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CHAPTER 9.0

Legislation

This chapter discusses legal considerations in crop production and provides an overview of the legislation and acts that are most relevant to crop production.

A number of Alberta and federal government acts relate to the potential environmental impacts of agricultural practices. This chapter provides an overview of the acts that are most relevant to crop production. Refer to the specific acts and regulations for detailed information. If your farm includes livestock, refer to the livestock manuals in the *Beneficial Management Practices* series for the acts relating to those operations.

Striving for Excellence

The provincial and federal acts provide a foundation to ensure that agriculture is operating in a sound and responsible manner. Your operation must meet the legal requirements described in the acts and regulations. This manual is aimed at producers who are striving for excellence in environmental stewardship. Therefore, many of the practices described in Chapters 3 to 7 go beyond the basic legal requirements to help you reach your goals for an environmentally and economically successful operation.

Legal Requirements

The information in this chapter is provided for general information only. It is not intended as legal advice. Refer to the acts and regulations and consult a lawyer for legal advice on your specific legal rights and requirements.

More information on the environmental requirements under these acts can be obtained from Alberta's Natural Resources Conservation Board (NRCB), Alberta Agriculture, Food and Rural Development, Alberta Environment, Environment Canada, consultants and lawyers.

Copies of Alberta's acts and regulations are available online or through the mail from the Queen's Printer (phone: 1-780-427-4952 (dial 310-0000 for a toll-free call); website: <http://www.qp.gov.ab.ca>).

9.1 Alberta Legislation

9.1.1 Agricultural Operation Practices Act

A major component of Alberta's *Agricultural Operation Practices Act* (AOPA) is a set of environmental standards for nutrient management practices. All agricultural operations must comply by the end of 2004 with the legislation's manure management requirements to prevent water contamination and protect the soil.

Manure Application

Manure can be applied only to arable land. Surface-applied manure must be incorporated into the soil within 48 hours, unless it is applied to forage or direct seeded crops. When applying manure, producers need to take into account setback distances from water bodies, slope, soil type, and the amount of nitrate and salt in the soil.



➔ Surface-applied manure must be incorporated into the soil within 48 hours.

Courtesy of AAFRD

Setback Requirements for Injected and Incorporated Manure

When applying manure, the following setback distances from common bodies of water must be met (from AOPA Standards and Administration Regulation, Section 24):

- ▶ If the operator is directly injecting manure into the soil, injection must not occur within 10 m of a common body of water.
- ▶ If the operator is applying the manure to the soil surface and incorporating it within 48 hours, manure must not be applied within 30 m of a common body of water.
- ▶ An operator must not apply manure within 30 m of a water well.

Common Bodies of Water

Under AOPA, common bodies of water include: the bed and shore of an irrigation canal, drainage canal, reservoir, river, stream, creek, lake, marsh, slough or other exposed body of water. (See AOPA Standards and Administration Regulation Section 1 for exceptions.)

Setback Requirements for Surface-Applied Manure that is Not Incorporated

Operators who surface-apply manure on forage, direct seeded crops, and frozen and/or snow-covered soils must meet more stringent setback requirements, shown in Table 9.1. If it is possible that contamination may occur, the operator should increase the setback distance.

TABLE 9.1

MINIMUM SETBACK DISTANCES FOR SURFACE-APPLIED MANURE ON FORAGE, DIRECT SEEDED CROPS, AND FROZEN AND/OR SNOW-COVERED SOIL*	
AVERAGE SLOPE**	REQUIRED SETBACK DISTANCES FROM COMMON BODY OF WATER
Less than 4%	30 m
Greater than 4% but less than 6%	60 m
Greater than 6% but less than 12%	90 m
More than 12%	No application allowed

* AOPA Standards and Administration Regulation, Schedule 3, Tables 1 and 2

** Slope, expressed as a per cent is calculated as the (rise/run) x 100.

Source: Alberta Agriculture, Food and Rural Development. 2002. Reference Guide: Agricultural Operation Practices Act. Alberta Agriculture, Food and Rural Development.

Salt and Nitrate Loading Limitations

Unless you have an NRCB-approved nutrient management plan, you must not apply manure, composting material or compost to soil if:

- ▶ soil salinity is more than 4 deciSiemens per metre (dS/m) as measured by electrical conductivity using saturated paste extract analysis, based on a representative soil sample from the top 15 cm of soil. (AOPA Standards and Administration Regulation, Section 25)
- ▶ soil salinity will increase after manure is applied by more than 1 dS/m (same analysis method). (AOPA Standards and Administration Regulation, Section 25)
- ▶ soil nitrate-nitrogen levels in the top 60 cm will increase after manure is applied to a level that equals or exceeds the limits shown in Table 9.2.

You may apply above these levels if you can prove it will be beneficial to the soil.

TABLE 9.2

NITRATE-NITROGEN LIMITS FOR MANURE-APPLIED LANDS IN ALBERTA*			
SOIL	SANDY SOILS (> 45% SAND AND WATER TABLE SHALLOWER THAN 4 M)	SANDY SOILS (> 45% SAND AND WATER TABLE DEEPER THAN 4 M)	MEDIUM- AND FINE- TEXTURED SOILS
Brown	80 kg/ha (75 lb/ac)	110 kg/ha (100 lb/ac)	140 kg/ha (125 lb/ac)
Dark Brown	110 kg/ha (100 lb/ac)	140 kg/ha (125 lb/ac)	170 kg/ha (150 lb/ac)
Black	140 kg/ha (125 lb/ac)	170 kg/ha (150 lb/ac)	225 kg/ha (200 lb/ac)
Gray Wooded	110 kg/ha (100 lb/ac)	140 kg/ha (125 lb/ac)	170 kg/ha (150 lb/ac)
Irrigated	180 kg/ha (160 lb/ac)	225 kg/ha (200 lb/ac)	270 kg/ha (240 lb/ac)

* AOPA Standards and Administration Regulation, Schedule 3, Table 3.

Source: Alberta Agriculture, Food and Rural Development. 2002. Reference Guide: Agricultural Operation Practices Act. Alberta Agriculture, Food and Rural Development.

Soil Testing

Operators who apply over 500 tonnes of manure (wet weight) annually are required to perform soil tests and maintain nutrient management records. Soil testing must be conducted to ensure that nitrate-nitrogen limits are not exceeded. Testing must be done by a qualified lab in accordance with the most recent edition of the Canadian Society of Soil Science's **Manual on Soil Sampling and Methods of Analysis** (AOPA Standards and Administration Regulation, Schedule 3).



➔ People applying over 500 tonnes of manure annually must perform soil tests, but soil tests are a valuable tool for any crop producer.

Courtesy of AAFRD

Producers must regularly test for key soil characteristics on all manure-applied fields as follows (AOPA Standards and Administration Regulation, Schedule 3):

- ▶ Extractable nitrate-nitrogen and ammonium-nitrogen in the top 60 cm
- ▶ Soil salinity in the top 15 cm
- ▶ Soil texture – one-time analysis from soil depths 0-15 and 15-30 cm



For more about Nutrient Management Requirements, see *The Reference Guide: Agricultural Operation Practices Act* (AAFRD), a summary of AOPA's nutrient management requirements. Contact the nearest office of the Natural Resources Conservation Board (NRCB) for more information or visit the NRCB website (<http://www.nrcb.gov.ab.ca>).

Record Keeping

An owner or operator is required to keep nutrient management records for as long as that person owns the operation. All others receiving manure are required to keep records for five years (AOPA Standards and Administration Regulation, Section 28).

The requirements for record keeping depend on the amount of manure involved:

- ▶ A person who receives or removes 500 tonnes or more of manure per year must record:
 - the volume or weight of manure received or removed;
 - the name and address of the person from whom manure is received or removed; and
 - the date of the receipt or removal.
- ▶ A person who applies 500 tonnes or more of manure per year to land under the person's control must record:
 - the name and address of a person from whom manure is received, the date it was received, and the volume or weight received;
 - the legal description(s) of the field(s) receiving manure and the area of land to which manure is applied;
 - the volume or weight of the manure applied to each field;
 - the application rates of manure nutrients and fertilizer by field and year;
 - the dates of application and incorporation for each field and the method used; and
 - the soil test results by field for the nutrients specified in Schedule 3 (AOPA Standards and Administration Regulation).



➔ AOPA specifies the types of records to be kept by people spreading manure.

Courtesy of AAFRD



For information on the regulations pertaining livestock operations and manure storage, refer to the livestock manuals in this *Beneficial Management Practices* series or contact the nearest NRCB office.

9.1.2 Environmental Protection and Enhancement Act

Pesticide Use

The EPEA regulates the sale, use, application, handling, storage, transport and disposal of pesticides. For example, the regulations of this Act specify:

- ▶ Use of pesticides according to the directions specified on the label.
- ▶ Transportation and disposal of pesticides in a way that ensures they will not contaminate food or water.
- ▶ Storage of pesticides in their original containers or in other containers that are clearly marked.
- ▶ Responsibility of the user for cleanup and decontamination in case of accidental spills.
- ▶ Washing of pesticide-contaminated material or sprayers is prohibited within 30 m of an open water body or on a public waterworks system.
- ▶ Pesticide storage is not allowed within 30 m of an open water body.
- ▶ No person shall use, apply handle, transport, store or dispose of a pesticide or operate any equipment involving the use, handling, transportation, storage handling or disposal of pesticides in a manner that is or is likely to cause an adverse effect.

There are also restrictions on the handling of pesticide application equipment. These include:

- ▶ The operator must be present at all times while filling the sprayer, and must maintain an air gap or have an operating back flow prevention device while filling the sprayer tank from a municipal waterworks system or from an open body of water.
- ▶ A Pesticide Applicator Certificate and Service Registration is required for commercial applicators.
- ▶ A Special Use Approval permit is required from Alberta Environment to apply or store pesticides or wash equipment used to apply pesticides in, on or within 30 m of an open body of water. This does not include sloughs or ponds less than 10 acres in area, providing they are completely surrounded by private land with no drainage off the land.
- ▶ Some pesticides have unique hazard characteristics and require the applicator to be knowledgeable to use them. Therefore producers must become certified to purchase and apply certain hazardous pesticides. This mandatory certification currently applies to: aluminium phosphide (Phostoxin, Gastoxin); picloram (Tordon 22 K); and triclopyr (Garlon).



➔ Commercial pesticide applicators must be certified.

Source: Lakeland College

Pesticide applicator training courses are available at Fairview College (1-780-835-6617 or 1-888-999-7882), Lakeland College (1-866-853-8646), Olds College (1-800-661-6537 or 1-403-556-4684) and Lethbridge Community College (1-800-572-0103 or 1-403-320-3323).

Prohibited Releases

The *Environmental Protection and Enhancement Act* (EPEA) prohibits operators from releasing into the environment a substance in an amount, concentration or level or at a rate of release that causes or may cause a significant adverse effect on the environment. While “significant” is not defined in EPEA, “adverse effect” is broadly defined to mean the “impairment of, or damage to, the environment, human health or safety or property.” For example, if a farm operator spreads manure on land at a rate that will overload the nutrient levels in the soil, or releases manure on land where the manure will run into a water body, the operator is in violation of EPEA.

Alberta Environment can issue a substance release environmental protection order (EPO) when a substance release into the environment is causing, has caused or may cause an adverse effect. These EPOs can be issued even if an operation is in compliance with legislation, as they are intended to be remedial/preventive in nature rather than punitive. Generally these EPOs will direct an operator to develop a plan for dealing with the release and to implement the plan once it has been approved by Alberta Environment.

Alberta Environment can also issue an EPO to an individual responsible for the release of an offensive odour, to order that individual to, among other things, prevent, minimize or remedy the offensive odour or destroy the cause of the odour. This power does not apply to offensive odours from an agricultural operation that is carried on in accordance with “generally accepted practices” for that operation. However, there is no definition of “generally accepted practices.” Whether an operator is following “generally accepted practices” will be decided by the Environmental Appeal Board or by a peer review board appointed by the Minister of Agriculture, Food and Rural Development.

Duty to Report

EPEA requires operators to report any releases that may cause an adverse effect on the environment. A release must be reported immediately once it has been discovered. Failure to report a release can result in significant fines. Calling Alberta Environment's emergency response line (1-800-222-6514) is usually sufficient to report a release. In some circumstances, an operator will also be required to file a subsequent written report.

Typically, when an operator reports a release, Alberta Environment will require the operator to identify the steps that the operator is taking to prevent harm to the environment and to prevent the release from reoccurring.

Liability of Directors and Officers

If a corporation violates EPEA, any officer, director or agent of the corporation who was involved with the incident, even in a minor way, could face prosecution under EPEA. This applies whether or not the corporation itself is prosecuted for the violation and regardless of whether the officer, director or agent works for a large corporation or simply a small incorporated family farm. This means an officer, director or agent of an incorporated farm is held personally responsible for EPEA violations, if the officer, director or agent directed or participated in the violation in any way.

Intent to Commit

The vast majority of offences under EPEA are "strict liability" offences. Unlike criminal offences, with strict liability offences, the courts are only concerned with whether the operator committed the offence, and not whether he or she intended to commit the offence or the morality of the operator's actions. If the operator did cause the impairment, the courts will convict the operator unless the operator can show that the action was in accordance with due diligence in running the operation and in carrying out the activity at issue (see Section 9.3 for more on due diligence). That is, if the operator can show that all reasonable steps were taken to prevent the contravention of EPEA, the operator will not be found guilty under EPEA.

For a small proportion of the offences under EPEA, the intent to commit the offence must also be proven to obtain a conviction. For those offences, the due diligence defence does not apply.

Fines

For strict liability offences, an individual is liable for a fine of not more than \$50,000 for each offence under EPEA and a corporation is liable for a fine of not more than \$500,000 for each offence under EPEA. Each day that a release or impairment occurs is treated as a separate offence. For example, a release from a catch basin occurring over two days would be treated as two offences and expose the corporation to a maximum fine of \$1 million.

Those offences that require proof of intent to commit the offence carry higher penalties: a \$100,000 maximum fine for individuals and a \$1 million maximum fine for corporations.

9.1.3 Soil Conservation Act

The *Soil Conservation Act* gives municipal councils the authority to protect land from soil loss or deterioration. Under the Act, each landholder has the responsibility to actively prevent soil loss or deterioration from taking place or, if soil loss or deterioration is already taking place, to stop it from continuing. Each municipal council has the duty to ensure that each landholder in its jurisdiction fulfils this responsibility.

When agricultural practices cause or are likely to cause soil degradation, a soil conservation officer, usually an agricultural fieldman acting on behalf of the municipality's agricultural services board, may serve notice on the landholder advising him or her to take remedial action within a specified time. The landholder may appeal this notice. If the appeal fails, then the landholder must comply with the notice.



➔ Landholders are required to actively prevent soil degradation.

Courtesy of AAFRD

If the remedial action is not done within the specified time, the soil conservation officer and/or others under the officer's direction may enter the property and perform the required work. The cost of this work may be collected by a tax on the property. Any person obstructing the officer or failing to comply with the notice is subject to a fine of up to \$5,000.

9.1.4 Water Act

The *Water Act* became law in January 1999. Approval from Alberta Environment is required for the undertaking of an activity that may:

- ▶ alter the flow or level of water,
- ▶ change the location or direction of flow of water,
- ▶ cause siltation of water,
- ▶ cause erosion of any bed or shore of a body of water, or
- ▶ cause an effect on the aquatic environment.

To find out if your planned project requires a licence, contact a water specialist at Alberta Agriculture, Food and Rural Development or Agriculture and Agri-Food Canada – PFRA.

9.1.5 Public Health Act

The *Public Health Act* gives regional health authorities significant powers to protect the public health. This Act has priority over all provincial statutes, except the Alberta Bill of Rights.

The *Public Health Act* allows a regional health authority, if it has reasonable and probable grounds to believe that a nuisance exists, to enter onto property to inspect the property, take samples of any substance or equipment being used, and perform tests at the property. The Act defines “nuisance” as: “a condition that is or that might become injurious or dangerous to the public health, or that might hinder in any manner the prevention or suppression of disease.”

Thus, if a regional health authority becomes aware of a public health hazard at a farm, it can take steps to protect the public health and have the health hazard eliminated. In addition, if a farm operator contravenes the health authority’s orders, the operator is liable to a fine of not more than \$100 for each day the contravention continues.

9.1.6 Weed Control Act

The *Weed Control Act* provides the legal authority to enforce weed control. It identifies three categories of weeds: restricted, noxious and nuisance. It mandates the eradication of restricted weeds and control of noxious and nuisance weeds.

9.1.7 Agricultural Pests Act

The *Agricultural Pests Act* is enabling legislation that provides the legal authority to deal with native and introduced pests (insects, vertebrate pests and plant diseases) that affect agricultural production.

9.2 Federal Legislation

The two major acts relating to environmental impacts from cropping operations are the *Fisheries Act* and the *Pest Control Products Act*.

9.2.1 Fisheries Act

Deleterious Substance

The *Fisheries Act* prohibits anyone from depositing or permitting the deposit of anything into any type of water frequented by fish, which can have a “deleterious” or harmful effect on the fish. Further, the Act prohibits anybody from depositing a “deleterious” or harmful substance in any place under any condition where the substance *may* enter any water frequented by fish. The Act defines the phrase, “water frequented by fish” very broadly to include all internal waters of Canada. This definition includes any creek, river, stream, lake or slough frequented by fish, including a creek that has minnows in the spring, but dries up later in the summer.



➔ Fish habitat is protected by the federal Fisheries Act.

Courtesy of AAFRD

As an example, an operator commits an offence under the Act if he spreads manure on land near a stream frequented by fish and the manure gets into the stream in sufficient quantities to have a “deleterious effect.” The offence results even if the manure does not actually cause harm to the fish. The mere fact that the manure reached water frequented by fish is an offence and may result in charges under this Act, unless the operator can prove that at all times, the water is not, has not been, and is not likely to be frequented by fish.

In addition, an operator risks committing an offence if he spreads manure on land near a stream frequented by fish, even if the manure does not in fact enter the water, but had a reasonable chance of entering the water. However, if the operator can prove that at all times, the water is not, has not been and is not likely to be frequented by fish, then the operator has not committed an offence under the Act.

Harmful Alteration, Disruption or Destruction of Fish Habitat

The *Fisheries Act* prohibits the carrying on of any work or undertaking that results in “harmful alteration, disruption or destruction” of fish habitat, although an authorization can be obtained from the Department of Fisheries and Oceans allowing such an activity. As noted above, fish habitat is defined quite broadly in the Act. These provisions may come into play in situations in which an operator would also require approval under Alberta’s *Water Act* for a water management project.

Liability of Directors and Officers

If a corporation violates the Act, any officer, director or agent of the corporation who was involved with the incident, even in a minor way, is liable on conviction to punishment under the Act, whether or not the corporation itself has been charged. This is true regardless of whether the officer, director or agent works for a large corporation or a small incorporated family farm. This means an officer, director, agent or a incorporated farm can be held personally responsible for violations of the Act, if the officer or director directed or participated in the violation.

Strict Liability Offences

Offences under the *Fisheries Act* regarding the deposit of deleterious substances or harmful substances into water frequented by fish are strict liability offences. The courts are only concerned with whether the operator committed the offence, and not whether he or she intended to commit the offence or the morality of the actions.

If the operator did commit the “deleterious substance” action, the courts will convict the operator unless the operator can show that:

- ▶ at all times, the water is not, has not been and is not likely to be frequented by fish;
- ▶ the operator acted with due diligence to prevent the commission of the activity at issue; or
- ▶ the operator reasonably and honestly believed in the existence of the facts that, if true, the operator’s conduct would be rendered innocent.

Fines

An individual or incorporated farm is liable to a fine not exceeding \$1,000,000 for the operator’s first deleterious substance offence and to a fine not exceeding \$1,000,000 or to imprisonment for a term of not exceeding three years or to both for any subsequent deleterious substance offence.

9.2.2 Pest Control Products Act

The *Pest Control Products Act* specifies the responsibilities of the federal Pest Management Regulatory Agency (PMRA) for registration of pesticides for use in Canada.

In terms of user responsibility, as stated on the product label, anyone using a pest control product has the responsibility to **read the label** and **follow the directions** including the following:

- ▶ before purchasing a pesticide, to determine if the product will control the pest problem and if it can be applied in a safe manner.
- ▶ before mixing the pesticide with other products or additives, to ensure product compatibility.
- ▶ before spraying, to determine the required precautions during spraying, and to follow those precautions.

9.3 Due Diligence

To avoid a conviction under EPEA and the *Fisheries Act*, an operator must have acted with due diligence in running the operation and in carrying out the activity at issue.

Whether an operator acted with due diligence is decided by the courts on a case-by-case basis. Generally, the courts have indicated that to act with due diligence, one “must take all reasonable steps to avoid harm. However, that does not mean [one] must take all conceivable steps”.¹ In addition, the courts have established that, “reasonable care and due diligence do not mean superhuman efforts. They mean a high standard of awareness and decisive, prompt and continuing action”.² In considering whether an accused acted with due diligence, the courts, “...examine what was done, what controls were in place, what was the state of technology that existed through the evidence of lay and expert witnesses to determine if the accused acted reasonably in the circumstances”.³

¹ R. v. British Columbia Hydro and Power Authority [1997] B.C.J. No. 1744, paragraph 55.

² R. v. Courtaulds Fibres Canada (1992), 9 C.E.L.R. (N.S.) 304 at 313 (Ont. Prov. Ct.).

³ R v. Northwood Pulp and Paper (1992) 9, C.E.L.R. (N.S.) 289 at p. 293.

Some of the things a court may examine in determining whether environmental due diligence has been exercised are:

- ▶ Did the farm operator establish and monitor pollution prevention system? For example, is there a reasonable **nutrient management plan** for the operation?
- ▶ Did the operator ensure that he instructed employees to:
 - set up the pollution prevention system so the operation complies with the industry practices and environmental laws, and
 - report to the manager if the operator was not complying with the system? For example, if soil-testing analysis indicated high nitrate levels, making it dangerous to apply more manure, was the manager told?
- ▶ Was the operator aware of the industry standards regarding environmental pollutants and risks?
- ▶ Did the operator address problems immediately and in a timely fashion?⁴

In addition, a court may examine whether a corporation has an environmental management system, what the environmental management system contains, how detailed it is, and whether it is followed by the corporation, to determine whether the corporation acted with due diligence in carrying out the activity in question.

Environmental Management Systems

Environmental management systems are used by corporations to establish and implement policies and procedures for operating an environmentally sustainable business. An environmental management system examines the corporation's operations:

- ▶ to determine how these operations impact the environment,
- ▶ what policies and procedures can be implemented to lessen or eliminate the operation's environmental impacts,
- ▶ what environmental standards and laws the corporation must follow, and
- ▶ whether the corporation is following these standards and laws.

The environmental management system will then put into place the policies and procedures to reduce the operation's environmental impacts and to properly train its employees to meet and maintain the applicable environmental standards and laws. Finally, an environmental management system will provide for a periodic re-evaluation of these environmental policies and procedures.

A farm operator who develops an **environmental farm plan** is taking the first steps toward developing an environmental management system. For more information on Alberta's Environmental Farm Plan (EFP) program, call toll-free 1-866-844-AEFP (2337), or visit the EFP website (www.albertaefp.com).

⁴ R. v. Bata Industries Ltd. [1992] O.J. No. 236 at page 24 - 25 (Ont. Prov. Div.) online: QL (O.J.), rev'd in part on other grounds 14 O.R. (3d) 354, rev'd in part on other grounds 127 D.L.R. (4th) 438.

9.4 Information Sources

9.4.1 Contacts

All Alberta Government offices may be reached toll-free by dialing 310-0000.

- ▶ Natural Resources Conservation Board regional offices: Lethbridge (403-381-5166), Barrhead (780-674-8303), Red Deer (403-340-5241), or Fairview (780-835-7111); website: <http://www.nrcb.gov.ab.ca>
- ▶ Alberta Agriculture, Food and Rural Development: Ag-Info Call Centre, phone: 1-866-882-7677; website: <http://www.agric.gov.ab.ca>
- ▶ Your district office of Prairie Farm Rehabilitation Administration (PFRA) of Agriculture and Agri-Food Canada.
- ▶ Alberta Environment's Environmental Response Centre: phone: 1-800-222-6514. You can call the Centre to report the release of a substance that is causing, has caused or may cause an adverse effect on the environment, or to get information on handling any type of spill.
- ▶ Queen's Printer: phone: 1-780-427-4952 (dial 310-0000 for a toll-free call); website: <http://www.qp.gov.ab.ca>
- ▶ Environmental Law Centre: phone: 1-800-661-4238; website: <http://www.elc.ab.ca/home/index.cfm>

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