



# AGS

ADVANCED  
GRAZING SYSTEMS

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RESOURCES

# RESOURCES

# MODULE 1

# GOALS

## English Resources (le Français suit)

### National

#### [Protecting Our Predators](#)

Protecting riparian areas is important for supporting beneficial insects and healthy ecosystem.

#### [Kris Nichols - PCBFA Virtual Grazing Conference](#)

Part of PCBFA Virtual Grazing Conference. Topics covered include: regenerating soils, soil health tools, livestock management, soil aggregates.

#### [Natural Systems Agriculture and Crop-Livestock Integration with Martin Entz](#)

Martin Entz is professor of Cropping Systems & Natural Systems Agriculture at the University of Manitoba. He leads the Glenlea Long-Term Rotation Study – Canada’s oldest organic vs conventional farming systems experiment. He is also founder of the U of M’s Natural Systems Agriculture program, studying systems based on processes found in nature — specifically the natural grassland ecosystem of the Canadian Prairies.

#### [Rangeland & Riparian Health](#)

In addition to being a valuable and important forage source, rangelands supply many environmental, economic and social benefits. Management decisions affect rangeland health and productivity and an understanding of how plants and the entire system responds to grazing will positively influence all components.

#### [Drought Management](#)

Recurring drought is a natural part of the climate in many areas of Canada and creates a challenge when managing grazing and forage resources. Although droughts are often unpredictable, they are inevitable in many regions, so long-term farm and ranch management must include planning for and consideration of how drought will affect the entire system – including plants, livestock and water sources.

### Mountain

#### [BC Grassland Resources](#)

This webpage hosts many reports, assessments, and studies on rangeland management in BC, as well as e-books or factsheets on grassland ecology, management and stewardship.  
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### [Riparian Pasture Design](#)

Key factors to consider are size, vegetation, ratio of riparian to upland, practicality-fencing, access, time of use

### [Wetland Ways: Grazing](#)

This chapter provides guidelines for the protection and management of wetlands that are on or near to grazing lands. Topics focus on livestock watering, access to surface water, off-site water, riparian grazing management, invasive species

### [Livestock Drinking Water and Fish](#)

The general public in British Columbia is constantly concerned about drinking water quality. When livestock are observed in rivers, streams, and lakes; thoughts about health and environmental issues are aroused. This publication attempts to address issues important to both human and livestock drinking water quality and the importance of uncontaminated surface and ground water for fish habitat and survival. It was prepared for all livestock owners having various types of domestic animals

### [Watering Livestock Directly From Watercourses](#)

Livestock that have free access to watercourses may impact both the water quality and the land bordering the watercourse (the riparian area). Impacts can include such things as: direct deposit of urine and manure into the water; deposit of manure onto low land that is seasonally flooded or where it can be washed into a watercourse; spawning bed trampling; streambank trampling and siltation of the water; and removal of riparian vegetation.

### [Using Livestock for Weed Management: A 7-day Schedule to Get Started](#)

Over the past two years, the PRFA in partnership with the Ministry of Agriculture and the Peace River Regional District have brought to full bloom a pilot project to teach livestock to eat Canada thistle. This forage fact will provide you with a 7-day training program for your own livestock.

### [Managing Grazing Lands During Drought](#)

Whether it occurs once in five years or for five consecutive years, drought is inevitable throughout the west. In order to deal with this natural phenomenon, range managers and producers should develop both short and long-term strategies. Unfortunately, the ability to manage during drought is often decided long before the drought occurs. This is why a grazing management plan with a drought survival component becomes a crucial component of any operation.

### [Pasture Management](#)

Mixes are more common in pasture seedings, and are often more complex, with many species being included on the theory that given the variable conditions that often occur in pastures (e.g. wet areas, hilltops, etc.) the species most adapted to a particular part of the pasture will eventually dominate.

### [Water quality and livestock grazing on Crown rangeland In British Columbia](#)

Range Program staff and range agreement holders are experiencing some challenges in their management of livestock in community watersheds. All efforts must be taken to mitigate livestock-caused changes to water quality, water quantity, and timing of water flow. This brochure is intended to provide some guidance to range practitioners and statutory decision-makers.

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### [Rangeland ecology](#)

Sustainable livestock operations depend on healthy plant communities. Rangeland ecology studies relationships between plants, animals and their environment to achieve desired management objectives like maintaining or improving current plant communities, sustaining livestock production and providing wildlife habitat. On this webpage are range type summaries for each region in BC.

### [Teaching Sheep to Eat Canada Thistle](#)

An interview with cooperator Tess Davidson of Davidson Farm, on Day 5 of a 7 day training program teaching her sheep to eat Canada thistle.

## **Prairie**

### [Caring for the Green Zone: Riparian Areas and Grazing Management](#)

This booklet provides information on riparian areas and grazing management, and profiles ranchers who are currently implementing successful grazing management strategies. The information is intended to help landowners make effective decisions for their operations.

### [Manitoba Species at Risk: a Landowners Guide](#)

This document is intended to provide a general overview of Species At Risk information and locations. Native grasslands and the associated native plant and wildlife species have evolved and adapted to grassland disturbance.

### [Effects of Twice-Over Rotational Grazing on Songbird Nesting Success in Years With and Without Flooding](#)

Rotational grazing is sometimes promoted for grassland bird conservation, but the benefits to wildlife have not been comprehensively documented.

### [Impact of Grazing History on Pollinator Communities in Fescue Prairie](#)

In fescue prairie, cattle grazing can alter soil characteristics and plant communities. However, whether these alterations have a subsequent impact on pollinators has not been extensively studied.

### [What Landholders Can do \(to help Species at Risk\)](#)

There are many actions that landholders can take to help grassland Species at Risk. Some may require little to no effort, while others may need a greater investment of time and other resources.

### [Drought Management Strategies](#)

Recurring drought is a natural part of the climate in many areas of Canada and creates a challenge when managing grazing and forage resources. Although droughts are often unpredictable, they are inevitable in many regions, so long-term farm and ranch management must include planning for and consideration of how drought will affect the entire system – including plants, livestock and water sources.

### [Healthy Riparian Areas](#)

Join Kerri O'Shaughnessy with Cows and Fish as she tells us about riparian areas and what makes a healthy one. These ecosystems are vital to health and well-being of our landscapes in order to mitigate both flooding and droughts!

### [Evaluation of cattle bedding and grazing BMPs in an agricultural watershed in Alberta](#)

This paper highlights the environmental impacts of implementing beneficial management practices to address cattle bedding and direct access to the creek in a study watershed in southern Alberta, Canada.

### [Biodiversity conservation guide for farmers and ranchers in Alberta](#)

The guide begins by defining biodiversity and explaining its importance to agricultural producers and to our world. In the next section, the guide explains six basic principles of biodiversity conservation and, for each principle, lists supporting actions.

### [Mixed-grass Prairie \(Manitoba Species at Risk\)](#)

This factsheet identifies, and describes the threats and outlook for the Mixed-grass Prairie, as well as BMP's to support its sustainability.

### [Tall-grass Prairie \(Manitoba Species at Risk\)](#)

This factsheet identifies, and describes the threats and outlook for the Tall-grass Prairie, as well as BMP's to support its sustainability. It is listed as Provincially endangered.

### [Ranching and Albertas Headwaters](#)

Cows and Fish and the Southern Alberta Land Trust Society (SALTS) partnered on a recent project to work with ranchers in two important tributaries of the Bow River in Alberta to assess riparian health trends where grazing is the main land use. The goal of this project was to compare data that had been collected at these sites 15-20 years ago with new information from the same locations.

### [Lakes and Wetlands: Riparian Health Assessment Workbook](#)

This workbook describing riparian health assessment has been written for those people who can most effectively influence riparian areas and their management - landowners, farmers, ranchers, lakeshore residents, agency and organization staff and others who use and value these green zones and wet areas.

### [Union Forage Field Day - Perennial Pastures](#)

Learn more about Union Forage's exciting perennial forage blends to improve grazing performance on your ranch, year after year.

### [Grazing Considerations for Sensitive Land](#)

Grazing considerations for sensitive land: riparian, salinity, native forages, rest period.

### [Saskatchewan Prairie Conservation Action Plan Resources](#)

This website contains links to many resources related to conservation, habitat, and ecosystem health in SK. Species at risk, ecosystem guides, rangeland health assessment, riparian health assessment, grazing response index, wetlands, native plants, invasive plants, ecosystem services.

## **Eastern Canada**

### [Livestock Access to Watercourses](#)

This Factsheet outlines several strategies farmers can use to protect these watercourses. Fencing, strategic positioning of shade, salt, minerals and alternate sources of water, as well as grazing management plans (GMPs) can all create win-win opportunities for both the farmer and the environment.

### [Soil Fertility Handbook](#)

The Ontario Soil Fertility Handbook contains information on the fundamental concepts of soil fertility. If you have ever wondered how nutrients make their way to plant roots or why different soils vary in pH, the answers can be found within these pages. You can also find practical information in areas such as proper soil sampling techniques, soil test interpretation and fertilizer application methods.

### [Using a Rising Plate Meter as a Tool to Improve Pasture Management](#)

A rising plate meter is a tool that can assist producers in assessing the current state of their pastures, allowing them to make informed management decisions leading to better pasture and animal performance. The goal of this project was to demonstrate the effectiveness of measuring pasture using a rising plate meter at improving pasture management.

### [Streamside Grazing](#)

A key message of this book is that grazing riparian areas can be beneficial when properly planned and managed. This book will help you develop a workable plan that balances production and environmental goals for riparian pastures.

### [Common Weeds Poisonous to Grazing Livestock](#)

Many common weeds in Ontario can poison livestock. This Factsheet identifies these weeds and describes the symptoms of poisoning.



## [Forage and Pastures](#)

This webpage contains links to all factsheets, and publications of OMAFRA on topics of Forage agronomy, insects, disease, weeds, pasture, harvest and storage, forage quality, annual forage, corn silage, economics.

## [How do I repair pugged pasture?](#)

Livestock may damage pastures when the soil is waterlogged. Wet soils are less able to carry weight than dry soils. Hoofprints that cut into the sod, make mud, and/or fill with water are called “pugmarks”, which is where the name “pugging” for this type of damage comes from. Pugging can reduce pasture yields between 16% and 80% in the following 12 months, depending on the soil type, how wet it is, the stocking density, and how long livestock are in the paddock[1].

## **Atlantic**

### [Pasture Fertility - Rules of Thumb](#)

Quick tips on soil test, pH, fertilizer use, seed mixes, paddock configuration, manure distribution, weed removal

### [No-till Interseeding into Existing Forage Stands](#)

Productivity of low yielding forage stands can be improved through interseeding. Interseeding is the introduction of a legume or grass into an existing forage stand by no-till seeding. Interseeding a legume into a grass stand should increase yield, improve forage quality and reduce the need for nitrogen fertilizer. should be considered.

### [Pasture Mixes for Atlantic Canada](#)

Pastures are an important forage component of many livestock farms in Atlantic Canada. Forage produced on pasture is relatively low in cost and high in feed value. Often the best and most economical approach for improving pasture productivity and quality is through better grazing management. However, there are occasions when a total renovation of the pasture including re-seeding to adapted pasture species and cultivars is warranted.

## **For your interest**

### [Guardians of the Grasslands](#)

Canada is home to one of the most endangered ecosystems in the entire world - the temperate grasslands of the Great Plains. Our native prairie is home to over 60 species at-risk but it is disappearing and at an alarming rate. However, cattle are maintaining and preserving these iconic landscapes and providing hope for the plants and animals that call them home. Sometimes what you thought was the problem, is really the solution.

### [On-Farm Biodiversity Tools](#)

The Organic Center collaborated with Professor John Quinn at Furman University on The Healthy Farm Index (HFI) Biodiversity Calculator project to enable farmers to measure and optimize multiple ecosystem services to prevent the decline of on-farm biodiversity.

### **Informations en Français**

#### [Les plantes fourragères](#)

Ce guide couvre, à travers dix chapitres, tous les aspects de la production, de la conservation et de l'utilisation des plantes fourragères au Québec. Il fournit notamment les informations techniques et scientifiques les plus pertinentes relativement aux espèces fourragères, aux associations d'espèces, aux carences minérales, à la gestion intensive des pâturages, aux modes de lutte intégrée, aux agents de conservation ainsi qu'à la valeur nutritive des foins et des ensilages.

#### [Pratiques de gestion bénéfiques des prairies](#)

Ce site web compile les guides des gestionnaires des terres sur la santé des prairies pour diverses régions de l'Amérique du Nord. La gestion du pâturage est la planification, la mise en œuvre et la surveillance du pâturage des animaux pour obtenir des résultats durables pour les animaux, les plantes, les terres, l'environnement et l'économie dans une gamme des conditions environnementales.

#### [Plan d'agriculture durable](#)

Différentes formations en agroenvironnement sont offertes au Québec. Elles constituent le cœur d'un parcours structuré de formation s'adressant aux producteurs qui veulent adopter de meilleures pratiques agroenvironnementales. Elles sont regroupées selon les différents objectifs du Plan d'agriculture durable.

#### [Enherbement Direct de Prairies Riches en espèces dans l'agriculture](#)

Guide pratique pour l'utilisation de semences régionales dans les surfaces de promotion de la biodiversité.