



Essex County Demonstration Farm

2012
Annual Report

Essex County Demonstration Farm

The Essex Region Conservation Authority (ERCA) and partners from the agricultural community established the Essex County Demonstration Farm (ECDF) at Holiday Beach Conservation Area in 1996. Since then the project has received considerable support and interest from the agricultural community. The goal of the farm has been to demonstrate best management practices and innovative technologies that will conserve soil, maintain productivity, improve water quality and quantity, and illustrate that farming and the environment can coexist.

Together with its partner organizations, the Essex Soil and Crop Improvement Association (ESCIA), Ontario Ministry of Agricultural, Food and Rural Affairs, Agri-Food and Agriculture Canada, and various private sector organizations, the ECDF has focused on demonstrating on-going issues and techniques within the agricultural community. In this respect, the farm has undertaken projects that were of interest to the agricultural partners as well as the farming community in Essex County. In addition, it has incorporated natural habitat demonstrations that reflect the diversity of ecosystems in the Essex region. It provides a forum for the agricultural community to work together and communicate innovative techniques to each other and landowners.

By working as a team, ERCA hopes that information on agricultural issues, such as crop varieties, nutrient management, genetically modified products, and best management practices (BMPs) can be more effectively demonstrated and understood by farmers that deal with these issues on a daily basis. Therefore, the role of ECDF is to incorporate the ideas and projects of the partner organizations, to bind these organizations together resulting in effective communication between partners as well as with the agricultural community in the Essex Region.

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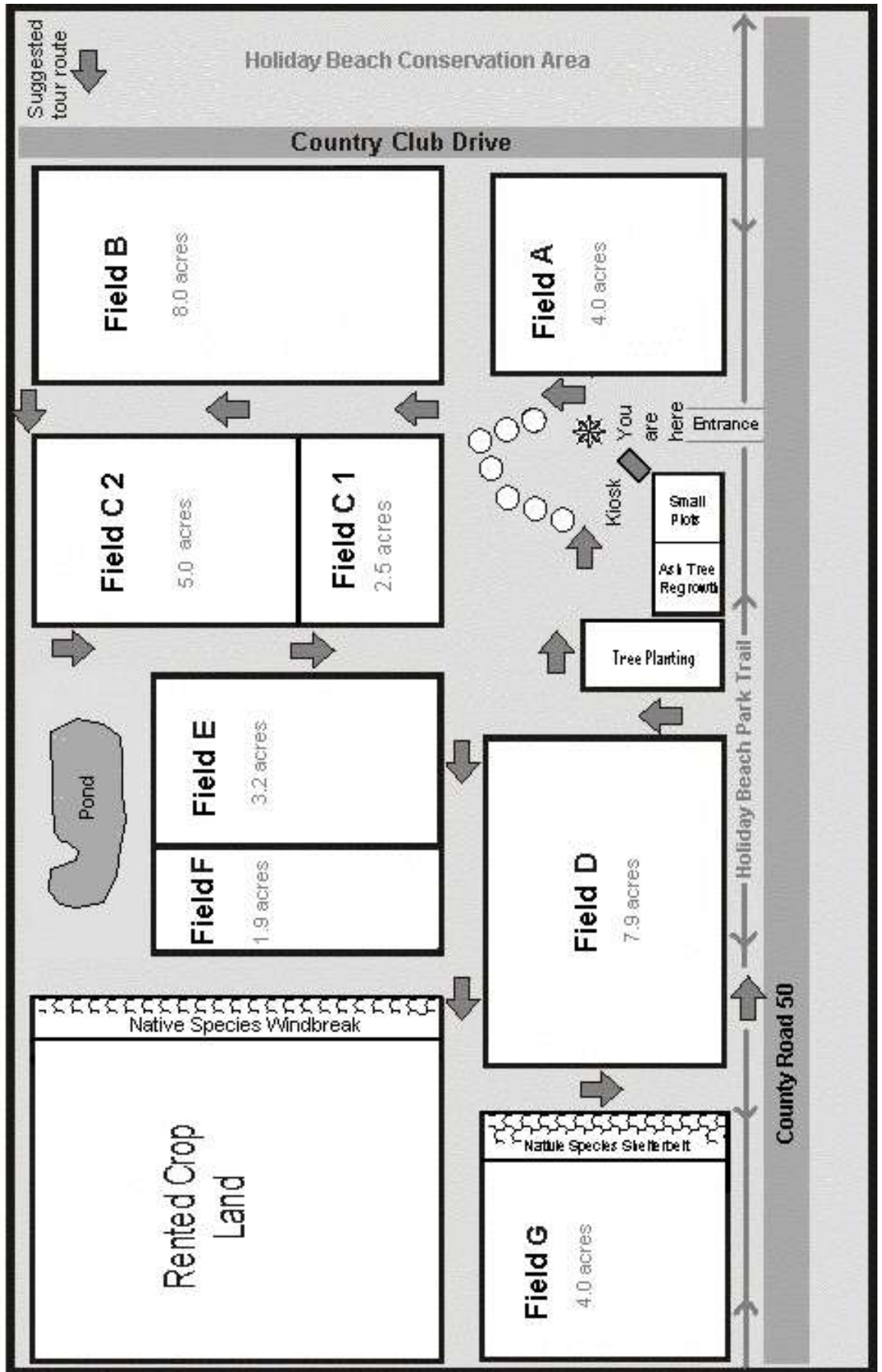
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Essex County Demonstration Farm



2012 Plot Summary



Field A

Organization: Agriculture and Agri-Food Canada
Contact: Tom Welacky, Greenhouse and Processing Crops Research Centre

Plot A1 - Ontario Soybean Variety Trials (AAFC)

Results: Published in the 2012 Soybean Variety Trials as the Malden Site

Plot A2 – Soil Amendment & Crop Rotation Plot

Crop: Oats, rotational crop

Field B ICAT Plot - Conventional Corn

Organization: Essex Soil and Crop Improvement Association
Contact: Michael Dick, ERCA & Jerome Deslippe, ESCIA
Crop: Corn
Previous Crop: Soybeans
Plot Size: 8.0 acres
Tillage: No till
Planting Rate: 32,000 seeds/acre
Row Width: 30 inch spacing
Planting Date: May 18 – replant June 6
Fertilizer: Starter: 6-24-6 in 2x2 (13 US gal/acre) at planting
 Broadcast: 38-18-40.5 @ 220 lb/acre – May 15
 Sidedress: 115 lb actual N as 28% UAN - June 22
Herbicide: Burndown – Touchdown Total – May 14
 In crop – June 10 – Impact/atrazine/Accent
Harvested Date: November 5
Results:

| Company | Hybrid | Moisture % | Wet Weight lbs. | Plot Length ft. | Plot Width in. | Yield bu/ac | Test Weight lbs | Pop. '000 | Stalks Lodged | Deer/raccoon Damage | Bird Damage | Weed Control |
|--------------|----------|------------|-----------------|-----------------|----------------|-------------|-----------------|-----------|---------------|---------------------|-------------|--------------|
| Maizex | 476 | 23.2 | 3055 | 477 | 360 | 150.04 | | 15 | | excessive | no | moderate |
| Country Farm | CF789 | 23.4 | 2300 | 477 | 360 | 112.67 | | 23 | | | no | moderate |
| Hyland | 8693 | 20.6 | 2780 | 477 | 360 | 141.16 | | 26 | some | | no | moderate |
| Dekalb | DKC61-21 | 23.6 | 2745 | 477 | 360 | 134.11 | | 22 | | | no | moderate |
| Maizex | 476 | 22.8 | 1920 | 477 | 330 | 103.41 | | 23 | | some | no | moderate |

Explanation: The east side of the field along with part of the plot was replanted due to poor plant stand.

Field C1

Organization: Agriculture and Agri-Food Canada
Contact: Tom Welacky, Greenhouse and Processing Crops Research Centre

Soil Amendment & Crop Rotation Plot

Crop: Oats, rotational crop

Field C2

ICAT Plot – Glyphosate Tolerant Corn

Organization: Essex Soil and Crop Improvement Association
Contact: Michael Dick, ERCA & Jerome Deslippe, ESCIA
Crop: Corn
Previous Crop: Wheat under-seeded with red clover
Plot Size: 5.0 acres
Planting Rate: Wheat under-seeded with red clover
Row Width: 30 inch
Hybrid/Variety: CM 614
Planting Date: May 18 – replant June 6
Fertilizer: Starter: 6-24-6 in 2x2 (13 US gal/acre) at planting
Broadcast: 38-18-40.5 @ 220 lb/acre – May 15
Sidedress: 115 lb actual N as 28% UAN - June 22
Herbicide: Burndown – Touchdown Total – May 14
In crop – June 14 – Touchdown Total 0.75 L/ac & atrazine
Harvested Date: November 5
Results:

| Company | Hybrid | Moisture % | Wet Weight lbs. | Plot Length ft. | Plot Width in. | Yield bu/ac | Test Weight lbs | Pop. '000 | Stalks Lodged | Deer/raccoon Damage | Bird Damage | Weed Control |
|--------------|----------|------------|-----------------|-----------------|----------------|-------------|-----------------|-----------|---------------|---------------------|-------------|--------------|
| Pioneer | PO891XR | 20.8 | 3810 | 604 | 360 | 152.40 | | 23 | | | no | good |
| Country Farm | CF789 | 19.6 | 4665 | 604 | 360 | 189.42 | | 27 | | | no | good |
| Hyland | 8693 | 21.6 | 3590 | 604 | 360 | 142.15 | | 27 | yes | excessive | no | good |
| Dekalb | DKC61-21 | 23.0 | 3745 | 604 | 360 | 145.63 | | 27 | | | no | good |
| Pioneer | PO891XR | 20.2 | 3720 | 604 | 360 | 149.92 | | 29 | | | no | good |
| NK | N61P | 22.4 | 3455 | 604 | 360 | 135.40 | | 28 | some | some | no | good |
| Maizex | MZ5562 | 22.6 | 3825 | 604 | 360 | 149.52 | | 18 | | | no | good |
| Pioneer | PO891XR | 19.8 | 3300 | 604 | 360 | 133.66 | | 16 | some | | yes | good |
| Pioneer | PO891XR | 19.8 | 3045 | 604 | 360 | 123.33 | | 20 | | | yes | good |

Touchdown Total supplied by Syngenta.

Field D ICAT Plot

Organization: Essex Soil and Crop Improvement Association
Contact: Michael Dick, ERCA & Jerome Deslippe, ESCIA
Crop: Soybeans
Previous Crop: Corn
Plot Size: 7.9 acres
Tillage: No till
Planting Rate: 188,000 seeds/acre
Row Width: 7 inch twin rows @ 30 inch spacing
Planting Date: June 4
Herbicide: May 14 - Burndown – Touchdown Total (0.72 L/a)
 June 27 - In crop - glyphosate & Classic
Harvested Date: October 22

Results:

| Company | Variety | Moisture | Weight | Length | Width* | Yield | |
|--|----------|----------|--------|--------|--------|---------|------|
| | | % | lb | ft | ft | bu/acre | Note |
| Pioneer | 93Y05 | 15.1 | 1155 | 662 | 20 | 63.3 | 1 |
| Hyland | 24RYS01 | 15.0 | 2285 | 662 | 40 | 62.6 | 1 |
| NK | S 31-L7 | 15.0 | 2240 | 662 | 40 | 61.4 | 1 |
| Maizex | Dynamite | 14.9 | 855 | 662 | 15 | 62.5 | 1 |
| Pioneer | 93Y05 | 14.5 | 860 | 662 | 15 | 62.9 | 1 |
| Dekalb | 32-61 | 13.6 | 2210 | 662 | 40 | 60.6 | 2 |
| Secan | Dart | 13.9 | 2250 | 662 | 40 | 61.7 | 2 |
| Country Farm | CF60 | 13.7 | 2360 | 662 | 40 | 64.7 | 2 |
| Pioneer | 93Y05 | 13.6 | 880 | 662 | 15 | 64.3 | 2 |
| Note: 1 - weighed with Jerome Deslippes weigh wagon | | | | | | | |
| Note: 2 - weighed with Setterington's Fertilizer's weigh wagon | | | | | | | |

Thank you Setterington's for providing the weigh wagon!



Maizex Impact seed supplied by Dave Kendrick

Field E

Controlled Drainage

Organization: Essex Soil and Crop Improvement Association
Contact: Michael Dick, ERCA & Jerome Deslippe, ESCIA
Crop: Soybeans
Previous Crop: Soybeans
Plot Size: 3.2
Tillage: No till
Planting Rate: 191,000 seeds/acre
Row Width: 7 inch twin rows 30 inch spacing
Hybrid/Variety: Maizex Impact
Planting Date: June 4
Herbicide: Burndown – May 14 – Touchdown Total
In crop – July 3 – Touchdown Total (0.72 L/a) & Classic (14 gm/a)
Irrigation: Controlled drainage was used on one side to restrict tile water flow.
Harvested Date: October 22



Results:

| Treatment | Moisture | Weight lbs. | Length. ft | Width ft | Yield bu/ac |
|--|----------|----------------|---------------|-------------|----------------|
| 1. Controlled - High | 13.7 | 1180 | 172 | 90 | 55.34 |
| 2. Controlled - Low | 14.0 | 1430 | 224 | 90 | 51.50 |
| 3. Non - High | 14.3 | 1140 | 172 | 90 | 53.47 |
| 4. Non - Low | 13.7 | 1450 | 224 | 90 | 52.22 |
| Explanations | | | | | |
| Controlled - High = controlled drainage at header tile end. | | | | | |
| Controlled - Low = controlled drainage at furthest end from header tile. | | | | | |
| Non = no controlled drainage. | | | | | |

Field F

Crop: Soybeans
Previous Crop: Soybeans
Plot Size: 1.9
Tillage: No till
Planting Rate: 191,000 seeds/acre
Row Width: 7 inch twin rows 30 inch spacing
Hybrid/Variety: Maizex Impact
Herbicide: Burndown – May 14 – Touchdown Total
In crop – July 3 – Touchdown Total (0.72 L/a) & Classic (14 gm/a)
Planting Date: June 17
Harvested Date: October 22
Explanation: This field was not used as a trial this year.

Additional: Both Fields E & F were planted with wheat on October 25, 2012.
(Variety CM 614 @ 150 lb/acre; starter fertilizer – 12-40-0-10-2
zinc/sulfur @ 100 lb/ac)

Field G

Alfalfa Demonstration

Organization: Essex Soil and Crop Improvement Association
Contact: Michael Dick, ERCA
Crop: Alfalfa
Previous Crop: Alfalfa
Plot Size: 4 acres
Row Width: 7.5 inch
Hybrid/Variety: 1) Country Farm – Dura Green
2) FS 7-99 (1acre)
Planting Date: September 6, 2006

Western Bean Cutworm Monitoring

The Essex Demonstration Farm participated in the 2012 Western Bean Cutworm trapping program. A pheromone trap was set up adjacent to Field B. The trap was checked 3 times per week from May 22 to September 24. Counts were reported to University of Guelph, Ridgetown, on line every Monday with 46 moths total reported.

Acknowledgements

Thanks to plot co-operators: Jerome Deslippe and Tim Stratichuk.

Special thanks to Jerome Deslippe for all his time and expertise.

Thanks to the corporate sponsors: Cargill – Harrow

Maintenance and Improvements 2012

Native Species Shelterbelt - Front

The front shelterbelt (next to Field D) consists of three rows: a center row of red cedar with a row of native shrubs on each side. The two rows of shrubs consist of red osier dogwood, nannyberry, alternate leaved dogwood, highbush cranberry, snowberry, silky dogwood and service berry 10 feet away from the cedar row, at a spacing of 7 feet between shrubs. The plantings were done November 15, 2006 using large stock.

Mowing was done on either side of the shelterbelt but not between the rows. This was done in an effort to reduce deer browse.

Native Species Windbreak

The windbreak (next to Field F) consists of a single row of cedars inter-planted with hardwood trees and shrubs. The planting pattern is as follows: red cedar; native shrub; hardwood tree; native shrub; red cedar. The shrubs and hardwoods were planted November 15, 2006 into the existing row of cedars using large stock.

Mowing was kept up on either side of the windbreak.

Native Woodlot Demonstration

The Native Woodlot area, along County Road 50, was inspected by Paul Giroux, ERCA Forester, on July 16, 2008. As most of the tree species are Ash, Paul suggested that the trees be pruned of the dead trunks and limbs. Paul also suggested pruning most of the shoots at the base on some of the trees, but leave one 'leader'. The area could then be used to demonstrate how infected Ash trees can re-grow.

Small Plot Demonstrations

Two small plot demonstrations were added in 2009 near the entrance. They consist of a miscanthus grass plot with two varieties, 'Illinois' and 'Macaro', and a two row switch grass plot. Identification signs were put up again this year.

Arboretum

Large stock trees were incorporated into the existing Ash planting rows last year but only in every other row, leaving approximately 16 feet between rows. This was done to help facilitate mowing of the grass in the future.

Additional staking of the trees was done this fall.

