Farmland Hedgerows
Hedgerow Benefits & the Delta, BC Hedgerow Project
B. Thiel, C. Terpsma, M. Krzic and S.M. Smukler

Hedgerows are trees, shrubs and grasses bordering the edges of farm fields. These areas provide numerous agricultural and environmental benefits. It is for these benefits that farmers in the lower Fraser River Delta have been planting hedgerows since 1995 with the support of the Delta Farmland & Wildlife Trust’s (DF&WT) “Hedgerow Stewardship Program.” The DF&WT, in collaboration with the Sustainable Agricultural Landscape Laboratory at the University of British Columbia (UBC), quantified some of the benefits of hedgerows in a 2013-14 project.

Benefits for Agriculture

Hedgerows have been shown to benefit farmers and improve agricultural production in a number of ways, including:

• **Reducing wind impacts.** Hedgerows can act as a windbreak, providing improved conditions for crop growth and preventing soil erosion.

• **Providing habitat for “beneficials”.** Hedgerows can provide resources and habitat organisms that can be beneficial for agricultural production. Examples of beneficials include birds of prey, insects that regulate crop pest populations, and pollinators.

• **Improving water management on the farm.** Hedgerows can help rainwater infiltrate into the soil and improve the soil’s water holding capacity, which may help prevent flooding and/or ponding of water.

For more information about the Hedgerow Stewardship Program or the research on hedgerows see: [http://www.deltafarmland.ca/](http://www.deltafarmland.ca/); [http://sal-lab.landfood.ubc.ca/](http://sal-lab.landfood.ubc.ca/)

“Hedgerow Benefits & the Delta, BC Hedgerow Project”
“Findings from the Farm-scale Analysis of the Delta, BC Hedgerow Study”
“Findings from the Landscape Analysis of the Delta, BC Hedgerow Study”
Benefits for the Environment

Aside from food production, agricultural lands play an important role in our environment. Hedgerows contribute to improving the environment by:

- **Increasing wildlife habitat.** Hedgerows provide essential corridors for many bird and small mammals on farmland.

- **Improving biodiversity.** The diversity of plants and organisms (above and belowground) on farmland with hedgerows is greater than on those without hedgerows.

- **Creating resilient systems.** Hedgerows improve the resiliency of farmland to major climatic events.

- **Retaining nutrients.** Hedgerows help capture and retain nutrients on the farm.

- **Mitigating climate change**\(^2\). As trees and shrubs grow they take up carbon dioxide and store it in their branches and roots. Their leaves contribute to storage of carbon in the soil.

References:
