

07-APR-1998

ESTEMINE (R) MCPA

AGRICULTURAL

NON-VOLATILE

LIQUID HERBICIDE

Net Contents: 10 L

GUARANTEE:

MCPA 500 g/L  
(present as mixed amine salts)

READ THE LABEL AND ATTACHED PAMPHLET BEFORE USING

REGISTRATION NO.: 10,969

PEST CONTROL PRODUCTS ACT

PROTECT FROM FREEZING

Novartis Crop Protection Canada Inc.  
140 Research Lane  
Research Park, University of Guelph  
Guelph, Ontario N1G 4Z3

SLEEVE

WARNING:

KEEP OUT OF REACH OF CHILDREN. Keep in original container during storage. Destroy empty container. Do not allow spray, spray mist, visible or invisible vapours, or air containing mist or vapours, to contact plants other than those being sprayed. If MCPA susceptible plants are growing within a distance of 400 metres from the area being sprayed, spray only when there is a light breeze away from the susceptible plants. Spray drifting can be reduced by using low pressure, coarse sprays and drop nozzles. Susceptible crops include grapes, tomatoes, tobacco, sugar beets, sunflowers, beans, turnips, cauliflower and cabbages, as well as many other field, vegetable, ornamental and fruit crops. Do not

contaminate streams, lakes, ponds, irrigation water, water used for livestock or for domestic purposes. Do not store open container near seeds, feeds, fertilizers or pesticides, including insecticides, fungicides and weedkillers other than those containing MCPA, 2,4-D or brushkiller. Sprayers which have contained MCPA or 2,4-D should not be used to apply other pesticides to MCPA or 2,4-D susceptible crops. Do not mix Estemine with oil for aircraft or other applications. DO NOT GRAZE OR HARVEST FOR LIVESTOCK FEED WITHIN SEVEN (7) DAYS OF APPLICATION.

#### FIRST AID:

In case of contact, flush eyes with plenty of water for at least 15 minutes and get medical attention or contact a poison control centre. Wash skin with soap and plenty of water. Remove and wash contaminated clothing and shoes.

#### DECONTAMINATION AND DISPOSAL:

1. Rinse the emptied container thoroughly and 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 the disposal of unused, unwanted product and the cleanup of spills, contact the Provincial Regulatory Agency or the Manufacturer.

#### 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.

IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING  
CALL 1-800-267-6351

(R) Estemine is a registered trademark of Novartis Crop Protection Canada Inc.

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PAMPHLET

DIRECTIONS FOR USE:

ESTEMINE (R) MCPA may be used for weed control on all crops on which 2,4-D is used except on corn. It is especially recommended for weed control in flax and oats which are more susceptible to damage by 2,4-D than MCPA. Estemine MCPA may also be tank mixed with Liquid Nitrogen (28-0-0) instead of water for use on winter cereals (winter wheat and fall rye).

Estemine MCPA mixes readily with hard or soft water. Crops on which Estemine MCPA is recommended and dosage rates per hectare are given in the following table:

LITRES OF ESTEMINE MCPA PER HECTARE (not underseeded to legumes)		
CROP	SUSCEPTIBLE WEEDS*	MORE RESISTANT WEEDS**
Wheat, Barley, Oats, Rye	700 mL - 1.1 L	1.25 - 1.75 L
Flax (Linseed or oil flax)	850 mL***	
Winter Wheat, Fall Rye	1.0 L	

\*Susceptible Weeds:

Common burdock, cocklebur, flixweed, Kochia, lamb's-quarters, mustards, Russian pigweed, wild radish, ragweeds, shepherd's-purse, thyme-leaved spurge, stinkweed.

\*\*More Resistant Weeds:

Bluebur, American dragonhead, hairy galinsoga, goat's-beard, goosefoot, hemp-nettle, dog mustard, common pepper-grass, redroot pigweed, tumble pigweed, pineappleweed, purslane, annual sow-thistle, biennial wormwood.

\*\*\*On Flax: Use recommended dosage in at least 100 L water per hectare.

The quantity of MCPA to use within the ranges recommended above will be influenced by the following factors:

1. Stage of Weed Growth and Species of Weed:

Annual plants are generally more susceptible when young. Resistance increases with advancing maturity. Perennial plants are usually less susceptible than annuals and are most successfully controlled at the bud or very early bloom stage. Russian thistle is more susceptible to 2,4-D than to MCPA.

2. Growing Conditions:

Plants are usually more susceptible to MCPA when they are growing rapidly.

3. Higher Rates:

The higher rates given above are recommended under drier conditions, for weeds that are partially resistant to MCPA, and for crops that are heavily infested with weeds.

#### STAGE OF GROWTH TO TREAT CROPS:

##### WHEAT, BARLEY AND RYE:

Treatments can be made from the 3-leaf expanded to the early flag-leaf (shot blade) stage and again from the milk stage to full maturity. If treatments are made between the emergence and the 3-leaf stage some injury to crops may occur. The possibility of injuring wheat and barley from sprays applied at this time is less with MCPA than with 2,4-D. Fall-sown cereals should be treated in the spring.

##### OATS:

Since the oats have proved more tolerant to MCPA, this herbicide can be applied as soon as weed conditions warrant and until flag-leaf stage.

##### FLAX:

May be treated from the time the flax plants reach a height of 5 cm up to just before the prebud stage of growth. Treatment should be made as soon as there is enough emergence of susceptible weeds to make it practical. Use 100 L of spray per ha. For control of green foxtail (annual grass), TCA may be combined with Estemine MCPA spray. Apply 4.5-6.75 kg of TCA per ha using at least 10 L of diluted Estemine MCPA spray to dissolve each kg of TCA.

##### TANK MIXING:

Consult the product labels to be tank mixed with Estemine MCPA for detailed information regarding weeds controlled, precautions, warnings, restrictions, tank mixing and spraying instructions.

#### ESTEMINE MCPA PLUS TCA

For control of both green foxtail and MCPA susceptible broadleaf weeds in oats, barley and flax, a tank mix of Estemine MCPA plus TCA may be used.

CROP	RATE OF APPLICATION (PRODUCT/HA) ESTEMINE MCPA + TCA*	MINIMUM WATER VOLUME (LITRES/HA)	CROP LEAF STAGE
Oats	700 mL - 1.1 L + 1.3 - 2.75 kg	100	2-4-leaf
Barley	700 mL - 1.1 L + 1.3 kg	100	2-4-leaf
Flax	850 mL + 4.5 kg	100	10-15 cm in height

\*TCA containing 83% active ingredient.

NOTE:

- (1) Do not apply TCA to barley and oats seeded less than 5 - 7.5 cm deep.
- (2) Application of TCA should be made at the 1 to 3-leaf stage of green foxtail.
- (3) Use the lower rate of TCA on lighter soils.

ESTEMINE MCPA PLUS BANVEL (R) LIQUID

For control of wild buckwheat, tartary buckwheat, cow cockle, annual smartweeds, corn spurry and Estemine MCPA susceptible broadleaf weeds in spring and winter wheat, barley and oats, a tank mix of Estemine MCPA plus Banvel Liquid may be used.

CROP	RATE OF APPLICATION (PRODUCT/HA) ESTEMINE MCPA + BANVEL L.H.	MINIMUM WATER VOLUME (LITRES/HA)	CROP LEAF STAGE
Spring Wheat	700 - 850 mL + 275 - 350 mL	100	2-5 leaf

Winter Wheat	700 - 850 mL + 275 - 350 mL	100	Apply in the spring when crop is 15-25 cm tall (or before shot blade stage).
Barley	700 - 850 mL + 275 mL	100	2-3 leaf

(R) Banvel is a registered trademark of BASF Canada Inc.

ESTEMINE MCPA PLUS LOROX (R) L

For control of wild buckwheat, tartary buckwheat, annual smartweeds, cow cockle, hempnettle, corn spurry, chickweed, common groundsel and Estemine MCPA susceptible broadleaf weeds in spring wheat, barley and oats, a tank mix of Estemine MCPA plus Lorox L may be used.

CROP	RATE OF APPLICATION (PRODUCT/HA) ESTEMINE MCPA + LOROX L	MINIMUM WATER VOLUME (LITRES/HA)	CROP LEAF STAGE
Spring Wheat, Barley, Oats	850 mL - 1.1 L + 425 - 550 mL	100	2-4-leaf

(R) Lorox L is a registered trademark of E.I. du Pont de Nemours and Co.

ESTEMINE MCPA PLUS AFOLAN (R) F

For control of wild buckwheat, tartary buckwheat, annual smartweeds, cow cockle, hempnettle, corn spurry, chickweed, common groundsel and Estemine MCPA susceptible broadleaf weeds in spring wheat, barley and oats, a tank mix of Estemine MCPA plus Afolan F may be used.

CROP	RATE OF APPLICATION (PRODUCT/HA) ESTEMINE MCPA +AFOLAN F	MINIMUM WATER VOLUME (LITRES/HA)	CROP LEAF STAGE
Spring Wheat, Barley, Oats	850 mL - 1.1 L + 500 - 625 mL	100	2-4-leaf

(R) Afolan is a registered trademark of Hoerchst Ag.

ESTEMINE MCPA PLUS TORCH (R) D.S.

For control of wild buckwheat, tartary buckwheat, annual smartweeds, cow cockle, hempnettle, knawel, night-flowering catchfly, scentless chamomile, common groundsel and Estemine MCPA susceptible broadleaf weeds in spring wheat, barley, oats and flax, a tank mix of Estemine MCPA plus Torch D.S. may be used.

CROP	RATE OF APPLICATION (PRODUCT/HA) ESTEMINE MCPA + TORCH D.S.	MINIMUM WATER VOLUME (LITRES/HA)	CROP LEAF STAGE
Spring Wheat, Barley, Oats	550 mL - 850 mL + 625 mL	100	2-leaf to early flag leaf
Flax	550 mL + 625 mL	100	5 - 10 cm in height

(R) Torch is a registered trademark of Union Carbide Agricultural Products Company Inc., U.S.A.

ESTEMINE MCPA PLUS PARDNER (R)

For control of wild buckwheat, tartary buckwheat, annual smartweeds, cow cockle, hempnettle, scentless chamomile, volunteer sunflowers, volunteer rapeseed, common groundsel and Estemine MCPA susceptible broadleaf weeds in spring wheat, barley and oats, a tank mix of Estemine MCPA plus Pardner may be used.

CROP	RATE OF APPLICATION (PRODUCT/HA) ESTEMINE MCPA + PARDNER	MINIMUM WATER VOLUME (LITRES/HA)	CROP LEAF STAGE
Spring Wheat, Barley, Oats	550 mL - 850 mL + 1.25 L	100	2-leaf to early flag leaf

(R) Pardner is a registered trademark of Rhone-Poulenc



## ESTEMINE MCPA PLUS 28-0-0\*

For control of winter annuals such as flixweed, shepherd's-purse or stinkweed in winter wheat or fall rye, apply Estemine MCPA at 1.0 L per hectare in the spring when the crop and weeds commence to grow. For spring applications, 28-0-0 liquid nitrogen fertilizer can be used as the spray carrier instead of water. Apply in a minimum volume of 112 L/ha. After any break in the spraying operation, agitate thoroughly before recommencing operations. \*NOTE: Do not let the tank contents stand for long periods of time without agitation. If for any reason spraying is interrupted, agitate thoroughly before recommencing operations.

### FAIRWAYS, LAWNS, TURF:

Annual and perennial broadleaf weeds. Apply at rate of 2.25 - 2.75 L/ha (25 mL/100 square metres) in sufficient water to give good coverage. Apply to turf at any time during growth. Best results are obtained during spring and fall. Clover and bent grasses may be injured. Use lower rates on bent grass.

### SUSCEPTIBLE WEEDS:

Bird's rape, bluebur, burdock, cocklebur, dandelion, false ragweed, flixweed, horsetail\*, Kochia, lamb's-quarters, mustards, plantain, prairie sunflower, prickly lettuce, Russian pigweed, shepherd's-purse, stinkweed, wild carrot, wild radish.

### MORE RESISTANT WEEDS:

Blue lettuce\*, Canada thistle\*, chickweed, common ragweed, curled dock, dog mustard, field bindweed\*, giant ragweed, goat's-beard, hempnettle, leafy spurge\*, pepper-grass, redroot pigweed, sow-thistle\*, tansy mustard, tartary buckwheat\*, thyme-leaved spurge, tumbleweed, wild buckwheat.

\*Top growth only

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