

REFERENCE GUIDE



THE CANADA - BRITISH COLUMBIA ENVIRONMENTAL FARM PLAN PROGRAM



ENVIRONMENTAL FARM PLAN PROGRAM
REFERENCE GUIDE



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Producer Groups

Abbotsford Soil Conservation Association
Associated Ginseng Growers of BC
BC Agriculture Council
BC Association of Cattle Feeders
BC Bison Association
BC Blueberry Council
BC Broiler Egg Producers Association
BC Cattleman's Association
BC Cherry Association
BC Chicken Growers Association
BC Christmas Tree Council
BC Cranberry Growers Association
BC Dairy Association
BC Egg
BC Forage Council
BC Fruit Growers' Association
BC Goat Association
BC Grain Producers Association
BC Grape Growers' Association
BC Greenhouse Growers' Association
BC Honey Producers Association
BC Hot House
BC Landscape & Nursery Association
BC Llama and Alpaca Association
BC Pork
BC Potato & Vegetable Growers Association
BC Sheep Federation
BC Strawberry Growers Association
BC Turkey
BC Vegetable Marketing Commission
BC Wine Institute
Cariboo Sheep Breeders' Association
Certified Organic Associations of BC
Comox Valley Farmers Institute
Fraser Valley Cole Crop Growers Association
Fraser Valley Peas, Bush Beans and Corn Growers Association
Horse Council of BC
Inter-Island Sheep Breeders Association
Lower Mainland Sheep Producers Association
Nanaimo-Cedar Farmers Institute
Peace River Forage Association
Peace River Soil and Water Conservation District
Raspberry Industry Development Council
Sustainable Poultry Farming Group

United Flower Growers'

Western Canada Turfgrass Association

Government Agencies

Agriculture and Agri-Food Canada
BC Ministry of Agriculture, Food and Fisheries
BC Ministry of Forests, Lands, Natural Resource Operations & Rural Development
BC Ministry of Health
BC Ministry of Environment and Climate Change
Canada Wildlife Service [CWS]
Canadian Food Inspection Agency
Environment Canada
Fisheries and Oceans Canada [DFO]
Provincial Agricultural Land Commission

Non Government Agencies

British Columbia Institute of Agrologists
Ducks Unlimited Canada
Malaspina University College
UBC Faculty of Agricultural Sciences
Union of BC Municipalities
University College of the Fraser Valley –
Agricultural Department

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1 INTRODUCTION

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INTRODUCTION

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The long term wellbeing of farms and ranches depends on good quality soil, water, air and other natural resources. In order to preserve these resources good management needs to include protection of the environment. An effective way to accomplish this broad goal is through sound environmental farm planning.

The measures necessary to sustain natural resources over the long term will depend on types of livestock raised, crops grown, farm or ranch locations within the Province and on production practices. Practices described in this publication may not be suitable for all producers due to differences in weather, soil and other conditions. Additional measures may be necessary for operations where specified practices described in this publication do not protect the environment adequately. It is in the best interest of producers to determine the necessary environmental precautions for their specific situation.



This Reference Guide provides information on various environmental laws and makes suggestions for environmentally sound practices. It is the primary reference when completing worksheets in the *British Columbia Environmental Farm Plan: Planning Workbook*. This assessment and planning process is not a legal requirement; it is a voluntary one to help producers identify areas where environmental improvements should occur on a farm or ranch.

This Reference Guide is intended for **all agricultural producers** in British Columbia. Suggested planning and management practices were developed with the cooperation of the BC Agricultural Council, BC Agriculture and Research Development Corporation, producer associations, and government and non-government agencies. Note that this publication and the companion **Planning Workbook** are designed for use on privately owned farmland. However, the discussions and principles apply to all land used for agricultural production.

USE OF THIS PUBLICATION

Publication Format

Chapters 2, 3, 4, 5 and 6. These chapters cover general information on all areas of environmental management related to **FARM PRODUCTION** (Farmstead, Livestock, Crops, Pest Management, and Nutrient Application).

Chapters 7, 8, 9, and 10. These chapters cover general information on all areas of environmental management related to **RESOURCE PROTECTION** (Biodiversity, Soils, Water, and Air).

Chapters 11 and 12. These chapters cover broad **ENVIRONMENTAL CONCEPTS** within the context of agricultural production (Stewardship Areas and Climate Change).

Each of chapters 2 to 12 has the following format:

- ◆ a **chapter “tab sheet”** lists metric to imperial conversions of all measurements used in the chapter (except Table & Worksheet numbers), and has the chapter contents list on the reverse side;
- ◆ an “Introduction” that lists all subsections;
- ◆ the **first section in farm production** chapters 2, 3, 4, 5 and 6 that outlines interaction with the environment are highlighted by a brown colour bar (e.g., in Chapter 4, in the **Crops and the Environment** section, the relationship and importance of crops in the nutrient cycle is discussed);
- ◆ the **first section in Resource Protection and Environmental Concept** chapters 7, 8, 9, 10, 11 and 12 provides the factors associated with potential Environmental impacts (e.g., in Chapter 9, the **Water Quality and Quantity Factors section** deals with specific farm practices: for each practice the primary concerns, legislation and beneficial management practices are covered.

ENVIRONMENTAL CONCERNS

This section highlights the primary environmental concerns associated with the specific practice

LEGISLATION

This section has a brief outline of the main legislation pertaining to the practice; this section **must not** be considered to be complete; an outline of other legislation that may also apply is in Appendix A

BENEFICIAL MANAGEMENT PRACTICES

This section recommends beneficial management practices that address the environmental concerns that are listed in the above section

Appendix A. Lists primary legislation affecting agriculture and the environment.

Appendix B. Provides climatic and irrigation information.

Appendix C. Lists all publications and Internet web site addresses referred to in the text.





Appendix D. Lists glossary of terms used, as well as closely related terms.

Appendix E. Features a detailed metric to imperial conversion table.

Index. Contains an alphabetical list of subject matter with page numbers.

Conventions and Definitions

Commonly used acronyms and styles in this publication are:

- ◆ **AFF** for the BC Ministry of Agriculture, Food and Fisheries;
- ◆ **ENV** for the BC Ministry of Environment and Climate Change Strategy;
- ◆ *italics* – identifies a piece of legislation;
- ◆ **bold or bold** – emphasizes particularly important information;
- ◆  – indicates a reference publication (listed in Appendix C.1);
- ◆  – indicates website information (listed in Appendix C.2);
- ◆  – indicates online pdf information (listed in Appendix C.2);
- ◆  – means go to the page within this publication for more information;
- ◆ e.g., – means “for example”, and is not necessarily all inclusive;
- ◆ i.e., – means “that is”, and is meant to further define a word or phrase;
- ◆ in the Beneficial Management Practice sections:
 - “xx m or more (suggested)” – means a distance suggested as a practice;
 - “at least xx m (Act or Regulation)” – means a distance required by legislation.

Equations. These are included within the Worksheets.

Worksheets. These are laid out in using a format of “question, calculation, answer”. Within the Reference Guide, Worksheets are filled out as examples – blank Worksheets are available in the Planning Workbook.

Tables. These are shown on a tan background. If the information is used in a Worksheet, it is indicated in the right-hand end of the title bar.

Crops. Includes all agricultural crops.

Livestock. Includes all farmed animals and birds.

Legislation. References to legislation in this publication are current at the time of writing. However, legislation and the procedures to obtain permits and approvals will be changing over the next several years. ***If in doubt about the currency and validity of given legislation, contact the appropriate environmental agency.***

Distance measurements given in legislation are meant to be horizontal, unless stated as “depth”.

Legislation is identified by either a Canadian or British Columbian flag:



Federal Legislation



Provincial Legislation

Metric Measurements. This publication uses metric units **except** in the Water Supply and Irrigation sections where units of water are in US gallons and area is in acres.

Metric measurements are written in abbreviated form. For instance, 30 m means 30 metres, 1 km means 1 kilometre, etc. Conversions for all metric numbers used in each chapter are given on the chapter “tab page” (except Tables & Worksheets).

Environmental Farm Plans

This publication is to be used by producers as a reference when completing the *Environmental Farm Plan: Planning Workbook*. However, it also directs a producer to specialized *Management Publications*, where appropriate. These management publications are available for subjects such as Grazing, Integrated Pests (IPM), Nutrients, Riparian Areas, Irrigation, Biodiversity and Drainage.

Beneficial Management Practices (BMPs)

A beneficial management practice is a farm practice which, from experience, provides environmental protection when used to carry out a particular farm activity. This publication identifies the majority of recommended beneficial management practices for the farm activities discussed. For some practices, information is referred to in separate publications.

All beneficial management practices may not need to be implemented on every farm. Some farms may be following practices, which upon review, may be found to be equal to or better than a suggested beneficial management practices.

Producers not following a prescribed practice in this Reference Guide should evaluate whether implementation of the practice will benefit the environment. Beneficial practices or their equivalents that address significant environmental concerns should be followed. Practices not addressing significant environmental concerns may still be beneficial to both the producer and the environment and may be implemented at the producer's discretion.

Limitations of this Reference Guide

All portions of this publication will not typically apply to each producer.

It is not recommended to extract portions of this publication without considering the environmental context of the entire operation.

Individuals unfamiliar with agricultural production or resource protection should not attempt to assess a farm operation based on this publication alone. This publication is not a Regulation and is not intended to be adopted into legislation. However, government agencies are encouraged to use its contents when dealing with environmental issues affecting the agricultural industry.

This publication provides advice only and does not constitute or imply approval under any federal or provincial Acts. Contact must be made with the appropriate agency whenever approvals, permits, licences and documentation are required to implement improvements.