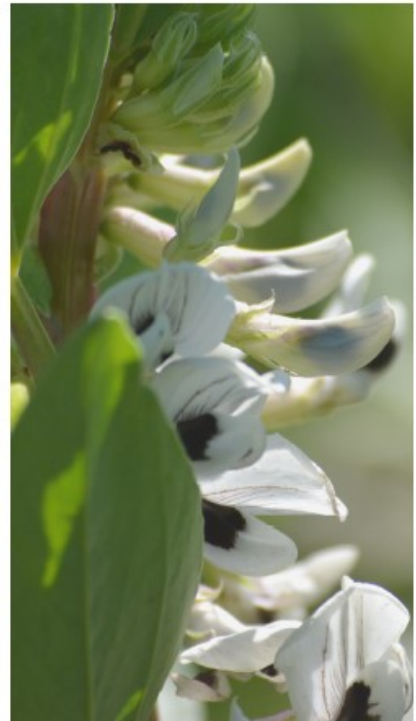
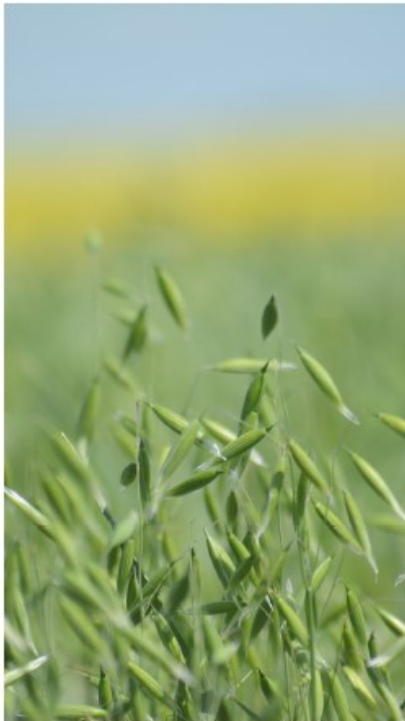




## **NE 16-28-03 W4**

\*Smigelski Site

For any questions please  
contact the CARA office  
at 403-664-3777



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**@CARARESEARCH**

# Smigelski Site Map

Because this site is so large, we have decided to split up the site plan to make it easier for you to see the varieties and treatments.

The complete site plan is available on CARA's website.

- Page # 4 Regional Variety Trials
- Page # 8 AWC Fertility Trial
- Page # 10 Ultra Early Seeded Wheat
- Page # 12 ABC Fertility Trial
- Page # 14 Phos rates on peas
- Page # 16 Soil Health Benefits from Crop Diversity
- Page # 18 Cover Crops Variety
- Humaterra applications—coming soon





# REGIONAL VARIETY TRIAL PROGRAM (RVT)

The RVT program is responsible for generating unbiased post-registration information for varieties of wheat, barley, oat, rye, triticale, flax, field pea, chickpea, lentil, dry bean and faba bean

The Alberta Regional Variety Trial program (RVT) is the most trusted source of various information for producers in Alberta. Farmers need accurate, regional and the most current variety information to stay competitive.

The goal of the RVT trials are to provide cereal, flax and pulse crop growers, and industry and extensions specialists with scientifically valid crop variety performance information under different agro-climatic conditions. Data is published in the Alberta Seed Guide and in Alberta Agriculture Varieties of Cereal and Oilseed crops for Alberta pamphlet

This site includes yellow & green peas, lentils, flax, wheat, durum, triticale & faba beans

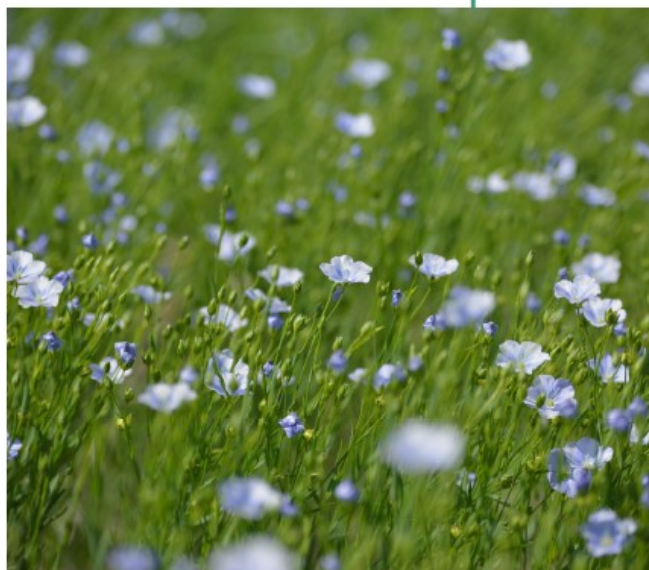
## Thank you to our Contributors & Sponsors



Alberta Barley



For any questions please contact the CARA office at 403-664-3777







62	Guard	67	Guard	70	73	78	83	88	91	101	106	109	114	117	122	125	130			
	101 CDC Lemochio		201	LN4228		301	AAIC Delhi	401	CDC Inca	L	101 CDC Proxim	Guard	201	CDC Simmie	Guard	301	CDC Proxim	Guard	401	CDC Lima CL
	102 LN4228		202	AAIC Delhi		302	CDC Canary	402	AAIC Carver	E	102 CDC Nimble	202	CDC Maxim CL	302	CDC Impulse CL	402	CDC Simmie		402	CDC Nimble
	103 CDC Ardill		203	CDC Inca		303	CDC Ardill	403	AAIC Lacombe	N	103 CDC Simmie	203	CDC Proxim	303	CDC Lima CL	403	CDC Nimble		403	CDC Nimble
	104 CDC Athabasca		204	CDC Amarillo		304	CDC Spectrum	404	CDC Athabasca	T	104 CDC Maxim CL	204	CDC Lima CL	304	CDC Nimble	404	CDC Impulse CL		404	CDC Impulse CL
	105 CDC Inca		205	AAIC Lacombe		305	AAIC Barrhead	405	CDC Lewochio	I	105 CDC Impulse CL	205	CDC Nimble	305	CDC Simmie	405	CDC Maxim CL		405	CDC Maxim CL
	106 AAIC Delhi		206	AAIC Profit		306	AAIC Carver	406	LN4228	L	106 CDC Lima CL	206	CDC Impulse CL	306	CDC Maxim CL	406	CDC Proxim		406	CDC Proxim
	107 AAIC Barrhead		207	CDC Canary		307	AAIC Carver	407	CDC Spectrum	Guard	Guard	Guard	Guard	Guard	Guard	Guard	Guard		Guard	Guard
	108 AAIC Carver		208	CDC Ardill		308	LN4228	408	AAIC Barrhead											
	109 CDC Amarillo		209	CDC Lemochio		309	CDC Inca	409	CDC Amarillo											
	110 CDC Canary		210	AAIC Carver		310	CDC Athabasca	410	AAIC Delhi											
	111 AAIC Profit		211	CDC Spectrum		311	CDC Amarillo	411	CDC Ardill											
	112 AAIC Lacombe		212	CDC Athabasca		312	CDC Lewochio	412	AAIC Profit											
	113 CDC Spectrum		213	AAIC Barrhead		313	AAIC Profit	413	CDC Canary											
	Guard		Guard	Guard		Guard	Guard	Guard	Guard											
	101 AAIC COMFORT		201	CDC LIMERICK		301	GARDE	401	AAIC COMFORT	A	Guard	Guard	Guard	Guard	Guard	Guard	Guard			
	102 GARDE		202	CDC FOREST		302	BLUEMAN	402	GARDE	B	101	CDC GLAS	201	CDC BETHUNE	301	FP2373	Guard			
	103 CDC LIMERICK		203	BLUEMAN		303	CDC SPRUCE	403	BLUEMAN	F	103	AAIC BRIGHT	202	AAIC BRIGHT	302	CDC GLAS	Guard			
	104 CDC FOREST		204	GARDE		304	CDC LIMERICK	404	CDC SPRUCE	L	104	FP2373	204	CDC DORADO	304	AAIC BRIGHT	Guard			
	105 BLUEMAN		205	CDC SPRUCE		305	AAIC COMFORT	405	CDC FOREST	A	105	CDC DORADO	205	CDC GLAS	305	CDC BETHUNE	Guard			
	106 CDC SPRUCE		206	AAIC COMFORT		306	CDC FOREST	406	CDC LIMERICK	X	Guard	Guard	Guard	Guard	Guard	Guard	Guard			
	Guard		Guard	Guard		Guard	Guard	Guard	Guard											
	101		201			301		Guard	Guard											
	102		202			302		Guard	Guard											
	103		203			303		Guard	Guard											
	104		204			304		Guard	Guard											
	105		205			305		Guard	Guard											
	106		206			306		Guard	Guard											
	107		207			307		Guard	Guard											
	108		208			308		Guard	Guard											
	109		209			309		Guard	Guard											
	110		210			310		Guard	Guard											
	111		211			311		Guard	Guard											
	112		212			312		Guard	Guard											
	113		213			313		Guard	Guard											
	101 DL Tesoro		201	CDC 215-16		301	NP2 16 7610	401	NP2 16 7601	S	101	CS Camden	201	CF41302	301	CS Camden	Guard			
	102 Mask		202	NP2 16 7601		302	DL Tesoro	402	CDC 215-16	K	102	CDC SIVE	202	CS Camden	302	OR63341M	Guard			
	103 NP2 16 7601		203	NP2 16 7610		303	NP2 16 7610	403	NP2 16 7610	O	104	OR63342M	203	AAIC Douglas	303	CDC SIVE	Guard			
	104 CDC 215-16		204	Mask		304	Mask	404	Snowbird	A	105	OR63341M	204	CDC Airport	304	OR63342M	Guard			
	105 NP2 16 7610		205	Mask		305	Mask	405	Snowbird	T	106	AAIC Douglas	205	CDC Endeure	305	CDC Endeure	Guard			
	106 Snowbird		206	DL Tesoro		306	Snowbird	406	DL Tesoro	S	107	CF41302	206	OR63342M	306	CF41302	Guard			
	107 Fabelle		207	Snowbird		307	CDC 215-16	407	Mask	108	CDC Endeure	207	CDC SIVE	307	AAIC Douglas	Guard				
	Guard		Guard	Guard		Guard	Guard	Guard	Guard											

\* no insecticide

39	44
Guard	
	101 STRONGFIELD
	102 DT1897
5	103 AAC STRONGHOLD
K	104 CDC CONVERT
D	105 DT1011
V	106 AAC GRAINLAND
B	107 AAC SUCCEED VB
U	108 CDC DEFY
V	109 AAC DONLOW
M	110 DT1991
	111 AAC GOLDNET
	112 DT1010
	113 CDC CREDESCE
Guard	
Guard	

47	52
Guard	
	201 DT1011
	202 CDC CONVERT
	203 DT1897
	204 STRONGFIELD
	205 AAC SUCCEED VB
	206 AAC GOLDNET
	207 AAC GRAINLAND
	208 DT1010
	209 AAC DONLOW
	210 AAC STRONGHOLD
	211 CDC CREDESCE
	212 DT1991
	213 CDC DEFY
Guard	
Guard	

55	60
Guard	
	301 AAC GRAINLAND
	302 AAC DONLOW
	303 DT1011
	304 AAC STRONGHOLD
	305 DT1897
	306 AAC GOLDNET
	307 DT1991
	308 CDC CREDESCE
	309 DT1010
	310 CDC DEFY
	311 AAC SUCCEED VB
	312 STRONGFIELD
	313 CDC CONVERT
Guard	
Guard	

63	67

AB	Guard
T	101 1757
B	102 BRIGADE
I	103 TYNDALE
T	104 1736
Guard	
Guard	
A	101 STRONGFIELD
B	102 TRANSCEND
	103 DT1991
D	104 CDC CONVERT
U	105 BRIGADE
B	106 AAC GOLDNET
V	107 CDC DEFY
M	108 AAC STRONGHOLD
	109 DT1897
	110 AAC GRAINLAND
Guard	
Guard	

Guard	
	201 BRIGADE
	202 TYNDALE
	203 1736
	204 1757
Guard	
Guard	
Guard	
Guard	
	201 CDC CONVERT
	202 BRIGADE
	203 AAC GOLDNET
	204 CDC DEFY
	205 AAC STRONGHOLD
	206 DT1897
	207 AAC GRAINLAND
	208 STRONGFIELD
	209 TRANSCEND
	210 DT1991
Guard	
Guard	

Guard	
	301 1736
	302 1757
	303 BRIGADE
	304 TYNDALE
Guard	
Guard	
Guard	
Guard	
	301 CDC DEFY
	302 AAC STRONGHOLD
	303 DT1897
	304 AAC GRAINLAND
	305 STRONGFIELD
	306 TRANSCEND
	307 DT1991
	308 CDC CONVERT
	309 BRIGADE
	310 AAC GOLDNET
Guard	
Guard	



# AWC WHEAT FERTILITY TRIAL

## Evaluation of Various Nitrogen Sources on Wheat Yield & Quality

This trial evaluates the effect of different nitrogen rates and sources (urea and ammonium sulphate) applied with the seed, at flag leaf and flowering. Yield and protein are monitored.

This trial is replicated 4 times with the 18 treatments randomized in each replication. The outside are guards that are consistent through all the replications.

**This trial is funded by**

*Alberta Wheat*



For any questions please contact the CARA office at 403-664-3777



# Alberta Wheat Fertility Trial

Based on Soil analysis from the site with VERY Low N and P

Guard		Guard		Guard		Guard	
101	TRT-5	201	TRT-4	301	TRT-18	401	TRT-8
102	TRT-7	202	TRT-2	302	TRT-2	402	TRT-2
103	TRT-14	203	TRT-5	303	TRT-5	403	TRT-8
104	TRT5	204	TRT-15	304	TRT-8	404	TRT-18
105	TRT-1	205	TRT-7	305	TRT-9	405	TRT-14
106	TRT-12	206	TRT-12	306	TRT-17	406	TRT-18
107	TRT-15	207	TRT-9	307	TRT-1	407	TRT-11
108	TRT-13	208	TRT-8	308	TRT-11	408	TRT-9
109	TRT-16	209	TRT-13	309	TRT-15	409	TRT-10
110	TRT-18	210	TRT 5	310	TRT-12	410	TRT 1
111	TRT-11	211	TRT-8	311	TRT-8R	411	TRT 17
112	TRT-4	212	TRT-17	312	TRT-16	412	TRT-7
113	TRT14	213	TRT-14	313	TRT5	413	TRT5
114	TRT-2	214	TRT-16	314	TRT17	414	TRT-5
115	TRT5	215	TRT1	315	TRT17	415	TRT-12
116	TRT-9	216	TRT-18	316	TRT-3	416	TRT-13
117	TRT-17	217	TRT17	317	TRT-4	417	TRT-15
118	TRT-8	218	TRT-10	318	TRT-14	418	TRT-4
Guard		Guard		Guard		Guard	

seeding depth 1.5"

Fert depth 3"

Seeding Date: May 13, 2020

## Treatments

- TRT-1 Control P-K
- TRT-2 0.5 N Rec N mix
- TRT-3 0.5 N Rec Ammonium Sulfate
- TRT-4 0.5 N Rec + 20lb/a liquid UAN at flag leaf
- TRT-5 0.5 N Rec + 20lb/a liqN N NH4(SO4) at flag leaf
- TRT-6 0.5 N Rec + 20lb/a Broadcast N Mix at Post Flowering
- TRT-7 0.5 N Rec + 20lb/a Broadcast NH4(SO4)2 at post Flowering
- TRT-8 0.5 N Rec + 20lb/a Broadcast NH4(SO4)2 at flag stage
- TRT-9 Rec N Rate Mix N
- TRT-10 Rec N Ammonium Sulfate
- TRT-11 N Rec + 20 broadcast lb NH4(SO4)2 at flag stage
- TRT-12 Rec N + 20lb/a Broadcast NH4(SO4)2 at post flowering
- TRT-13 N Rec + 20 liquid lb NH4(SO4)2 at flag stage
- TRT-14 Rec N + 20lb/a liquid NH4(SO4)2 at flag leaf and post flowering

## Rec rate 2020 soil analysis Fert Rate

N: 80 for 40 bu
P: 40

Flag	Flower
Application dates: July 9-10	

- TRT-15 Rec N+ 20lb/a liquid UAN at flag leaf
- TRT-16 Rec N+ 20lb/a liquid at NH4(SO4) post flowering
- TRT-17 Rec N + 20lb/a Broadcast NH4(SO4) at flag leaf
- TRT-18 Rec N + 20lb/a Broadcast N Mix at Post Flowering



# AWC ULTRA EARLY SEEDED WHEAT

## Advantages of Seeding Spring Wheat Ultra-Early in Alberta

This trial will compare maturity, yield, grain quality from 2 varieties of wheat (AAC Brandon and AAC Connery) seeded as early as possible compared with a conventional seeding date.

This trial is replicated 4 times and randomized in each replication. The outside are guards that are consistent through all the replications.

### This trial is funded by



For any questions please contact the CARA office at 403-664-3777



		5
	Guard	
	101	E1
U	102	E2
L	103	E3
T	104	E4
R	105	E5
A	106	E6
	Guard	
E	Guard	
A	101	N1
R	102	N2
L	103	N3
Y	104	N4
	105	N5
	106	N6
	Guard	

		8	13
	Guard		
	201	E3	
	202	E6	
	203	E2	
	204	E4	
	205	E1	
	206	E5	
	Guard		
	Guard		
	201	N3	
	202	N6	
	203	N2	
	204	N4	
	205	N1	
	206	N5	
	Guard		

		16	21
	Guard		
	301	E6	
	302	E1	
	303	E3	
	304	E5	
	305	E2	
	306	E4	
	Guard		
	Guard		
	301	N6	
	302	N1	
	303	N3	
	304	N5	
	305	N2	
	306	N4	
	Guard		

		24	29
	Guard		
	401	E5	
	402	E3	
	403	E6	
	404	E4	
	405	E1	
	406	E2	
	Guard		
	Guard		
	401	N5	
	402	N3	
	403	N6	
	404	N4	
	405	N1	
	406	N2	
	Guard		



# ABC BARLEY FERTILITY TRIAL

## Evaluation of Various Fertilizer and Mycorrhizae Applications on Barley

The objectives of this trial includes evaluation of different levels of nitrogen and phosphorus evaluates the effect of different nitrogen sources (fertilizer rates applied with the seed.

Yield and protein are monitored.

This trial is replicated 4 times with the 18 treatments randomized in each replication. The outside are guards that are consistent through all the replications.

**This trial is funded by**



**Alberta  
Barley**



For any questions please contact the CARA office at 403-664-3777



	Guard
	Guard
A	101
B	102
C	103
	104
	105
F	106
E	107
R	108
T	109
	110
	111
	112
	113
	114
	115
	116
	Guard
	Guard

	Guard
	Guard
	201
	202
	203
	204
	205
	206
	207
	208
	209
	210
	211
	212
	213
	214
	215
	216
	Guard
	Guard

	Guard
	Guard
	301
	302
	303
	304
	305
	306
	307
	308
	309
	310
	311
	312
	313
	314
	315
	316
	Guard
	Guard

	Guard
	Guard
	401
	402
	403
	404
	405
	406
	407
	408
	409
	410
	411
	412
	413
	414
	415
	416
	Guard
	Guard



# PHOSPHORUS RATES ON FIELD PEAS

## Evaluation of phosphorus rates on field peas

Adequate levels of phosphorus are known to influence yield and maturity in field peas. The impact of monoammonium phosphate (MAP) fertilizer will be evaluated on the yield and quality of Meadow field peas.

This trial is replicated 4 times with the 4 treatments randomized in each replication. The outside are guards that are consistent through all the replications.

This trial is funded by



For any questions please contact the CARA office at 403-664-3777



AB	Guard	
P	101	0
H	102	15 lbs MAP
O	103	30lbs MAP
S	104	15 lbs MAP*
	Guard	

Guard	
201	
202	
203	
204	
Guard	

Guard	
301	
302	
303	
304	
Guard	



# SOIL HEALTH BENEFITS FROM CROP DIVERSITY

## Evaluation of Soil Health Benefits from Improved Crop Diversity in Alberta

The impact from several rotations, including pulses, cereals and oilseeds as well as cocktail mixes, on soil health was initiated in 2020.

This trial is replicated 4 times with the 4 treatments randomized in each replication. The outside are guards that are consistent through all the replications.

**This trial is funded by**



For any questions please contact the CARA office at 403-664-3777



	77		82
	Guard		
C	101	Peas	
R	102	Lentils	
O	103	Peas	
P	104	Lentils	
	105	CCC Mix 1	
D	106	CCC Mix 2	
I	107	CCC Mix 3	
V	108	CCC Mix 4	
E	109	CCC Mix 1	
R	110	CCC Mix 2	
S	111	CCC Mix 3	
I	112	CCC Mix 4	
T	113	Wheat	
Y	114	Wheat	
	Guard		

	85		90
	Guard		
	201	Lentils	
	202	CCC Mix 1	
	203	Wheat	
	204	Peas	
	205	Wheat	
	206	CCC Mix 2	
	207	CCC Mix 2	
	208	CCC Mix 4	
	209	CCC Mix 4	
	210	CCC Mix 3	
	211	CCC Mix 1	
	212	CCC Mix 3	
	213	Peas	
	214	Lentils	
	Guard		

	93		98
	Guard		
	301	CCC Mix 1	
	302	CCC Mix 1	
	303	Wheat	
	304	Lentils	
	305	Peas	
	306	CCC Mix 3	
	307	CCC Mix 2	
	308	Peas	
	309	CCC Mix 3	
	310	CCC Mix 4	
	311	CCC Mix 4	
	312	CCC Mix 2	
	313	Wheat	
	314	Lentils	
	Guard		

	101		106
	Guard		
	401	Peas	
	402	CCC Mix 4	
	403	Lentils	
	404	Wheat	
	405	CCC Mix 4	
	406	CCC Mix 3	
	407	CCC Mix 1	
	408	Lentils	
	409	CCC Mix 2	
	410	Peas	
	411	CCC Mix 2	
	412	CCC Mix 3	
	413	CCC Mix 1	
	414	Wheat	
	Guard		



# COVER CROPS VARIETY TRIALS

Utilizing cover crops by planting them early in the growing season can provide producers with improved soil health, a high quality source of forage, and a longer grazing season.

Cocktail crops have traditionally been used to help hold the soil when transitioning between different types of cash crops, and are often plowed down before planting the next crop to add organic material and fertility to the soil. Farmers with livestock often select cover crops that can be grazed, adding an additional benefit as feed and the advantage of additional nutrients from animal manure.

An annual and alternative cover crop variety trial at this site is to evaluate the annual and alternative cover crops for grazing & soil health purposes.

10 different varieties were seeded (each variety was replicated three times for each of the seeding methods). Varieties used were:

- Forage Radish
- Japanese Millet
- Forage Turnip
- Sorghum Sudan Grass
- Red Siberian Millet
- Plantain
- Forage Kale
- Chicory
- Forage Brassica &
- Phacelia



For any questions please contact the CARA office at 403-664-3777



	140	145	148	153	156	161	164	169
	Guard		Guard		Guard		Guard	
	101	FORAGE RADISH	201	SORGUM SUDAN GR	301	FORAGE KALE	401	HYBRID RY
<b>A</b>	102	HYBRID RYE	202	MILLET	302	CHICORY	402	FORAGE R
<b>L</b>	103	FORAGE TURNIP	203	PLANTAIN	303	FORAGE BBRASSICA	403	FORAGE T
<b>T</b>	104	SORGUM SUDAN GR	204	FORAGE KALE	304	PHACELIA	404	MILLET
<b>E</b>	105	MILLET	205	CHICORY	305	FORAGE RADISH	405	PLANTAIN
<b>R</b>	106	PLANTAIN	206	FORAGE BBRASSICA	306	FORAGE TURNIP	406	SORGUM S
<b>N</b>	107	FORAGE KALE	207	PHACELIA	307	HYBRID RYE	407	CHICORY
	108	CHICORY	208	FORAGE RADISH	308	PLANTAIN	408	FORAGE B
	109	FORAGE BBRASSICA	209	FORAGE TURNIP	309	SORGUM SUDAN GR	409	PHACELIA
	110	PHACELIA	210	HYBRID RYE	310	MILLET	410	FORAGE K
	Guard		Guard		Guard		Guard	