

**CONSERVATION LEARNING CENTRE, PRINCE ALBERT
-NEW AVENUE FOR BOTH RESEARCH AND EXTENSION IN THE
SASKATCHEWAN PARKLAND REGION**

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A. Introduction

In the spring of 1993, the Conservation Learning Centre was established south of Prince Albert, Sask. This is a demonstration farm which focuses on farming practices which conserve soil, water and wildlife in the Parkland region.

The site consists of 3 quarter sections of land, used for a variety of purposes. These purposes include demonstrations, research, and student activities relating to three primary areas of interest which are direct seeding, forages, and shelterbelts.

The Centre is meant to be a learning place, for all ages and all levels of expertise. For example, researchers are invited to established applied research plots or benchmark testing at the Centre. Producers are given the opportunity to learn about the research and demonstration results through summer tours, winter workshops, and the media. Elementary and secondary school students are also invited, with their teachers, to visit the Centre for tours and learning activities which are designed to teach about agriculture in general but focusing on the need for conservation strategies, many of which are being used at the Centre.

A partnership of producers, government and non-government organizations, and industry has made this project possible. A steering committee, composed of producers and agency representatives, has guided the project through a successful initial year of operation.

B. Objectives of the Conservation Learning Centre (CLC):

- * Demonstrate land management techniques which focus on the optimum utilization of the landscape for annual crop and forage production, employ appropriate soil and water conservation techniques and facilitate wildlife habitat enhancement.
- * Provide a Learning Centre for farmers, agrologists, students of all ages, and the general public interested in agricultural sustainability and environmental quality.
- * Collect scientific information to evaluate the interaction of crop production and livestock-based agriculture with the environment, utilizing the landscape relief characteristic of the Parkland Region of Saskatchewan.
- * Provide a common location for the interaction of public and private interests concerned with issues related to production agriculture and resource conservation.

C. Field Projects in 1993

1. Polish canola was successfully direct-seeded and harvested on 224 acres, resulting in an average yield of 20 bushels per acre.
2. CPS Biggar Wheat was successfully direct-seeded and harvested on 95 acres, resulting in an average yield of 45 bushels per acre.
3. A field-scale canola variety trial compared the establishment, growth and productivity of 5 polish canola varieties.
4. A field-scale trial compared 0-70 pounds of actual Nitrogen, in the form of urea, seed-placed with canola.
5. Forty-five acres of dense nesting cover was planted and established by Ducks Unlimited Canada.
6. A small alternative crops garden of 41 different "new to the area" crops was established. No yields were taken, but it was a very popular visual introduction to crops which may or may not have potential in the Parkland Region.
7. Greenhouse gas monitoring by the University of Saskatchewan, Soil Science Department. They began a comparison of the emissions of Greenhouse gases from summerfallow, cropped and forage sites.
8. A small research plot was established by the Melfort Research Station, comparing several forages with potential as dense nesting cover species.
9. A small demonstration plot was established by the Melfort Research Station, showing canola tolerance to several herbicides mixed with glyphosate as a pre-seeding application.

D. Projects planned for 1994 at the Conservation Learning Centre:

The following potential projects are as a result of cooperation of many agencies, organizations, and industry. Cooperating agencies will be listed in the 1994 Results, as full sponsorship is not complete at time of writing this report.

For your information, reference has been made to level of information to be gathered, defined as demonstration only (D), research (R), and/or gross measurements taken for reference (M).

- 1) Forages:
 - * species garden (D)
 - * direct seeding methods for alfalfa and meadow bromegrass (D,R)
 - * saline tolerance of forages (D)
 - * forage rejuvenation (D,M)
 - * dense nesting cover (DNC) establishment (D)
 - * investigation into new potential species for DNC (D,R)
 - * short-term alfalfa included in crop rotation (D,R)

2) Shelterbelts:

- * species garden (D)
- * field shelterbelt establishment and enhancement (D)
- * wildlife shelterbelt establishment (D)
- * yard shelterbelt enhancement(D)

3) Annual Crop Production:

- * alternative crops garden (D)
- * salinity effect on annual crop species (D)
- * residual Lontrol effect on annual crop species in following year (D)
- * direct seeding:
 - flax, barley, peas, and wheat sown at field scale (D,M)
 - non-incorporation of historically incorporated products such as Avadex, Edge (D,M)
 - crop rotations and N placement and timing (D,R)
 - variable N rates (D,R)
 - seed-placement of urea and ammonium nitrate with canola (D,M,R)
 - Canada thistle control (D)
 - Quackgrass control (D)
 - Foxtail barley control (D)
 - Greenhouse gases monitored in comparison with tilled and forage sites, fert. and non-fert. (D,R)
 - weed numbers and species monitored (D,R)

F. Acknowledgments:

The Conservation Learning Centre wishes to thank all the agencies which were instrumental in establishing the demonstration farm in 1993:

- * Canada's Green Plan
- * Ducks Unlimited Canada
- * Saskatchewan Soil Conservation Association
- * Prince Albert A.D.D. Board
- * Agriculture and Agri-Food Canada, through the Melfort Research Station, and the P.F.R.A.
- * Soil Science Department, University of Saskatchewan
- * Saskatchewan Agriculture and Food

Special thanks go to the producers who provide their input into the ongoing planning and support of the project.