

2024-08-08
2023-3066

(container)



Esteron™ Herbicide

GROUP	4	HERBICIDE
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- Emulsifiable concentrate of 2,4-D.
- For air or ground application for the control of broadleaved weeds and susceptible brush in forestry and industrial locations.

RESTRICTED

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING
KEEP OUT OF REACH OF CHILDREN

ACTIVE INGREDIENT: 2,4-D, present as 2-ethylhexyl ester 564 g /L

REGISTRATION NO. 15981 PEST CONTROL PRODUCTS ACT

WARNING  **POISON**

NET CONTENTS: 110 L

Corteva Agriscience Canada Company
Suite 240, 115 Quarry Park Rd. SE
Calgary, AB
T2C 5G9
1-800-667-3852

™Trademark of Corteva Agriscience and its affiliated companies.

PRECAUTIONS

CAUSES IRRITATION OF SKIN AND EYES

DO NOT GET IN EYES

AVOID CONTACT WITH SKIN AND CLOTHING

KEEP OUT OF REACH OF CHILDREN

PROTECTIVE CLOTHING AND EQUIPMENT

All Application Equipment (Ground and Aerial)

- When mixing and loading, wear coveralls over a long-sleeved shirt, long pants, chemical resistant gloves, socks, shoes and protective eye wear (face shield or safety glasses). Rinse gloves before removal. Coveralls should also be worn when open pouring from containers.
- When applying or during clean-up and repair, wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes. Rinse gloves before removal.
- Gloves are not required during application when applicator is in an enclosed tractor or an enclosed airplane cockpit.
- When handling more than 470 L of Esteron Herbicide per day, workers must also use a closed system.

Application using Aerial Equipment

- Applicators must wear coveralls over a long-sleeved shirt and long pants. Chemical-resistant gloves must also be worn during clean-up and repair activities.
- No human flaggers are permitted.

Application using Groundboom Equipment

- Applicators must wear coveralls over a long-sleeved shirt and long pants. Chemical-resistant gloves must also be worn during clean-up and repair activities.

Application using Handheld Equipment

Applicators must wear coveralls over a long-sleeved shirt, long pants, respirator and chemical-resistant gloves.

Refer to Directions for Use section for any additional requirements.

OPERATOR USE PRECAUTIONS

- Wear freshly laundered clothing and clean protective equipment daily.
- Rinse gloves before removal.
- Wash hands before eating, drinking, using tobacco or using the toilet.
- If herbicide penetrates clothing, remove immediately; then wash thoroughly and put on clean clothing. Throw away clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate.
- After using this product, remove clothing and launder separately, and promptly and thoroughly wash hands and exposed skin with soap and water. Follow manufacturer's instructions for cleaning personal protective clothing and equipment. If no such instructions for washables are provided, use detergent and hot water. Keep and wash personal protective equipment separate from household laundry.
- After work, remove all clothing and shower using soap and water.

Mechanical Transfer System for Containers Larger than 20 L: Use a transfer system that avoids open pouring when transferring the liquid concentrate from such containers into the spray tank.

FIRST AID

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

If swallowed: Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give **any** liquid to the person. Do not give anything by mouth to an unconscious person.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

TOXICOLOGICAL INFORMATION

No specific antidote. Employ supportive care. Treatment should be based on judgement of the physician in response to reactions of the patient. This product may cause mild irritation to the eyes. Overexposure to 2,4-D may cause coughing, burning, dizziness or temporary loss of muscle coordination. Other possible effects of overexposure include fatigue, muscle weakness or nausea. Treat symptomatically. This product contains a petroleum distillate. Vomiting may cause aspiration pneumonia.

AGRICULTURAL CHEMICAL

Do not ship or store with food, feeds, drugs or clothing.

ENVIRONMENTAL PRECAUTIONS

- Toxic to small mammals, birds, aquatic organisms and non-target terrestrial plants.
- Observe spray buffer zones specified under DIRECTIONS FOR USE.
- This product will harm other broadleaved plants in the vicinity of the treatment area. If applying this product using a handheld sprayer, do not directly spray or allow the spray to drift onto ornamentals or gardens.
- Do not spray exposed roots of trees and ornamentals.
- This product contains aromatic petroleum distillates, which are toxic to aquatic organisms.

LEACHING

This product demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

RUNOFF

- To reduce runoff from treated areas into aquatic habitats, avoid application to areas with moderate to steep slope, compacted soil, or clay.
- Avoid application when heavy rain is forecast.
- Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative filter strip between the treated area and the edge of the water body.
- To prevent runoff, avoid spraying on driveways, sidewalks or other hard surfaces. Do not irrigate within 24 hours after application.

STORAGE

Store this product away from food or feed.

This product must be stored away from fertilizers, seeds, insecticides, fungicides or other herbicides intended for use on 2,4-D sensitive crops.

Sprayer Clean-up and Disposal of Waste

When spraying is complete, rinse all equipment and dispose of rinse water in accordance with provincial requirements. Avoid using sprayers which contained 2,4-D to apply other pesticides to sensitive crops. Care must be taken during application and clean-up to avoid contaminating irrigation ditches or domestic water supplies.

DISPOSAL**Returnable Containers**

DO NOT reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial/territorial regulatory agency. Contact the manufacturer and the provincial/territorial regulatory agency in case of a spill, and for clean-up of spills.

NOTICE TO USER: This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

(booklet)



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Application using Aerial Equipment

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- No human flaggers are permitted.

Application using Groundboom Equipment

- Applicators must wear coveralls over a long-sleeved shirt and long pants. Chemical-resistant gloves must also be worn during clean-up and repair activities.

Application using Handheld Equipment

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- After work, remove all clothing and shower using soap and water.

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AGRICULTURAL CHEMICAL

Do not ship or store with food, feeds, drugs or clothing.

ENVIRONMENTAL PRECAUTIONS

- Toxic to small mammals, birds, aquatic organisms and non-target terrestrial plants.
- Observe spray buffer zones specified under DIRECTIONS FOR USE.
- This product will harm other broadleaved plants in the vicinity of the treatment area. If applying this product using a handheld sprayer, do not directly spray or allow the spray to drift onto ornamentals or gardens.
- Do not spray exposed roots of trees and ornamentals.
- This product contains petroleum distillates which are toxic to aquatic organisms.

LEACHING

This product demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

RUNOFF

- To reduce runoff from treated areas into aquatic habitats, avoid application to areas with moderate to steep slope, compacted soil, or clay.
- Avoid application when heavy rain is forecast.
- Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative filter strip between the treated area and the edge of the water body.
- To prevent runoff, avoid spraying on driveways, sidewalks or other hard surfaces. Do not irrigate within 24 hours after application.

STORAGE

Store this product away from food or feed. This product must be stored away from fertilizers, seeds, insecticides, fungicides or other herbicides intended for use on 2,4-D sensitive crops.

Sprayer Clean-up and Disposal of Waste

When spraying is complete, rinse all equipment and dispose of rinse water in accordance with provincial requirements. Avoid using sprayers which contained 2,4-D to apply other pesticides to sensitive crops. Care must be taken during application and clean-up to avoid contaminating irrigation ditches or domestic water supplies.

DISPOSAL

Returnable Containers

DO NOT reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial/territorial regulatory agency. Contact the manufacturer and the provincial/territorial regulatory agency in case of a spill, and for clean-up of spills.

NOTE: Local conditions may affect the use of herbicides. Provincial agricultural authorities issue recommendations to fit local conditions. Be sure that the use of this product conforms to all applicable regulations.

If this product is exposed to temperatures below -20°C, it should be warmed to at least +5°C and mixed thoroughly before using.

DIRECTIONS FOR USE

USE PRECAUTIONS

- As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.
- DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

Tank Mixtures

This product may be tank mixed with a fertilizer, a supplement, or with registered pest control products, whose labels also allow tank mixing, provided the entirety of both labels, including Directions For Use, Precautions, Restrictions, Environmental Precautions, and Spray Buffer Zones are followed for each product. In cases where these requirements differ between the tank mix partner labels, the most restrictive label must be followed. Do not tank mix products containing the same active ingredient unless specifically listed on this label.

In some cases, tank mixing pest control products can result in reduced pesticide efficacy or increased host crop injury. The user should contact Corteva Agriscience Canada Company at 1-800-667-3852 or www.corteva.ca for information before applying any tank mix that is not specifically recommended on this label.

Field sprayer application

DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) coarse classification. Boom height must be 60 cm or less above the crop or ground.

Aerial application

DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply when wind speed is greater than 16 km/h at flying height at the site of application. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) coarse classification. Reduce drift caused by turbulent wingtip vortices. Nozzle distribution along the spray boom length MUST NOT exceed 65% of the wing- or rotorspan.

GENERAL INFORMATION

To Prepare A Spray

Water: Add half the required amount of water to the empty spray tank, then add Esteron Herbicide with mixing, and finally the balance of the water with continued mixing. Keep mixing to make certain of a uniform spray.

Oil: When Esteron Herbicide is to be used in oil, do not let water get into the product or spray tank. Add some of the oil carrier to the tank, then add the Esteron Herbicide needed and the rest of the oil. Moderate by-pass mixing will give a stable solution.

Use only Diesel Oil No. 1 or No. 2 Fuel Oil or Kerosene where oil is recommended in the spray mixture.

Oil-Water Mixture: With vigorous agitation, 1 L of Esteron Herbicide will emulsify up to 10 L of oil in 100 L of spray mixture. First premix the Esteron Herbicide and oil in a separate container. Never allow any water, or mixtures containing water, to get into the Esteron Herbicide or the oil spray premix. Start running the water into the empty spray tank, then slowly add the premix with continuous agitation. All the premix should be in the tank by the time 1/3 of the water is in. If the premix is put in the tank without any water, the first water added may form a thick "invert" (water in oil) emulsion which will be hard to break.

NOTE: Esteron Herbicide in water or oil-water sprays forms an emulsion, not a solution, and separation may take place unless sprays are agitated continuously until used up. Mechanical agitation is recommended.

Non-Cropland Sites

Esteron Herbicide may be used to control broadleaved weeds and brush in non-cropland sites such as vacant lots, roadsides, fencerows, rights of way (hydro, highway, railway, pipeline) and industrial sites (such as transformer sites, pumping stations, storage yards, railroad and highway maintenance yards).

General Broadleaved Weed Control

Apply 1.0 to 4.0 L per hectare depending on weed species present. Maximum 2 applications per year. Apply in at least 100 L water per hectare as a broadcast application with a fixed boom or mounted boomless nozzle. Tall weed growth may be treated with a drenching spray to point of run-off using 3.8 L of Esteron Herbicide in 1000 L water. Deep-rooted perennial weeds such as bindweed and Canada thistle may require repeat application.

Maximum Amount of Product Applied/day/person with Handheld Equipment: 4.8 L

Pre-Harvest/Grazing Intervals

- Do not permit lactating dairy animals to graze fields within 7 days after application.
- Do not harvest forage or cut hay within 30 days after application.
- Withdraw meat animals from treated fields at least 3 days before slaughter.

Woody Plant and Brush Control - Ground Application

Foliage Treatment

Depending on type of spray equipment available and size of brush, either a drenching spray or a low-volume spray may be utilized. Best results usually will be obtained from applications made soon after maximum foliage development in the spring. Less effective control may result during prolonged hot, dry weather. With good growing conditions, application may be made up to 2 to 3 weeks before normal frost time. Power equipment with pressures up to 1700 kPa will aid in obtaining satisfactory spray coverage and foliage penetration. Repeat applications may be necessary as new growth develops.

For tall woody plants and brush up to 2.5 m in height: Use a drenching spray containing 8.0 L of Esteron Herbicide in 1000 L water. Maximum 2 applications per year. Wet all foliage and stems to point of run-off. This may require 1000 to 3000 L of solution per hectare depending on density of brush. Poison ivy, some brambles and certain susceptible species may be controlled by using 5.0 L per 1000 L water. Brush over 2.5 m should be cut and regrowth sprayed.

For low-growing woody plants and brush or regrowth: A low volume spray applied in swaths with a fixed boom or mounted boomless nozzle may be used. Use 5.0 to 8.0 L of Esteron Herbicide in 1000 to 1500 L spray solution per hectare. Maximum 2 applications per year.

Protective Equipment: Wear a respirator when applying more than 8.9 L/day/person

Maximum Amount of Product Applied/day/person: 14.2 L

Pre-Harvest/Grazing Intervals

- Do not permit lactating dairy animals to graze fields within 7 days after application.
- Do not harvest forage or cut hay within 30 days after application.
- Withdraw meat animals from treated fields at least 3 days before slaughter.

Stump Treatment

If growth is more than 2.5 m tall, cut it close to the ground and spray the stumps and stubs. Use a solution of 30 L of Esteron Herbicide in 1000 L of diesel oil, fuel oil or kerosene, mixed thoroughly. All exposed bark, as well as cut surfaces, should be wet thoroughly. This means spraying until run-down or run-off to the ground line is noticeable. Old or rough bark requires more spray volume than young or smooth bark. Apply at any time, including the winter months, preferably to freshly-cut stems. Best results are usually obtained on stumps 5 cm across or larger. Trash from brush cutting operations such as sawdust, leaves and branches, etc. should be removed from the base of the stumps before chemical is applied.

Maximum Amount of Product Applied/day/person: 4.8 L

Basal Bark Treatment

Brush and small trees can be controlled by spraying the basal parts of brush stems and tree trunks to a height of 50 cm from the ground line (low thick brush may be treated with an overall spray). Use of a solution of 30 L of Esteron Herbicide in 1000 L of diesel oil, fuel oil or kerosene is effective. Knapsack or power equipment may be used but complete wetting of the indicated area is necessary, particularly at the ground line. This means spraying until run-down or run-off to the ground line is noticeable. Old or rough bark requires more spray volume than young or smooth bark. Low pressures are desirable. Apply at any time, including winter months. Often delayed response in killing can be expected. Treated brush or trees preferably should not be cut for a period of 1 year following application.

Maximum Amount of Product Applied/day/person: 4.8 L

“Frill” Treatment

For large trees, make single hack girdle or “frill” of over-lapping axe cuts as close to the ground as possible. Treat the injured area with a mixture of 30 L of Esteron Herbicide in 1000 L (500 mL in 15 L) of oil.

Maximum Amount of Product Applied/day/person: 4.8 L

Directions for Use for aerial application

Apply only by fixed-wing or rotary aircraft equipment which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.

Label rates, conditions and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.

Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices

Use Precautions

Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. Apply only under conditions of good practice specific to aerial application as outlined in the National Aerial Pesticide Application Manual, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides.

Operator Precautions

Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted.

It is desirable that the pilot have communication capabilities at each treatment site at the time of application.

The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label.

All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.

Product Specific Precautions

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-800-667-3852 or obtain technical advice from the distributor or your provincial agricultural representative. Application of this specific product must meet and/or conform to the following use precautions.

BRUSH CONTROL - AERIAL APPLICATION (including fixed and rotary wing aircraft)

Aerial application preferred for treating large area or tall and dense stands of brush on rough terrain. Repeat application may be necessary for understory plants or intermediately susceptible species. For very susceptible species such as Western snowberry and willow use 3.3 L per hectare. Maximum 2 applications per year.

Use Precautions For Aerial Application

- Do not spray when winds exceed 8 km/hr. Do not spray in dead calm near sensitive plants. The "cloud" of suspended droplets may drift onto sensitive plants when the wind comes up. Spray only when wind is blowing away from a sensitive crop, shelterbelt or garden.
- Avoid direct applications to any body of water. Do not contaminate water through spray drift or by cleaning of equipment or disposal of wastes.
- Fixed and rotary-winged aerial applications to field crops should be made in a minimum of 30 L/ha total spray mixture. Use boom pressure of 235 kPa or less. Avoid placing nozzles where spray will enter wing tip vortices.
- Rotary-winged applications to rights of way should use a minimum of 70 L/ha spray mixture, using a spray thickening agent such as Nalco-Trol or a drift control device such as the Microfoil or Thru-Valve boom.
- Do not apply this product directly to, or otherwise permit it to come into direct contact with, desirable crops or other desirable broadleaved plants or non-target species and do not permit spray mists to drift onto them.
- Coarse sprays are less likely to drift, use only nozzles or nozzle configuration which minimize the production of fine spray drops. Do not angle nozzles forward into the airstream and do not increase spray volume by increasing nozzle pressure. When spraying, avoid combination of pressure and nozzle type that will result in fine particles (mist) which are more likely to drift. A spray thickening agent or drift retardant may be used with this product to aid in reducing spray drift.
- Do not use human flaggers.
- Avoid Spray Drift: Apply only when there is little or no hazard from spray drift. Small quantities of the spray, which may not be visible, may seriously injure susceptible crops and damage sensitive non-target habitat. A method must be used to detect air movement, lapse conditions or temperature inversions (stable air) such as the use of balloons or a continuous smoke column at or near the spray site or a smoke generator on the spray equipment. If the smoke develops into layers or indicates a potential for a hazardous spray drift, do not spray.

- Spray Buffer Zones: Appropriate spray buffer zones should be established between treatment areas and aquatic systems and treatment areas and significant wildlife habitat.

NOTE: For restricted use (Forestry or Woodland Management).

SENSITIVE PLANTS

Vegetables, flowers, grapes, fruit trees and other desirable plants are sensitive to 2,4-D even in minute quantities. Care should be taken to avoid spraying these types of plants or allowing spray mist to drift onto these plants during both their growing and dormant periods. Coarse sprays are less likely to drift. At higher temperatures, vaporization may cause injury to susceptible plants growing nearby.

This product may cause damage to lawns or pastures if applied before the grass is well established. In addition, most legumes may be damaged or killed.

RESTRICTIVE USE: CONIFER RELEASE AND FOREST SITE PREPARATION

NATURE OF RESTRICTION: This product is to be used only in the manner authorized. Consult local pesticide regulatory authorities about use permits which may be required.

NOTICE TO USER: This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

CONIFER RELEASE - AERIAL APPLICATION

To control the growth of undesirable hardwood species including alder, balsam, poplar, trembling aspen, birch, elm, cherry, hazelnut, sumac, Manitoba maple, thimbleberry and willow in stands of fir, hemlock, spruce and pine, use 4.3 to 5.5 L/ha of Esteron Herbicide in 30 to 80 L of total spray mixture per hectare. Use a water or an "oil-water" mixture and follow the mixing directions on the label under the directions "To Prepare A Spray". Rates higher than 5.5 L may cause conifer injury. Use the lower rate in stands of pine. To prevent conifer damage, delay spraying until all new conifer growth has hardened off, when the terminal buds feel needle sharp to touch. In Eastern Canada this period is from mid-July until the end of August and in Western Canada this period extends from the end of June until the end of August. Caution should be taken to ensure that the conifer is not in a second phase of active or "lammass" growth in late summer.

For an early spring treatment in B.C. use 4.8 to 5.5 L/ha of Esteron Herbicide with oil as a dormant spray. To ensure good coverage and reduce the possibility of conifer injury, apply in 30 to 80 L of total spray mixture per hectare before "bud burst" of both the conifers and the undesirable hardwood species to be suppressed.

FOREST SITE PREPARATION - AERIAL APPLICATION

To control mixed hardwood species on sites to be planted to conifers, use 5.5 to 8.0 L of Esteron Herbicide in 30 to 100 L of total spray mixture per hectare. Maximum 2 applications per year. Apply as a uniform spray when the foliage is well developed and the brush is growing actively. Under conditions of good growth and high soil moisture, sprays can be used 2 to 3 weeks before normal frost time. For best results, use a 10% oil solution and follow the "oil-water" mixing directions on the label under the section To Prepare A Spray.

NOTE: When preparing sites for planting, do not plant conifers before spraying as the conifers present at the time of spraying may be injured or killed.

USE PRECAUTIONS

With aircraft, uniform coverage can be obtained and drift minimized by: using 235 kPa spray pressure or less at the nozzle; using straight stream nozzles directed straight back; using a spray boom no longer than 3/4 the wing span of the aircraft and spraying when wind velocity is less than 8 km/hr.

SPRAY BUFFER ZONES

A spray buffer zone is NOT required for:

- uses with hand-held application equipment permitted on this label.

BEFORE AERIAL APPLICATION TO FORESTS consult the most recent provincially approved topographic maps of the area to be treated (1:50 000) or more up-to-date information (e.g. GPS systems) to identify sensitive aquatic habitats. Sensitive aquatic habitats include:

- All running and standing water bodies, including impoundments, beaver ponds and bog ponds, that appear on the map or GPS system;
- Running and standing water bodies that do not appear on the map or GPS system, but are visible from the air.

For application to rights-of-way, spray buffer zones for protection of sensitive terrestrial habitats are not required; however, the best available application strategies that minimize off-site drift, including meteorological conditions (e.g. wind direction, low wind speed) and spray equipment (e.g. coarse droplet sizes, minimizing height above canopy), should be used. Applicators must, however, observe the specified spray buffer zones for protection of sensitive aquatic habitats.

For the use of the herbicide in site preparation and conifer release in forestry, terrestrial spray buffer zones are not required.

The spray buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands), and estuarine/marine habitats. Seasonal water bodies require spray buffer zones if there is water in them during application. Water bodies which do not fill on an annual basis need not be buffered.

Spray Buffer Zone Table

Method of Application	Crop			Spray Buffer Zones (metres) Required for the Protection of:				
				Freshwater Habitat of Depths:		Estuarine/Marine Habitats of Depths:		Terrestrial Habitat
Field sprayer	Non-cropland (including rights-of-way** and brush control)			Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	
				Aerial	Non-cropland (including rights-of-way* and brush control)	4.0 L/ha	Fixed wing	70
Rotary wing	35	0	1				0	80*
	8.0 L/ha	Fixed wing	125		1	15	1	225*
		Rotary wing	50		1	5	1	100*
Forestry (site preparation,	4.3 L/ha	Fixed wing	175		0	1	0	NR

	conifer release)							
			Rotary wing	95	0	1	0	NR
		5.5 L/ha	Fixed wing	225	1	1	0	NR
			Rotary wing	125	1	1	0	NR
		8.0 L/ha	Fixed wing	350	1	20	1	NR
			Rotary wing	175	1	10	1	NR

NR = Not required

♦ Spray buffer zones for the protection of terrestrial habitats are not required for use on rights-of-way including railroad ballast, rail and hydro rights-of-way, utility easements and roads.

When tank mixes are permitted, consult the labels of the tank-mix partners and observe the largest (most restrictive) spray buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

The spray buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Spray Buffer Zone Calculator on the Pesticides portion of the Canada.ca website.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management Esteron Herbicide is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to Esteron Herbicide and other Group 4 herbicides. The resistant biotypes may dominate the weed population if these herbicides are used repeatedly in the same field. Other resistance mechanisms that are not linked to site of action, but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance:

- Where possible, rotate the use of Esteron Herbicide or other Group 4 herbicides within a growing season (sequence) or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group when such use is permitted. To delay resistance, the less resistance-prone partner should control the target weed(s) as effectively as the more resistance-prone partner.
- Herbicide use should be based on an integrated weed management program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage (or other mechanical control methods), cultural (for example, higher crop seeding rates; precision fertilizer application method and timing to favour the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Monitor weed populations after herbicide application for signs of resistance development (for example, only one weed species on the herbicide label not controlled). If resistance is suspected, prevent weed seed production in the affected area if possible by an alternative herbicide from a different group. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- Have suspected resistant weed seeds tested by a qualified laboratory to confirm resistance and identify alternative herbicide options.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for specific crops and weed biotypes.

- For further information or to report suspected resistance, contact your local Corteva Agriscience Canada Company representative or the Corteva Agriscience Canada Company hotline at 1-800-667-3852 for further information.

NOTICE TO USER: This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

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