

DATAPAK

GROUP	4	HERBICIDE
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MCPA ESTER 500

HERBICIDE

COMMERCIAL

CAUTION

POISON

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

GUARANTEE: MCPA 500 g/L (present as iso-octyl esters)

REGISTRATION NO. 22199

PEST CONTROL PRODUCTS ACT

UNITED AGRI PRODUCTS CANADA INC.

789 Donnybrook Drive

Dorchester, Ontario

N0L 1G5

NET CONTENTS: 10L

16291

03/05

DIRECTIONS FOR USE

MCPA ESTER 500 may be used to control most broadleaved weeds in Wheat, Oats, Barley, Rye, Flax, Pastures and Non-Crop areas. APPLY MCPA ESTER 500 in the amount of water required for even distribution. Spray at low pressures (200 to 350 kPa) during warm weather when weeds are young and growing actively. See note under spray chart.

RESISTANCE MANAGEMENT RECOMMENDATIONS:

For resistance management, MCPA ESTER 500 is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to MCPA ESTER 500 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 MCPA ESTER 500 or other Group 4 herbicides 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.
- Herbicide use should be based on an IPM program that includes scouting, historical information related to herbicide use and crop rotation, and considers tillage, cultural, biological and other chemical control practices.
- Monitor treated weed populations for resistance development.
- Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment and planting clean seed.
- 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 Technical Service at 1-800-265-4624 or at www.uap.ca.

TO PREPARE A SPRAY: Add half the required amount of water to the spray tank, then add MCPA ESTER 500 with agitation, and finally the balance of the water with continued agitation. Provide agitation to ensure uniformity of spray mixture.

WARNING: If MCPA ESTER 500 is to be used in straight oil mixtures (as in aerial application) do not let water get into the MCPA ESTER 500 or into the finished mixture. Apply MCPA ESTER 500 in the amount of water necessary for even distribution. Use 50-200 L/ha (depending on crop) of water by ground and 30 L/ha by air. Spray at low pressure (200-350 kPa) during warm weather when weeds are young and growing actively. (See Note under Dosage Chart.)

USE APPLICATIONS FOR AERIAL APPLICATIONS: (to cereal crops, flax (Do not use on low linoleinic acid varieties.), pastures, and non-cropland) Exercise special care:*Use sufficient water for even distribution.

- * Avoid direct applications to any body of water. Do not contaminate water through spray drift or by cleaning of equipment or disposal of wastes.
- * Apply a minimum of 30L of spray solution per hectare. Use boom pressure of 235 kPa or less. Avoid placing nozzles where spray will enter wing tip vortices.
- * Do not apply this product directly to, or otherwise permit it to come into direct contact with desirable crops or other desirable broadleaf plants or non-target species and do not permit spray mists to drift onto them.
- * Coarse sprays are 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 hazardous spray drift, do not spray.
- * BUFFER ZONES: Appropriate buffer zones should be established between treatment areas and aquatic systems, and treatment areas and significant wildlife habitat.
- * Do not spray in winds exceeding 10 km per hour.
- * Do not spray in dead calm near sensitive plants. A "cloud" of suspended droplets may drift onto sensitive plants when the wind comes up.
- * Spray only when the wind is blowing away from a sensitive crop, shelter-belt or garden.

SPOT TREATMENT: For knapsack application of MCPA ESTER 500 for spot treatment of weeds such as thistles, mix 20 mL MCPA ESTER 500 in one litre of water. Mix well and wet all foliage thoroughly.

SELECTIVE WEED CONTROL IN SMALL GRAINS: Do not use on grain interplanted with a legume particularly alfalfa or sweet clover, unless injury to the legume can be tolerated. Treat fall sown cereals in the spring, between full tillering and early shotblade stage. Weeds differ in their susceptibility to MCPA ESTER 500 and not all types can be controlled satisfactorily in crops. Weeds may be placed in five groups. The amount of MCPA ESTER 500 to use will depend upon the susceptibility and whether the crops will tolerate this amount. See chart below.

DOSAGE CHART

TYPE OF WEED AND SUSCEPTIBILITY TO MCPA ESTER 500	WHEAT, OATS, BARLEY, RYE, FLAX (Not Underseeded) mL of MCPA ESTER 500/hectare	
Group 1 - Very susceptible: Wild Mustard	550	550
Group 2 - Susceptible: Lamb's-quarters, Common Ragweed, Tumbling Hare's Ear, Ball and Wormseed Mustards, Stinkweed	700	700
Group 3 - Moderately susceptible: Russian Pigweed, Common Plantain, Wild Radish, Shepherd's Purse, Burdock, Sunflowers, Buckwheat	975	(975)*
Group 4 - Moderately resistant: Canada Thistle, Curled Dock, Annual Sowthistle, Bindweeds, Red-root Pigweed, Smartweeds, Field Dandelion, Hemp Nettle, Horsetail	(1.5 L)*	
Group 5 - Perennials - top growth only: Russian Thistle, Perennial Sow Thistle, Corn Spurry, Leafy Spurge, Russian Knapweed	(2 L)*	

NOTE: Rates recommended in chart above should be increased 1/3 under adverse growing conditions or as weeds get older.

*Rates in parentheses should be used where some crop damage can be tolerated. This is usually offset by the weed control obtained.

SMALL GRAINS: OATS - since oats have proven tolerant to MCPA ESTER 500 at all growth stages except during flowering, this herbicide can be applied as soon as weed conditions warrant.

WHEAT, BARLEY AND RYE: MCPA ESTER 500 is used for the control of susceptible weeds in wheat, barley and rye. Treatments can be made from the 3-leaf expanded to the early flagleaf stage, and again from the milk stage to full maturity. Treatment made between emergence and 3-leaf stage may cause some crop injury, but are less likely to with MCPA ESTER 500 than with 2,4-D. Treatment is not recommended in late spring when the crop has reached the shotblade stage.

FLAX: (Do not use on low linoleic acid varieties.) Treat flax with MCPA ESTER 500 when flax is 5 cm tall to just before the buds begin to form.

ESTABLISHED ALFALFA, ALSIKE AND RED CLOVER: For control of yellow rocket and other susceptible winter annual weeds, spray with 1 to 1.5 litres MCPA ESTER 500 per hectare. Application must be made in very early spring before growth of alfalfa or clover has commenced.

STUBBLE LAND, PASTURES (without legumes), ROADSIDES, UNCROPPED LAND: Apply at the time of rapid growth (usually May, June and/or September). Spray thoroughly using 1.7 to 3.4 litres of product per hectare in 100 to 300 litres of water. (Use the higher rate for perennial weeds: a second treatment may be required). Cultivating grain stubble and spraying after regrowth may aid in control. Do not apply on fresh seeded grasses and pasture until established. There is a possibility that plants poisonous to livestock will appear more palatable and could be grazed more readily after MCPA treatment (eg: tansy ragwort, water hemlock, poison hemlock, death camas). Suitable precautions should be taken when such plants are present. Livestock should not be allowed to graze the treated area until poisonous plants have been removed, are dead or have resumed a normal growth habitat. Under conditions of good growth and adequate soil moisture, sprays can be applied up to 2 weeks before normal frost time.

WOODY GROWTH (non-grazing): Apply at the time of rapid growth (usually May, June and/or September). Apply 2.2 to 4.4 litres of product per hectare in 100 or more litres of water per hectare. 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 regrowth is over 0.6 metres tall. With good growing conditions and adequate soil moisture, sprays may be applied up to 2 to 3 weeks before normal frost time.

MIXING CHART

LITRES OF MCPA ESTER 500 to add to the spray tank*

Litres/hectares	FOR SPRAYER CAPACITY OF			
	1000 L	670 L	540 L	450 L
0.55	12.8	8.5	6.8	5.7
0.7	15.8	10.7	8.5	7.1
0.975	22	14.9	11.9	9.9
1.5	31.8	21.3	17.1	14.3
2	47.6	32	25.6	21.4

*Assuming sprayer is to deliver 45 litres/hectare of final spray solution.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN. Do not apply directly to or otherwise permit contact with vegetables, flowers, grapes, fruit trees, ornamentals, or other desirable plants which are sensitive to MCPA ESTER 500 and similar materials and do not permit spray mist to drift onto them, since even minute quantities of the spray may cause severe injury during both growing and dormant periods. (Coarse sprays are less likely to drift.) Accordingly, applications by airplane, ground rigs, and hand dispensers should be carried out only when there is no hazard from drift. Since vapors of the esters contained in MCPA ESTER 500 may injure susceptible plants in the vicinity of application, use only where there is no hazard from such vaporization.

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 equipment.

Excessive amounts of MCPA in the soil may temporarily inhibit seed germination or plant growth.

To avoid injury to desirable plants, do not store, handle or apply other agricultural chemicals with the same containers or equipment used for MCPA ESTER 500. Do not store near fertilizers, seeds, insecticides or fungicides. Do not contaminate irrigation ditches or water used for domestic purposes.

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

Allow 7 days between application of product and grazing/cutting for hay.

CAUTION: Causes irritation of skin and eyes. Do not get in eyes, avoid contact with skin or clothing. Remove and wash contaminated clothing and shoes before reuse.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., contact 1-866-375-4648 or www.cropro.org/.

FIRST AID: In case of contact, flush eyes with plenty of water for at least 15 minutes and get medical attention: wash skin with soap and plenty of water.

If swallowed, do not induce vomiting. Get medical attention or contact a poison control centre. Take container, label or product name and Pest Control Product Registration number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION: Treat symptomatically.

DISPOSAL

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.

2. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.

3. Make the empty container unsuitable for further use.

4. Dispose of the container in accordance with provincial requirements.

5. 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 control product is to be used only in accordance with the directions on this label. It is an offence under the *Pest Control Products Act* to use a control product under unsafe conditions.

NOTICE TO BUYER: Seller's guarantee shall be limited to the terms set out on the label and, subject thereto, the buyer assumes the risk to persons or property arising from the use or handling of this product and accepts the product on that condition.