

# Tree Establishment

## *Beneficial Management Practices (BMPs)*

Ecobuffers and shelterbelts are strategic plantings of native trees, shrubs, and grasses designed to provide environmental, economic, and ecological benefits to farming operations. By carefully planning site layouts, selecting appropriate species, and engaging with the community, farmers can enjoy a range of benefits, including improved soil and water conservation, biodiversity enhancement, and overall farm sustainability.

### HOW TO ESTABLISH A TREE PROJECT

- Prepare the site for planting
  - Exclude livestock, if applicable.
  - Install an irrigation system if needed.
  - Undertake soil and water testing to determine which species are likely to thrive.
- Plant trees or shrubs
  - Wood or plastic mulch improves seedling success.

**Note:** You may wish to consult an accredited technical advisor (e.g. Professional Agrologist, P.Ag or Certified Crop Advisor, CCA) to develop or support your management plans.

### Management Benefits

#### Windbreak and Erosion Control

- Shelterbelts reduce wind speed, minimizing soil erosion and protecting crops from wind damage.
- Provide an effective barrier against blowing snow, reducing the risk of snowdrifts.

#### Biodiversity Enhancement

- Eco-buffers and shelterbelts create habitat and food sources for various wildlife species, including birds, insects, and small mammals.
- Contribute to the overall biodiversity and ecological balance on the farm.

#### Water Quality Improvement

- Vegetative buffers along water bodies (eco-buffers) filter runoff, reducing sediment and nutrient transport into water sources.
- Protect water quality by preventing contamination from agricultural chemicals.

#### Microclimate Regulation

- Provide shade and modify the microclimate, creating more favourable conditions for crops and livestock.
- Reduce temperature extremes, minimizing stress on plants and animals.

#### Disease and Pest Management

- Shelterbelts can disrupt the movement of pests, providing a natural barrier to insect migration.
- Encourage the presence of beneficial insects that contribute to integrated pest management.

### Key Considerations

#### Site Assessment

- Conduct a thorough assessment of the farm's topography, prevailing winds, and water features.
- Identify areas prone to erosion, wind damage, or in need of water protection.

#### Species Selection

- Choose native tree and shrub species adapted to the local climate, soil conditions, and water availability.
- Select a mix of deciduous and evergreen species for year-round benefits.

#### Layout and Design

- Plan the layout and design of shelterbelts and ecobuffers to maximize their effectiveness.
- The best shelterbelts and ecobuffers are diverse, with canopy height designed to reduce wind speeds.
- Consider factors such as wind direction, slope, and proximity to water bodies.

#### Maintenance and Weed Control

- Implement a maintenance plan to ensure the health and vitality of plantings.
- Control weeds and manage vegetation to prevent competition with trees and shrubs.
- You may need to water tree seedlings, especially during early establishment.

### Start a Project Today

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