

NEWSLETTER

Pesticide Services

Summer 2002



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Service Registration Operation Compliance Self-Audit

Application forms for Pesticide Service Registrations have recently been revised. Instead of submitting detailed compliance checklists to Alberta Environment, applications now include a compliance checklist or "self-audit" to be completed and retained by each Service operation. For newly registered operations, it is mandatory that the form be completed (acknowledged on the application form) and retained for review by Alberta Environment during an inspection.

The enclosed "Operation Compliance Self-Audit" is intended for your use in ensuring that your Service is operating in compliance with provincial regulations. The form is **not** to be returned to Alberta Environment. Alberta Environment staff may ask to see self-audits during an inspection of your operation. It is recommended that Services update self-audits each spring prior to commencement of the pesticide application season.

Obsolete Pesticide Collection Planned For 2002

Alberta will be measurably safer and cleaner following a three-year stewardship program initiated by CropLife Canada. Operation CleanFarm will be offering Alberta farmers an opportunity to remove outdated, unusable, no longer registered or otherwise obsolete agricultural crop protection products. These products will be collected and properly disposed of at no cost. The first collection is scheduled for October 16 to 18, 2002 and will cover the province's Peace River region. Collections in 2003 and 2004 will cover central and southern Alberta, respectively.

Herbicides, insecticides, fungicides and rodenticides will be targeted by Alberta's Operation CleanFarm for collection and disposal at no cost to farmers. The initiative offers farmers the opportunity to clean out and dispose of old crop protection products that may have been stored on-farm for years, presenting a potential hazard as containers age and possible leakage occurs.

Alberta's program is part of a Canada-wide obsolete pesticide collection and disposal program that was first introduced in 1998. To date, some 455 metric tonnes of obsolete agricultural pesticides have been collected coast to coast through programs in Atlantic Canada, Saskatchewan, Ontario and British Columbia. Programs are currently under development in Manitoba and Quebec.

Based on the success of Alberta's ongoing agricultural chemical container collection program, Alberta's Operation CleanFarm is expected to collect an unprecedented number of outdated, unusable, no longer registered or otherwise obsolete products. More than one million empty pesticide containers are collected in Alberta each year through the voluntary co-operation of Alberta farmers.

Alberta's Operation CleanFarm is a collaboration of government, industry and the agricultural community with the twin goals of environmental and health protection. CropLife Canada, an association of crop protection manufacturers, is contributing 50 per cent of the program costs. The Agriculture and Food Council of Alberta fund the other 50 per cent through the Canadian Adaptation and Rural Development fund. Other participants contributing time, expertise and facilities include Alberta Environment, Alberta Agriculture Food and Rural Development, the Canadian Association of Agri Retailers, the Alberta Association of Municipal Districts and Counties, and several other producer groups.

More specific information regarding the 2002 Peace River region Operation CleanFarm collection will be available in early fall as plans are finalized.

Implementation of New Pesticide Applicator Certification Examination

Two Alberta representatives have participated in the NAFTA (North American Free Trade Agreement) Pesticide Core Exam Development Project, funded by the U.S. Environmental Protection Agency. It is a collaborative effort between federal/provincial/state regulators and pesticide application industry members to facilitate recognition of pesticide applicators across North America.

As of January 1, 2003, the Alberta Pesticide Applicator Certification examination will change its format. A new International NAFTA core certification examination will replace the current certification examination. The new examination will test pesticide application tasks that applicators indicate they perform. The examination has been field-tested and rigorously reviewed to ensure only knowledgeable candidates pass the exam. The new format for the certification examinations will be comprised of 150 questions including:

- 90 NAFTA developed "core" questions on legislation, health, safety and environment,
- 10 province-specific legislation questions; and
- 50 certification class specific questions (calculations and technical knowledge).

The format for the examination will be:

- multiple choice questions,
- **CLOSED BOOK**, and
- 3 hours will be allowed for a single certification category examination.

For more information about the new certification examination format, please contact Vivianne Servant, Alberta Environment at 780 538-8054 (to be connected toll-free first dial 310-0000).

Pesticide Applicator Re-certification

In the past, re-certification of Pesticide Applicator Certificates has occurred through renewal of the certificate. Industry and government representatives are currently developing re-certification criteria that must be met to re-certify applicators after their certificates expire. Currently the Standard for Pesticide Education, Training and Certification in Canada requires that applicators re-certify every 5 years by:

- Re-writing the certification exam or
- Re-certification through a Continuing Education Program.

The Continuing Education Program Criteria specifies that applicators re-certify by obtaining 15 Continuing Education Credits within their 5-year certification period. One credit will normally equal one hour of attending/participating in an information session. A committee comprised of industry association representatives and an Alberta Environment representative will approve informational sessions for credit. Many of the current training sessions (calibration clinics, weed identification seminars, new equipment or technology demonstrations, pesticide manufacturer training sessions etc.) may qualify for re-certification credits.

Phase-in periods are currently being developed with several industry associations. Full implementation of the re-certification program for applicators will occur by 2008. Should an industry not have a fully implemented continuing education program (including a phase-in period) developed by 2008, applicators within that industry will need to re-certify by writing the Pesticide Applicator Certification examination.

Currently, the Industrial, Aerial and Structural industries have developed committees with Alberta Environment to discuss phase-in periods for re-certification by a continuing education program. Once the continuing education program has been finalized, all applicators within those industries will be notified by mail of the re-certification program, the phase-in period, and the courses available to fulfill their re-certification through a continuing education program.

Applicators who are part of industries without a recognized representative industry association are encouraged to develop their own organization should they wish to participate in a continuing education program in lieu of writing the certification examination every five years.

For more information about re-certification, please call Alberta Environment at 780 427-0031 for Jock McIntosh or 780 538-8054 for Vivianne Servant (to be connected toll-free first dial 310-0000).

Lakeland College Issuing Pesticide Applicator Certificates

As of March 1, 2002, the Lakeland College in Vermilion, Alberta began issuing Pesticide Applicator Certificates after candidates had met the legislative requirements for certification (certificates were previously issued by Alberta Environment). In most cases, a Pesticide Applicator Certificate is issued upon successful completion of the certification examination. Where there are additional requirements (e.g., Pilot licence), Lakeland College ensures those requirements are met prior to issuance of the certificate. When Lakeland College issues a Pesticide Applicator Certificate after completion of the certification examination, no additional fee is required.

On September 1, 2002, Lakeland College will begin issuing Pesticide Applicator Certificate renewals. Renewal applications will be sent out in June 2002 for those certificates expiring in September and October 2002 and the applicant for a certificate renewal should direct these back to Lakeland College. The fee for renewal of a Pesticide Applicator Certificate is \$35.00.

For further information on this transfer of certificate issuance, please contact Lakeland College at 1-866-853-8646 or Alberta Environment at 780 538-8054 (to connected toll free first dial 310-0000).

Notice of Amendment

The attached **Notice of Amendment** is intended to remind Pesticide Services of recent regulatory changes. These changes were previously covered in the 2001 newsletter for Pesticide Services.

Information for Pesticide Services Involved in INDUSTRIAL Class Activities

All registered pesticide services involved in Industrial Class pesticide applications should be aware of the changes made to the *Environmental Code of Practice for Pesticides* last June. Enclosed with each newsletter for INDUSTRIAL services only, are a number of supplemental information handouts detailing these changes. They are entitled:

- 1) a "Notice of Amendment" regarding the revised *Environmental Code of Practice for Pesticides*,
- 2) "Herbicide Use Near Open Bodies of Water (July 2001)",
- 3) "Herbicide Applications within 30 Horizontal Metres of Water following the Environmental Code of Practice for Pesticides", and
- 4) a "Notice on Water Diversion for Pesticide Applications"



PESTICIDE SERVICE REGISTRATION OPERATION COMPLIANCE SELF-AUDIT

THE APPLICANT SHOULD COMPLETE THE AUDIT FOR THE OPERATION AND A COPY RETAINED ON FILE BY THE OPERATION. THE AUDIT MAY BE REQUIRED TO BE PRODUCED ON INSPECTION BY ALBERTA ENVIRONMENT.

In support of an application for a Pesticide Service Registration in the Province of Alberta the following legislative requirements have been audited for compliance on behalf of:

NAME OF OPERATION: _____

AUDIT CONDUCTED BY: _____

SIGNATURE: _____

POSITION WITH OPERATION: _____

DATE AUDIT CONDUCTED: _____

PART 1	PESTICIDE APPLICATOR RECORDS	<i>AR 43/97, s. 11, 12*</i>
<input type="checkbox"/>	pesticide application records are kept for a period of 5 years from the date of application	
<input type="checkbox"/>	name of the customer is identified	
<input type="checkbox"/>	location of application	
<input type="checkbox"/>	year/month and date/time of application are identified	
<input type="checkbox"/>	pest and purpose of application	
<input type="checkbox"/>	name of pesticide and the federal label P.C.P. Number is identified	
<input type="checkbox"/>	application rate and total quantity of pesticide used is identified	
<input type="checkbox"/>	method of application is identified	
<input type="checkbox"/>	if applied outside, weather conditions are identified (temperature, humidity, precipitation, wind speed/direction)	
<input type="checkbox"/>	identification and proximity of open water and sensitive sites (if within 30 metres of open water)	
<input type="checkbox"/>	application records are submitted to the Service Registration holder at the end of each day	

* AR 24/97 = Alberta Regulation 24/97 or the *Pesticide Sales, Handling, Use and Application Regulation*
 AR 43/97 = Alberta Regulation 43/97 or the *Pesticide (Ministerial) Regulation*
 ECoPP = *Environmental Code of Practice for Pesticides* (June 2001 version)
 EPEA = *Environmental Protection and Enhancement Act* (Alberta)

PART 2 PESTICIDE APPLICATOR ASSISTANTS and AUTHORIZED ASSISTANTS
AR 24/97, s.12 & ECoPP, s. 5

- all assistants are over the age of 18 years if applying any pesticides identified in Schedule 1.
- all assistants are over the age of 16 years if applying any pesticides identified in Schedule 2 or 3
- all assistants are being supervised by a certified pesticide applicator
- the certified pesticide applicator maintains all assistant application records

Non-certified Assistants

- are visited at application site daily by the certified applicator (and at each change in pesticide, application rate and equipment change; also they are checked to ensure safety procedures are followed as specified by label directions or policies for the operation)
- directly supervised by certified applicator (i.e. on-site during entire application) while
 - mixing/loading a Schedule 1 pesticide
 - conducting a forest management application
 - spraying trees with any insecticide other than soap or a *Bacillus thuringiensis* formulation
 - spraying for adult mosquitoes
 - spraying non-selective residual herbicides
 - spraying any rights-of-way with a pesticide containing Picloram
 - spraying any applications where the federal label limits the application to a certified applicator.
- can maintain contact with certified applicator by radio or telephone/cell
- have received training by the certified applicator in accordance with the *Environmental Code of Practice for Pesticides*, Appendix A (Training Checklist for Pesticide Applicator Assistants)

Authorized Assistants

- have successfully completed a certified trainer administered examination, a copy of which has been forwarded to Alberta Environment (1701 10320 99 Street Grande Prairie AB T8V 6J4)
- have completed an "Authorized Assistant" training checklist which is kept on file by the operation
- supervise no more than 2 non-certified assistants (or 6 in the case of a forestry class application)
- have been issued a certificate that will identify their qualifications at any application site.

PART 3 PESTICIDE INSURANCE
AR 24, s.14 & ECoPP, s. 7

- comprehensive liability insurance coverage is in effect and updated annually for this operation
- if providing an agricultural and/or aerial service, pesticide drift insurance coverage is in effect and updated annually for this operation

PART 4 PESTICIDE DISPOSAL
AR 24/97, s.28 & ECoPP, s. 10

- all non-refillable Schedule 1 or 2 plastic or metal containers are disposed of at an authorized pesticide container collection site
- all paper, glass, cardboard or bags that contained a Schedule 1 or 2 pesticide or a container that contained a pesticide are disposed of at a Class II landfill
- rinsate and solution are disposed of **in accordance with label directions**
 - as mix water in spraying solutions
 - by spraying over the treated area, or
 - in a manner acceptable to and confirmed in writing by a designated Director of Alberta Environment (to be contacted through nearest regional office of Alberta Environment).

PART 5 MIXING AND LOADING SITES (FOR PRIMARY SITE)**AR 24/97, s. 27 & ECoPP, s. 8**

- site can contain pesticide spills
- site is not located within 30 metres of an open body of water (unless following *ECoPP* provisions)
- there is a site sketch which includes a 50 metre radius around the site and shows:
 - a drainage pattern, watering points, wells and other water sources
 - distance to wastewater, storm drainage systems, watering points, water sources and surrounding land uses
- site sketch is available to all personnel
- written contingency plan for the containment and cleanup of pesticides is available to all personnel
- the site has no evidence of off-site migration of pesticide
- backflow prevention device/method is being used
- no evidence of spillage

PART 6 EMERGENCY RESPONSE INFORMATION AR 24/97, s.22 & ECoPP, s. 9(2)

- all emergency response information is available at all operational sites (e.g. permanent operation site, storage site, mixing/loading sites, vehicles) and includes:
 - Material Safety Data Sheets
 - copies of pesticide product labels
 - list of Emergency Response Contacts, including
 - Poison Control Centre (1-800-332-1414)
 - Alberta Environment spill reporting (1-800-222-6514)
- all personnel are knowledgeable of spill cleanup and fire response procedures
- a release reporting mechanism is in place for this operation, which will **immediately** identify to Alberta Environment (1-800-222-6514) the location, location description, time, circumstances leading to, type of, quantity and action taken/proposed for a release of any amount of pesticide that causes or may cause an adverse effect to the environment (*EPEA, s.99, 100*).

PART 7 PERSONAL PROTECTIVE EQUIPMENT AR 24/97, s.22 & ECoPP, s. 9(2)

- is available at all operational sites (e.g. permanent operation site, storage site, mixing/loading sites, vehicles)
- eye protection
- suitable respirator and cartridge supply
- chemical resistant boots
- chemical resistant apron, if required by label directions
- coveralls
- first aid kit
- eyewash or shower

PART 8 SPILL CLEANUP EQUIPMENT**AR 24/97, s.22 & ECoPP, s. 9(2)**

- is available at all operational sites (e.g. permanent operation site, storage site, mixing/loading sites, vehicles)
- appropriate absorbent material (e.g. vermiculite, kitty litter, dry coarse clay or commercial absorbent)
- appropriate neutralizing materials (such as hydrated lime, bleach and/or activated charcoal) as identified by Material Safety Data Sheets
- broom and/or shovel
- container(s) with lid(s) for waste material
- blank labels to identify waste

PART 9 PESTICIDE STORAGE DETAILS

AR 24/97, s. 23

Location Address:

Legal Land Location (Lot/Block/Plan): _____

IF THIS IS A CERTIFIED AGRICHEMICAL WAREHOUSING STANDARDS ASSOCIATION (AWSA) FACILITY:

This facility has been audited by the **Agrichemical Warehousing Standards Association (AWSA)**. The certificate is current and the number is _____. The expiry date is December 31, _____.

NOTE: AWSA Certification is a requirement for all Agriculture and Aerial Class Pesticide Service Registration operations that are storing pesticides.

IF THIS IS A NON-CERTIFIED AGRICHEMICAL WAREHOUSING STANDARDS ASSOCIATION (AWSA) FACILITY:

Pesticides are stored in: (✓) one or more of the following:

- | | | |
|---|---------------------------------------|--|
| <input type="checkbox"/> Cabinet | <input type="checkbox"/> Storage room | <input type="checkbox"/> Vehicle / Trailer |
| <input type="checkbox"/> Secondary container | <input type="checkbox"/> Warehouse | <input type="checkbox"/> Outdoor Storage |
| <input type="checkbox"/> Other, please specify: _____ | | |

- the storage facility is completely separated in an enclosed area from food, groceries and personal use items.
- the storage facility is separated from office, washrooms, employee rest areas and other work areas.
- there is a pesticide storage warning sign posted to the exterior door, entrance or gate of this storage facility
- the pesticide storage facility is on a site that is able to withstand a 24 hour, 1 in 25 year storm without flooding.
- the storage facility can be secured from public access (i.e. entrances can be closed and locked, and windows secured to prevent unauthorized access).
- if present, the storage facility, has (storm) drains protected from a pesticide release.
- any releases of pesticide concentrate in storage can be contained within the boundaries of the storage site (through curbing, dike, sloping to containment sump/tank).
- the floor or base of this storage facility is protected from pesticide absorption.
- open containers or packages of pesticide are closed or repackaged to prevent the release of odours and vapours
- Material Safety Data Sheets and emergency numbers are available/accessible for all pesticides in storage
- those pesticides stored outdoors are protected from wind, rain, and other weather hazards.
- written notification has been provided to the local fire department as to what pesticides are in storage.
- the secondary containment is adequate for the volume of product stored (in accordance with *Pesticide Storage: Regulatory Requirements and Guidelines (Schedule 1 & 2 Pesticides)* – June 15, 1999 edition)



NOTICE OF AMENDMENT
for an *Environmental Protection and Enhancement Act* Code of Practice
Environmental Code of Practice for Pesticides

This is to inform you that the *Environmental Protection and Enhancement Act - Environmental Code of Practice for Pesticides* has been amended. The amendments include:

- the streamlining of Pesticide Special Use Approvals by expanding existing Code provisions for pesticide application within 30 horizontal metres of an “open body of water”;
- the streamlining of pesticide applicator certification by recognizing an intermediate pesticide applicator status (to be known as the ‘Authorized Assistant’);
- the requirement for aircraft to be calibrated on a regular basis to ensure application accuracy;
- the requirement for insecticide and fungicide use in a forest to be authorized by Alberta Sustainable Resource Development;
- the accommodation of updates requested by industry associations; and
- clarification to reflect organizational changes within Alberta Environment.

Amendments were made to allow for the same (or enhanced) level of environmental protection with less administration, to acknowledge changes requested by industry to enhance pesticide risk management, and to update and clarify provisions identified by Department staff.

Amendments were effective June 12, 2001. Queen's Printer has published the amendment to the Code. Copies of the amended Code are available on the Government of Alberta Queen's Printer website at <http://www.qp.gov.ab.ca>, and on the Alberta Environment Pesticide Management Program website at <http://www3.gov.ab.ca/env/protenf/pesticide/> under the heading “Legislation”.

Enclosed in this package of information you will find extra documents to assist you in compliance with the Code.

NOTICE

WATER DIVERSION FOR PESTICIDE APPLICATIONS

An exemption for filling pesticide spray tanks has been drafted to release pesticide applicators from having to obtain **Temporary Diversion Licences** for the small water volumes they require. The exemption does not apply where water shortages have necessitated water mastering. The exemption will be reflected in the *Pesticide Sales, Handling, Use and Application Regulation* and the *Water Act* as follows:

- An addendum to Section 8 of the *Pesticide Sales, Handling, Use and Application Regulation* will read:

No person shall divert water from a river, stream, lake, natural watercourse or other natural water body for the purposes of pesticide application unless:

- (a) the person is an exempted agricultural user under Section 19 of the *Water Act* or under Schedule 3 of the *Water (Ministerial) Regulation*, or
- (b) the person is diverting water such that
 - (i) no more than 50 cubic metres of water is drawn from any location site in a calendar year,
 - (ii) the water source is not in an area where there is a need to administer the priority of water licences and registrations; and
 - (iii) the diversion of water will not result in a significant adverse effect on the aquatic environment.

- An addendum to Section 3 of the *Water (Ministerial) Regulation 205/98* will read:

- (i) a diversion of water that is referred to in section 8(4) of the *Pesticide Sales, Handling, Use and Application Regulation 24/97*.

Pesticide applicators should ensure that they contact the nearest regional office of Alberta Environment to determine where water mastering is in place and on obtaining a **Temporary Diversion Licence** (see next page).

Pesticide applicators are reminded of the care and caution to be taken when filling at municipal water supply outlets. Nurse tanks should be used whenever possible rather than direct filling into spray tanks. When direct tank filling is the only option, clean equipment before filling at municipal sources to prevent the introduction of pesticide residues into the watering area. Ensure that an air gap is maintained between the water point and the tank, someone over the age of 16 years is present at all times during the filling procedure, and consent is obtained from the owner of the watering point for filling a spray tank.

Alberta Environment Regional Office Contacts For TEMPORARY DIVERSION LICENCES

Alberta Environment, Northern Region
Water Allocation – Peace River Office
Bag 900-5, Provincial Bldg
Peace River, Alberta T8S 1T4
Telephone: (780) 624-6167
Fax: (780) 624-6335

Alberta Environment, Northern Region
Water Allocation – Edmonton Office
111, 4999 – 98 Avenue
Edmonton, Alberta T6B 2X3
Telephone: (780) 427-5296
Fax: (780) 427 - 7824

Alberta Environment, Central Region
Water Allocation – Stony Plain Office
52322 Golf Course Road
Stony Plain, Alberta T7Z 2K9
Telephone: (780) 963-6131
Fax: (780) 963-4651

Alberta Environment, Central Region
Water Allocation – Red Deer Office
5th Floor, 4920 - 51 Street
Red Deer, Alberta T4N 6K8
Telephone: (403) 340-7654
Fax: (403) 340-7662

Alberta Environment, Southern Region
Water Allocation – Calgary Office
200, 3115 - 12 Street, NE
Calgary, Alberta T2J 7J2
Telephone: (403) 297-6582
Fax: (403) 297-2749

Alberta Environment, Southern Region
Water Allocation – Lethbridge Office
200 – 5 Ave, S Provincial Bldg
Lethbridge, Alberta T1J 4L1
Telephone: (403) 382-4254
Fax: (403) 381-5337



Herbicide Applications within 30 Horizontal Metres of Water following the Environmental Code of Practice for Pesticides

Pesticide application under the *Environmental Code of Practice for Pesticides* (the Code) must be conducted as part of an integrated vegetation management program with the objective of controlling target vegetation. The following information is intended to provide direction to certified pesticide applicators and Alberta Environment inspectors in evaluating herbicide applications conducted under the Code.

The vegetation along watercourses (known as riparian vegetation) is critical to water quality due to its role in bank stability, chemical and nutrient filtration, water temperature, and water flow. Riparian vegetation is also important as wildlife habitat. Good vegetation management involves the encouragement of healthy, desirable vegetation to minimize opportunities for the establishment of weed species. Even with good management, some weed establishment can be expected because of natural soil movement along watercourses and due to animal and human disturbance.

The Code allows herbicide use for the purpose of managing riparian vegetation to the benefit of open bodies of water. The Code is also intended to allow vegetation control near open bodies of water to prevent weed re-infestation of adjacent lands where there is a concerted effort being made to cleanup an infestation on those adjacent lands. **Herbicides are not an appropriate vegetation management option in circumstances where the risk they present to water systems outweighs the benefit of removing unwanted vegetation.** Herbicide applications conducted for right-of-way vegetation management without any attempt to control weed infestations outside of treated areas are not allowed under the Code.

Managing the Risk of Herbicide Entry Into Water

Code provisions restrict chemical usage and ensure that environmental loadings present no risk to adjacent open bodies of water even if unforeseen circumstances should result in movement from the treatment area into water. Herbicide use is restricted to maximum treatment percentages (10% or 30%) based on particular herbicide characteristics and the proximity of applications to water.

Integrated Vegetation Management

It is important for vegetation managers to monitor weed populations in riparian areas and to initiate control measures while infestations are small as **environmental loading limits will limit the extent of riparian areas that can be treated with herbicides.** Most noxious/restricted weeds can be very difficult to control due to their extensive underground storage systems.

Properly selected and applied, herbicides can be more effective than many alternative methods in controlling noxious/restricted weeds because of their ability to reach and destroy underground storage systems. Alternative control methods will be the only option where herbicide use or environmental loading restrictions preclude the use of herbicides.

Mowing, grazing or other top-growth removal methods may be utilized where general vegetation disturbance is acceptable. Biological control methods (i.e. insect release) may be feasible where infestations cover broad areas and a biological control agent is available. Digging or hand-pulling may be appropriate for species that can be managed through these methods. Fire may be appropriate as a management tool in some situations. Although non-chemical alternatives may not prevent re-establishment from underground growth, it can prevent seed formation and further spread through seed. The timing of all control methods is critical in achieving control objectives.

HERBICIDE USE NEAR OPEN BODIES OF WATER (July 2001)

All surface water must be protected from herbicide entry. Specific herbicide application restrictions apply when spraying within 30 horizontal metres of defined open bodies of water. Restrictions are intended to protect riparian areas and water quality. Restrictions do not apply to land where cultivation has been allowed to encroach within 30 horizontal metres of an open body of water. This includes agricultural crops, pasture, improved range, and lawns or other ornamental plantings.

Defined Open Bodies of Water

The definition of an open body of water includes the **bed and shore** of natural water bodies such as lakes, rivers, and streams. A number of man-made water bodies, roadside ditches and some natural wetlands (wetlands <10 acres completely surrounded by private land and wetlands <1 acre on public land) are excluded from the definition of open body of water. The bed and shore is defined as land that is or has been covered by water to the extent that no vegetation grows on the land or the vegetation that grows is aquatic vegetation that must be partially submerged in water for part of its life cycle to survive.

Herbicide Restrictions Near Open Bodies of Water

The *Environmental Code of Practice for Pesticides* specifies restrictions for herbicide use near open bodies of water. Anyone wishing to perform herbicide applications that are not identified in the *Environmental Code of Practice for Pesticides* may apply for a Special Use Approval.

The *Environmental Code of Practice for Pesticides* requires that:

- herbicide applications must be conducted under the supervision of a certified pesticide applicator.
- herbicides must not be applied within 250 metres upstream of any surface water intake of a waterworks system.
- all herbicide applications must be conducted as part of an integrated vegetation management program with the objective of controlling target vegetation.
- herbicide applications must be made selectively using a backpack sprayer, a pump-sprayer, a hand-gun sprayer, or an application method that treats individual plants.

Herbicide restrictions 1-5 horizontal metres from the bed and shore of an open body of water (maximum area receiving herbicide deposition is 10% within any 100 square metres in any one calendar year)

If a federal pesticide label indicates that the herbicide must not be applied a greater distance from an open body of water, the product label must be followed.

Herbicide applications in the 1-5 metre zone are limited to noxious or restricted weed control – **no brush control applications are allowed.**

Herbicides in the 1-5 metre zone are limited to:

- **chlorsulfuron** (Glean – Telar use for total vegetation control is not allowed)
- **clopyralid**
- **glyphosate**
- **metsulfuron-methyl**
- **triclopyr** (Garlon – 4 L/ha maximum)

Herbicide restrictions 5- 30 horizontal metres from the bed and shore of an open body of water (maximum area receiving herbicide deposition is 30% within any 100 square metres in any one calendar year)

If a federal pesticide label indicates that the herbicide must not be applied a greater distance from an open body of water, the product label must be followed.

Brush control herbicide applications are allowed in the 5-30 metre zone in addition to noxious or restricted weed control.

Herbicides in the 5-30 metre zone are limited to the herbicides allowed in the 1-5 metre zone in addition to:

- **2,4-D** (when used up to a maximum application rate of 1.2 kg active ingredient per hectare)
- **dicamba** (when used up to a maximum of 1.2 kg active ingredient per hectare)
- **dichlorprop** (when used up to a maximum application rate of 1.2 kg active ingredient per hectare)
- **MCPA** (when used up to a maximum application rate of 0.675 kg active ingredient per hectare)
- **triclopyr** (to maximum label rate – **applied by ground only**)

Ensuring Compliance With Code Limits.

- Check the coverage indicator diagrams on page 4 to help estimate the percentage of land area that needs to be treated.
- Use a label application rate that is consistent with active ingredient limits. The following formula converts active ingredient rates to label application rates (assuming 30% of area is treated). A higher application rate can be used if less area is being covered **provided that maximum label rates are not exceeded.** Examples are provided on page 5.

$$\frac{\text{Maximum active ingredient application rate (kg/ha)}}{\text{gms active ingredient/L of product}} \times 1,000\text{gms/L} = \text{Maximum product application rate (L/ha)}$$

- Use the highest water volume recommended on the product label **or** recommended by the product manufacturer. It is easier to ensure adequate coverage without exceeding application rate limits if higher water volumes are used. Check the amount of spray solution being released frequently to ensure that correct deposition is being achieved.

Spray Volume Used Per Hectare (converted to 100 square metres):

- 100 L/ha = 1.0 L spray solution/100 square metres
- 150 L/ha = 1.5 L spray solution/100 square metres
- 200 L/ha = 2.0 L spray solution /100 square metres
- 500 L/ha = 5.0 L spray solution / 100 square metres
- 1000 L/ha =10.0 L spray solution / 100 square metres

Other Herbicide Applications Regulated By the *Environmental Code of Practice for Pesticides*

Purple Loosestrife (*Lythrum salicaria*) may be treated with triclopyr or glyphosate applied selectively provided that no herbicide is deposited closer than 1 horizontal metre from standing water; and no more than 10 percent of any 100 square metres of land closer than 1 metre from an open body of water receives treatment in any calendar year.

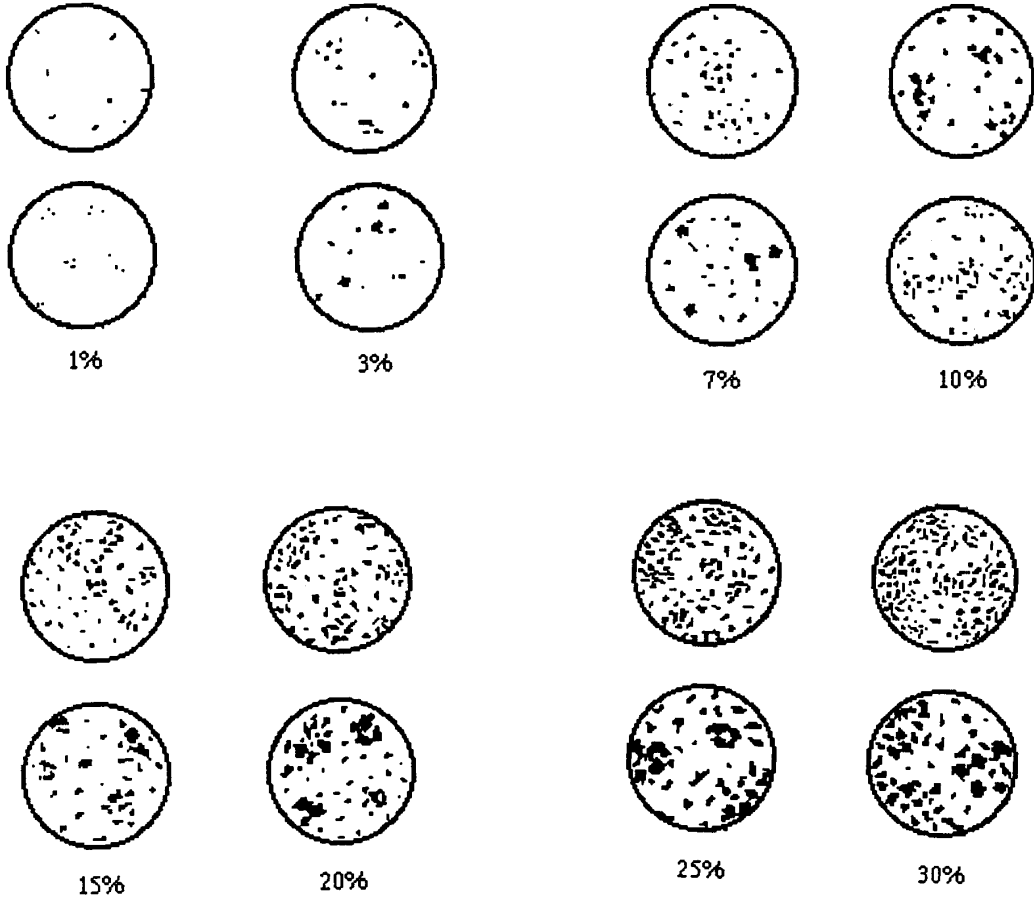
Forest Regeneration Sites may be treated with glyphosate applied selectively or non-selectively by aircraft or ground equipment provided that glyphosate is not deposited within 5 horizontal metres from an open body of water.

Non-Vegetated Developed Areas such as maintained trails, roads, vehicle parking lots, railway ballasts, and industrial sites such as flare stacks, pump sites, equipment yards, and electrical substations may be treated with glyphosate selectively or non-selectively by ground application equipment over the entire area that is to be maintained non-vegetated.

Railway Ballasts may be treated with imazapyr provided that no herbicide is deposited within 15 horizontal metres of an open body of water.

Shoreline Rip-Rap may be treated with glyphosate provided that no herbicide is deposited closer than 1 horizontal metre from an open body of water; and no more than 30 percent of the land within any 100 square metres of the treatment area receives treatment in any calendar year.

**PICTORIAL REPRESENTATIONS OF LAND AREAS:
HERBICIDE DEPOSITION MUST NOT EXCEED MAXIMUM AREAS
IDENTIFIED IN THE CODE WITHIN ANY 100 SQUARE METRES**



Modified from Richard D. Terry
and George V. Chilingar.

PRODUCT APPLICATION RATE MAXIMUMS

Active Ingredient Maximums Identified in the Code	Product Concentration (g/L)	Maximum Application Rates for Products* (L/Ha) Based on Product Concentration and Area Treated		
		30% Treated Area	20% Treated Area	10% Treated Area
2,4-D: 1.2 kg ai/ha	450	2.7	4.0	8.1
	470	2.6	3.9	7.8
	560	2.1	3.1	6.3
	660	1.8	2.7	5.4
Dicamba: 1.2 kg ai/ha	480	2.5	3.7	7.5
MCPA: 0.675 kg/ha	400	1.69	2.5	5.1
	500	1.35	2.0	4.0
MIXTURES				
Dicamba + MCPA	84 g/L dicamba + 336 g/L MCPA	2.0 (based on MCPA maximum)	3.0	6.0
Dichlorprop + 2,4-D (dichlorprop max = 1.2 kg a.i./ha)	300 g/L dichlorprop + 282 g/L 2,4-D	4.0 (based on dichlorprop maximum)	6.0	12.0

***Maximum label application rates are based on a mathematical calculation and may exceed the maximum label application rates. Applications must conform with actual label application rates.**