

Highly Erodible Land

Highly erodible land is an area that is prone to significant erosion from wind, water and tillage. Soil type and topography combine to make erosion control difficult or impossible in a cropped system.

Plant grass, shrubs or trees to improve biological diversity. This will mean more birds and beneficial insects such as bees and ground beetles.

Depending on how it is retired, the land still may be able to provide income while protecting the soil. Alternative uses may include perennial grass for forage or biofuel, trees for timber and other forest products, or recreation.

SOLUTION

Sometimes slopes are too steep for erosion control. **Retire that land:** it will save you time, effort and money.



Farming with Erosion Control Structures



Maintenance – Protect your erosion control investment with an ongoing maintenance plan. This plan will determine how effective the structural controls are and how long they will last. In general, all erosion control structures should be inspected regularly and repaired as concerns are found. More specific maintenance recommendations are provided within the booklet.

Manure Application – When spreading livestock manure, maintain a minimum distance of 30 metres (100 ft) from open watercourses, catchbasins and standpipe inlets. The EFP Worksheet #17: Use and Management of Manure and Other Organic Materials and the BMP book *Manure Management* provide excellent recommendations regarding the use of manure on farm fields.

Equipment and Management – When designing an erosion control project, remember your existing field implements and management choices. Are you thinking of a change to no-till? Will you be purchasing a planter or drill that is wider or narrower than your present equipment?

Climate Change – Storm events seem to be getting more sudden and intense. This can greatly affect soil erosion if the land is not prepared for it. Fields may be very vulnerable to both wind and water erosion, especially in the late spring or when the crop canopy hasn't closed. It is important to consider the potential for soil erosion all year long.

Markets and Crops Grown – Farmers attempt as best they can to adjust to consumer demands for new and different crops and management methods. Changes to your management system may necessitate adjustments to your erosion plan as well. This may include major changes such as a switch to organic farming or horticultural crops, or moving to a different type of livestock – or simply modifying crop rotations.

Impacts on Neighbours and Others – In most cases, soil erosion problems and controls are not limited to a property boundary. For example, much of the runoff on your farm may be originating from one or several properties upslope. If possible, try to involve all the affected landowners in the planning process, as it should lead to a better overall erosion control plan. Consider a municipal drainage approach if suitable. At the very least, get your neighbours' approval if your proposed best management practices could affect their property.

What Else Should You Consider?

The Environmental Farm Plan (EFP) is a voluntary education and awareness program designed to help Ontario farmers prepare environmental risk assessments for their farms. The workbook provided to EFP participants offers management alternatives for all parts of the farm operation. It includes information about soil erosion control, and offers regulatory guidance. Keep all records associated with soil erosion projects with your EFP.

Legislation – Your local municipality must be made aware of any work along an open municipal drain, and of anyone using a municipal drain (whether open or closed) as an outlet. There are timing and other restrictions around projects involving drainage channels and streams, whether or not municipal drains are involved. Your local Conservation Authority (CA) or Ministry of Natural Resources office can provide assistance with these projects. In most cases, Fisheries Act concerns can be addressed by CA staff.



The Bottom Line

Save time and improve your field operations!

Many farmers live with rills and small gullies on the farm. They leave the areas idle or fill them in year after year. In some instances, erosion is so bad that fields are broken up or divided. This requires more energy and time to manage than a single field. A workable erosion control plan can bring these areas back into productive land use and protect them over the long term.



This gully has taken over 2 hectares (5 ac) out of production. This represents over 1,016 tonnes (1,000 tons) – or 65 tandem truckloads – of soil and associated nutrients being washed away!



A broad-based terrace runs parallel to the crop rows and takes no land from production.

The Bottom Line

The investment you make in soil erosion control and management will pay off, and not just economically.

Consider...

- If soil erosion is allowed to occur, the land's productivity is reduced.
- Using rotations requires less pesticide and reduces associated costs.
- The investment you have made in drainage to improve your farm is likely substantial. Soil erosion control is often dependent on good drainage systems. They work hand-in-hand.
- Municipal drainage is costly. These costs may be reduced when soil erosion is controlled near or at the source – rather than allowing soil to fill ditches that require cleaning out.
- Sediment in streams harms valuable fish habitat.

Did you know... 1 ton/acre of topsoil = thickness of one sheet of paper
= 4 lbs available nitrogen
= 1.5 lbs phosphorus
= 5 lbs potash

