

FRONT

GROUP 4 HERBICIDE

**CALIBER® 400**

HERBICIDE

COMMERCIAL

WARNING

POISON

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

GUARANTEE:

2,4-DB 400 g/L (present as low volatile esters)

REGISTRATION NO. 16736

PEST CONTROL PRODUCTS ACT

UNITED AGRI PRODUCTS CANADA INC.

789 Donnybrook Drive

Dorchester, Ontario

N0L 1G5

1-800-265-4624

Notification Change

NET CONTENTS: 10L

16292

03/04

PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN. Avoid contact with skin, eyes and clothing. Do not inhale fumes. Avoid breathing spray mist.

PROTECTIVE CLOTHING AND EQUIPMENT:

HANDLING THE CONCENTRATE (MIXING AND LOADING): Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes, and protective eye wear (face shield or safety glasses). Rinse gloves before removal. Coveralls or a chemical-resistant apron should also be worn when open pouring from containers greater than 5 L.

FIRST AID: This product contains petroleum distillates. If swallowed DO NOT INDUCE VOMITING. Rush patient to nearest hospital taking this label with you or contact a poison control centre. Never give anything by mouth to an unconscious person. In case of skin contact, remove contaminated clothing and wash skin thoroughly with soap and water. In case of eye contact, flush with plenty of water for 15 minutes and get medical attention. If inhaled, remove to fresh air and 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.

HANDLING THE DILUTE SPRAY SOLUTION (DURING APPLICATION OR REPAIRING OR CLEANING EQUIPMENT): Wear 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 in an enclosed airplane cockpit.

OPERATOR USE PRECAUTIONS:

- Wear freshly laundered clothing and clean protective equipment daily.
- Wash hands before eating, drinking, using tobacco or using the toilet.
- Rinse gloves before removal.
- 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 clothing and protective 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.

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 the 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. The user assumes the risk to persons or property that arises from any such use of this product.

Notification Change

DATAPAK

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**PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN.** Avoid contact with skin, eyes and clothing. Do not inhale fumes. Avoid breathing spray mist. 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., visit CropLife Canada's web site at: [www.croplife.ca](http://www.croplife.ca)

Notification Change

#### RESISTANCE MANAGEMENT RECOMMENDATIONS:

For resistance management, CALIBER 400 is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to CALIBER 400 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 CALIBER 400 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](http://www.uap.ca).

#### PROTECTIVE CLOTHING AND EQUIPMENT:

**HANDLING THE CONCENTRATE (MIXING AND LOADING):** Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes, and protective eye wear (face shield or safety glasses). Rinse gloves before removal. Coveralls or a chemical-resistant apron should also be worn when open pouring from containers greater than 5 L.

**HANDLING THE DILUTE SPRAY SOLUTION (DURING APPLICATION OR REPAIRING OR CLEANING EQUIPMENT):** Wear 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 in an enclosed airplane cockpit.

#### OPERATOR USE PRECAUTIONS:

- Wear freshly laundered clothing and clean protective equipment daily.
- Wash hands before eating, drinking, using tobacco or using the toilet.
- Rinse gloves before removal.
- 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 clothing and protective 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.

#### GENERAL INFORMATION

CALIBER 400 is a post-emergent herbicide which controls broadleaf weeds in legumes, including underseeded new plantings, established stands and new seedlings of alfalfa and clover. The active chemical is 2,4-D BUTYRIC. This chemical is 2,4-D like in nature, but differs in activity towards certain plant species.

#### DIRECTIONS FOR USE

##### FOR CALIBER 400

##### CROP USE:

**GROUND APPLICATION:** Apply 150-200 L of spray solution per hectare depending on the type of application equipment used. Use sufficient water for even distribution. Spray at low pressures (200-275 kPa) when the weeds are actively growing.

**MIXING:** Shake this product well before using. Half fill the spray tank with clean water. Add the required amount of product and agitate thoroughly. Fill tank with clean water and agitate well before use. **NOTE:** If spray solution has been left standing, agitate thoroughly before use.

**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.

##### USE PRECAUTIONS FOR AERIAL APPLICATION (to cereals and pasture)

- Avoid direct applications to any body of water. Do not contaminate water through spray drift or by cleaning of equipment or disposal of wastes.
- Use a minimum of 30 L/ha spray volume.
- 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 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 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 8 km per hour.
- 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 the wind is blowing away from a sensitive crop, shelter-belt or garden.

**PRECAUTIONS:** Avoid spray drift to any desirable vegetation NOT listed on this label as damage may occur. Avoid contamination of ponds, streams, rivers and other water sources. Do not spray during periods of high temperatures when crops may be under stress as damage to the crop may occur.

**SPRAYER:** Clean all spray equipment thoroughly before use. Select nozzle tips to apply the recommended volume per hectare. Higher water volumes will reduce the risk of crop injury. Calibrate the sprayer and adjust the boom height to ensure uniform coverage. Nozzles must be in good con-

dition and spraying the same volume. Flat fan nozzle tips are recommended.

**CLEANING OF SPRAYER:** Thoroughly clean the herbicide sprayer before applying any other chemical on crops which may be damaged (see USE PRECAUTIONS). Wash the outside of the sprayer and drain the tank completely. Remove and clean filters, screens and nozzle tips separately. Fill the sprayer tank with water. With the agitator running flush out the lines and boom, then drain. Fill the sprayer with clean water and use TANK and EQUIPMENT CLEANER or for each 100 L add 1 L household ammonia. Operate the pump and agitator for 15 minutes. If possible, let the solution remain in the tank and hoses overnight; recirculating and drain each time. DO NOT contaminate irrigation or drinking water when cleaning the sprayer.

**TIMING:** For best results spray when WEEDS ARE YOUNG AND ACTIVELY GROWING. Apply in good growing conditions. Application must be made before the crop canopy shields the weeds.

**SPOT TREATMENT:** For knapsack application of CALIBER 400 for spot treatment of weeds such as thistles, mix 730 mL of product in 10 L of water. Wet all foliage thoroughly.

**WEATHER:** Apply CALIBER 400 in warm weather when plants are growing well. Do not apply in drought conditions.

**TIMES AND RATES OF APPLICATION:** Use the dose required for control of weeds present provided it does not exceed the maximum recommended for the crop. A water volume of 150 to 200 L/ha is recommended. Spray when the crop and weeds are growing well and the weeds are at a susceptible stage.

CROPS	RECOMMENDED RATE Litres/ha	REMARKS
SEEDLING ALFALFA and BIRDSFOOD TREFOIL (direct or underseeded)	2.75 - 3.50	Apply from the first to the fourth trifoliate leaf stage. For companion crop, see below.
SEEDLING CLOVERS (direct or underseeded)	2.75 - 3.50	Apply as soon as possible after the first trifoliate leaf stage. Do not spray Sweet clover with CALIBER 400. Red Clover may be damaged by CALIBER 400.
CROPS	RECOMMENDED RATE Litres/ha	REMARKS
SEEDLING GRASSES FOR FORAGE (Smooth Bromegrass, Creeping Red Fescue, Meadow Fescue, Tall Fescue, Orchard Grass, Timothy, Crested Wheatgrass, Intermediate Wheatgrass, Streambank Wheatgrass, Tall Wheatgrass).	2.75-3.50	One ground application according to weed and crop stage as per label and 2-4 leaf stage of seedling grasses. NOT INTENDED FOR CROPS GROWN FOR FORAGE OR HAY IN THE YEAR OF APPLICATION.
WHEAT, BARLEY	2.75 - 3.50	Apply after the crop has five fully expanded leaves, but before the early flagleaf (shotbade or boot) stage.
CAUTION: Do not graze the treated crops or cut for hay; sufficient data are not available to support such use.		
FIELD CORN	2.75 - 4.25	Apply after the crop is 38 cm high, but before the beginning of tasseling. Drop nozzles should be used.
CAUTION: Do not graze the treated crops or cut for hay; sufficient data are not available to support such use.		
PASTURE CONTAINING FORAGE LEGUMES	2.75 - 4.25	Apply after cutting or grazing preferably when the regrowth is not above 7 cm. NOTE: Damage especially to established alfalfa may occur and is likely to increase in severity the longer treatment is delayed beyond the stage recommended above. Where thistle, yellow rocket or chicory are present, grazing is preferable to cutting.
CAUTION: Do not graze the treated crops or cut for hay; sufficient data are not available to support such use.		

NOTE: DO NOT use CALIBER 400 on crops other than those recommended above.

LIMITATIONS: Do not apply if crop is under stress from lack of moisture. Do not use if crop is intended for seed production later. Do not mix with fertilizer compounds containing nitrogen.

There is a possibility that plants poisonous to livestock will appear more palatable and could be grazed more readily after a 2,4-DB 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 habit. Under conditions of good growth and adequate soil moisture, sprays can be applied up to 2 weeks before normal frost time.

#### SUSCEPTIBILITY OF WEEDS TO CALIBER 400

ANNUALS: Spray when weeds are in the seedling stage. Resistance increases with age.

Susceptible Weeds: Use 2.75 L/ha.

Wild Mustard, Wormseed Mustard, Ball Mustard, Stinkweed, Ragweed, Redroot Pigweed, Shepherd's purse, Lamb's-Quarters.

NOTE: Wild mustard plants beyond the 4-leaf stage are not likely to be controlled by CALIBER 400 alone.

FOR BETTER WILD MUSTARD CONTROL in seedling alfalfa and birdsfoot trefoil, CALIBER 400 at the reduced rate of 2 L/ha may be tank mixed with MCPA Amine 500 (500 g/L) at 70mL/ha. This tank mix may increase crop stunting.

Susceptible Weeds: Use 3.50 L/ha and spray at or before 2-leaf stage.

Oak-leaved Goosefoot, Wild Buckwheat.

Moderately Susceptible Weeds: Use 4.25 L/ha.

Seedlings only stunted.

Lady's Thumb, Green Smartweed.

PERENNIALS: Spray in good conditions at the stage indicated below.

Susceptible Weeds: Use 4.25 L/ha.

The higher rate is more effective and should be used where tolerated by the crop.

Bull Thistle	Rosette to early bud stage.
Perennial Sow Thistle	Rosette Stage
Canada Thistle	From 15 cm to early bud stage for top growth control.
Curled Dock	Young plants killed or stunted.
Plantain	Before flowering.
Field Bindweed	Best sprayed in late summer; top growth checked by spring treatment.
Yellow Rocket	From the third week of September to middle of October.
Chicory	Rosette stage.
Narrow-leaved hawk's beard	Best results are obtained by spraying in the rosette stage in the late fall after alfalfa has become dormant but weeds are still growing.
Moderately Susceptible Weeds:	Use 4.25 L/ha.
Horsetail	When 10 to 13 cm high to check top growth.
Dandelion	Check if sprayed before bud stage.

Resistant Weeds: Some of the common weeds resistant to CALIBER 400 are:  
Groundsel, Ragwort, Broad-Leaved Dock, Hemp Nettle, Ox-eyed Daisy, Grasses.

**WARNING**

Do not apply CALIBER 400 directly to, or to otherwise permit it to come into contact with vegetables, flowers, grapes, fruit trees, ornamentals or other desirable plants which are sensitive to 2,4-D and do not permit spray mist containing it 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. Do not apply by airplane in vicinity of grapes or other desirable 2,4-D susceptible vegetation.

**PRECAUTIONS**

Keep out of reach of children. Store with container tightly closed and away from seeds, fertilizers, plants, foodstuffs and greenhouses. Avoid spray drift on to susceptible crops. Avoid contamination of ponds, streams, rivers and water sources. Store at room temperature. Do not allow to freeze. Do not re-use empty container. Wash sprayer thoroughly before and after use.

**FIRST AID:** This product contains petroleum distillates. If swallowed DO NOT INDUCE VOMITING. Rush patient to nearest hospital taking this label with you or contact a poison control centre. Never give anything by mouth to an unconscious person. In case of skin contact, remove contaminated clothing and wash skin thoroughly with soap and water. In case of eye contact, flush with plenty of water for 15 minutes and get medical attention. If inhaled, remove to fresh air and 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:**

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20-APR-2004

BASE

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