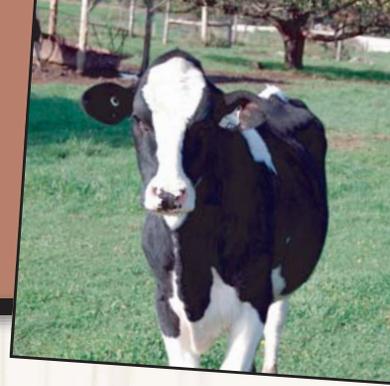


The Floraview Farm Project

SHELTERBELTS IN THE RURAL LANDSCAPE



The farm



Darcy and Lorna Weber manage Floraview Farms, a 40 head dairy operation in Woolwich Township, near Elmira, Ontario. The herd is supported by 183 workable acres which are used to grow winter wheat, soybeans, corn and alfalfa.

Wind erosion

Historical clearing of fencerows had reduced the natural tree cover in the area. As a result, the Weber's cultivated fields were often exposed to strong winds, causing losses of their easily erodible loam soils and a reduction in soil moisture content.

The solution

Approximately 20 years ago, the Webers planted trees along fence-lines which bordered their fields. One planting consisted of a single row of spruce, and the other a double row of spruce and poplar. These plantings were extremely successful.

In the spring of 2008, they established a new shelterbelt using a planting procedure in which trees are planted into strips of plastic mulch. This innovative technique is designed to control weeds, retain moisture and ensure high tree survival rates.

The Webers created shelterbelts to help reduce wind erosion and moisture loss, which they also control by using no-till and minimum-till cropping systems. They are also concerned about the region's landscape. They felt that planting trees would help to improve the look of their farm and contribute to the reforestation of Woolwich Township.

“The benefit to the crops and the land is great, but my main reason for planting trees is aesthetics. I just prefer to be surrounded by trees.”

- Darcy Weber

Existing windbreak



Planting the new windbreak



The Floraview Farm Project ...continued...



Photo by Lee Karmey, USDA-NRCS Database

Photo by Jeff Vanuga, USCA-NRCS Database

The results

Crops taken from the fields beside the shelterbelt have noticeably improved since the trees were planted. Mr. Weber believes that the increased yields are due, at least in part, to the effects of the shelterbelt. He has also noticed that erosion of his fields' topsoil is almost non-existent due to the combination of the shelterbelts and conservation tillage.

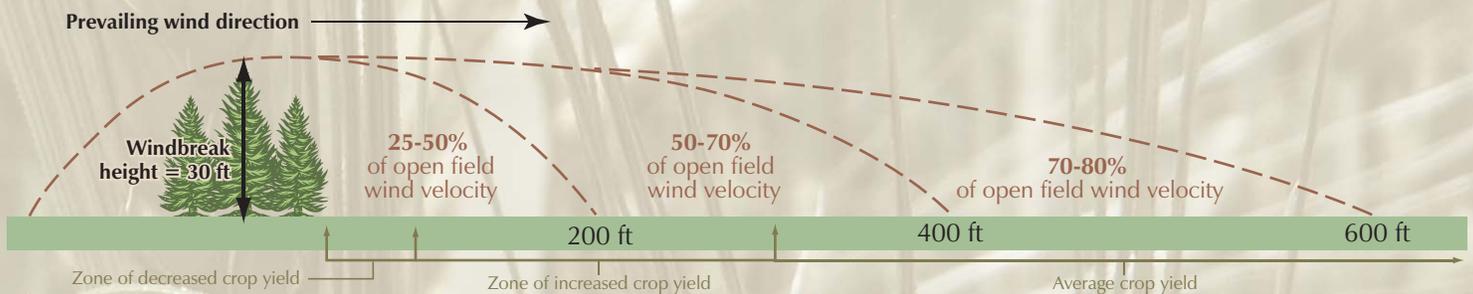
An unforeseen benefit of the shelterbelt has been a reduction in gully formation that used to occur during heavy rainfall. Deep rills formed in the Webers' fields as rainwater ran off the neighbouring farms. The shelterbelt now acts as a buffer to slow down and dissipate this runoff.

The shelterbelt also acts as a wildlife corridor and has increased the abundance of birds on the farm. Mature trees in a shelterbelt are often used by forest raptors as a lookout perch and a launching pad in order to prey upon rodent pests.

There has also been an economic benefit to the project. Mr. Weber was able to make a few extra dollars by thinning out the fast-growing poplars and selling them to a local sawmill. By thinning out the poplar, the spruce will grow to their optimum height and diameter, improving their market value.

Windbreak protection zones and crop yields*

*distances and figures are approximate. Vertical scale exaggerated.



Grand River
Conservation Authority

Contact: Grand River Conservation Authority ■ 400 Clyde Road, PO Box 729 ■ Cambridge, ON N1R 5W6
(519) 621-2761 ■ www.grandriver.ca