

(Container)

FBN MCPA Ester 600 EC

Herbicide

GROUP	4	HERBICIDE
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For use in wheat, barley, rye, oats, flax (do not use on low linolenic acid varieties), pastures, roadside and non-cropland areas.

COMMERCIAL (AGRICULTURAL)

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

ACTIVE INGREDIENT: MCPA, present as 2-ethylhexyl ester 600 g a.e./L

Emulsifiable concentrate

REGISTRATION NO. 34973 PEST CONTROL PRODUCTS ACT

WARNING



POISON

NET CONTENTS: 1L – Bulk

Farmer's Business Network Canada, Inc.

PO Box 5607

High River, Alberta

Canada T1V 1M7

1-844-200-FARM (3276)

For Emergency Medical Assistance (Human or Animal) contact Rocky Mountain Poison Control at 1-866-767-5041.

For Chemical Emergency Assistance (Spill, Leak, Fire or Accident) contact CHEMTREC at 1-800-424-9300 (North America) or 1-703-527-3887 (International).

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN. Harmful or fatal if swallowed. Avoid contact with skin, eyes and clothing. Wash concentrate from skin or eyes IMMEDIATELY. After use, wash hands and other exposed skin. Avoid breathing spray mist.

DO NOT use in residential areas. Residential areas are defined as any use site where bystanders or the public, including children, could be exposed during or after application. This includes areas in and around homes, schools, public buildings or any other areas where they could be exposed.

Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

PROTECTIVE CLOTHING AND EQUIPMENT

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. Gloves are not required during application within a closed cab and/or cockpit.

Worker Re-entry - DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

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

DO NOT induce vomiting. This product contains petroleum distillates. Vomiting may cause aspiration pneumonia. No specific antidote. Employ supportive care. Treatment should be based on judgement of the physician in response to reactions of the patient. High concentrations of MCPA may cause severe irritation to the eyes. Symptoms of overexposure to MCPA could include slurred speech, twitching, jerking and spasms, drooling, low-blood pressure and unconsciousness. Treat symptomatically.

ENVIRONMENTAL PRECAUTIONS

Toxic to aquatic organisms and non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE. Avoid contamination of ponds, streams, rivers and other water sources. This product contains a petroleum distillate which is toxic to aquatic organisms.

Avoid contamination of aquatic systems during application.

Surface 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.

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.

STORAGE

Store the container tightly closed away from food and feed. May be stored at any temperature. SHAKE WELL BEFORE USING.

DISPOSAL

For Recyclable Containers

Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For Refillable Containers

For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.

For Returnable Containers

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For information on disposal of unused, unwanted product, contact the manufacturer or the

provincial regulatory agency. Contact the manufacturer and the provincial 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.

SPECIMEN

(Booklet)

FBN MCPA Ester 600 EC

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Apply only when the potential for drift to areas of human habitation or areas of human activity such as houses, cottages, schools and recreational areas is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment and sprayer settings.

PROTECTIVE CLOTHING AND EQUIPMENT

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. Gloves are not required during application within a closed cab and/or cockpit.

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ENVIRONMENTAL PRECAUTIONS

Toxic to aquatic organisms and non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE. Avoid contamination of ponds, streams, rivers and other water sources. This product contains a petroleum distillate which is moderately to highly toxic to aquatic organisms.

Avoid contamination of aquatic systems during application. Do not contaminate these systems through direct application, disposal of waste or cleaning of equipment.

Surface 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.

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.

STORAGE

Store the container tightly closed away from food and feed. May be stored at any temperature. SHAKE WELL BEFORE USING.

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DIRECTIONS FOR USE

GENERAL USE PRECAUTIONS

- FBN MCPA Ester 600 EC may cause damage to susceptible crop, ornamental, and other plants, even in minute quantities.
- Do not permit lactating dairy animals to graze fields within 7 days after application.
- Withdraw meat animals from treated fields at least 3 days before slaughter.
- Do not harvest forage or cut hay within 7 days after application.
- As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.

MIXING

Shake well before using. To ensure even mixing, half fill the sprayer tank with clean water, add the required amount of FBN MCPA Ester 600 EC and agitate thoroughly. Add the remainder of the water and agitate before spraying. If the spray solution has been left standing, agitate thoroughly before use. Wash sprayer thoroughly after use.

APPLICATION METHODS, EQUIPMENT AND SPRAY VOLUME

GROUND APPLICATION

For knapsack, spot treatment applications, mix 165 mL of product in 10 L water. Spray to wet all foliage thoroughly.

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) coarse classification. Boom height must be 60 cm or less above the crop or ground.

Apply in 50 to 200 litres of water per hectare by ground equipment unless otherwise indicated. Higher water volumes will reduce the risk of crop injury.

AERIAL APPLICATION

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) coarse classification. To reduce drift caused by turbulent wingtip vortices. Nozzle distribution along the spray boom length MUST NOT exceed 65% of the wing-span or rotor-span. Application of this specific product must meet and/or conform to the following:

Volume: Apply the recommended rate in a minimum spray volume of 30 litres of water per hectare.

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 coveralls over a long-sleeved shirt, long pants, chemical resistant gloves 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 1-844-200-FARM (3276) or obtain technical advice from the distributor or your provincial agricultural representative.

TANK MIXES

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 Farmer's Business Network Canada, Inc. at 1-844-200-FARM (3276) for information before applying any tank mix that is not specifically recommended on this label.

CROPS, TIMING, RATES AND METHODS OF APPLICATION

Use the dose required to control the weeds present. To minimize the risk of crop injury, do not exceed the recommended rate listed for the crop. Higher rates may be required to control certain weed species. Rates above those recommended for a crop may result in significant crop injury, and should only be used when the risk of crop injury will be offset by the benefits of enhanced weed control. Apply in warm weather when the crop and weeds are growing well, and the weeds

are at a susceptible stage.

Avoid application during drought conditions or during exceptionally hot weather.

Crop	Application Time	Method	Recommended Rate Per Hectare
Spring cereals (wheat, barley, rye, oats), not underseeded with legumes	From the 3-leaf expanded to the early flag-leaf stage (wheat, barley, rye) From the 1-leaf expanded to the early flag-leaf stage (oats) From milk stage to maturity (wheat, barley, rye) Do not apply more than one treatment per year.	Ground or aerial application	Up to 1.05 L for wheat, barley and rye Up to 900 mL for oats
Winter cereals (winter wheat, fall rye)	In spring, from full tillering to the shot blade stage Do not apply during and after the flag-leaf stage. Do not apply to seedling winter cereals in the fall. Do not apply more than one treatment per year.	Ground application only	Up to 1.05 L
Flax (Do not use on low linolenic acid varieties)	When flax is between 5 cm in height to before bud stage To minimize crop injury, spray at early growth stages, in the evening, and use higher water volumes. Do not apply more than one treatment per year.	Ground or aerial application	Up to 700 mL Caution: Early crop injury maybe observed, but yield should not be affected.
Established grasses and legumes (alfalfa, alsike and red clover)	For control of susceptible winter annual and perennial weeds, spray in the very early spring, before growth of the forages has commenced. In pure stands of grasses, applications may be made in the fall. Do not apply more than two treatments per year, with a minimum retreatment interval of 90 days.	Ground application only	Up to 1.65 L

<p>Pasture (without legumes) and uncropped land</p>	<p>Apply at a time of rapid growth, usually May, June and/or September.</p> <p>Spray thoroughly using 100 to 300 litres of water per hectare.</p> <p>Use the higher rate for perennial weeds; a second treatment may be required. Cultivating grain stubble and spraying after regrowth may aid in control.</p> <p>Do not apply in freshly seeded grasses and pastures until well established.</p> <p>Under conditions of good growth and adequate soil moisture, sprays can be applied up to 2 weeks before normal frost time.</p> <p>For stubble land and pastures a maximum of 2 applications is permitted per season followed by a minimum retreatment interval of 21 days for stubble land and 90 days for pastures.</p>	<p>Ground or Aerial application (Aerial application for use ONLY in pastures without legumes, stubble land, roadsides and uncropped land)</p> <p>For spot treatment of roadside and uncropped land using high-pressure handwands, do not exceed 900 litres of "ready to use" solution (equivalent to 15 L of product.) per day per individual applicator.</p> <p>For application using handheld equipment, use a maximum concentration of 165 mL of FBN MCPA Ester 600 EC in 10 L of spray solution.</p> <p>For broadcast treatment of roadside and uncropped land, a maximum of 2 applications are permitted per season, with a minimum retreatment interval of 21 days.</p>	<p>Up to 2.8 L</p>
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CONTROL OF WOODY GROWTH IN NON-GRAZED AREAS

Apply at time of rapid growth, usually May, June and/or September. For broadcast treatment apply 1.8 to 2.8 litres of product in 100 to 1000 litres of water per hectare. For spot treatment do not exceed 5.6 L/ha. Use the lower rate for species that are more susceptible such as chokecherry, western snowberry and willow. Spray brush species up to 3 metres tall after foliage is well developed. Applications soon after leaves are fully open usually give the best results. Apply sufficient spray volume to thoroughly wet all plant parts to the ground line. Brush or trees above 3 metres tall should be cut close to the ground and sprayed when the regrowth is over 0.6 m tall. With good growing conditions and adequate soil moisture, sprays may be applied up to 2 to 3 weeks before normal frost time. To reduce potential drift hazard, a drift control agent may be added. Follow directions on the drift control agent label for the correct mixing sequence.

Ground or Aerial Application

For broadcast treatment of woody growth, a maximum of 2 applications are permitted per season, with a minimum re-treatment interval of 21 days.

WEEDS CONTROLLED

(DO NOT exceed the rates given for each specific crop identified in the CROPS, TIMING, RATES AND METHODS OF APPLICATION section)

Susceptible Weeds

Burdock (before the 4-leaf stage), Cocklebur, Plantain, Flixweed♦, Lamb's-quarters, Mustards (except Dogand Tansy), Prickly lettuce, Ragweeds, Russian pigweed♦, Shepherd's-purse♦, Stinkweed, Vetch, Wild radish, Wild (annual) sunflower.

♦Use the higher rate in the rate range.

Rates to Control Susceptible Weeds

Small seedlings, good growing conditions: 580 mL/ha.

Large weeds, dry or cold weather, heavy infestations: 900 mL/ha.

Resistance increases with age.

Harder to Control Weeds

Annual sow-thistle, Biennial wormwood, Blue lettuce♦, Bluebur, Canada thistle♦, Corn spurry♦, Curled dock, Dandelion, Dog mustard, Field bindweed♦, Field Horsetail♦, Field pepper-grass, Goat's-beard, Gumweed, Hairy galinsoga, Hedge bindweed♦, Hemp-nettle (before the 4-leaf stage), Hoary cress♦, Kochia, Lady's thumb♦, Leafy spurge♦, Oak-leaved goosefoot, Perennial sow-thistle♦, Purslane, Redrootpigweed, Russian knapweed♦, Russian-thistle, Smartweed♦, Sweet clover (seedling), Tansy mustard, Tartary buckwheat.

♦Top growth control.

Rates for Harder to Control Weeds

Small seedlings, good growing conditions: 1.05 L/ha.

Large weeds, dry or cold weather, heavy infestations: 1.50 L/ha.

Resistance increases with age.

SPRAY BUFFER ZONES

A spray buffer zone is NOT required for:

- uses with hand-held application equipment permitted on this label
- spot treatment

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, rangelands, 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.

Method of Application	Crop		Spray Buffer Zones (metres) Required for the Protection of:				
			Freshwater Habitat of Depths:		Estuarine/Marine Habitats of Depths:		Terrestrial Habitat:
			Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	
Field Sprayer	Cereals, flax, grasses, legumes, stubble, roadsides, uncropped land and woody growth,		1	1	1	1	4
Aerial							
	Cereals, flax	Fixed	1	0	1	0	60
		Rotary wing	1	0	1	0	50
	Pastures, stubble	Fixed	5	1	1	1	100
		Rotary wing	4	1	1	1	80
	Roadsides, uncropped land, woody growth	Fixed	30	1	20	1	200
		Rotary wing	20	1	10	1	100

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, FBN MCPA Ester 600 EC is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to FBN MCPA Ester 600 EC 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 FBN MCPA Ester 600 EC 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 FBN representatives at 1-844-200-FARM (3276).

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