
Crop: Tritic	ale-Silage Corn	Irrigation:	Center pivot	Previous Crop:	2013	Triticale-Silage	corn
				Current Crop:	2014	Triticale-Silage	corn
Soil series:	Warden silt loam	Leach I	Hazard: Low	No. of Sites:	30		
Topography:	Gently divided sloping		L.	Avg Sampling Depth:	3.0		

Restrictive layer? Y Where? Some rocks, mainly in the NW corner.

Residue Incorp? N Type? Scattered cultivation strips.

*Comments:* Sampled a three foot field composite. Light weed cover. Corn stalk size was normal. Soil surface was dry.

		ppm	Mobile I	Nutrien	ts (Ibs,	/ac)	Exch. /	Solut	ole Ba	ses (I	meq/1	.00g)	Other	Data
Sample Area	Depth	NO 3	NO <sub>3</sub>	NH 4	SO 4	B	Ca	Mg	K	Na	<i>T.B</i> .	CEC	VolWt	%AW
Field Composite	1'	184	624	7	925	10.8	17.10	4.80	6.79	1.27	29.96	16.0	1.25	90%
Field Composite	2'	166	564										1.25	85%
Field Composite	3'	173	587										1.25	100%
		Totals:	1774	7	925	10.8								

Comments: The residual nitrates are excessive. Ammonium is in equilibrium. Sulfur and boron are very high. Sodium is slightly to moderately elevated.

		Imn	nobile	Nuti	rients	(ppi	m)	Chemica	l Data	3	
Sample Area	Depth	<b>P</b> <sup>P</sup> (	<sup>(ace)</sup> K	Zn	Mn	Fe	Cu	О.М.	pН	EC mmhos/cm	Eff/Calc.
Field Composite	1'	398	2650	13.5	2.9	31	2.8	3.3%	7.8	2.34	Yes

Comments: The soil P and K are very high, and Zn is high. Mn is low, while Iron and Copper are adequate. Organic matter is high. The soil pH remains alkaline and salts are high.

AGRICULTURAL	<b>IM</b> .	408 N. 19 Yakima, WA	St St. A 98901	Tel: (509 Fax: (509	453-4851 588-1672	<sup>®</sup> INC.	AGRIME	RIC SE	RVICES – M	EASURIN		NEEDS F	••••••••••••••••••••••••••••••••••••••	TER PROFI
CONSULTANTS			Web: agrim	gt.com					Fer	tilit	y R	epo	rt	
George DeF	Ruyter	& Son	s (Y281	)										F13-053
Field: GDS	S-SU-05			4	Acres:	10	0.6		Sa	mple L	Date:	10/9/20	13	757
Crop: Triti	cale-Sila	ige Corr	ו	j	Irrigatio	n: Ce	enter piv	ot	Prev Cur	ious C rent C	Trop: Trop:	2013 T 2014 T	riticale-Sil riticale-Sil	age Corn age Corn
Soil series:	Ward	en silt le	bam		Leac	h Haz	ard: Lo	w	N	o. of S	ites:	30		
Topography:	Gent	y to mo	derately	undulati	ing.			A١	e Sampl	ing De	epth:	2.4		
Restrictive Ia	ver?	Wher	e? Rock	s throug	ahout at	scatte	red site	S	0 <b>T</b> ·		<b>F</b>			
Residue Incos	rn? N	Tyne	2 Liaht	stalks.	partly dis	sked ir	n early f	all.						
Comments:	Sampleo	a three <i>ppm</i>	e foot field <b>Mobile I</b>	d compo N <i>utriei</i>	osite. Th nts (Ibs)	nere h / <i>ac)</i>	ad beer <i>Exch.</i>	mod / <i>So</i>	erate to h <i>luble Ba</i>	neavy v I <b>ses (</b> I	weeds meq/	in this f 100g)	ïeld. <b>Other</b>	Data
Sample Area	Depth	<u>NO</u> 3	NO 3	NH 4	SO 4	B	C	a M	lg K	Na	<i>T.B</i> .	CEC	VolWt	%AW
ield Composite	1'	263	894	4	972	12.3	17.1	0 5.	10 7.62	1.45	31.27	17.4	1.25	74%
ield Composite	2'	254	864										1.25	72%
ield Composite	3'	263	894										1.25	81%
Comments:	Residua moderat	nitrates ely eleva	are exc ated.	essive.	Ammon	ium is	in equi	libriun	n. Sulfur	and b	oron a	re very	high. S	odium is
							omica	Data	•					
		Immol	bile Nuti	rients (	(ppm)		ennca	Dutt	7					
Sample Area	Depth	Immol P <sup>P(ace)</sup>	bile Nuti K Zn	rients ( Mn	(ppm) Fe Cu		O.M.	pH	EC mn	nhos/c	m 1	Eff/Cal	 c.	



### Fertility Report

F13-0580

George DeRuyter & Sons (Y281)

Field: GDS-SU-06 Acres: 84.5 Sample Date: 10/16/2013 13   Crop: Triticale-Silage Corn Irrigation: Center pivot Previous Crop: 2013 Triticale-Silage corn   Soil series: Warden silt loam Leach Hazard: Low No. of Sites: 32   Topography: Gently undulating Avg Sampling Depth: 2.7   Restrictive layer? Y Where? Scattered moderately compacted zones, and rocks at 18-36".								7574
Crop: Triticale-Silage CornIrrigation: Center pivotPrevious Crop: Current Crop:2013 Triticale-Silage cornSoil series:Warden silt loamLeach Hazard: LowNo. of Sites:32Topography:Gently undulatingAvg Sampling Depth:2.7Restrictive layer?YWhere? Scattered moderately compacted zones, and rocks at 18-36".2014	Field: GDS-S	Field: GDS-SU-06		84.5	Sample Date:	10/16	6/2013	7014
Current Crop: 2014 Triticale-Silage correct   Soil series: Warden silt loam Leach Hazard: Low No. of Sites: 32   Topography: Gently undulating Avg Sampling Depth: 2.7   Restrictive layer? Y Where? Scattered moderately compacted zones, and rocks at 18-36".	Crop: Triticale-Silage Corn		Irrigation:	Center pivot	Previous Crop:	2013	Triticale-Silage	corn
Soil series:Warden silt loamLeach Hazard: LowNo. of Sites:32Topography:Gently undulatingAvg Sampling Depth:2.7Restrictive layer?YWhere? Scattered moderately compacted zones, and rocks at 18-36".		-	8		Current Crop:	2014	Triticale-Silage	corn
Topography:Gently undulatingAvg Sampling Depth:2.7Restrictive layer?YWhere?Scattered moderately compacted zones, and rocks at 18-36".	Soil series:	Varden silt loam	Leach l	Hazard: Low	No. of Sites:	32		
Restrictive layer? Y Where? Scattered moderately compacted zones, and rocks at 18-36".	Topography:	Gently undulating			Avg Sampling Depth:	2.7		
	Restrictive layer?	Y Where? Scattered	moderately co	ompacted zor	nes, and rocks at 18-36".			

Residue Incorp? N Type? Light to moderate stalks and weeds.

*Comments:* Sampled a three foot field composite. Post harvest. Soil surface dry. Scattered light to moderate weeds. Scattered areas with light salts visible on the surface.

		ppm	Mobile Nutrients (lbs/ac)				Exch. /	Solut	ole Ba	ses (I	meq/1	(00g)	Other Data	
Sample Area	Depth	<u>NO</u> 3	NO 3	NH 4	SO 4	B	Ca	Mg	K	Na	<i>T.B</i> .	CEC	VolWt	%AW
Field Composite	1'	47	161	5	384	6.2	17.00	4.30	3.38	0.70	25.38	17.4	1.25	65%
Field Composite	2'	82	277										1.25	75%
Field Composite	3'	102	348										1.25	70%
		Totals:	786	5	384	6.2								

# *Comments:* Residual nitrates are high. Ammonium is in equilibrium. Sulfur and boron are high. Sodium is slightly elevated.

		Imn	nobile	Nuti	rients	(ppi	n)	Chemica	l Data	7	
Sample Area	Depth	<b>P</b> <sup>P</sup> (	<sup>(ace)</sup> K	Zn	Mn	Fe	Си	О.М.	pН	EC mmhos/cm	Eff/Calc.
Field Composite	1'	162	1320	10.1	1.6	17	2.0	2.5%	7.9	0.74	Yes

*Comments:* Soil P, K, and Zn are high. Mn is low, while Fe is marginal, and Cu is sufficient. Organic matter is above average. Soil pH is quite alkaline, while salts are only slightly elevated.

AGRI	MANAGI	
AGRICULTURAL CONSULTANTS	408 N. 1st St. Yakima, WA 98901 Web: add	Tel: (509) 453-4851 Fax: (509) 588-1672 rimat.com

### Fertility Report

F13-0540 7575

George DeR	uyter & Sons (Y281)					F13-
Field: GDS-SU-07		Acres:	76.6	Sample Date:	10/9/2013	
Crop: Alfalfa		Irrigation:	Center pivot	Previous Crop:	2013 Alfalfa	
Soil series:	Warden silt loam	Leach I	Hazard: Low	No. of Sites:	30	
Topography:	Gently undulating.			Avg Sampling Depth:	2.6	
	a Marine a Dealer in					

Restrictive layer? Y Where? Rocks in scattered sites.

**Residue Incorp?** N Type?

Comments: Sampled a three foot field composite. Harvested recently. Alfalfa at 2-3" tall with a 50% canopy overall.

		ppm Mobile Nutrients				(ac)	Exch. /	Exch. / Soluble Bases (meq/100g)						Data
Sample Area	Depth	<u>NO</u> 3	NO <sub>3</sub>	NH₄	SO 4	B	Ca	Mg	K	Na	<i>T.B</i> .	CEC	VolWt	%AW
Field Composite	1'	31	104	5	286	5.1	19.90	4.00	1.94	0.72	26.56	16.1	1.25	78%
Field Composite	2'	74	252										1.25	82%
Field Composite	3'	76	257										1.25	74%
		Totals:	613	5	286	5.1								

Comments: Residual nitrates are high. Ammonium is in equilibrium. Sulfur and boron are also high. Sodium is only slightly elevated.

		Imm	obile	Nutr	ients	(ppi	<b>n)</b>	Chemica	l Data	7	
Sample Area	Depth	<b>P</b> <sup>P(a</sup>	<sup>(ce)</sup> K	Zn	Mn	Fe	Си	О.М.	pН	EC mmhos/cm	Eff/Calc.
Field Composite	1'	90	757	9.1	1.5	17	2.0	1.9%	7.6	0.48	Yes

*Comments:* Soil P, K, and Zn are high. Mn is low while Fe and Cu are sufficient. Organic matter is above average. Soil pH is moderately alkaline, while salts are okay.

	긔		Web: agrim	jt.com					Fert	tilit	y R	epo	ort	
George DeF	Ruvter &	& Sons	(Y281	)							-			F13-060
Field: GDS	S-SU-08		·	, E	lcres:	165	5.5		San	nple L	Date:	10/17/	2013	757
Crone Tritic	ala-Silar	ne Com		7	migation	. Ce	nter nivot		Previ	ious C	rop:	2013	Triticale-Sil	age com
Crop: That	alc-Olla	ge oom		1	rriguitor				Cur	rent C	rop:	2014	Triticale-Sil	age corn
Sail series:	Warde	en silt lo	am		Leach	h Haza	ard: Low		N	o. of S	ites:	30		
Fonogranhy.	Gentle	e undula	tion sou	uth slop	3.			Avg S	amnli	ng De	oth:	2.6		
Programmer Street			•	•					···· <b>T</b> ···		E			
Restrictive lav	er? N	Where	? Hard	pan sta	rting at a	bout 2	24".							
Restrictive lay Residue Incor	<i>er?</i> N p? N	Where Type?	? Hard Corn	pan sta stalks s	rting at a till standi	bout 2 ng.	24".							
Restrictive lay Residue Incor Comments: S v	<i>er?</i> N <i>p?</i> N 3ampled 7ere mixe	<i>Where</i> <i>Type?</i> a three ed throu	? Hard? Corn foot field ghout th	pan sta stalks s l compo e field.	rting at a till standi site. Co Some si	bout 2 ng. rn sta mut bo	24". Iks were a odies on t	a fair to he rem	o avera naining	age in i stalk:	size, w s. Salt	veak a s on th	nd strong he soil su	ı stalks rface.
Restrictive lay Residue Incor Comments: S v	er? N p? N Sampled vere mixe	Where Type? a three ed throu	? Hard Corn foot field ghout th <b>10bile I</b>	pan sta stalks s l compo e field. <b>Nutrien</b>	rting at a till standi ssite. Co Some si ts (Ibs/	bout 2 ng. rn sta mut bo <b>′ac)</b>	24". Iks were a odies on t <i>Exch. /</i>	a fair to he rem <b>Solub</b>	o avera naining o <b>le Ba</b>	age in stalka <b>ses (</b> 1	size, w s. Salt <b>meq/</b> :	veak a s on th <b>(00g)</b>	nd strong he soil su <b>Other</b>	<b>)</b> stalks rface. <b>Data</b>
Restrictive lay Residue Incor Comments: 5 V Sample Area	er? N p? N Sampled vere mixe Depth	Where Type? a three ed throu ppm <u>NO</u> 3	? Hard Corn foot field ghout th <b>Aobile I</b> NO <sub>3</sub>	pan sta stalks s I compo e field. <b>Nutrien</b> NH 4	ting at a till standi ssite. Co Some si ts (Ibs/ SO <sub>4</sub>	bout 2 ng. rn sta mut bo <b>′ac)</b> <b>B</b>	24". Iks were a odies on t <i>Exch. /</i> <i>Ca</i>	a fair to he rem <b>Solub</b> Mg	o avera naining ole Ba K	age in stalka ses (I Na	size, w s. Salt <b>meq/</b> 2 <b>T.B.</b>	/eak a s on th t 00g) CEC	nd strong he soil su <b>Other</b> C VolWt	y stalks rface. <b>Data</b> %AW
Restrictive lay Residue Incor Comments: S v Sample Area Field Composite	er? N p? N Sampled vere mixe <u>Depth</u> 1'	Where Type? a three ed throu ppm <u>NO</u> 3 161	? Hard Corn foot field ghout th <b>Aobile I</b> <u>NO 3</u> 549	pan sta stalks s l compo e field. Nutrien <u>NH 4</u> 4	till standi site. Co Some si ts (Ibs/ <u>SO 4</u> 755	bout 2 ng. rn sta mut bo <b>′ac)</b> <u><b>B</b></u> 9.2	24". Iks were a odies on t <i>Exch. /</i> <u><i>Ca</i></u> 17.10	a fair to he rem <i>Solub</i> <u>Mg</u> 5.00	avera naining <b>Je Ba</b> <u>K</u> 7.63	age in stalk: ses (1 <u>Na</u> 1.27	size, w s. Salt <b>meq/</b> 2 <u><b>T.B.</b></u> <u>31.00</u>	veak a s on th (00g) <u>CE(</u> 17.0	nd strong he soil su Other <u>C</u> <u>VolWt</u> 6 1.25	y stalks rface. <b>Data</b> <u>%AW</u> 77%
Restrictive lay Residue Incor Comments: S V Sample Area Field Composite Field Composite	er? N p? N Sampled vere mixe $\frac{Depth}{1'}$	Where Type? a three ed throu ppm <u>NO</u> 3 161 161	? Hard Corn foot field ghout th <b>Aobile I</b> <u>NO 3</u> 549 546	pan sta stalks s l compo e field. Nutrien <u>NH 4</u> 4	till standi site. Co Some si ts (Ibs/ <u>SO 4</u> 755	bout 2 ing. rn sta mut bo <b>(ac)</b> <u><b>B</b></u> 9.2	24". Iks were a odies on t <i>Exch. /</i> <u><i>Ca</i></u> 17.10	a fair to he rem <b>Solub</b> <u>Mg</u> 5.00	o avera naining <b>Je Ba</b> <u>K</u> 7.63	age in stalk: ses (1 <u>Na</u> 1.27	size, w s. Salt <b>meq/</b> 2 <u><b>T.B.</b></u> <u>31.00</u>	veak a s on th <b>100g)</b> <u>CE(</u> 17.6	nd strong he soil su Other C VolWt 6 1.25 1.25	y stalks rface. <b>Data</b> <u>%AW</u> 77% 79%
Restrictive lay Residue Incor Comments: S V Sample Area Field Composite Field Composite Field Composite	er? N p? N Sampled vere mixe $\frac{Depth}{1'}$	Where Type? a three ed throu ppm <u>NO</u> 3 161 161 139	? Hard Corn foot field ghout th <b>Aobile 1</b> <u>NO 3</u> 549 546 472	pan sta stalks s l compo e field. Nutrien <u>NH 4</u> 4	rting at a till standi ssite. Co Some si ts (Ibs/ <u>SO 4</u> 755	bout 2 ng. rn sta mut bo <b>′ac)</b> <u>B</u> 9.2	24". Iks were a odies on t <i>Exch. /</i> <u><i>Ca</i></u> 17.10	a fair to he rem <i>Solub</i> <u><i>Mg</i></u> 5.00	o avera naining <b>Je Ba</b> <u>K</u> 7.63	age in stalk: ses (1 <u>Na</u> 1.27	size, w s. Salt meq/2 <u>T.B.</u> <u>31.00</u>	veak a s on th (00g) <u>CE(</u> 17.6	nd strong he soil su Other C VolWt 6 1.25 1.25 1.25	y stalks rface. <b>Data</b> <u>%AW</u> 77% 79% 74%

		Imm	nobile	Nutr	rients	(ppi	n)	Chemica			
Sample Area	Depth	<b>P</b> <sup>P(0</sup>	<sup>ace)</sup> K	Zn	Mn	Fe	Cu	О.М.	pН	EC mmhos/cm	Eff/Calc.
Field Composite	1	243	2976	13.7	2.2	25	4.0	3.4%	7.7	1.63	Yes

*Comments:* The soil P, K, and Zn are very high. Mn is low, while Fe and Cu are sufficient. Organic matter is high. Soil pH is alkaline and salts are moderately elevated.

		Other	' Data		
		(	ppm) (Tons/Ac)	<u>Saturate</u>	ed Paste Extraction
Sample Area	Depth	Cl	HCO 3 Lime Req SMP p	H pH	EC mmhos/cm
Field Composite	1	33			

AGRIMANAGEMENT® INC. AGRICULTURAL	AGRIMETRIC SERVICES – MEASURING CROP NEEDS FOR GREATER PROFITS
CONSULIAN IS Web: agrimgt.com	Fertility Report

George DeRuyter & Sons (Y281)

<i>Field:</i> GD	S-SU-09	Acres:	34.6 Center Pivot	Sample Date: Previous Crop:	10/14/2013 2013 Alfaifa	7577
Crop: Ind	cale-ollage com	Irriguiton:		Current Crop:	2014 Triticale-Si	age Corn
Soil series:	Warden silt loam	Leach I	Hazard: Low	No. of Sites:	30	
Topography:	Split by swale, gently u	Indulating		Avg Sampling Depth:	2.9	

Restrictive layer? Y Where? Some rocks and hard pan.

**Residue Incorp?** N Type? Light to moderate crowns.

*Comments:* Sampled a three foot field composite. The average sampling depth was at 34". At the time of sampling the alfalfa was at 1-3" tall. The soil surface was dry. Weeds were minimal, some dandelion. The soil was very compacted. Water in the swale with grassy vegetation.

		ppm	Mobile N	lutrien	Exch. /	.00g)	Other Data							
Sample Area	Depth	<u>NO</u> 3	NO <sub>3</sub>	NH₄	SO <sub>4</sub>	B	Ca	Mg	K	Na	<i>T.B</i> .	CEC	VolWt	%AW
Field Composite	1'	25	84	3	160	4.3	19.40	4.00	2.05	0.61	26.06	14.5	1.25	70%
Field Composite	2'	28	96										1.25	40%
Field Composite	3'	27	92										1.25	50%
		Totals:	272	3	160	4.3								

*Comments:* Residual nitrates are moderate to high. Ammonium is at equilibrium. Sulfur and boron are plenty high. Sodium is only slightly elevated.

		Immo	bile	Nutr	ients	(ppr	n)	Chemical Data					
Sample Area	Depth	P P(ace	<sup>*)</sup> K	Zn	Mn	Fe	Cu	О.М.	pН	EC mmhos/cm	Eff/Calc.		
Field Composite	1'	150	800	8.5	2.5	26	2.0	2.4%	7.5	1.05	Yes		

Comments: The soil P, K, and Zn are plenty high. Mn is low, while Fe and Cu are adequate. Organic matter is above average. The soil pH is moderately alkaline, while salts are slightly elevated.

Fertility and chemical data used here to formulate a recommendation was processed and reported by Soil Test, Inc., and Agrimanagement, Inc. soil lab for deep profile nitrates.

F13-0561

AGRICULTURAL AGRICULTURAL CONISULTANTS AGRICULTURAL Yakima, WA 96901 Fax:	509) 453-4851 (509) 588-1672	C. AGRIMETRIC	SERVICES – MEASURING CRO	P NEEDS FOR GRE	ATER PROFITS
Web: agringt.com			Fertility R	Report	
George DeRuyter & Sons (Y281)					F13-0568
Field: GDS-SU-10	Acres:	38.5	Sample Date:	10/15/2013	1516
Crop: Alfalfa	Irrigation:	Center pivot	Previous Crop:	2013 Triticale-S	ilage com
<b>Z</b> *	6		Current Crop:	2014 Alfalfa	

Soil series:	Warden silt loam	Leach Hazard: Low	No. of Sites:	25
Topography:	Gently undulating		Avg Sampling Depth:	3.0

Restrictive layer? Y Where? Scattered compacted zones at 26-36", caliche in areas.

Residue Incorp? N Type? Light to moderate residue.

*Comments:* Sampled a three foot field composite. Post harvest. Very light scattered salts on the surface. Light to moderate weeds. Generally good stalk diameter.

		ppm	Mobile N	lutrien	ts (Ibs,	/ac)	Exch. /	00g) Other	Other Data				
Sample Area	Depth	<u>NO</u> 3	NO <sub>3</sub>	NH ₄	SO 4	B	Ca	Mg	K	Na	<i>T.B</i> .	CEC VolWt	%AW
Field Composite	1'	49	167	2	153	2.2	19.80	3.00	1.85	0.69	25.34	1.25	75%
Field Composite	2'	38	128									1.25	74%
Field Composite	3'	22	74									1.25	72%
		Totals:	369	2	153	2.2							

# *Comments:* The residual nitrates are high. Ammonium is in equilibrium. Sulfur is plenty high, and boron is sufficient. Sodium is slightly elevated.

		Imm	obile	Nutr	rients	(ppi	n)	Chemical Data					
Sample Area	Depth	<b>P</b> <sup>P(a</sup>	<sup>ce)</sup> K	Zn	Mn	Fe	Cu	О.М.	pН	EC mmhos/cm	Eff/Calc.		
Field Composite	1'	53	723	4.0	1.2	11	1.1	2.2%	7.8	0.56	Yes		

Comments: The soil P, K, and Zn are plenty high. Mn and Fe are low, while Cu is sufficient. Organic matter is above average. Soil pH is moderately alkaline, while salts are favorably lower.

AGRI	MANAGE	MENT	
AGRICULTURAL CONSULTANTS	408 N. 1st St. Yakima. WA 98901 Web: agri	Tel: (509) 453-4851 Fax: (509) 588-1672 mgt.com	101b 1.
······	· ·	-	Fe

AGRIMETRIC SERVICES – MEASURING CROP NEEDS FOR GREATER PROFITS

# Fertility Report

George DeF	Ruyter	& Sor	ıs (Y281	)												F13-058
Field: GDS	S-SU-11				Acre	s:	8.1				San	nple I	Date:	10/16	/2013	1513
Cron: Alfal	fa				Irrig	ation:	W	heel line	Ð		Previ	ious C	Crop:	2013	Triticale-Su	udan grass
erept					8						Cur	rent C	Crop:	2014	Alfalfa	
Soil series:	Ward	len silt	loam		L	each	Haz	ard: L	w		N	o. of S	Sites:	18		
Topography:									A	vg Sa	ımpli	ing De	epth:	2.7		
Restrictive lay Residue Incor Comments:	e <b>r?</b> Y p? N Samplec surface.	<i>Whe Type</i> a thre	<i>re?</i> Scatt ? Light e foot field	ered a Sudan d comp	reas ( resid oosite	of moo lue. . Posi	derat t har	tely to s vest. A	ignifio Alfalfa	cantly plan	/ com ted.	ipacte Scatte	ed soil i ered ar	in the reas o	20-36" ra f light sal	inge. ts on the
		ppm	Mobile	Nutrie	nts (	'Ibs/a	ic)	Exch	. <b>/ S</b> a	olubl	e Ba	ses (	meq/	100g	) Other	Data
Sample Area	Depth	<u>NO</u>	NO <sub>3</sub>	NH	, S	04	B	C	'a 1	Mg	K	Na	<i>T.B</i> .	CE	C VolWt	%AW
Field Composite	1'	39	132	9	1	16	3.6	17.8	<u>10</u>	1.00	2.32	0.54	24.66		1.28	5 70%
Field Composite	2'	38	129												1.25	5 75%
Field Composite	3'	31	104												1.28	5 80%
		Totals	365	8	1	16	3.6									
Comments: F	<b>Residua</b> l lightly e	nitrate levated	s are high I. bile Nut	n. Amr	noniu	m is in	n eq	uilibriur	n. Sı	ulfur a	and b	oron a	are ple	nty hiç	gh. Sodiu	ım is only
Gamma In Artes	Dent	n Place		1/	E.	<u> </u>		0.14	TT		7	<b>.</b>				
Sample Area		<b>P</b> <sup>-</sup> (	$\frac{\Lambda}{200}$ $\frac{2n}{10}$	MIN	re	$\frac{cu}{c}$		<u>U.M.</u>	<u>pH</u>		<u>_ mm</u>	nos/c	$-\frac{m}{2}$	<u>";jj/Ca</u>	ис.	
Field Composite	1'	161	903 10.4	2.3	28	2.8		3.2%	7.6		0.4	18		res		

Comments: Soil P, K, and Zn are high. Mn is low, while Fe and Cu are sufficient. Organic matter is high. Soil pH is medium alkaline, while salts are favorably low.

AGRÍ	MANAGE	
	408 N. 1st St.	Tel: (509) 453-4851
AGRICULTURAL	Yakima, WA 98901	Fax: (509) 588-1672
CONSULIANTS	Web: agri	mot.com

### Fertility Report

F13-0527

George DeRuyter & Sons (Y281)

000.g0 .		/					7500
Field:	GDS-SU-12	Acres:	40.5	Sample Date:	10/7/2	2013	1000
Crop:	Triticale-Silage Corn	Irrigation:	Rill	Previous Crop:	2013	Triticale-Silage	corn
	Ū			Current Crop:	2014	Triticale-Silage	corn
Soil series	: Warden silt loam	Leach 1	Hazard: Low	No. of Sites:	25		
Topograpi	<i>by:</i> Very gentle to gentle S	S-SW slope		Ave Sampling Depth:	2.8		

Restrictive layer? Y Where? Compacted soil and rocks in scattered sites.

**Residue Incorp?** Y Type? Light stalks.

*Comments:* Sampled a three foot field composite. Stalk diameter is generally okay. Some small weed patches. Closely planted in the West Half.

		ppm	Mobile I	Nutrien	trients (lbs/ac)			Exch. / Soluble Bases (meq/100g)						Other Data		
Sample Area	Depth	<u>NO</u> 3	NO 3	NH 4	SO 4	B	Ca	Mg	K	Na	<i>T.B</i> .	CEC	VolWt	%AW		
Field Composite	1'	168	570	9	670	3.0	21.30	4.20	1.73	0.59	27.82	16.1	1.25	80%		
Field Composite	2'	125	426										1.25	88%		
Field Composite	3'	95	322										1.25	95%		
		Totals:	1318	8	670	3.0										

# *Comments:* The residual nitrates are high. Ammonium is in equilibrium. Sulfur is high, while boron is sufficient. Sodium is only slightly elevated.

		Imm	obile	Nutr	rients	(ppr	n)	Chemica			
Sample Area	Depth	<b>P</b> <sup>P(4</sup>	<sup>ace)</sup> K	Zn	Mn	Fe	Cu	О.М.	pН	EC mmhos/cm	Eff/Calc.
Field Composite	1'	154	675	6.0	3	26	1.6	3.4%	7.2	1.57	Yes

*Comments:* The soil P, K, and Zn are high. Mn is low, while Fe and Cu are sufficient. Organic matter is high. The soil pH is near neutral, while salts are slightly elevated.

*Comments:* Given the scattered soil compaction, it is recommended that you could do some ripping. Ripping is best done when the soil profile is slightly moist (as post harvest in the fall).

AGRI	MANAG]	
	408 N. 1st St.	Tel: (509) 453-4851
CONSULTANTS	Yakima, WA 98901	Fax: (509) 588-1672
CONSULIANTS	Web: ac	arimat.com

#### **Fertility Report**

F13-0569 7581

George DeR	uyter & Sons (Y281)					
Field: GDS	-SU-13	Acres:	47	Sample Date:	10/15/2013	
Crop: Alfali	a	Irrigation:	Wheel line	Previous Crop:	2013 Alfalfa	
		0		Current Crop:	2014 Alfaifa	
Soil series:	Warden silt loam	Leach I	Hazard: Low	No. of Sites:	25	
Topography:	Gently Undulating		Av	g Sampling Depth:	3.0	
Topography:	Gently Undulating		Av	g Sampling Depth:	3.0	

Restrictive layer? Y Where? Scattered compaction areas past 18".

Residue Incorp? N Type?

*Comments:* Sampled a three foot field composite. Post harvest. Light to moderate weeds in the swale.

		ppm	Mobile I	Exch. / Soluble Bases (meq/100g) Other I							Data			
Sample Area	Depth	<u>NO</u> 3	NO 3	NH 4	SO 4	B	Ca	Mg	K	Na	<i>T.B</i> .	CEC	VolWt	%AW
Duplicate	1'	10	34						·				1.25	50%
		Totals:	34											
Field Composite	1'	10	35	3	95	1.3	19.70	3.50	0.60	0.27	24.07		1.25	50%
Field Composite	2'	7	23										1.25	70%
Field Composite	3'	8	28										1.25	73%
		Totals:	86	3	95	1.3								

*Comments:* Residual nitrates are low. Ammonium is in equilibrium. Sulfur is sufficient, while boron is low. Sodium is favorably low.

		Imm	obile	Nutr	ients	(ppi	n)	Chemical Data				
Sample Area	Depth	P P(ac	<sup>**)</sup> K	Zn	Mn	Fe	Cu	О.М.	pН	EC mmhos/cm	Eff/Calc.	
Field Composite	1'	104	233	3.6	0.9	9	1.2	2.0%	7.9	0.28	Yes	

*Comments:* Soil P is high, while K is marginal to sufficient. Zn is adequate. Mn and Fe are low, while Cu is sufficient. Organic matter is above average. Soil pH is quite alkaline, while salts are favorably low.

*Comments:* Given the scattered soil compaction, it is recommended that you could do some deep ripping. Ripping is best done when the profile is slightly moist (as in the fall, post harvest).

AGRICULTURAL CONSULTANTS	408 N. 1st St. Yakima, WA 98901 Web: aorimat.	<b>MENT</b> ® IN: Tel: (509) 453-4851 Fax: (509) 588-1672 com	C. AGRIMETRIC SI	ERVICES – MEASURING CRC	P NEEDS FOR GREA	TTTTTTTTT ATER PROFITS
				Fertility F	Report	
George DeR	uyter & Sons (Y281)					F13-0602
Field: GDS-	-SU-14	Acres:	65.2	Sample Date:	10/17/2013	7582
Crop: Triticale-Sudan		Irrigation:	Wheel line	Previous Crop:	2013 Alfalfa	
•		0		Current Crop:	2014 Triticale-S	udan
Soil series:	Warden silt loam	Leach l	Hazard: Low	No. of Sites:	30	

Topography: Gently undulating

**Restrictive layer?** Y Where? Some caliche in the cores.

N Type? Alfalfa incorportated, Triticale planted. **Residue Incorp?** 

Comments: Sampled a three foot field composite. At the time of sampling the Triticale was at 2-4" tall. Very light weeds. Scattered white soil, mainly on the knolls and steeper slopes. Under irrigation. The swales were pretty wet.

Avg Sampling Depth: 3.0

		ppm	Mobile N	Nutrien	ts (Ibs,	/ac)	Exch. / Soluble Bases (meq/100g)					Other Data		
Sample Area	Depth	<u>NO</u> 3	NO 3	NH₄	SO₄	B	Ca	Mg	K	Na	<i>T.B</i> .	CEC	VolWt	%AW
Field Composite	1'	37	127	6	109	1.4	19.80	3.90	1.03	0.38	25.11	16.6	1.25	105%
Field Composite	2'	32	107										1.25	95%
Field Composite	3'	21	71										1.25	110%
		Totals:	305	6	109	1.4								

Comments: Residual nitrates are high. Ammonium is in equilibrium. Sulfur is high, while boron is low. Sodium is favorably lower.

		Imm	obile	Nutr	rients	(ppn	n)	Chemica	l Data	3	
Sample Area	Depth	<b>P</b> <sup>P(e)</sup>	<sup>uce)</sup> K	Zn	Mn	Fe	Cu	О.М.	pН	EC mmhos/cm	Eff/Calc.
Field Composite	1'	57	402	3.0	1.7	19	1.2	1.9%	7.7	0.40	Yes
Comments:	Soil P. K	, and	Zn are	suff	icienth	y high	. Mn	is low, while	e Fe a	nd Cu are sufficient.	Organic matter is slightly

DII P. K. and Z above average. Soil pH is alkaline and salts are favorably low.

Fertility and chemical data used here to formulate a recommendation was processed and reported by Soil Test, Inc., and Agrimanagement, Inc. soil lab for deep profile nitrates.