

2020-2463  
2020-08-17

GROUP	4	HERBICIDE
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DISHA 480 HERBICIDE

SOLUTION

COMMERCIAL

ACTIVE INGREDIENT:

Dicamba, present as the dimethylamine salt..... 480 g/L

REGISTRATION NUMBER 33851                      PEST CONTROL PRODUCTS ACT

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

WARNING - EYE IRRITANT

CAUTION



POISON

NET CONTENTS: 1- 1050 Litres

Sharda Cropchem Limited  
2nd Floor, Prime Business Park  
Dashrathlal Joshi Road  
Vile Parle (West)  
Mumbai - 400056, India

Canadian Agent:  
Sharda Cropchem Limited  
63 Kingsview Blvd  
Etobicoke, Ontario, CA  
M9R 1V1  
1-844-810-5720  
1-416-840-5639

DISHA 480 controls broadleaf weeds in cereals, corn, reduced tillage (prior to seeding and reduced tillage fallow), pastures and rangeland grasses, crop-free land (summer fallow and stubble), red fescue, canary seed (*Phalaris canariensis*), seedling grasses grown for seed and forage and low bush blueberries. Also for control of deciduous and coniferous brush species and broadleaf weeds in non-cropland areas such as roadsides, hydro, pipeline and railway rights-of-way, airports, military bases, turf, wasteland and similar non-crop land areas.

#### GENERAL PRECAUTIONS:

1. DISHA 480 should not be applied on or near desirable trees or plants.
2. Apply DISHA 480 when air temperature is between 10 - 25°C. Do not apply when there is a risk of severe fall in night temperature after use.
3. Do not contaminate domestic or irrigation water. Thoroughly clean application equipment.
4. Do not treat areas where movement of the chemical into the soil or surface washing may bring DISHA 480 into contact with roots of desirable plants.
5. Crop damage can occur if the chemical is applied at any time other than the recommended crop stage. (NOTE: Crops growing under stress from adverse environmental conditions such as excess moisture, drought, disease, etc., may suffer a further setback and exhibit more pronounced injury symptoms if DISHA 480 is applied. However, the crop injury that may occur is usually offset by the weed control obtained).
6. Do not use additives such as oil, wetting agents, emulsifiers, detergents, spreaders, sticking agents or dispersing agents with DISHA 480 on crops.
7. For information on feeding and grazing of beef and dairy cattle on treated vegetation and for recommendations on treatment/harvest intervals, refer to specific grazing restrictions in Directions for Use sections in the attached booklet label.
8. If DISHA 480 is tank mixed with another product, such as 2,4-D, consult that product's label for additional safety precautions, restrictions, application rates, timings and additional weeds controlled.
9. Ensure that spray equipment used to apply DISHA 480 is properly cleaned before reusing to apply any other chemicals. See section on suggested procedure for cleaning spray equipment.

### ENVIRONMENTAL HAZARDS

TOXIC to aquatic organisms and non-target terrestrial plants.

Observe buffer zones specified under DIRECTIONS FOR USE in the attached booklet label.

### RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, DISHA 480 is a Group 4 herbicide. Any weed population may contain or develop plants naturally resistant to DISHA 480 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 DISHA 480 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 (or other mechanical), 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 Sharda Cropchem Limited at 1-844-810-5720.

## PRECAUTIONS:

1. KEEP OUT OF REACH OF CHILDREN.
2. Harmful if swallowed or absorbed through the skin.
3. Avoid contact with skin, eyes and clothing.
4. Thaw if frozen. Shake before use.
5. Applicators must wear a long-sleeved shirt, long pants and chemical-resistant gloves.
6. For non-crop areas (roadsides, hydro, pipeline and railway rights-of-way, airports, military bases, turf, wasteland), applicators must wear coveralls over long pants, a long-sleeved shirt and chemical-resistant gloves
7. DO NOT enter treated fields until 12 hours after application.
8. DO NOT use in residential areas, which are defined as sites where bystanders may be present during or after spraying, including homes, schools, parks, playgrounds, playing fields and public buildings.

## FIRST AID

**If swallowed**, call a poison control centre or doctor **IMMEDIATELY** for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

**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.

**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.

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

IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING, CALL CANUTEC AT (613) 996-6666.

### NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

## TOXICOLOGICAL INFORMATION:

Dicamba may cause severe irritation to the eyes, and irritation to the skin, and mucous membranes. Symptoms of overexposure to dicamba may include dizziness, muscle weakness,

loss of appetite, weight loss, vomiting, decreased heart rate, shortness of breath, excitement, tenseness, depression, incontinence, cyanosis, muscle spasms, exhaustion and loss of voice. Treat symptomatically.

## **DIRECTIONS FOR USE**

DO NOT apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands), estuarine or marine habitats.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

### **Surface Runoff**

To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include but are not limited to heavy rainfall, moderate to steep slope, bare soil, poorly draining soil (e.g. soils that are compacted, fine textured, or low in organic matter such as clay).

Potential for contamination of aquatic areas as a result of runoff may be reduced by including an untreated vegetative strip between the treat area and the edge of the water body.

Avoid applying this product when heavy rain is forecast.

### **Leaching**

The use of the chemical may result in contamination of groundwater, particularly in areas where soils are permeable (e.g. sand, loamy sand and sandy loam soils) and/or the depth to the water table is shallow.

### **SPRAY DRIFT PRECAUTIONS:**

DISHA 480 may cause injury to desirable trees and plants, particularly soybeans, flowers, fruit trees, grapes, ornamentals, peas, potatoes, tomatoes, tobacco and other broadleaf plants especially in their developmental and growing stage.

Follow these precautions when spraying in the vicinity of sensitive crops:

1. Avoid spraying when winds are gusty or in excess of 8 km/h and moving toward sensitive crops. Leave an adequate buffer zone between areas to be treated and sensitive plants.
2. Use coarse sprays since they are less likely to drift than fine sprays. Select nozzles which minimize amounts of the fine spray particles. Keep the spray pressure below 150 kPa and the spray volume above 220 L/ha unless otherwise required by the nozzle manufacturer.
3. Do not spray when the temperature is expected to exceed 30°C.
4. Avoid spraying under conditions of high humidity or fog.

See attached label booklet for complete directions for spray drift management.

### **READ THE ATTACHED LABEL BOOKLET FOR COMPLETE USE DIRECTIONS**

### **CONTAINER CLEANING AND 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.

#### **DISHA 480 alone or with 2,4-D or MCPA**

If you have used DISHA 480 alone or DISHA 480 in a tank mix with 2,4-D or MCPA, to clean the spray equipment follow these steps: Thoroughly hose down the inside and outside of equipment surfaces while filling the spray tank half-full with water. Flush by operating the sprayer until the system is purged of the rinse water.

1. Thoroughly hose down the inside and outside of equipment surfaces while filling the spray tank half-full with water. Flush by operating the sprayer until the system is purged of the rinse water.
2. Fill the tank with water, adding 1 L of household ammonia for every 100 L of water. Operate the spray pump to circulate the ammonia solution through the sprayer solution for 15-20 minutes and discharge a small amount of the ammonia solution through the spray boom and nozzles.
3. Flush the solution out of the spray tank through the boom.
4. Remove the nozzles and screens and flush the system with two tanks full of water.

#### **DISHA 480 with other herbicides**

To clean spray equipment used to apply DISHA 480 as a tank mix with wettable powders (WP), emulsifiable concentrates (EC) or other types of water-dispersible formulations, follow these steps: (Note that if you use DISHA 480 tank mixes with water-dispersible formulation, you must add detergent to the rinse water.)

1. Thoroughly hose down the inside and outside of equipment surfaces while filling the spray tank half-full with water. Flush by operating the sprayer until the system is purged of the rinse water.
2. Fill tank with water while adding 1 kg of detergent for every 150 litres of water. Operate the pump to circulate the detergent solution through the sprayer system for 5-10 minutes and discharge a small amount of the solution through the boom and nozzles. Let the solution stand for several hours, preferably overnight.
3. Flush the detergent solution out of the spray tank through the boom.
4. Repeat step 1 and follow steps 2 and 3.

Bulk container refilling:

1. The container is to be refilled by the distributor/dealer only with DISHA 480. Do not reuse this container for any other purpose.
2. Reseal and return to an authorized Bulk Site.
3. Prior to refilling, inspect thoroughly for damage such as cracks, punctures, bulges, dents, abrasions and damaged or worn threads on closure devices.
4. Check for leaks after refilling and before transportation.
5. Do not refill or transport damaged or leaking containers.
6. 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.
7. If the container is not being refilled, return to the point of purchase (distributor/dealer) for disposal.

#### **STORAGE:**

1. Store DISHA 480 in its original container only, away from other pesticides, fertilizer, food, or feed.

2. Keep the container closed to prevent spills and contamination.
3. Keep packages dry at all times.

### **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.

® All herbicides listed are registered trademarks of their respective companies.

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considers tillage (or other mechanical), cultural, biological and other chemical control practices.

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## PRECAUTIONS:

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2. Harmful if swallowed or absorbed through the skin.
3. Avoid contact with skin, eyes and clothing.
4. Thaw if frozen. Shake before use.
5. Applicators must wear a long-sleeved shirt, long pants and chemical-resistant gloves.
6. For non-crop areas (roadsides, hydro, pipeline and railway rights-of-way, airports, military bases, turf, wasteland), applicators must wear coveralls over long pants, a long-sleeved shirt and chemical-resistant gloves.
7. DO NOT enter treated fields until 12 hours after application.
8. DO NOT use in residential areas, which are defined as sites where bystanders may be present during or after spraying, including homes, schools, parks, playgrounds, playing fields and public buildings.

## FIRST AID

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symptomatically.

## **DIRECTIONS FOR USE**

DO NOT apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands), estuarine or marine habitats. DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

### **Surface Runoff**

To reduce runoff from treated areas into aquatic habitats, consider the characteristics and conditions of the site before treatment. Site characteristics and conditions that may lead to runoff include but are not limited to heavy rainfall, moderate to steep slope, bare soil, poorly draining soil (e.g. soils that are compacted, fine textured, or low in organic matter such as clay).

Potential for contamination of aquatic areas as a result of runoff may be reduced by including an untreated vegetative strip between the treat area and the edge of the water body.

Avoid applying this product when heavy rain is forecast.

### **Leaching**

The use of the chemical may result in contamination of groundwater, particularly in areas where soils are permeable (e.g. sand, loamy sand and sandy loam soils) and/or the depth to the water table is shallow.

### **SPRAY DRIFT PRECAUTIONS:**

DISHA 480 may cause injury to desirable trees and plants, particularly soybeans, flowers, fruit trees, grapes, ornamentals, peas, potatoes, tomatoes, tobacco and other broadleaf plants especially in their developmental and growing stage.

Follow these precautions when spraying in the vicinity of sensitive crops:

1. Avoid spraying when winds are gusty or in excess of 8 km/h and moving towards sensitive crops. Leave an adequate buffer zone between areas to be treated and sensitive plants.
2. Use coarse sprays since they are less likely to drift than fine sprays. Select nozzles which minimize amounts of the fine spray particles. Keep the spray pressure below 150 kPa and the spray volume above 220 L/ha unless otherwise required by the nozzle manufacturer.
3. Do not spray when the temperature is expected to exceed 30°C.
4. Avoid spraying under conditions of high humidity or fog.

### **SPRAY DRIFT MANAGEMENT:**

#### **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.

#### **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, the nozzle distribution along the spray boom length MUST NOT exceed 65% of the wing- or rotorspan.

#### **Buffer Zones**

Use of the following spray methods or equipment DOES NOT require a buffer zone: hand-held or backpack sprayer, spot treatment, inter-row hooded sprayer, soil drench and soil incorporation.

For application to rights-of-way, buffer zones for protection of sensitive terrestrial habitats are not required; however, the best available application strategies to 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 buffer zones for protection of sensitive aquatic habitats.

The buffer zones specified in the tables 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.

When a tank mixture is used, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.

**Buffer Zones for Uses in Agriculture and Non-cropland Sites Using ASAE Coarse Applications**

Method of Application	Crop		Buffer zones (metres) Required for the Protection of:				Terrestrial habitat
			Freshwater habitats of		Estuarine/marine habitats of depths:		
			Less than 1	Greater than 1 m	Less than 1 m	Greater than 1 m	
Field sprayer*	Barley, oats, rye, wheat, canary seed, forage grass (seedlings)		0	0	0	0	1
	Corn, forage grass (established), red fescue,		1	1	0	0	4
	Stubble fields, fallow land		1	1	0	0	5
	Pasture and rangeland, non-cropland (including rights-of-way**and brush control) (2.2 kg a.i./ha)		1	1	0	0	10
	Blueberry (lowbush)		1	1	1	0	15
	non-cropland (including rights-of-way**and brush control) (4.4 kg a.i./ha)		1	1	1	0	20
Aerial	Barley, oats, rye, wheat (Western Canada Only)	Fixed wing	0	0	0	0	50
		Rotary wing	0	0	0	0	45
	non-cropland (including rights-of-way**and wasteland)**	Fixed wing	45	30	0	0	800
		Rotary wing	30	20	0	0	525

\*For field sprayer application, buffer zones can be reduced with the use of drift-reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labelled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy, the labelled buffer zone can be reduced by 30%.

\*\*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, roads, and training grounds and firing ranges on military bases.

## **CEREALS** (not underseeded to legumes):

### Treatment notes:

1. For best performance, spray when weeds are in the 2 to 3 leaf stage and rosettes are less than 5 cm across.
2. Use the higher level of listed rate ranges when treating more mature weeds or dense vegetative growth.
3. Crop damage can occur if application is made at any time other than the recommended crop stage.
4. Do not apply DISHA 480 or DISHA 480 tank mixes if crop is under-seeded to legumes.

### **RE-ENTRY INTERVAL:**

DO NOT enter treated field until 12 hours after application.

### **Ground Application:**

Apply DISHA 480 or DISHA 480 tank mixes in at least 110 litres of water/ha.

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

### **Aerial Application (Western Canada only):**

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."

Do not apply to any body of water. Avoid drifting of spray onto any body of water or other non-target areas. Specified buffer zones should be observed.

Coarse sprays are less likely to drift, therefore, avoid combinations of pressure and nozzle type that will result in fine particles (mist). Do not apply during periods of dead calm or when wind velocity and direction pose a risk of spray drift. Do not spray when the wind is blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.

### **Operator Precautions**

Do not allow the pilot to mix chemicals to be loaded onto 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 1-844-810-5720 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:

1. DISHA 480 or DISHA 480 phenoxy herbicide tank mixes may be aerially applied in not less than 20 litres of water/ha.
2. Apply DISHA 480 alone at 230 mL/ha or tank mix DISHA 480 at 230 mL/ha with the recommended rate of the phenoxy herbicides specified on this label.
3. Do not spray when wind velocities are greater than 15 km/hour.
4. Do not use nozzle pressure above 200 kPa.
5. Do not spray when the wind is blowing towards a nearby sensitive crop, garden, or shelterbelt.

Weeds Controlled (in alphabetical order)	DISHA 480 Rate	Tank Mix
buckwheat, Tartary, buckwheat, wild cockle, cow cleavers (higher rate only) lady's thumb, sow-thistle, perennial (top growth only) smartweed, green spurry, corn thistle, Canada (top growth only)	DISHA 480 alone at 230 – 290 mL/ha	none
All of the above plus: burdock (young seedlings) canola, volunteer* cocklebur, flixweed hemp-nettle**, Kochia, pigweed, redroot pigweed, Russian radish, wild shepherd's-purse, sunflower, volunteer*** thistle, Russian	DISHA 480 at 230 mL/ha +	2,4-D amine or MCPA amine or MCPA K
All of the above plus: chickweed hemp- nettle** spurry, corn, stinkweed, sunflower, volunteer***	DISHA 480 at 230 L/ha +	Sencor or Lexone
All of the above plus: buckwheat, wild; canola, volunteer;* sow thistle, perennial (top growth only); thistle, Canada (top growth only)	DISHA 480 at 230mL/ha +	Ally

\* Best results will be obtained if application is made prior to bolting of canola, when this weed is at the 2 to 4 leaf stage.

\*\* Use DISHA 480 + MCPA K for hemp-nettle control. Apply at the 2- to 3- leaf stage of weed for best control. Hemp-nettle may not be controlled if application is made at a more advanced stage of crops and weeds.

\*\*\* Depending on the growing conditions, control may be slightly delayed.

### APPLICATION DIRECTIONS FOR CEREALS

DISHA 480 may be applied to:

- Spring Wheat
- Spring Barley
- Winter Wheat
- Oats
- Spring Rye

The following sections describe application directions for these crops.

### Spring Wheat:

Herbicide Mix	Rate/ha	Crop Stage
DISHA 480 alone	230-290 ml /ha	2- to 5 leaf
+ 2,4-D amine	850 ml /ha (500 g/L formulation)	2- to 5 leaf
or MCPA amine	850 ml /ha (500 g/L formulation)	2- to 5 leaf
or MCPA K	1.1 L/ha (400 g/L formulation)	2- to 5 leaf
or Sencor <sup>®</sup> 500*	275-425 mL/ha**	2- to 3-leaf
or Lexone <sup>®</sup> DF*	275 g/ha	2- to 3-leaf
Or Ally***	5 g/ha	2- to 5 leaf

\*Sencor/Lexone tank mixes apply to Western Canada only. Application may be delayed until the 4-leaf stage of the crop; however, crop tolerance may be reduced. Apply DISHA 480 at 230 ml /ha with Sencor/Lexone.

\*\* Use the higher rate of Sencor 500 for control of volunteer sunflowers.

\*\*\*Ally tank mixes apply to Western Canada only. Apply DISHA 480 at 230 ml /ha with Ally. Ensure that Ally<sup>®</sup> is completely in suspension in the spray tank before adding DISHA 480. Do not add a surfactant.

### Spring Rye:

Herbicide Mix	Rate/ha	Crop Stage
DISHA 480 alone	230-290 ml /ha	2- to 3-leaf
+ 2,4-D amine	850 ml /ha (500 g / l formulation)	2- to 5 leaf

### Spring Barley:

Herbicide Mix	Rate/ha	Crop Stage
DISHA 480 alone	230-290 ml /ha	2- to 5 leaf
+ 2,4-D amine	850 ml /ha (500 g/l formulation)	2- to 5 leaf
or MCPA amine	850 ml /ha (500 g/l formulation)	2- to 5 leaf
or MCPA K	1.1 L/ha (400 g/l formulation)	2- to 5 leaf
or Sencor® 500*	275 - 425 mL/ha**	2- to 3-leaf
or Lexone® DF*	275 g/ha	2- to 3-leaf
Or Ally***	5 g/ha	2- to 5 leaf

\*Sencor/Lexone tank mixes apply to Western Canada only. NOTE: Do not use on Klondike barley.

\*\* Use the higher rate of Sencor 500 for control of volunteer sunflowers.

\*\*\*Ally tank mixes apply to Western Canada only. Apply DISHA 480 at 230 ml /ha with Ally. Ensure that Ally® is completely in suspension in the spray tank before adding DISHA 480. Do not add a surfactant.

### Winter Wheat:

Herbicide Mix	Rate/ha	Crop Stage
DISHA 480 alone	230-290 ml /ha	15 - 25 cm tall or before shot blade
+ 2,4-D amine	850 ml /ha (500 g/L formulation)	15 - 25 cm tall or before shot blade stage
or MCPA amine	850 ml /ha (500 g/L formulation)	2- to 5 leaf
or MCPA K	1.1 L/ha (400 g/L formulation)	2- to 5 leaf

### Oats:

Herbicide Mix	Rate/ha	Crop Stage
DISHA 480 alone	230-290 mL/ha	2 - 5 leaf
+ MCPA amine	850 mL/ha (500 g/L formulation)	2 - 5 leaf
or MCPA K	1.1 L/ha (400 g/L formulation)	2 - 5 leaf

### GRAZING and HARVESTING RESTRICTIONS:

Do not graze cattle on treated crop, or harvest for silage until 7 days following the application of DISHA 480 alone and at least 12 weeks following treatment with DISHA 480 tank mixes DO NOT harvest forage or cut hay within 30 days after application.

Withdraw meat animals from treated field at least 3 days before slaughter.

## FIELD CORN

### Treatment Notes

1. Apply DISHA 480 or DISHA 480 tank mixes in 220-350 litres of water/ha at a pressure of



150 to 275 kPa. Use coarse sprays.

2. Keep spray mixture in suspension at all times. If mixture is allowed to settle, thoroughly agitate the mixture before spraying.
3. Do not apply to sweet corn.
4. Do not use additives. Oils, wetting agents, emulsifiers, detergents, spreaders, sticking agents, or dispersing agents are not recommended with DISHA 480.
5. Corn height refers to the crop as it stands, not leaf-extended.
6. When using drop pipes (drop nozzles), direct the spray beneath the lower leaves of the corn and onto the weeds and soil. Do not apply to corn over 50 cm in height.
7. Apply no later than 2 weeks prior to tassel emergence when using DISHA 480 alone up to 50 cm.
8. For the best control of annuals, spray when they are actively growing and in the seedling stage. Poor results may occur if weeds are well advanced at the time of application.
9. When applying DISHA 480 adjacent to sensitive crops, apply as a pre-emergent or early post-emergent treatment to avoid potential drift onto these sensitive crops.

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

**RE-ENTRY INTERVAL:**

DO NOT enter treated field until 12 hours after application.

DO NOT APPLY BY AIR.

**DISHA 480 / LIQUID NITROGEN:**

Pre-emergent applications of DISHA 480 Herbicide are generally compatible with most liquid nitrogen fertilizers. To determine compatibility, mix all components of the finished spray in proportionate quantities in a small jar before mixing in the spray tank. If the herbicides do not ball-up or form flakes, sludge, jelly, oily films or layers, or other precipitates within 5 minutes after mixing, the tested spray-mix is compatible.

<b>Weeds Controlled (in alphabetical order)</b>	<b>DISHA 480 Herbicide Rate</b>	<b>Tank Mix</b>
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bindweed, field** buckwheat, Tartary buckwheat cleavers cockle, cow lady's-thumb, lamb's-quarters* mustard, hare's-ear mustard, Indian mustard, tumble mustard, wild mustard, wormseed pigweed, redroot* pigweed, Russian ragweed, common* ragweed, false ragweed, giant sow-thistle, perennial** spurry, corn smartweed, green thistle, Canada** velvetleaf	DISHA 480 Herbicide alone at 600 mL - 1.25 L/ha	none
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\*Including atrazine resistant species

\*\* Apply DISHA 480 annually for three years at the flowering stage

## PRE-EMERGENCE TREATMENT

### EASTERN CANADA ONLY

DISHA 480 can be used alone at 1.25 L/ha or in tank mixes with the following herbicides for additional broadleaf and grass weed control.

Herbicide	Rate/ha
Dual	2.0 - 2.75 L
Dual II	2.0 - 2.75 L
Frontier	1.1 - 1.4 L
Primextra Light	5.80 - 7.70 L
Atrazine 480*	2.10 L
Prowl 400**	4.20 L
Atrazine 480* + Dual II	2.10 L + 2.0 L

\*Other atrazine formulations will require a rate calculation adjustment according to percent of active ingredient.

\*\*Other pendimethalin formulations will require a rate calculation adjustment according to percent of active ingredient.

### Pre-emergence treatment notes:

- Apply DISHA 480 tank mixes as broadcast ground treatments after planting but before weeds and corn emerge.
- Apply to medium to fine textured soils containing more than 2.5% organic matter.
- Do not use on sandy or sandy loam soils.
- Avoid direct chemical contact with the corn seed. If you plan to apply DISHA 480 prior to corn emergence, be sure to place the corn seeds 4 cm or more below the soil surface. If seeds are planted less than 4 cm below the soil surface, delay application of DISHA 480 until the spike stage.
- Do not incorporate. If applications are made during planting, apply DISHA 480 far

enough behind the planting equipment to avoid incorporation by the planter wheel or other covering device. If soil crusting makes it necessary to use a rotary hoe after a pre-emergence treatment, delay hoeing the soil more than 1.3 cm deep.

- Always consult the tank mix partner label for further limitations and restrictions (especially re: soil type).

### POST-EMERGENCE TREATMENT

DISHA 480 or DISHA 480 tank mixes can be applied as to corn previously treated with any other broadleaf or grass herbicide. The

1.25 L rate of DISHA 480 as "overlay" is particularly effective in controlling velvetleaf and providing extended residual control of other late germinating, deep rooted annuals.

Note: Do not use additives such as oils, wetting agents, or sticking agents.

#### DISHA 480 alone:

##### Spike to 5-leaf corn, Eastern and Western Canada

Herbicide	Rate/ha	Corn Stage	Weed Stage
DISHA 480 alone	1.25 L/ha	Emergence to 5-leaf	Pre-emergence to 2-leaf *

\*For best performance, spray when the broadleaf weeds are emerged and up to the 2-leaf stage of their development.

#### DISHA 480 tank mixes:

##### Eastern Canada only

Herbicide	Rate/ha	Corn Stage	Weed Stage
DISHA 480 + Frontier ®	1.25 L/ha + 1.1 - 1.4 L	Spike to 3-leaf	Pre-emergence to 2-leaf ***
DISHA 480 + Atrazine 480*	1.25 L + 2.10 L	Spike to 5-leaf	Pre-emergence to 2-leaf
DISHA 480 + Atrazine 480*+ Dual II	0.6 - 1.25 L + 2.3 L + 2.0 - 2.75 L	Spike to 2-leaf	Emergence to 2-leaf
DISHA 480 + Primextra ® Light	0.6 - 1.25 L + 5.80 + 7.70 L	Spike to 2-leaf	Emergence to 2-leaf
DISHA 480 + Prowl® 400**	0.6 - 1.25 L + 4.20 L	Spike to 4-leaf	Pre-emergence to 2-leaf
DISHA 480 + Ultim® 37.4 DF + non-ionic surfactant	0.6 L + 1 bag + 0.2 v/v	Spike to 6-leaf	Emergence to 6-leaf
DISHA 480 + Elim® EP + non-ionic surfactant	0.6 L + 60g + 0.2 v/v	Spike to 3-leaf	Emergence to 4-leaf
DISHA 480 + Dual II	0.6 - 1.25 L + 2.0 - 2.75 L	Spike to 2-leaf	Emergence to 2-leaf
DISHA 480 + Prowl® 400** Elim EP + non-ionic surfactant	0.625 L + 2.5 L + 50 g + 0.2 v/v	Spike to 3-leaf	Emergence to 4-leaf

\* Other atrazine formulations will require a rate calculation adjustment according to percent of active ingredient.

\*\* Other pendimethalin formulations will require a rate calculation adjustment according to percent of active ingredient.

\*\*\* For annuals, apply before 2-leaf stage.

**Spike to 50 cm standing corn  
Eastern and Western Canada only**

Herbicide	Rate/ha	Corn Stage	Weed Stage
DISHA 480 alone	600 mL	Emergence to 50 cm (drop to nozzles from 20-50 cm corn)	Pre-emergence to 2-leaf
DISHA 480 alone + 2,4-D amine	290 mL + 850 mL	Emergence to 50 cm (drop nozzles from 20-50 cm corn)	Pre-emergence to 2-leaf

**Sequential DISHA 480 applications**

**Eastern and Western Canada**

DISHA 480 may be applied sequentially to a DISHA 480 application to control late-emerging weeds such as field bindweed, Canada thistle and velvetleaf. Follow application directions as outlined for the DISHA 480 alone post-emergence treatments up to 50 cm tall corn.

**GRAZING and HARVESTING RESTRICTIONS:**

Do not graze cattle on treated crop, or harvest for silage until 7 days following the application of DISHA 480 alone and at least 12 weeks following treatment with DISHA 480 tank mixes.

DO NOT harvest forage or cut hay within 30 days after application.

Withdraw meat animals from treated field at least 3 days before slaughter.

**WEED CONTROL IN REDUCED TILLAGE (PRIOR TO SEEDING)**

Treatment notes:

1. DISHA 480 + Roundup® applications may be applied to emerged annual grass and annual broadleaf weeds in reduced tillage systems prior to seeding of wheat, barley, rye, oats and field corn only.
2. Do not apply prior to seeding sweet corn.
3. Planting should follow soon after application since this tank mix does not provide residual weed control.
4. Delayed planting following chemical application will allow weeds to emerge between application and crop emergence.
5. For field corn, apply to medium to fine textured soils containing more than 2.5% organic matter. Do not use on sandy or sandy loam soils.
6. Certain broadleaf crops such as sweet corn, lentils, peas, canola and flax can be injured by a pre-seeding application of this tank mix and should not be planted after the use of this tank mix.
7. Under certain stress conditions, such as drought, cool temperatures where extremely hard water (>700ppm CA+ Mg) will be used, use 50L/ha of water with this tank mix to help improve results.

Weeds Controlled (in alphabetical order)	DISHA 480 Rate	Tank Mix
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<b>Annual grasses</b> (Apply any time between emergence and heading) brome, downy cereals, volunteer darnel, Persian foxtail, green oats, wild	DISHA 480 at 315 mL/ha +	Roundup® at 935 mL/ha + 0.5 L of a non-ionic surfactant in 100 L of water
<b>Annual broadleaves</b> (Apply up to 15 cm height) buckwheat, wild* canola, volunteer cockle, cow flixweed** kochia lady's-thumb lamb's-quarters mustard, wild pigweed, redroot smartweed stinkweed** thistle, Russian	DISHA 480 at 315 mL/ha +	Roundup® at 935 mL/ha + 0.5 L of a non-ionic surfactant in 100 L of water
<b>Perennials</b> (Apply before initiation of seed head or browning of lower leaves) barley, foxtail (suppression only)	DISHA 480 at 315 mL/ha +	Roundup® at 935 mL/ha + 0.5 L of a non-ionic surfactant in 100 L of water

\* Apply at the 1 to 4-leaf stage.

\*\*For optimal control of winter annual broadleaf weeds such as flixweed and stinkweed, 2,4-D should be applied to emerged, actively growing weeds in the fall the year prior to the DISHA 480 + Roundup spring pre-seeding tank mix.

Refer to the 2,4- D product label for appropriate rates.

## WEED CONTROL IN REDUCED TILLAGE FALLOW

### Treatment notes:

1. Apply DISHA 480 tank mixes in the spring to fallow land when seedling weeds have emerged, and are actively growing at the 2 to 4-leaf stage.
2. Reduced control may occur if applications are made at an advanced stage of weed development.

Applicators must wear a long-sleeved shirt, long pants, and chemical-resistant gloves. RE-ENTRY INTERVAL:

DO NOT enter treated field until 12 hours after application.

DO NOT APPLY BY AIR.

Weeds Controlled (in alphabetical order)	DISHA 480 Rate	Tank Mix
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buckwheat, wild buckwheat, Tartary cockle, cow flixweed kochia lady's-thumb lamb's-quarters mustard, wild pigweed, redroot shepherd's-purse smartweed, green sow-thistle perennial <b>(top growth)</b> thistle, Canada <b>(top growth)</b> thistle, Russian	230 - 290 mL/ha +	1.1 L/ha of 2,4-D amine 500 OR 920 mL/ha of 2,4-D L.V. ester 600 in 50-100 L of water
barley, foxtail** buckwheat, wild** cereals, volunteer cockle, cow flixweed* foxtail, green kochia lady's-thumb lamb's-quarters mustard, wild oats, wild pigweed, redroot** canola, volunteer stinkweed thistle, Russian	290 mL/ha +	750 mL -1.0 L/ha Roundup® + 350 mL of non-ionic surfactant registered for use in 50-100 L of water
buckwheat, wild	600 mL/ha +	750 mL -1.0 L/ha Roundup® + 350 mL of non-ionic surfactant registered for use in 50-100 L of water

\* For control of flixweed use 1.0 L/ha of Roundup®

\*\* Suppression only.

#### **DISHA 480/Roundup® application notes:**

1. These tank mixes should be applied to emerged actively growing annual weeds from 8-15 cm in height.
2. Use the higher rate of Roundup when weeds are at a more advanced stage of growth.
3. For perennial weed control, refer to the appropriate section of this label for proper stages of growth and recommended stages of application.
4. Reduced control may occur if muddy water is used, such as water from dug-outs, ponds and unlined ditches.

### **PERENNIAL WEED CONTROL IN SUMMERFALLOW AND STUBBLE**

#### Treatment notes:

1. Apply DISHA 480 in 110-220 litres of water/ha.

2. For the most effective control of Canada thistle, follow a long-term approach that includes in- crop, post-harvest, and summer fallow treatments, in conjunction with tillage operations.
3. If application is made after September 1st, or if soil moisture levels are extremely low after application, crop injury may occur in the spring following application.

Applicators must wear a long-sleeved shirt, long pants, and chemical-resistant gloves. RE-ENTRY INTERVAL:

DO NOT enter treated field until 12 hours after application. DO NOT APPLY BY AIR.

<b>Weeds Controlled</b> (in alphabetical order)	<b>Rate</b>	<b>Recropping in year following</b>
bindweed, field daisy, English dock, curled (top growth) goldenrod ragwort, tansy sow thistle, perennial thistle, Canada	DISHA 480 alone at 2.5 L/ha	cereals soybeans field corn white beans sweet corn
thistle, Canada sow-thistle, perennial	DISHA 480 at 1.25 L/ha + Roundup® at 1.7 L/ha + 350 mL of a non-ionic surfactant per 100L of water	All of the above plus canola

## Application directions

### Summer fallow treatment notes:

1. Cultivate in the spring and apply DISHA 480 when:

Weed	Weed Stage
thistles	the majority of thistles are up and before the early bud stage (15-25 cm tall)
field bindweed	in the flowering stage
other weeds	in the early bud stage of growth

2. Cultivate three weeks after application

### Stubble treatment notes:

1. Apply to regrowth after harvest and at least 2 weeks prior to a killing frost.

## **Perennial rosette control in summerfallow**

### Treatment notes:

1. For the most effective control of Canada thistle, follow a long-term approach that includes in-crop, post-harvest, and summerfallow treatments, in conjunction with tillage operations.
2. Commence early spring cultivation and continue as required throughout the summer. Note: The final cultivation must occur by the end of July between July 15 - August 1 and the final cultivation should cut the thistle off 5 to 7.5 cm below the soil surface.
3. Spray in 110-220 L of water/ha when the majority of thistles have emerged as low growing rosettes 15 to 25 cm across.
4. Apply at least two weeks prior to a killing frost.
5. Cultivate three weeks after application.

DO NOT APPLY BY AIR.

Weeds Controlled	Rate	Recropping in year following
thistle, Canada	1.25 L/ha	cereals field corn white beans canola soybeans



## PASTURES, RANGELAND, AND GENERAL FARMSTEAD NON-CROP AREAS

### Treatment notes:

For broadleaf weed control:

1. Apply DISHA 480 or DISHA 480 tank mixes in 110-220 L of water/ha when weeds are actively growing. Thorough coverage of foliage is necessary to control weeds.
2. Do not apply DISHA 480 or DISHA 480 tank mixes if pasture is underseeded to legumes.

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

### RE-ENTRY INTERVAL:

DO NOT enter treated field until 12 hours after application. DO NOT APPLY BY AIR.

Weeds Controlled (in alphabetical order)	DISHA 480 Rate	Tank mix
bindweed, field daisy, English dock, curled (top growth) goldenrod ragwort, tansy sow-thistle, perennial thistle, Canada	DISHA 480 alone at 2.1 L/ha	none
beard, goat's cherry, ground knapweed, diffuse sage, pasture sorrel, sheep spurge, thyme-leafed weed, poverty	DISHA 480 alone at 4.6 L/ha	none
poison ivy	DISHA 480 at 1.65 L/ha +	2.2 L/ha of 2,4-D amine (500 g/L formulation) in 560 L of water/ha
wild carrot plus additional weeds found on the 2,4-D amine label	DISHA 480 at 2.1 L/ha +	2.2 L/ha of 2,4-D amine (500 g/L formulation)
All of the above plus: additional weeds found on the 2,4-D amine label	DISHA 480 at 2.1 L/ha +	1.83 L/ha of 2,4-D L.V. ester (600 g/L formulation)

For brush weed control:

1. DISHA 480 is effective in controlling many deciduous brush species that are found growing along fencerows and in other areas around the farm where they may be undesirable.
2. Apply DISHA 480 tank mixes in spring or early summer to deciduous species (leaves should be fully expanded) either as a leaf stem treatment or as a broadcast ground application.
3. Brush and trees over 2 meters tall should be cut and regrowth treated when it develops.
4. Do not apply DISHA 480 tank mixes if pasture or rangeland is underseeded to legumes.
5. For Stem Foliage Treatment, apply to all foliage and stems to the point of runoff. The volume of spray mix applied per hectare will vary according to the height and density of the woody species present.

6. For Broadcast Ground Treatment, apply DISHA 480 tank mixes in sufficient dilution to wet all foliage. Normally, 220-230 litres of water/ha is recommended for brush stands.

DO NOT APPLY BY AIR.

Weeds Controlled (in alphabetical order)	DISHA 480 Rate	Tank Mix
alder aspen poplar cherry western snowberry (buckbrush) wolf willow (silverwillow) wild rose	DISHA 480 at 2.1 L/ha/1000 L of water +	4.0 L/ha of 2,4-D amine (500 g/L formulation) OR 3.3 L/ha of 2,4-D L.V. (600 g/L formulation)
aspen poplar	DISHA 480 at 3.25 L/ha +	4.4 L/ha of 2,4-D amine (500 g/L formulation) OR 3.75 L/ha of 2,4-D L.V. ester (600 g/L formulation)
prickly rose	DISHA 480 at 3.65 L/ha +	4.4 L/ha of 2,4-D amine (500 g/L formulation) OR 3.75 L/ha of 2,4-D L.V. ester (600 g/L formulation)
western snowberry	DISHA 480 at 3.65 L/ha +	3.75 L/ha of 2,4-D L.V. ester (600 g/L formulation)

#### GRAZING and HARVESTING RESTRICTIONS:

Do not graze cattle on treated crop, or harvest for silage until 7 days following the application of DISHA 480 alone and at least 12 weeks following treatment with DISHA 480 tank mixes

DO NOT harvest forage or cut hay within 30 days after application. Withdraw meat animals from treated field at least 3 days before slaughter.

#### SEED PRODUCTION

##### Treatment notes:

##### **For new/established stands of red fescue**

1. Apply DISHA 480 or DISHA 480 tank mixes in at least 110 litres of water/ha.
2. Applications to new seedling stands may be made when the crop is 5 cm tall.
3. Application to established stands may be made up to the shot-blade stage of the crop.
4. For dandelion control, apply DISHA 480 plus 2,4-D amine in the fall when weeds are in the rosette or early bud stage.

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

DO NOT enter treated fields until 12 hours after application.

DO NOT APPLY BY AIR.

Weeds Controlled (in alphabetical order)	DISHA 480 Rate	Tank Mix
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buckwheat, wild buckwheat, Tartary cockle, cow clover lady's-thumb sow-thistle, perennial (top growth) spurry, corn smartweed, green thistle, Canada (top growth)	DISHA 480 alone at 600 mL/ha	none
All of the above plus: additional weeds found on the 2,4-D amine label	DISHA 480 at 600 mL/ha +	1.5 L/ha of 2,4-D amine (500 g/L formulation)

For canary seed (*Phalaris canariensis*):

1. The canary seed should only be used as bird seed.
2. For specific weeds controlled, refer to the DISHA 480 + MCPA amine weed spectrum list under "Cereals"

Herbicide	Rate	Canary Seed Stage
DISHA 480 alone	290 mL/ha	3 - 5 leaf stage
DISHA 480 + MCPA amine (500 g/L formulation)	290 mL/ha +850 mL/ha	3 - 5 leaf stage

### For seedling grasses

(seeded alone or underseeded with cereals):

For seed and forage production of the following seedling grasses:

Bromegrass, smooth  
Fescue, meadow  
Fescue, tall  
Foxtail, meadow  
Orchard grass  
Red fescue, creeping  
Timothy  
wheatgrass, crested  
wheatgrass, intermediate  
wheatgrass, pubescent  
Wheatgrass, slender  
Wheatgrass, streambank  
Wheatgrass, tall

1. Apply DISHA 480 or DISHA 480 + tank mixes in at least 110 litres of water/ha.
2. Application to new seedling grasses may be made when they are in the 2 to 4- leaf stage. If the seedling grass is under seeded with a cereal crop, refer to "Cereals" for additional restrictions pertaining to application type and rate.
3. If the crops are to be used as feed or pasture following treatment with Oracle Dicamba Agricultural Herbicide, Oracle Dicamba Agricultural Herbicide plus 2,4-D amine or MCPA, refer to "Grazing and Harvesting Restrictions".

Weeds Controlled (in alphabetical order)	DISHA 480 Rate	Tank Mix
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buckwheat, Tartary buckwheat, wild cockle, cow cleavers (higher rate only) lady's-thumb sow-thistle, perennial (top growth) smartweed, green spurry, corn thistle, Canada (top growth)	DISHA 480 alone at 230-290 mL/ha	none
All of the above plus: burdock (young seedlings) canola, volunteer* cocklebur flixweed hemp-nettle** kochia pigweed, redroot pigweed, Russian radish, wild shepherd's-purse sunflower, volunteer*** thistle, Russian	DISHA 480 at 230-290 mL/ha	850 mL/ha of 2,4-D amine (500 g/L formulation) OR 850 mL/ha of MCPA amine (500 g/L formulation) OR 1.1 L/ha of MCPA K (400 g/L formulation)

\* Best results will be obtained if application is made prior to bolting of canola, when this weed is at the 2 to 4-leaf stage.

\*\* Use DISHA 480 + MCPA K for hemp-nettle control. Apply at the 2 to 3- leaf stage of weed for best control. Hemp-nettle may not be controlled if application is made at a more advanced stage of crops and weeds.

\*\*\* Depending on the growing conditions, control may be delayed slightly.

#### **For established grass pasture:**

1. Apply DISHA 480 at 600 mL/ha with 1.5 L/ha of 2,4-D amine (500 g/L formulation) to suppress volunteer alfalfa.
2. Apply DISHA 480 + 2,4-D amine in 110 - 220 L/ha in the spring to actively growing alfalfa at greater than 5 cm in height.

### **LOW-BUSH BLUEBERRIES:**

#### Treatment notes:

1. DISHA 480 can be used alone or in a tank mix with 2,4-D L.V. ester.
2. Apply DISHA 480 or the DISHA 480 tank mix in 550 litres of water per hectare.
3. Apply in the fall while the sweet-fern is still moderately green after 90% of the blueberries have dropped their leaves. This should be done before the area is burned. Fall burning or cutting should be carried out 4 to 5 weeks after spraying. If spring burning or cutting is planned, it should be done as early as possible in the spring to reduce injury to the blueberries.
4. DO NOT APPLY BY AIR

Applicators must wear a long-sleeved shirt, long pants, and chemical-resistant gloves. DO NOT enter treated fields until 12 hours after application.

Weeds Controlled	DISHA 480 Rate	Tank mix
fern, sweet lambkill (sheep laurel)	4.6 - 7.1 L/ha	none
additional broadleaf control	2.3 L/ha +	5.7 L of 2,4-D L.V. ester (600 g/L formulation)

**NON CROP AREAS SUCH AS RIGHTS-OF-WAY, UTILITY, ROADSIDES,  
HYDRO, PIPELINE AND RAILWAY RIGHTS-OF-WAY, AIRPORTS,  
MILITARY BASES, TURF, WASTELAND AND SIMILAR NON CROP AREAS**

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

For high volume handwand applications, applicators must limit volume of solution used per day to 400 L (broadleaf control spot treatment only)

**RE-ENTRY INTERVAL:**

DO NOT enter treated field until 12 hours after application.

**Method:**

Ground or Aerial application (stubble land and uncropped land).

Ground application (turf, roadsides, airports and industrial parks).

**GRAZING and HARVESTING RESTRICTIONS for ROADSIDE, WASTELAND AND SIMILAR NON CROP AREAS:**

Do not graze cattle on treated crop, or harvest for silage until 7 days following the application of DISHA 480 alone and at least 12 weeks following treatment with DISHA 480 tank mixes.

DO NOT harvest forage or cut hay within 30 days after application.

Withdraw meat animals from treated fields at least 3 days before slaughter.

**BRUSH CONTROL:**

DISHA 480 tank-mixtures are effective in controlling many coniferous and deciduous brush species found in areas where they may be undesirable.

1. Prepare a tank-mix consisting of DISHA 480 plus 2,4-D amine, 2,4 D L.V. ester or 2,4 D/2,4 DP herbicide.
2. Apply DISHA 480 tank-mixes in spring or early summer to coniferous and deciduous brush species (after the leaves have fully expanded). Stop applications at least 3 weeks prior to change of leaf colour in the fall.
3. For best results and ease of application, cut brush or trees over 2M in height and treat re-growth when it develops.
4. Do not mix DISHA 480 with any oils.

**FOLIAGE AND STEM TREATMENT:**

**Ground Application Directions**

1. Apply to foliage and to stems to the point of run-off. Complete coverage is essential for effective control.
2. The volume of spray required per hectare will vary according to the height and density of the woody species present.
3. Use of a tank-mix with 2,4 D L.V. ester herbicide with the water conditioner Adjust may

improve the control of balsam poplar as well as other species when they are under drought stress, especially under periods of hot, dry weather.

<b>SPECIES CONTROLLED</b>	<b>RATE PER 1000L OF SPRAY WATER</b>
Western snowberry (Buckbush) Wolf willow (silver willow) Aspen poplar Wild rose Alder Cherry	2.1 L of DISHA 480 + 4 L of 2,4 D amine (500g/L formulation) herbicide or 3.3 L of 2,4 D L.V. ester (600g/L formulation) herbicide
Balsam poplar Basswood Birch Elm Hickory Vine maple Black cottonwood Bur Oak Red Oak Tamarack Pine White Cedar Spruce Balsam fir	4 L of DISHA 480 + 8 L 2,4 D amine (500 g/L formulation) herbicide or 6.6 L of 2,4 D L.V. ester (600g/L formulation) herbicide
Sugar maple White ash	5.2 L of DISHA 480 + 7.1 L of 2,4 D/2,4 DP L.V. ester ( 350g/L 2,4D; 350g/L 2,4 DP formulation)

## BROADCAST GROUND TREATMENT:

### Application Directions:

1. Apply in sufficient water to wet all foliage
2. A water volume of 220-330 Litres per hectare is recommended for bush stands.

SPECIES CONTROLLED	RATE PER HECTARE
White (paper) birch Willow Aspen poplar	4.2 L of DISHA 480 + 8.0 L of 2,4 D amine (500 g/L formulation) or 6.6 L 2,4 D L.V. ester (600 g/L formulation) Herbicide or 5.2 L of DISHA 480+ 7.2 L of 2.4 D/2,4 DP L.V. ester (350 g/L 2,4 D; 350 g/L 2,4 DP formulation) herbicide

### AERIAL APPLICATIONS:

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. Closed cab aircraft must be used.

Aerial applicators must wear long pants and a long-sleeved shirt.  
Aerial mixers/loader must wear long pants and a long-sleeved shirt and chemical-resistant gloves. Mixer/loader and applicator must be different individuals.  
No human flaggers are permitted.

Label rates, conditions and precautions are product specific. Read and understand the entire label before opening and using this product. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for a 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.

### Application Directions:

1. DISHA 480 tank-mixes may be applied aerially in not less than 85 litres of water per hectare
2. Do not spray when wind velocities are greater than 15 km/hour
3. Do not use nozzle pressure above 300 kPa.
4. Do not spray when wind is blowing towards nearby desirable trees or plants.

SPECIES CONTROLLED	RATE PER HECTARE
Aspen poplar White (paper) birch	4.2 L of DISHA 480 + 8 L of 2,4 D amine (500g/L formulation) or 6.6 L 2,4 D L.V. ester (600g/L formulation)

Refer to Aerial Application Use Precautions and Operator Precautions under the "Cereals" section.

## BROADLEAF WEED CONTROL

DISHA 480 can be used alone or in tank-mixes with 2,4-D amine or 2,4-D L.V. ester herbicide. DISHA 480 tank-mixes offer additional broadleaf weed control.

### IMPORTANT (Ground Application Directions)

Apply DISHA 480 or DISHA 480 tank-mixes in 110 to 220 litres of water per hectare when weeds are actively growing. For poison ivy control use 560 litres of water per hectare. Thorough coverage of foliage is necessary to control weeds. For control of a broader range of weeds, the recommended rate of DISHA 480 may be tank-mixed with 2,4-D amine (500g/L) or 2,4-D ester (600 g/L) herbicide. Consult 2,4-D herbicide label regarding rates of application and weed species controlled.

<b>SPECIES CONTROLLED (in alphabetical order)</b>	<b>RATE PER HECTARE</b>
Poison Ivy	1.7 L DISHA 480 + 2.2 L of 2,4 D Amine (500g/L) herbicide
Wild Carrot	2.1 L of DISHA 480 + 4.4 L of 2,4 D Amine (500g/L) herbicide
<i>DISHA 480 alone for top growth control of:</i> Absinthe Canada thistle Perennial Sow Thistle Leafy Spurge Poverty Weed Scentless mayweed	1.25 L DISHA 480
<i>DISHA 480 alone controls:</i> Perennial sow thistle Common ragweed English daisy Goldenrod Tansy ragwort Canada thistle Field bindweed Top growth of curled dock False ragweed Giant ragweed	2.3 L DISHA 480
Diffuse knapweed Goat's beard Ground cherry Pasture sage Poverty weed Sheep sorrel Thyme-leafed spurge	4.6 L DISHA 480
Baby's breath Fringed sage brush Lambkill Velvet grass And top growth control of: Bracken fern Perennial cinquefoil Russian knapweed	9.2 L DISHA 480



## ROADSIDE VEGETATION CONTROL:

DISHA 480 can be used in tank-mix with Roundup® for annual vegetation control on 1-2 metre wide roadside shoulders. DISHA 480 tank- mixtures with Roundup® and 2,4 D amine offer a broader spectrum of total control of roadside vegetation. Ground application only.

### IMPORTANT (Application Directions)

1. Apply 1.25 -2.5 L/ha of DISHA 480 in tank-mix with 0.75-1 L/ha Roundup®.
2. Apply 0.3 L/ha of DISHA 480 in tank-mix with 1.2 L/ha of 2,4-D amine (500g/L formulation) and 0.75 to 1 L/ha of Roundup®.

\*Refer to Roundup® label for the appropriate rate of Roundup® for specific weed control and for additional precautions and application instructions.

## ESTABLISHED TURF:

DISHA 480 can be used alone or in a tank-mix with 2,4 D amine or 2,4 D L.V. ester herbicide. DISHA 480 tank-mixtures offer additional broadleaf weed control and are particularly effective against dandelion and plantain.

DO NOT use in residential areas, which are defined as sites where bystanders may be present during or after spraying, including homes, schools, parks, playgrounds, playing fields and public buildings.

DO NOT apply by air

### IMPORTANT (Application Directions)

Apply DISHA 480 or DISHA 480 tank-mixtures in at least 110 Litres of water per hectare as a foliar spray to actively growing weeds. Best results will be obtained if application is made in early spring or fall, 2 weeks prior to frost. Apply with caution near trees or shrubs. Do not apply closer than the drip line of trees or shrubs. Do not apply to Bent Grass lawns. Do not rake, mow or water lawn within 24 hours after application. For control of a broader range of weeds, the recommended rate of DISHA 480 may be tank-mixed with 2.2 Litres of 2,4 D amine (500g/L) or 2 Litres of 2,4 D ester (600g/L) herbicide.

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

For high volume handwand applications, applicators must limit volume of solution used per day to 400 L (broadleaf control spot treatment only)

SPECIES CONTROLLED	RATE PER HECTARE
Clover Sheep sorrel Mouse sorrel Mouse-eared chickweed Erect knotweed	1.25 L DISHA 480

This product does not prevent weeds. Apply only when weeds are present. This product works best when applied to the leaves of actively growing weeds.

DO NOT apply more than two broadcast applications per season. This does not include spot treatments. If weed populations do not warrant a broadcast application (e.g. entire lawn), consider spot treatments that target only weedy areas.

Avoid application of this product when winds are gusty.

TOXIC to broadleaf terrestrial plants. This product may harm other broadleaf 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 apply to the exposed roots of trees and ornamentals.

To prevent runoff, DO NOT apply to driveways, sidewalks or any other hard surface. DO NOT irrigate within 24 hours after application.

**RE-ENTRY INTERVAL:**

Do not allow people (other than applicator) or pets on treatment area during application. Do not enter treated areas until spray has thoroughly dried

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

**Buffer Zones**

Use of the following spray methods or equipment DOES NOT require a buffer zone: hand-held or backpack sprayer and spot treatment.

The buffer zones specified in the tables 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.

When a tank mixture is used, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.

**Buffer Zones for Uses in Turf (for liquid commercial class products that may be applied by tractor- pulled field sprayers, e.g. to golf course or sod farms)**

Method of Application	Crop	Buffer Zones (metres) Required for the Protection of:		
		Aquatic habitat of depths:		Terrestrial habitat:
		Less than 1 m	Greater than 1 m	
Field sprayer*	Turf (up to 135 g a.i./ha)	0	0	3
	Turf (550-600 g a.i./ha)	1	1	10

\*For field sprayer application, buffer zones can be reduced with the use of drift-reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labeled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy, the labeled buffer zone can be reduced by 30%.

**CONTAINER CLEANING AND 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.

#### **DISHA 480 alone or with 2,4-D or MCPA**

If you have used DISHA 480 alone or DISHA 480 in a tank mix with 2,4-D or MCPA, to clean the spray equipment follow these steps:

1. Thoroughly hose down the inside and outside of equipment surfaces while filling the spray tank half-full with water. Flush by operating the sprayer until the system is purged of the rinse water.
2. Fill the tank with water, adding 1 L of household ammonia for every 100 L of water. Operate the spray pump to circulate the ammonia solution through the sprayer solution for 15-20 minutes and discharge a small amount of the ammonia solution through the spray boom and nozzles.
3. Flush the solution out of the spray tank through the boom.
4. Remove the nozzles and screens and flush the system with two tanks full of water.

#### **DISHA 480 with other herbicides**

To clean spray equipment used to apply DISHA 480 as a tank mix with wettable powders (WP), emulsifiable concentrates (EC) or other types of water-dispersible formulations, follow these steps: (Note that if you use DISHA 480 tank mixes with water-dispersible formulation, you must add detergent to the rinse water.)

1. Thoroughly hose down the inside and outside of equipment surfaces while filling the spray tank half-full with water. Flush by operating the sprayer until the system is purged of the rinse water.
2. Fill tank with water while adding 1 kg of detergent for every 150 litres of water. Operate the pump to circulate the detergent solution through the sprayer system for 5-10 minutes and discharge a small amount of the solution through the boom and nozzles. Let the solution stand for several hours, preferably overnight.
3. Flush the detergent solution out of the spray tank through the boom.
4. Repeat step 1 and follow steps 2 and 3.

Bulk container refilling:

1. The container is to be refilled by the distributor/dealer only with DISHA 480. Do not reuse this container for any other purpose.
2. Reseal and return to an authorized Bulk Site.
3. Prior to refilling, inspect thoroughly for damage such as cracks, punctures, bulges, dents, abrasions and damaged or worn threads on closure devices.
4. Check for leaks after refilling and before transportation.
5. Do not refill or transport damaged or leaking containers.
6. 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.
7. If the container is not being refilled, return to the point of purchase (distributor/dealer) for disposal.

### **STORAGE:**

1. Store DISHA 480 in its original container only, away from other pesticides, fertilizer, food, or feed.
2. Keep the container closed to prevent spills and contamination.
3. Keep packages dry at all times.

### **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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