environmental farm plan
*sustainably farmed*

**INFOSHEET #15**

# SOIL MANAGEMENT

## How to address concerns identified in Environmental Farm Plan Worksheet #15

Based on Environmental Farm Plan Workbook, 5th ed. 2025

**This infosheet outlines options to address concerns identified in your Environmental Farm Plan (EFP) as they relate to soil management. Good soil management will improve soil health and resiliency to extreme weather events such as drought or intense rainfall.**

For pesticide storages and handling in a Source Water Protection Zone, you may need to take measures to reduce risk. **The Farm Source Water Protection Plan framework** and workbook can help you work through the Source Water Protection Framework and its application on your farm.

***For help with technical terms, please see the full glossary in your EFP Workbook.***

All options in this infosheet are classed as **Actions, Compensating Factors,** or **Monitoring**.

- **Actions** address the identified concern, and will change the EFP rating to (3) or (4) Best.
- **Compensating Factors** are alternatives that will adequately address the concern, but will not change the rating in the EFP worksheet.
- **Monitoring** is an alternative in special circumstances only. When and how monitoring can be used is explained in the infosheet.

In most cases, you'll need more information before choosing and implementing options. Sources for more information are noted at the end of this infosheet.

Sustainable Canadian Agricultural Partnership
OSCIA
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# EROSION

## 15-1. Potential for water erosion

### BACKGROUND

The soil type, slope and drainage determine a soil's erosion potential. If surface water is nearby, it is likely that eroded soil in the form of sediment will be carried in field runoff to enter the surface water during storms.

Suspended sediments in a stream will cloud the water, affecting both plant and animal life. Sedimentation can also carry nutrients and pesticides attached to soil particles into the water. This results in eroded soil that is less productive and reduced surface water quality.

**Our limited supply of topsoil is priceless.** Each ton/ac of soil lost means:

- lost macro and micronutrients
- lost organic matter leading to:
  - degraded soil structure
  - a decline in infiltration and water-holding capacity
  - increased bulk density
  - tougher crop germination or emergence
- off-site costs such as:
  - more frequent ditch/harbour cleanouts
  - algae growth in lakes
  - declining recreational and drinking water quality

Crop residue will help to reduce the movement of water and soil sediment from fields to surface water.

### WHAT CAN YOU DO?

**OPTION 1 – COMPENSATING FACTOR**

Implement good soil conservation cropping and tillage practices wherever possible that will minimize runoff of water and sediment to surface water:

- establish permanent 3 m (10 ft.) vegetated buffer strips alongside surface water
- leave crop residue on the soil surface
- adopt no-till where applicable
- adopt strip cropping where applicable
- reduce the number of tillage passes
- rotate crops with a variety of crop species including forages and cereals
- plant cover crops
- establish grassed waterways in preferential flow areas
- install erosion control structures

**Resources:**

**Estimating Soil Erosion by Water in Ontario Factsheet 23-003**

**Soil Erosion – Causes and Effects**

**AgriSuite – AgErosion**

A particular soil erosion problem can be caused by water, wind, slope, drainage, tillage and other management practices. With photos of each type of erosion and charts that link in-field symptoms with practical remedial options, **Controlling Soil Erosion on the Farm** can help you find the right solution for your circumstances.



**Soil Management** can help you solve everyday cropland soil problems and build long-term soil health and productivity. It covers the basics of soil properties, diagnostics for soil problems, and BMPs to prevent and correct problem soil conditions.

**Field Crop Production** examines all facets of in-field production, including soil, nutrient and pest management, tillage systems, and conservation cropping and structures.

# 15–2. Potential for wind erosion

## BACKGROUND

The potential for a soil to be eroded by wind is determined largely by soil type. Other factors include the amount of organic matter in the soil, the amount of residue on the soil surface, wind speed and soil moisture.

Wind erosion affects soil by removing the topsoil – the productive portion of the soil containing the organic matter and nutrients.

Severe wind erosion can reduce visibility on adjacent roads.

## WHAT CAN YOU DO?

### OPTION 1 – COMPENSATING FACTOR

Aim for at least 30% soil coverage by:

- leaving crop residues on the soil surface (the result of reduced tillage)
- planting cover crops

### OPTION 2 – COMPENSATING FACTOR

Reduce wind speed by:

- planting tree windbreaks along field borders and within the fields
- planting vegetative barriers (temporary windbreaks) such as rye, barley or corn

### OPTION 3 – COMPENSATING FACTOR

Improve soil organic matter levels by:

- using a good crop rotation that includes forages and cover crops
- adding organic matter in the form of livestock manure or other organic material including crop residues

**Windbreaks reduce wind speed and the airborne movement of soil.**


**Read these OMAFA publications:**

- **Wind Erosion**
- **Wind Strips**
- **Agronomy Guide for Field Crops, Publication 811**
- **Guide to Vegetable Production in Ontario, Publication 839**
- **Universal Soil Loss Equation (USLE)**

## 15–3. Potential for tillage erosion

### BACKGROUND

Tillage erosion occurs when tillage tools loosen and move the soil on hilly to rolling topography. Gravity pulls the loosened soil farther downhill. Soil is moved off the knolls and hillsides by tillage implements, and this may explain why hillsides are becoming depleted of topsoil more quickly than expected. Tillage erosion does not occur on level land.

Over time, tillage erosion can remove all topsoil from the knolls of a field, exposing the less productive subsoil below.

### WHAT CAN YOU DO?

**OPTION 1 – COMPENSATING FACTOR**

Switch to a no-till system and eliminate inter-row cultivation.

**OPTION 2 – COMPENSATING FACTOR**

Reduce the tillage intensity:

- make no more than two tillage passes prior to planting
- travel slower and till shallower
- switch to reduced tillage systems

**OPTION 3 – COMPENSATING FACTOR**

Till across the slope or on the contour:

- till cross-slope or on contour to reduce the soil thrown by tillage implements
- travel slower and till shallower

**Tillage erosion occurs when tillage tools loosen and move the soil on hilly to rolling topography. Implements that move a lot of soil, gravity and speed are the main causes of soil movement.**

**Cover crops will reduce sheet erosion by slowing the movement of water and adding to the soil's organic matter.**

## 15–4. Evidence of sheet erosion and/or tillage erosion

### BACKGROUND

Sheet erosion often goes unnoticed for long periods of time because it is not dramatic like rill and gully erosion – until large amounts of soil are lost and the subsoil appears on the hillsides and knolls. Lighter-coloured knolls and poor crop production on hillside slopes are evidence of sheet erosion. Soil from these areas usually moves to lower areas of the fields.

Crop production on subsoil can cost you money in lost yield and quality, and higher input costs.

### WHAT CAN YOU DO?

**OPTION 1 – ACTION**

Slow down water movement, reduce rainfall splash and increase water infiltration by:

- leaving crop residues on the soil surface
- planting cover crops

**OPTION 2 – ACTION**

Improve soil organic matter levels by:

- using a good crop rotation that includes forages and cover crops
- adding organic matter in the form of livestock manure or other organic material such as crop residue


**Read these BMP publications:**

- **No-Till for Soil Health**
- **Soil Management**
- **Field Crop Production**
- **No-Till: Making it Work**

# 15–5. Evidence of rill or gully erosion

## BACKGROUND

Large amounts of soil, measured in tonnes, can be lost in a single rainfall event to rill or gully erosion. Erosion will leave the field rough and may create a depression large enough to damage field equipment. Eroded soil can bury healthy plants, accumulate in lower areas of the field, or enter surface water.

Soil that lies in low areas may cause those areas to remain wet longer, and subsoil deposited there will dilute or bury the existing topsoil. Soil that reaches surface water will impair water quality by adding sediment and nutrients.

## WHAT CAN YOU DO?

### OPTION 1 – ACTION

Install structures to control erosion and transport water safely across sloping fields, eventually to surface water:

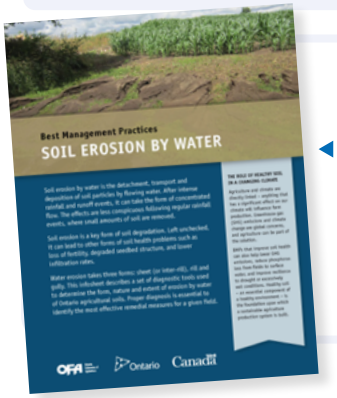
- contact OMAFA or your Conservation Authority for a list of qualified erosion control contractors who can advise on the use of appropriate structures – water and sediment control basins (WASCoBs), grassed waterways, and drop structures are some of the options for erosion control structures

### OPTION 2 – ACTION

Slow down water movement, reduce rainfall splash and increase water infiltration by:

- leaving crop residues on the soil surface
- planting cover crops
- planting alternating strips of crops, including forages, across the slope or by contour strip cropping

**Rill erosion may create a depression large enough to damage field equipment.**




**Refer to these OMAFA resources:**

- **Soil Erosion by Water**
- **Soil erosion – causes and effects**
- **Agricultural erosion control structures**
- **Grassed waterways**

## 15-6. Land highly erodible by water

### BACKGROUND

Highly erodible land such as steeply sloping fields with highly erodible soils can quickly lose topsoil and their productive capability within just a few years. Many of these fields have already lost the topsoil and are no longer productive.

The topsoil from these fields may end up in surface water or lower areas of the fields. Once the topsoil is depleted, the subsoil begins to erode as well and is deposited in lower areas of the field, covering up existing topsoil.

Soil that reaches surface water will impair water quality by adding sediment, nutrients and pesticides. Eventually this may mean that those watercourses, drains or ditches will need to be cleaned out.

### WHAT CAN YOU DO?

**OPTION 1 – ACTION**

Switch to a no-till or a conservation strip cropping system with an appropriate crop rotation:

- reduce tillage in these areas
- maximize crop residue on the soil surface
- include forages in the rotation

**OPTION 2 – ACTION**

Plant this land to permanent cover of rows of trees, shrubs or vines with inter-row cover crops.

**OPTION 3 – ACTION**

Land is used for silvopasture or rotational grazing. Do so with care to minimize the potential for further damage by overgrazing.

**Soil that reaches surface water will impair water quality due to the presence of sediment and nutrients.**

Refer to:

**Field Crop Production BMP Book**

**Soil Management BMP Book**

**Soil Erosion by Water ▶**

# 15-7. Land highly erodible by wind

## BACKGROUND

Highly erodible land can have much of the topsoil blown away by the wind in a relatively short time. This greatly reduces yield potential. The soil lost through wind erosion has a high macro and micronutrients content. This loss impacts long-term farm nutrient status and productivity.

The soil that is blown will drift in the fencerows and around buildings and may cause a hazard for drivers by reducing visibility.

## WHAT CAN YOU DO?

### OPTION 1 – ACTION

Plant trees to slow the wind speed:

- where possible, plant windbreaks at right angles to direction of the prevailing wind
- keep less than 305 m (1,000 ft.) distance between areas with trees
- use wind strips in combination with windbreaks or as a transitional measure until trees are large enough to provide sufficient protection

### OPTION 2 – ACTION

Keep the soil covered by:

- establishing a permanent cover of trees or shrubs or an orchard
- establishing a permanent forage crop
- leaving crop residue on the soil surface with at least 30% surface coverage
- planting cover crops immediately after crop harvest – winter-hardy cover crops provide more soil protection during non cropping season when erosion is most likely to occur
- use in field vegetated rows (windstrips) to provide protection for land at risk of wind erosion

**Windstrips provide flexible wind protection for land at risk of wind erosion. They can be used in combination with windbreaks, or as a transitional measure until trees are large enough to provide sufficient protection.**


**Field Windbreaks and Wind Strips provide many options for planning, planting and maintaining treed windbreaks within buffer strips, in pasture, or intercropped with field crops.**

# 15–8. Marginal lands

## BACKGROUND

Very steeply sloping land, poorly drained land, or land that has some other physical feature limiting crop production and use of farm implements is considered marginal for profitable row crop production.

There is a greater potential for an environmental impact from farming marginal land. For example, a very steep hillside will have all the standard crop inputs applied, but due to the limitations on that soil (e.g., erosion, loss of organic matter, droughtiness), the yield may not equal that of the more productive parts of the field. Not only are valuable crop inputs not resulting in greater yields on marginal land, but there may be more chance of these inputs moving from the field to surface water and becoming pollutants.

## WHAT CAN YOU DO?

**OPTION 1 – ACTION**

Retire the land from active row crop production by:

- growing forages
- practising frequent rotational grazing
- permanently planting the area into trees, shrubs or permanent biomass crop
- establish a wetland in poorly drained, low-lying environments

**With proper management, marginal lands can be good forage producers.**

**If you plan to retire marginal lands from food production, and want suggestions for planting and alternative uses, see these BMP publications:**

**Buffer Strips**

**Establishing Tree Cover**

**Fish and Wildlife Habitat Management**

**Streamside Grazing**

**Woodlot Management**

**Cropland Retirement ▶**

## 15-9. Potential for soil compaction

### BACKGROUND

The potential for compaction is determined by the soil type and the natural drainage for that soil as determined by the Soil and Site Evaluation, EFP Worksheet #1. Human activity will determine whether or not the potential develops into an actual compaction problem.

Compaction lowers yields by reducing water and air movement in the soil and restricting root growth.

### WHAT CAN YOU DO?

**OPTION 1 – COMPENSATING FACTOR**

Improve soil structure by planting soil-improving crops such as red clover and alfalfa.

Manage equipment setup and use to avoid compaction:

- stay out of field when it is wet – if you can squeeze and make a ball of soil with one hand, it is likely too wet for vehicle traffic
- reduce axle weight – the use of wagons, combines, etc. with loads of greater than 7 tonnes per axle will increase risk of compaction
- spread equipment load over larger area (e.g., dual tires, radial tires, reduced tire pressure)
- use inflation/deflation systems in collaboration with tire technology to spread equipment load
- avoid using tillage implements that tend to pulverize the soil, such as the disc
- try to establish permanent/controlled traffic patterns and reduce the frequency of travel in the field

**While not always possible, harvesting when soil conditions are relatively dry will greatly reduce soil compaction.**

**See also:**

**Agronomy Guide for Field Crops, Publication 811**

**Soil Management**

**Field Crop News: Understanding Soil Compaction**

**Subsurface Compaction ▶**

## 15-10. Field traffic

### BACKGROUND

The number of field passes, soil moisture and equipment weight all influence the degree of structural damage caused by field traffic.

Reducing axle weight to as low as possible, with the goal to be below 7 tonnes per axle or lower. Data suggests that individual wheel loads greater than 3,402 kg (7,500 lbs) will often exceed soil strength deep in the soil, especially when the soil is wet.

Harvest operations are often the most damaging. For example, during sugar beet harvest, more than 80% of the field will have equipment traffic.

**Reducing tire pressure will increase the surface area in contact with the soil and spread the load over a larger area, reducing surface compaction.**

### WHAT CAN YOU DO?

#### OPTION 1 – ACTION

Reduce the number of trips over the field by:

- adopting no-till or reduced tillage systems where appropriate
- using controlled traffic lines
- performing multiple operations in each pass

#### OPTION 2 – ACTION

Reduce the impact of the field traffic by:

- staying out of field when it is wet
- reduce individual axle weight or select equipment with additional axles to the spread load – the use of wagons, combines etc. with loads of greater than 7 tonnes per axle will increase risk of compaction
- increasing surface area supporting equipment – use dual tires, radial tires and/or reduce tire pressure on equipment
- using inflation/deflation systems in collaboration with tire technology to spread equipment load
- establishing seasonal if not permanent traffic patterns, such as traffic lanes
- loading wagons or trucks on the headland
- improving soil structure by planting soil-improving crops such as red clover and alfalfa


## 15-11. Soil structure

### BACKGROUND

Good soil structure is important for well-developed root growth, improved water infiltration and optimum water-holding capacity. Good root growth in turn allows plants to access the water and nutrients they need from the soil. A soil with good structure is also less likely to erode and compact.

### WHAT CAN YOU DO?

#### OPTION 1 – ACTION

Improve soil structure by:

- using a good crop rotation (including winter cereals and forages if possible)
- leaving crop residues on the soil surface
- adding cover crops whenever possible
- adding organic matter such as manure, compost etc.
- reducing tillage

**Vigorous root growth in the corn seedling on the left is evidence of a soil with good structure. The seedling on the right was growing in a compacted soil with poor structure.**

**For more information about soil structure, read the Soil Management and Subsurface Compaction BMP books.**

## 15–12. Water infiltration

### BACKGROUND

Water lying on the soil surface can be an indicator of:

- an unusually high water table
- a need for an improved drainage system
- a compacted or poorly structured soil

### WHAT CAN YOU DO?

**OPTION 1 – ACTION**

Remove excess water by:

- installing tile drainage and properly maintaining it

**OPTION 2 – ACTION**

Improve the infiltration of surface water by:

- reducing compaction
- improving soil structure
- retiring land and planting/maintaining perennial cover

**Read:**

**Subsurface Compaction**

**Subsurface Drainage**

**Surface Crusting**


**Surface inlets and subsurface drainage will improve surface drainage and reduce water movement across the surface of the soil, lowering the risk of soil erosion.**

**Overly wet soils can affect crop growth and the timeliness of field operations, and increase the potential for compaction.**

## 15–13. Soil drainage profile

### BACKGROUND

The lack of good natural drainage or tile drainage can affect crop growth, the timeliness of field operations, and increase compaction potential.

Areas of a field that are too wet may result in uneven growth of the crop, and inefficient use of nutrients and other inputs applied to the field. The air spaces in the soil can become filled with water and the crops may die.

### WHAT CAN YOU DO?

**OPTION 1 – ACTION**

Lower the water table so that it does not impact crop growth by:

- installing tile drainage
- properly maintaining the tile drainage system

**OPTION 2 – ACTION**

Improve water infiltration by:

- reducing soil compaction
- improving soil structure

**The Cropland Drainage BMP book shows how drainage should be considered part of an overall soil management system for the farm. It details how to diagnose surface and subsurface drainage problems and takes a step-by-step approach to designing or upgrading a drainage system for optimal benefits and minimal environmental impacts. The construction section includes handy checklists for landowners and contractors. Inspection, maintenance and troubleshooting are also covered.**

# 15–14. Amount of organic matter in the soil as measured by a soil test

## BACKGROUND

Organic matter is an important indicator of many things in the soil, including:

- soil structure – a moderately high level of 4-6% organic matter may be an indicator of good soil structure
- water-holding capacity
- the ability to contribute to the nutrient cycle

The amount of organic matter in the soil can be easily measured with a soil test. Keep a record of each soil test for comparison with previous and future tests to see if the organic matter percentage is increasing or decreasing.

Organic matter can easily be reduced but is very difficult to increase. Take every opportunity to protect and increase it.

## WHAT CAN YOU DO?

### OPTION 1 – COMPENSATING FACTOR

Regularly perform a Soil Health Assessment in 3-5 year intervals to benchmark and track your soil Health.

Use the **Soil Health Assessment & Plan** to score your soil health and plan long-term management actions.

### OPTION 2 – ACTION

Improve soil organic matter levels by:

- using a good crop rotation, including winter cereals and forages when possible
- adding organic matter in the form of livestock manure or other organic amendments
- leaving crop residue in the field
- reducing the number of tillage passes
- planting cover crops

**A soil test can provide valuable information about a soil's health, such as the amount of organic matter in the sample.**

**For more information about sampling and testing, see these OMAFA resources:**

**Soil sampling and analysis for managing crop nutrients**

**Soil Health in Ontario ▶**

**Soil Remediation ▶**

# 15-15. Adoption of reduced tillage across the entire farm

## BACKGROUND

Soils contain a large carbon pool which is impacted by changes in agricultural management practices.

Tillage will breakdown soil aggregates making organic carbon available to soil microbes. These soil microbes use the carbon as a food source, metabolizing the carbon into carbon dioxide ($CO_2$). The loss of $CO_2$ will increase with the intensity and degree of disturbance of the soil by tillage. Reducing tillage or using no-till can reduce or slow down the conversion of soil organic matter to $CO_2$ keeping the carbon in the soil. No-till will also reduce nitrous oxide ($N_2O$) emission from soil and $CO_2$ emissions from fuel use.

## WHAT CAN YOU DO?

### OPTION 1 – ACTION

Switch to a no-till system.

### OPTION 2 – COMPENSATING FACTOR

Reduce tillage intensity:

- make no more than two tillage passes (fall/spring)
- travel slower, and till shallower
- switch to a less aggressive tillage implement

### OPTION 3 – ACTION

Change cropping system to provide a permanent cover:

- control livestock grazing
- convert to perennial crops which do not require tillage

No till systems reduce soil disturbance and preserve soil carbon.

**Refer to:**

**Mulch Tillage**

**No-Till for Soil Health**


**Strip-Tillage in Ontario: Making it Work**

**Strip-Tillage in Ontario: The Basics**

# 15–16. Amount of tillage throughout the year (reduction in organic matter and soil structure)

## BACKGROUND

Organic matter is reduced by tillage because more organic matter is exposed to air, which breaks it down and releases carbon as carbon dioxide. Each tillage pass will destroy some organic matter, and on rolling topography will move soil down the slope.

Soil clods break down, and the finer soil that is left is more susceptible to erosion, soil crusting, and compaction. Soil structure is destroyed by excessive tillage.

Deep tillage can result in the mixing of subsoil with topsoil. This dilutes topsoil quality and productivity. Subsoil is unproductive because it lacks organic matter, contains fewer nutrients, and usually has poor structure. Mixing topsoil and subsoil therefore dilutes the amount of organic matter in the soil and can cause soil structure problems. Areas of the field where mixing has taken place often yield less. On sloping land, the deeper a soil is tilled, the more soil will be moved down the slope. Over time, topsoil can be removed from hill slopes, exposing the subsoil.

**Set up tillage equipment and monitor during use to ensure the subsoil is not being tilled.**

## WHAT CAN YOU DO?

### OPTION 1 – ACTION

Use the least amount of tillage necessary to achieve the required goal:

- consider reducing frequency, speed, depth and aggressiveness
  - limit tillage frequency to one spring pass
  - limit tillage depth to maximum of 4-6 inches
- improve residue management at harvest – spread residue uniformly
- adopt ways to manage residue with seeding equipment (e.g., row cleaners or lead coulters)
- utilize machine guidance, narrow gauge wheels and closing systems to plant off old crop rows

### OPTION 2 – ACTION

- adopt a no-till system for all crops or most crops
- alter crop rotation to enhance success with no-till (e.g., no-till soybeans and wheat)
- improve residue management at harvest – spread residue uniformly
- utilize ways to manage residue with seeding equipment (e.g., row cleaners or lead coulters)


**For information on addressing tillage erosion, see the Soil Management BMP book.**

# 15–17. Soil disturbance influence on soil erosion

## BACKGROUND

Soil disturbance increases erosion potential. Ideally disturbance is kept to a minimum during planting through no-till or as little tillage as possible for a good seedbed. Other activities such as nitrogen application or inter-row cultivation should be carried out in such a manner as to reduce soil disturbance.

Tillage implements that disturb a lot of soil move more soil down the slopes of fields. This soil can be drawn into areas of the field where water erosion will further increase soil loss.

**Low-disturbance planting systems will significantly reduce the risk of soil erosion from tillage and intense rainfall events.**

## WHAT CAN YOU DO?

### OPTION 1 – ACTION

Aim to disturb the soil as little as possible during all field operations:

- increase the use of a no-till system
- stay out of the fields when the soil is too wet
- reduce your speed so less soil is moved and less residue is buried
- use implements that move less soil such as vertical tillage implements, cultivators and discs – avoid the moldboard plow and chisel plow


**No-till requires knowledge of soil and residue management, specialized equipment, weed, disease and pest control, and crop selection.**

**Whether you want to strip-till, slot-plant, pre-till or ridge-till, the No-Till: Making It Work and No-Till for Soil Health BMP books are helpful for beginners and no-till veterans.**

# FOR MORE INFORMATION

## ONTARIO MINISTRY OF AGRICULTURE, FOOD AND AGRIBUSINESS (OMAFA)

- Agricultural Information Contact Centre (AICC)
  Toll free: 1-877-424-1300 | e-mail: ag.info.omafa@ontario.ca

  Find most of the resources listed below at www.ontario.ca

### Publications

- Agricultural Erosion Control Structures: A Design and Construction Manual, Publication 832
- Agronomy Guide for Field Crops, Publication 811
- Guide to Vegetable Production in Ontario, Publication 839
- Soil Fertility Handbook, Publication 611

### Factsheets

- Soil erosion: causes and effects
- Estimating soil erosion by water in Ontario
- Universal soil loss equation
- Measuring field slopes for nutrient management and conservation planning
- Agricultural erosion control structures
- Grassed waterways
- Soil sampling and analysis for managing crop nutrients

### AgriSuite

- Agricultural Erosion Control Structures (AgErosion)

### Ontario Crop Protection Hub

## ONTARIO MINISTRY OF AGRICULTURE, FOOD AND AGRIBUSINESS (OMAFA), *continued*

### Best Management Practices Series

- Buffer Strips
- Controlling Soil Erosion on the Farm
- Establishing Tree Cover
- No-till: Making it Work
- Soil Management
- Water Management
- Soil Health
  - Cold and Wet Soils
  - Contour Farming and Strip Cropping
  - Cropland Retirement
  - Doughtiness
  - Erosion Control Structures
  - Low Fertility
  - Mulch Tillage
  - No-Till for Soil Health
  - Soil Erosion by Water
  - Tillage Erosion
  - Wind Erosion
  - Wind Strips
  - Field Windbreaks
  - Strip-Tillage in Ontario – The Basics
  - Strip-Tillage in Ontario – Making it Work
  - Subsurface Compaction
  - Surface Crusting
  - Subsurface Drainage

## LEGISLATION/ACTS

- Fisheries Act, 1985
- Nutrient Management Act, 2002