

Saskatchewan Conservation Learning Centre Inc.

1998 – 2002 Projects

Current Long-term Projects

Precision Farming – Fertilizer Treatments (2001, 2002)

1. Conventional (blanket) application of recommended rate for wet season
2. Conventional (blanket) application of recommended rate for dry season
3. Variable rate application for wet season:
 - a. Upper slopes 1.5X recommended rate
 - b. Lower slopes 0.5X recommended rate
4. Variable rate application for dry season:
 - a. Upper slopes 0.5X recommended rate
 - b. Lower slopes 1.5X recommended rate

Forages

1. Saskatchewan Forage Variety Trials (Saskatchewan Forage Council / Agri-ARM)
2. Potential forages for use as dense nesting cover (Ducks Unlimited)
3. Dense nesting cover (Ducks Unlimited)
4. Direct-seeded forage grass and legume variety garden
 - a. Influence of fertility and harvest timing on forage yield (2001)

Trees

1. Woodlot
2. Tree establishment and vegetation control trial
3. Shelterbelt species garden
4. Siberian larch line trial (PFRA)
5. White spruce field shelterbelt
6. Green ash field shelterbelt
7. Forest belt
8. Fruit shrubs
9. Honeysuckle line trial (University of Saskatchewan)

Monitoring the Environment

1. Meteorological data
2. Wildlife survey
3. Vegetation survey

Miscellaneous

1. Herb garden (Prince Albert ADD Board)

Completed Multi-Year Projects

Agriculture and Agri-Food Canada

1. Effects of alfalfa in crop rotations (Johnston)

2. Impact of topography and nitrogen fertility on canola and wheat diseases (Kutcher)
3. Impact of residue burning on diseases and yield of canola (Kutcher)
4. Effect of foliar fungicide application on control of Mycosphaerella blight in peas (Kutcher)
5. Aster yellows in canola and common families of cultivated crops (Soroka / Saretski)

University of Saskatchewan

1. Soil and crop response to sulphur fertilization (Schoenau)
2. Variable seeding and fertilizer rate project (Pennock, Johnston, Mahli, Walley)
3. Alfalfa inoculation study (Knight)

Other

1. Grass seed production in short-term crop rotation (Ducks Unlimited)
2. Water quality monitoring project (National Water Institute)
3. Medicinal herb trials (NorSask Botanicals)
4. Native plant diversity demonstration (Ducks Unlimited)

Proprietary Research

1. BASF
2. Dupont
3. AgQuest

Annual Crop Projects

1998

1. Canola systems comparison
2. SSCA direct seeding Do's and Don'ts in wheat, peas and canola
3. Wheat, barley and flax varieties (SeCan)
4. Mon 37500 weed control in wheat (Monsanto)
5. Demonstration Strip Trial -- herbicide tolerant canolas (AgrEvo)
6. Roundup Ready canola variety trial
7. Dry bean varieties
8. DyVel for volunteer SMART canola and flax control in wheat (BASF)

1999

1. SSCA direct seeding Do's and Don'ts in barley, flax and peas
2. Fortress check strip in barley
3. Seed treatments in barley
4. Effect of Sundance on barley
5. Curtail-M and Puma Super in barley
6. Metcalfe malting barley
7. Alfetta peas direct seeded into forage grass sod and legumes

8. Alfetta peas seeded with ConservaPack into forage sod
9. Inoculants in peas
10. Time of weed removal (herbicide application) in canola and peas
11. Seed treatments in wheat
12. Demonstration Strip Trial -- herbicide tolerant canolas (AgrEvo)
13. Roundup Ready canola varieties
14. Split applications of Roundup on Roundup Ready canola
15. Time of seeding of Quest canola
16. Effect of Basagran on dandelions
17. Roundup Ready soybeans and corn and BT potatoes

2000

1. SSCA direct seeding Do's and Don'ts in wheat: Agrotain versus urea
2. VIROSOFTBA3® -- Biological control for Bertha armyworms
3. Fall-seeded 46A73 SMART canola coated with Extender
4. Fall-seeded SW Arrow canola coated with Extender
5. Fall-seeded 2631 LL and 3640 canola
6. Cartier canola
7. Establishment of peas on stubble sprayed with Curtail-M
8. Caraway direct seeded with no cover crop
9. Seed treatments in canola
10. Foliar sulphur in canola
11. Demonstration of bolt-on liquid side band knife (Bourgault Tillage Tools)
12. Basagran on peas
13. Aster yellows disease in herbs and spices (Saskatchewan Herb and Spice Association / Agriculture and Agri-Food Canada)

2001

1. SSCA direct seeding Do's and Don'ts in peas and flax
2. Caraway direct seeded with no cover crop (second year)
3. CLC Trilogy (Clearfield) hard red spring wheat
4. VIROSOFTBA3® -- Biological control for Bertha armyworms
5. Termination of established alfalfa stand
6. Liquid versus foliar copper trial (Gates Fertilizers)

2002

1. SSCA Do's and Don'ts of preseed burnoff
2. Caraway direct seeded with no cover crop (third year)
3. Canola variety comparisons
4. Canamaize BRC maize
5. Dekalb DCK27-12 maize
6. Liquid versus foliar copper trial (Gates Fertilizers)
7. GG469 and Ustia soybean demonstrations
8. CDC Major coriander, Mammoth dill and CDC Quatro fenugreek
9. Forage barley and oat varieties
10. AC Superb hard red spring wheat

11. Golden German foxtail millet
12. 45H21 canola treated with Titan

Field-Scale Projects

Each year the CLC has projects that are field-scale (25 to 100 acres in size). Many showcase new varieties, crop protection products or technology.

1998

1. NorLin flax
2. AC Karma CPS wheat
3. CDC Fleet barley
4. 45A71 SMART canola
5. AC Splendor hard red spring wheat
6. Alfetta peas

1999

1. NorLin flax
2. AC Elsa hard red spring wheat
3. CDC Fleet barley
4. 46A73 SMART canola
5. Croma yellow peas: treated versus untreated seed
6. Alfetta yellow peas
7. Espace green peas

2000

1. Granular versus foliar copper and foliar nitrogen in AC Barrie wheat
2. AC Elsa hard red spring wheat: three different seed treatments and herbicide combinations
3. AC Metcalfe 2-row barley
4. 2573 Invigor canola (precision agriculture): Conventional (blanket) application of recommended fertilizer rate versus variable rate based on landscape (upper and lower slopes)
5. Delta yellow peas
6. SW Arrow canola: spring-seeded and fall-seeded

2001

1. 2663 Invigor canola (precision agriculture)
2. CDC Bethune flax
3. Delta yellow peas and impact of starter fertilizer
4. Hard red spring wheat

2002

1. 45A77 SMART canola
2. DKB 3455 canola
3. 45H21 canola
4. AC Prodigy hard red spring wheat

5. AC Barrie hard red spring wheat (precision agriculture)

MACHINERY, EQUIPMENT AND FACILITIES

1. *Tractor*

- 1987 John Deere 2355 tractor (owned by Agriculture and Agri-Food)
- John Deere 520 tractor front-end loader (owned by Agriculture and Agri-Food)
- Tractor to operate seeder and sprayer is rented each year.

2. *Seeding*

- 27' Series 5000 Flexicoil air drill (1999)
- 1330 tow between seed cart
- Stealth openers
- Equipped for variable rate applications
- Edwards hoe drill (1996)
- 2 – 7' sections
- Equipped for liquid fertilizer application
- Liquid fertilizer band wagon and diaphragm pump equipped for variable rate applications

3. *Spraying*

- 60' Series 55 Flexicoil sprayer (1999)
- Chemical injection kit
- Double boom
- Equipped for variable rate applications
- FIMCO 25' sprayer
- Backpack sprayer

4. *Harvesting*

- 1983 TR85 New Holland combine
- Pickup header
- 20' straight cut header
- Equipped with yield monitor
- 1967 Massey Ferguson 410 self-propelled combine
- Westfield 41'x7" auger with Honda 13HP engine
- 1996 Flaman 3 HP aeration fan
- Weigh wagon (owned by PFRA)

5. *Storage*

- 4 - 1550 bushel hopper bottom bins (owned by landowner)
- 3950 bushel steel bin (owned by Agriculture and Agri-Food)
- 3 1250-gallon liquid fertilizer storage tanks
- 1 1250-gallon water tank

- 1 storage shed for smaller tools (owned by landowner)
- 1 storage facility (reefer / semi-trailer unit) (rented)

6. *Miscellaneous*

- 1995 John Deere 613 6' three-point hitch mower
- Satloc SLXG backpack system with FarmWorks software and Casio Palm PC
- Pessl Instrument μ Metos weather station
- John Deere 6x7 Gator utility vehicle
- 1963 GMC grain truck
- 1988 Chevrolet $\frac{3}{4}$ ton pickup
- 2 pole sheds (classroom and storage) (owned by landowner)
- 1 ATCO office trailer