



**Essex County  
Demonstration  
Farm**

**2011  
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.

## Contact Information

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### Agriculture and Agri-Food Canada

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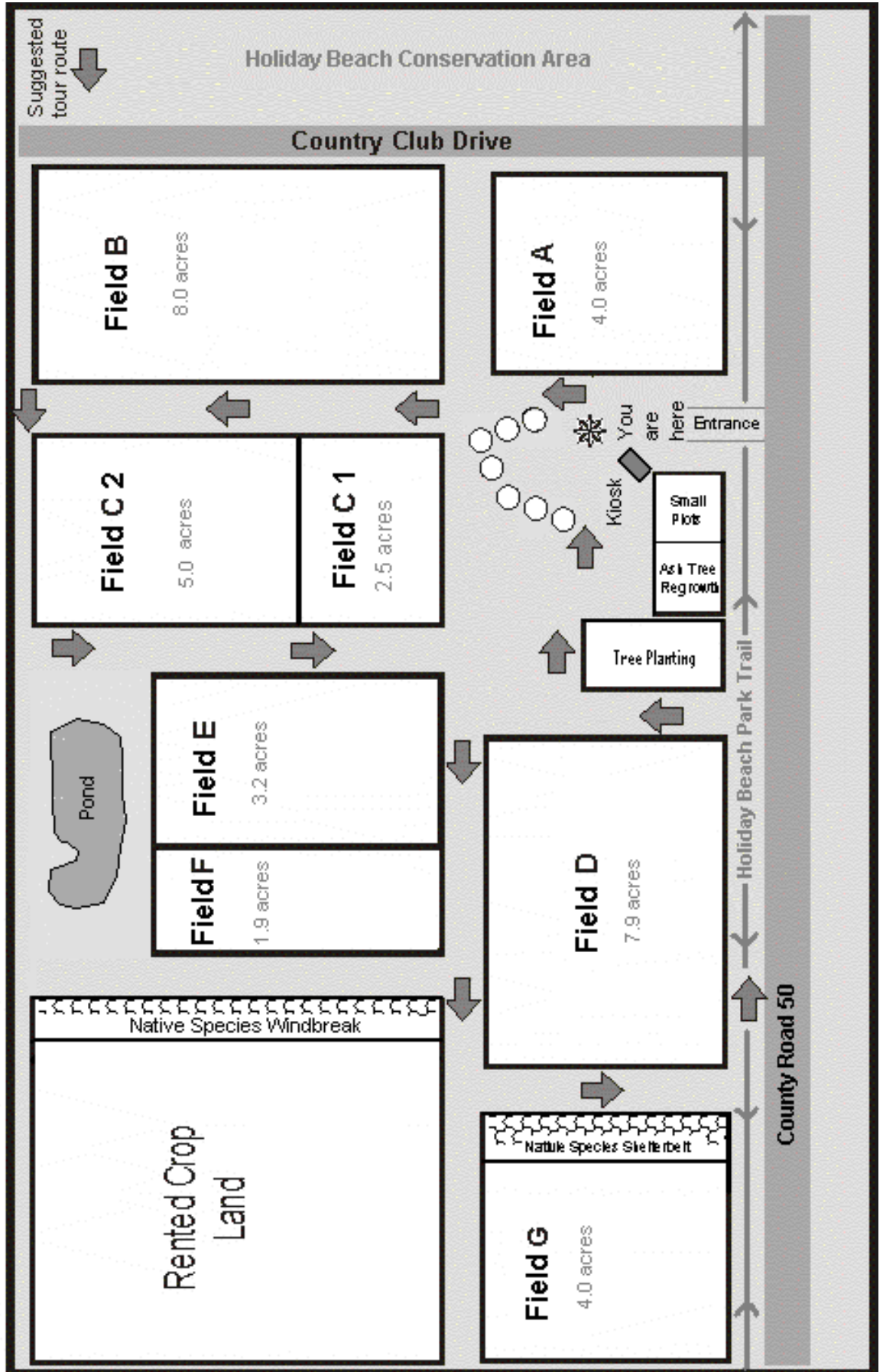
### Essex Soil and Crop Improvement Association

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### Ontario Ministry of Agricultural, Food and Rural Affairs

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# Essex County Demonstration Farm



## 2011 Plot Summary



### Field A

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

#### **Plot A1 – Soil Amendment & Crop Rotation Plot**

**Crop:** Sorghum, rotational crop

#### **Plot A2 - Ontario Soybean Variety Trials ( AAFC)**

**Results:** Published in the 2011 Soybean Variety Trials as the Malden Site

### Field B      ISAT Plot

**Organization:** Essex Soil and Crop Improvement Association  
**Contact:** Michael Dick, ERCA & Jerome Deslippe, ESCIA  
**Crop:** Soybeans  
**Previous Crop:** Corn  
**Plot Size:** 8.0 acres  
**Tillage:** No till  
**Planting Rate:** 185,000 seeds/acre  
**Row Width:** 7 inch twin rows 30 inch spacing  
**Planting Date:** June 17  
**Herbicide:** In crop – July 3 – Touchdown Total (0.72 L/a) & Classic (14 gm/a)  
**Harvested Date:** November 6

#### **Results:**

Company	Variety	Moisture %	Weight lb	Length ft	Width* ft	Yield bu/acre
Hyland	HS24RY	12.4	1400	930	30	36.4
Maizex	Diamond	12.6	1770	930	30	46.1
Country Farm	61GR	12.5	1675	930	30	43.6
Dekalb	32-61RY	12.1	1635	930	30	42.5
SeCan	Charger RR	12.1	1410	930	30	36.7
Hyland	HS24RY	12.0	1360	930	30	35.4

Average Yield: 40.1

**Field C1**

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

**Plot C1a - Ontario Soybean Variety Trials ( AAFC)**

**Results:** Published in the 2011 Soybean Variety Trials as the Malden Site

**Plot C1b – Soil Amendment & Crop Rotation Plot**

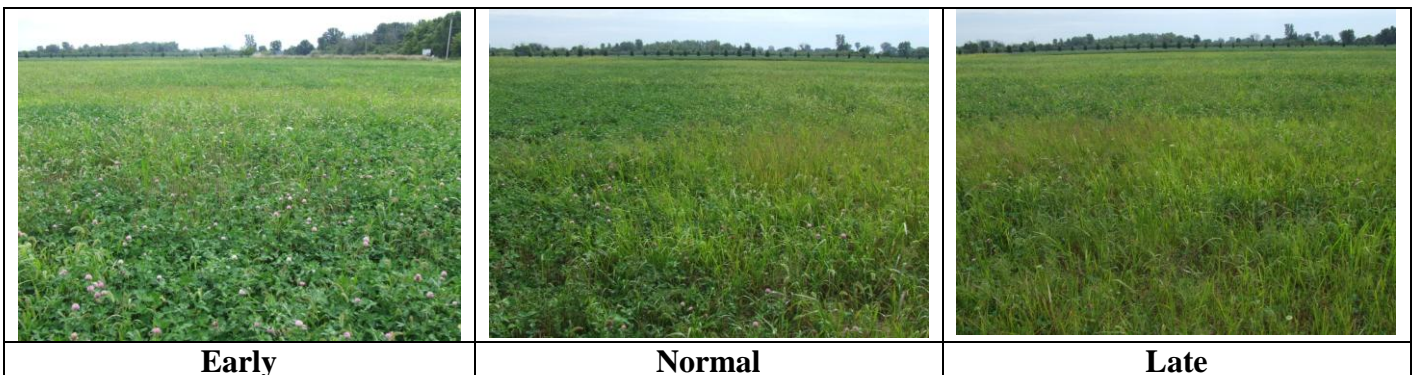
**Crop:** Sorghum, rotational crop



**Field C2**

**Red Clover Seeding Trial**

**Organization:** Essex Soil and Crop Improvement Association  
**Contact:** Adam Hayes, OMAFRA & Michael Dick, ERCA  
**Crop:** Wheat under-seeded with red clover  
**Previous Crop:** Soybeans  
**Plot Size:** 5.0 acres  
**Planting Rate:** Wheat – 1.4 million seeds/ac; Clover – 13 lb/ac.  
**Row Width:** 7.5 inch  
**Hybrid/Variety:** CM 614  
**Planting Date:** October 25 2010  
**Herbicide:** May 6 – Tropotox  
**Harvested:** July 18  
**Explanation:** The trial consisted of 3 treatments replicated 3 times. The treatments were three different seeding dates: Early (March3), Normal (March 26) & Late (May 13).  
**Results:** The early seed clover was more apparent with more top growth than the two later planted treatments.



**Field D      ICAT Plot**

**Organization:** Essex Soil and Crop Improvement Association  
**Contact:** Michael Dick, ERCA & Jerome Deslippe, ESCIA  
**Crop:** Corn  
**Previous Crop:** Wheat/red clover  
**Plot Size:** 7.9 acres  
**Tillage:** Minimum tillage  
**Planting Rate:** 32,000 seeds/acre  
**Row Width:** 30 inch  
**Planting Date:** June 7  
**Herbicide:** July 10 – Touchdown Total (0.72 L/a) & atrazine  
**Fertilizer:** Starter: 15-15-3 in 2x2 (15 US gal/acre) at planting  
Broadcast: Calcitic Lime – 11.25 MT – variable rate – Nov 16, 2010  
5.7-27.2-28.7 – 1.34 MT – variable rate – June 15, 2011  
Sidedress: 142 lb actual N as 28% - July 4  
**Harvested Date:** November 19  
**Yield:** 206 bu/ac

**Results:**

Company	Hybrid	Moist ure %	Wet Weight lbs.	Plot Length ft.	Plot Width in.	Yield bu/ac	Pop. '000	Stalks Lodged	Deer Damage	Bird Damage	Weed Control	Notes
Pioneer	PO891	24.2	5680	688	360	190.89	27	0		no	excellent	
Dekalb	57-50	27.4	5100	688	360	164.16	30	some	yes	no	excellent	
Hyland	8677	24.8	5375	688	360	179.21	29	some		no	excellent	
Mycogen	2T699	26.0	6085	688	360	199.65	25	some		no	excellent	
Pioneer	PO891	23.8	5785	688	360	195.45	24	0		no	excellent	1
Maizex	5560	26.2	5630	688	360	184.22	28	some	yes	no	excellent	
Country Farm	870VT3	26.6	5550	688	360	180.62	23	some		no	excellent	
NK	N63R	24.8	4655	688	360	155.21	32	some		no	excellent	2
Pioneer	PO891	25.0	5790	688	360	192.54	24	some		no	excellent	
	Note 1 - some goose necking											
	Note 2 - severe goose necking											

Soil Grid Sampling and Variable Rate Fertilizer Spreading supplied by AGRIS.



**Field E****Subsurface Irrigation**

**Organization:** Essex Soil and Crop Improvement Association  
**Contact:** Adam Hayes, OMAFRA, Michael Dick, ERCA & Jerome Deslippe, ESCIA  
**Crop:** Soybean  
**Previous Crop:** Corn  
**Plot Size:** 3.2  
**Tillage:** No till  
**Planting Rate:** 185,000 seeds/acre  
**Row Width:** 7 inch twin rows 30 inch spacing  
**Hybrid/Variety:** Maizex Gravity  
**Planting Date:** June 17  
**Herbicide:** In crop – July 3 – Touchdown Total (0.72 L/a) & Classic (14 gm/a)  
**Irrigation:** No irrigation was necessary  
**Harvested Date:** November 6  
**Results:**

<b>Field E</b>					
Treatment	Moisture	Weight	Length.	Width	Yield
		lbs.	ft	ft	bu/ac
1. Irrigated High	12.0	1170	210	90	44.94
2. Irrigated Low	11.8	1275	212	90	48.51
3. Non High	12.0	950	206	80	41.85
4. Non Low	11.8	1140	210	80	49.26
5. Non tilled	12.2	415	64	180	26.15
6. Tiled	12.0	3230	271	184	47.03
<b>Explanations</b>					
No irrigation was done due to above average rainfall.					

Maizex Gravity seed supplied by Dave Kendrick
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**Field F**

**Crop:** Soybeans  
**Previous Crop:** Corn  
**Plot Size:** 1.9  
**Tillage:** No till  
**Planting Rate:** 185,000 seeds/acre  
**Row Width:** 7 inch twin rows 30 inch spacing  
**Hybrid/Variety:** Maizex Gravity  
**Herbicide:** In crop – July 3 – Touchdown Total (0.72 L/a) & Classic (14 gm/a)  
**Planting Date:** June 17  
**Harvested Date:** November 6  
**Explanation:** This field is not tile drained and was not used as a trial this year.

Touchdown Total supplied by Syngenta.
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## **Field G**

## **Alfalfa Demonstration**

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

## **Western Bean Cutworm Monitoring**

The Essex Demonstration Farm participated in the 2011 Western Bean Cutworm trapping program. A pheromone trap was set up adjacent to Field D. The trap was checked 3 times per week from June 6 to September 11. Counts were reported to University of Guelph, Ridgetown, on line every Monday with 52 moths total reported.

## **Essex Federation of Agriculture Farm Hiker Tour**

The Essex Demonstration Farm participated in the 2011 Essex Farm Hiker Tour on September 18. A no till planter and an RTS vertical tillage implement were on display for the public's inspection. ERCA provided tree seedlings for hand out and Brian Hyland sold food and refreshments.

## **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 and AGRIS Co-operative - Cottam

## **Maintenance and Improvements 2011**

### **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 to prune 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.

Both plots were fertilized with liquid 15-15-3 fertilizer and weeded. Explanation 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.

