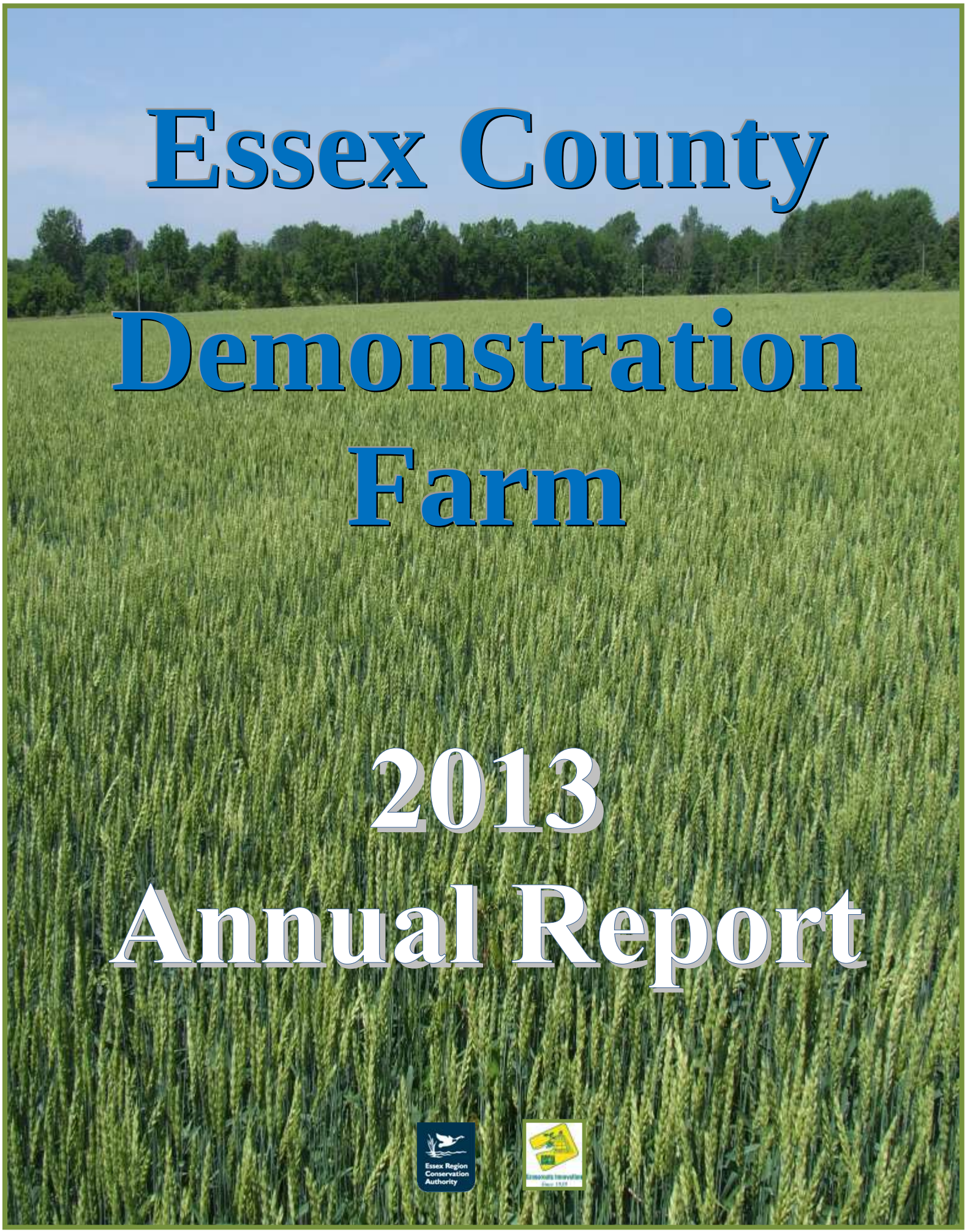

Essex County Demonstration Farm

2013 Annual Report

Essex Region Conservation Authority

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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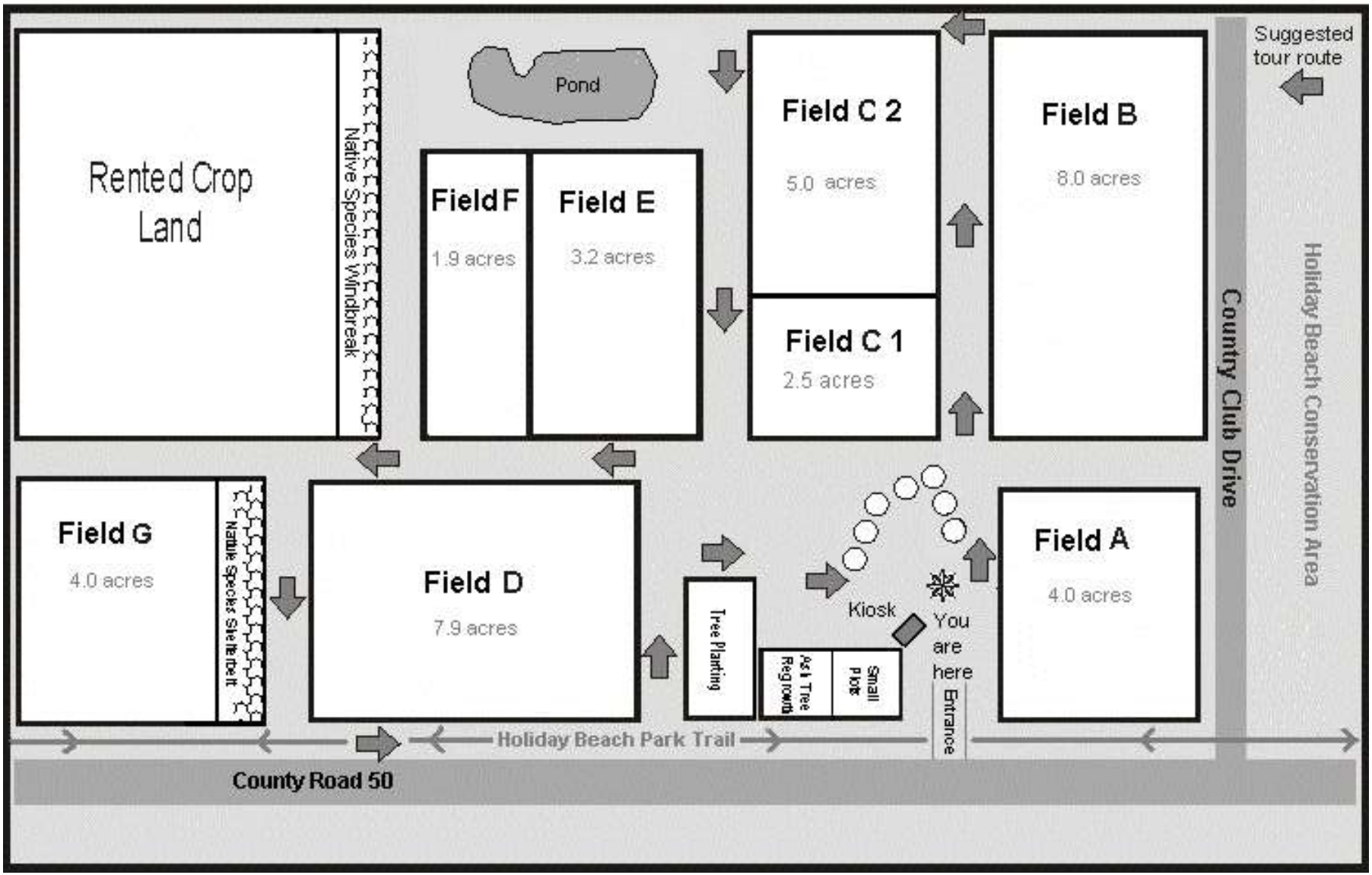
Essex County Demonstration Farm



2013 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: Rye, rotational crop

Plot A2 - Ontario Soybean Variety Trials (AAFC)
Results: Published in the 2013 Soybean Variety Trials as the Malden Site

Field B **Alfalfa Demonstration**

Organization: Essex Soil and Crop Improvement Association
Contact: Michael Dick, ERCA
Crop: Alfalfa
Previous Crop: Corn
Plot Size: 8.0 acres
Row Width: 7.5 inch
Variety: 1) Pioneer – 45Q32
2) Pioneer – 55V50
3) General – Quest
4) General - Performer
Planting Date: August 20, 2013

Field C **ISAT Plot - Soybeans**

Organization: Essex Soil and Crop Improvement Association
Contact: Michael Dick, ERCA & Jerome Deslippe, ESCIA
Crop: Soybeans
Previous Crop: Corn & Oats
Plot Size: 7.4 acres
Tillage: No till
Planting Rate: 196,000 seeds/acre
Row Width: 7 inch twin rows @ 30 inch spacing
Planting Date: June 21
Herbicide: June 15 - Burndown – 2,4-D
June 28 - In crop - Weathermax
Harvested Date: November 14

Results:

Company	Variety	Moisture	Weight	Length	Width*	Yield
		%	lb	ft	ft	bu/acre
Hyland	26RYS16	13.2	1040	914	20	41.3
NK	S31-L7	12.8	1270	914	20	50.4
Dekalb	32-61	13.0	1280	914	20	50.8
Pride	2393	12.8	1100	914	20	43.7
Secan	FN281A7	13.2	1190	914	20	47.3
Hyland	26RYS16	13.0	1230	914	20	48.9
Country Farm	CF60	12.8	1225	914	20	48.7
Maizex	Dynamite	12.6	1245	914	20	49.4
Pioneer	93Y22	12.8	1305	914	20	51.8
Hyland	26RYS16	12.8	1290	901	20	52.0

Additional: Researchers from the University of Western Ontario took soil samples in July as part of a project to study the fate of QAC (Quaternary ammonium compound) on agricultural soil amended with biosolids. Field C was used in a biosolids application study in 1996.

Field D **ICAT Plot - 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 20

Fertilizer: Starter: 6-24-6 in 2x2 (12.5 US gal/acre) at planting
Sidedress: 108 lb actual N as 28% UAN - June 21
Herbicide: In crop – June 8 – Weathermax & Banvel
Harvested Date: November 15

Results:

Company	Hybrid	Moisture %	Wet Weight lbs.	Plot Length ft.	Plot Width in.	Yield bu/ac	Pop. '000	Stalks Lodged	Deer/racoon Damage	Bird Damage	Weed Control
Country Farm	CF 747	21.6	5145	687	360	179.10	32	no	no	no	good
Pride	A788	24.0	5295	687	360	178.68	31	no	no	no	good
Dekalb	57-75	21.2	5445	687	360	190.51	32	no	no	no	good
Maizex	5562	24.0	6015	687	360	202.98	33	no	no	no	good
Croplan	5887	21.8	5580	687	360	193.75	31	no	no	no	good
Country Farm	CF 747	22.2	5495	687	360	189.82	32	no	no	no	good
Hyand	8695	25.4	5455	687	360	180.69	33	no	no	no	good
Pioneer	P1184	23.6	4585	687	360	155.54	33	no	no	no	good
NK	A6813	26.4	4925	687	360	160.95	29	no	no	no	good
Country Farm	CF 747	22.6	4440	657	360	159.56	28	no	no	no	good

Additional: A portion of the field was used as a cover crop trial. Clover and ryegrass were hand seeded in replicated plots in the portion of the field not used for the ICAT plots. The seeding was done on July 30 into the standing corn under dry soil conditions. This project is being administered by Adam Hayes and Anne Verhallen, OMAF.

Weathermax supplied by Monsanto.

Field E **Controlled Drainage**

Organization:	Essex Soil and Crop Improvement Association
Contact:	Michael Dick, ERCA & Jerome Deslippe, ESCIA
Crop:	Winter Wheat
Previous Crop:	Soybeans
Plot Size:	3.2
Tillage:	No till
Planting Date:	October 25, 2012
Planting Rate:	150 lb/acre
Row Width:	7.5 inch
Hybrid/Variety:	CM 614
Fertilizer:	12-40-0-10-2 zn su – 100 lb/ac at planting. Urea – 200 lb/ac – April 23.
Irrigation:	Controlled drainage was used on one side to restrict tile water flow. Installed April 24; removed July 2.
Harvested Date:	July 31; straw baled August 18.
Yield:	97.2 bu/ac
Fall Burndown:	October 11 – Glyfos 1.5 L/ac & 2,4-D ester
Explanation:	Due to excess rainfall in July, no plot results were recorded.

Field F

Crop:	Winter Wheat
Previous Crop:	Soybeans
Plot Size:	1.9
Planting Date:	October 25, 2012
Tillage:	No till
Planting Rate:	150 lbs/acre
Row Width:	7.5 inch
Hybrid/Variety:	CM 614
Fertilizer:	12-40-0-10-2 zn su – 100 lb/ac at planting. Urea – 200 lb/ac – April 23.
Harvested Date:	July 31; straw baled August 18.
Yield:	97.2 bu/ac
Fall Burndown:	October 11 – Glyfos 1.5 L/ac & 2,4-D ester
Explanation:	This field was not used as a trial this year.

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 2013 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 3 to September 17. Counts were reported to University of Guelph, Ridgetown, on line every Monday with a total 85 moths 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 2013

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 and many trees were restaked.

Native Woodlot Demonstration

The Native Woodlot area, along County Road 50, was inspected by ERCA's Forester, on July 16, 2008. As most of the tree species are Ash, it was suggested that the trees be pruned of the dead trunks and limbs as well as well as the shoots at the base on some of the trees, leaving 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.


Essex County
Demonstration Farm
A Community Partnership
Public Welcome