# INDAZIFLAM 500 SC Herbicide



**SUSPENSION** 

GROUP 29 HERBICIDE

FOR CONTROL OF ANNUAL GRASS AND BROADLEAF WEEDS IN POME FRUIT, STONE FRUIT, GRAPES, BUSHBERRY SUBGROUP 13-07B, CANEBERRY SUBGROUP 13-07A, HOPS, AND TREE NUTS

# FOR SALE FOR USE IN EASTERN CANADA AND BRITISH COLUMBIA ONLY

## **COMMERCIAL**

ACTIVE INGREDIENT: Indaziflam ....... 500 g/L

# **CONTAINS**

1,2-BENZISOTHIAZOLIN-3-ONE AT 0.04%, or 5-CHLORO-2-METHYL-4-ISOTHIAZOLIN-3-ONE AT 0.0022% and 2-METHYL-4-ISOTHIAZOLIN-3-ONE AT 0.00074% AS A PRESERVATIVE

REGISTRATION NO. 30220 PEST CONTROL PRODUCTS ACT

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

NET CONTENTS: 1 L to 20L

Product Information: 1-888-283-6847

Bayer CropScience Inc.
Suite 100, 3131 114th Avenue S.E.
Calgary, Alberta T2Z 3X2

In case of spills, poisoning or fire, telephone emergency response number 1-800-334-7577 (24 hours a day).

**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. **PRECAUTIONS:** KEEP OUT OF REACH OF CHILDREN. Harmful if swallowed, absorbed through the skin or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using toilet. Remove and wash contaminated clothing before reuse. Do not apply this product in a manner that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. Do not enter or allow worker entry into treated areas within 12 hours of application. PERSONAL PROTECTIVE EQUIPMENT (PPE): Wear a longsleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. Gloves are not required during application within a closed cab. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Users should wash hands before eating, drinking, smoking, chewing gum or using the toilet. Remove clothing/PPE immediately if pesticide gets inside, then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change clothing. **FIRST AID:** Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention. IF SWALLOWED: Call a poison control centre or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give **any** liquid to the person. Do not give anything by mouth to an unconscious person. IF 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 treatment advice. TOXICOLOGICAL INFORMATION: No specific antidote is available. Treat symptomatically. ENVIRONMENTAL **PRECAUTIONS:** TOXIC to aquatic organisms and non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE. STORAGE: SHAKE WELL BEFORE USING. CANNOT be stored below freezing. Store this product away from food or feed. DISPOSAL: Recyclable Container: Do not reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site: 1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank. 2. Make the empty, rinsed container unsuitable for further use. If there is no container collection site in your area, dispose of the container in accordance with provincial requirements. Returnable Container: Do not reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer). **Returnable-Refillable Container:** For disposal, this empty container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with

the same product. Do not use this container for any other purpose. **Disposal of Unused, Unwanted Product:** 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 cleanup of spills.

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<b>Table of Contents:</b>	Section Numb	er
GENERAL	NOTICES1	
INFORMATION	THE PRODUCT2	
SAFETY AND HANDLING	PRECAUTIONS, PROTECTIVE CLOTHING AND EQUIPMENT3	
	FIRST AID AND TOXICOLOGICAL INFORMATION4	
	ENVIRONMENTAL PRECAUTIONS5	
	STORAGE6	
	DISPOSAL7	
DIRECTIONS FOR USE	CROPS AND WEEDS	
	PRE-HARVEST, PRE-GRAZING/FEEDING AND RESTRICTED ENTRY INTERVALS10	
	MIXING INSTRUCTIONS11	
	SPRAYER CLEANUP12	
	RESISTANCE MANAGEMENT RECOMMENDATIONS13	

# GENERAL INFORMATION

# **SECTION 1: NOTICES**

**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.

# **SECTION 2: THE PRODUCT**

INDAZIFLAM 500 SC Herbicide is a selective herbicide for season long control of important broadleaf and grass weeds in apples, pears, peaches, nectarines, plums, cherries (sweet/sour), apricots, grapes, bushberry subgroup 13-07B, caneberry subgroup 13-07A, hops and tree nuts grown in Eastern Canada and British Columbia.

## SAFETY AND HANDLING

# SECTION 3: PRECAUTIONS, PROTECTIVE CLOTHING AND EQUIPMENT

#### PRECAUTIONS: KEEP OUT OF REACH OF CHILDREN.

Harmful if swallowed, absorbed through the skin or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using toilet. Remove and wash contaminated clothing before reuse.

Do not apply this product in a manner that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

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

DO NOT apply in greenhouses or indoors.

Do not enter or allow worker entry into treated areas within 12 hours of application.

## PERSONAL PROTECTIVE EQUIPMENT (PPE):

Wear a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. Gloves are not required during application within a closed cab. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

## **USER SAFETY RECOMMENDATIONS:**

Users should wash hands before eating, drinking, smoking, chewing gum or using the toilet. Remove clothing/PPE immediately if pesticide gets inside, then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change clothing.

If this pest control product is to be used on a commodity that may be exported and you require information on acceptable Maximum Residue Levels, visit Bayer CropScience Inc..

# SECTION 4: FIRST AID AND TOXICOLOGICAL INFORMATION

**FIRST AID:** Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

IF SWALLOWED:	<ul> <li>Call a poison control centre or doctor immediately for treatment advice.</li> <li>Do not induce vomiting unless told to do so by a poison control centre or doctor.</li> <li>Do not give any liquid to the person.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
IF IN EYES:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control centre or doctor for treatment advice.</li> </ul>
IF ON SKIN OR CLOTHING:	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control centre or doctor for treatment advice.</li> </ul>
IF INHALED:	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control centre or doctor for treatment advice.</li> </ul>

**TOXICOLOGICAL INFORMATION:** No specific antidote is available. Treat symptomatically.

# **SECTION 5: ENVIRONMENTAL PRECAUTIONS**

TOXIC to aquatic organisms and non-target terrestrial plants. Observe spray buffer zones specified under DIRECTIONS FOR USE.

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay.

Avoid application when heavy rain is forecast.

Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative filter strip between the treated area and the edge of the water body.

# **SECTION 6: STORAGE**

- SHAKE WELL BEFORE USING.
- CANNOT be stored below freezing.
- Store this product away from food or feed.

# **SECTION 7: DISPOSAL**

# **Recyclable Container**

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

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

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

**Returnable Container:** Do not reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

**Returnable-Refillable Container:** For disposal, this empty container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not use this container for any other purpose.

**Disposal of Unused, Unwanted Product:** 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 cleanup of spills.

# **DIRECTIONS FOR USE**

# **SECTION 8:** CROPS AND WEEDS

# 8.1 CROPS AND APPLICATION TIMING

INDAZIFLAM 500 SC Herbicide is a selective preemergence herbicide for control of many annual grasses and broadleaf weeds in apple, pear, peach, nectarine, plum, cherry (sweet/sour), apricot, grapes, almond, hazelnut, filbert, walnut, chestnut and Japanese heartnut. INDAZIFLAM 500 SC Herbicide may be applied at anytime throughout the growing season when the ground is not frozen or covered with snow. APPLY ONLY ONCE PER YEAR OR IN A 12 MONTH PERIOD. Refer to Section 9 for additional application instructions and use limitations.

CROP	APPLICATION TIMING	REMARKS
Apples, Pears, Peaches, Nectarines, Plums, Cherries (sweet/sour), Apricots, Almonds, Hazelnuts, Filberts, Walnuts, Chestnuts, Japanese heartnuts	Preemergence	DO NOT apply INDAZIFLAM 500 SC Herbicide to trees that have been established for less than <b>three</b> full growing seasons after transplanting.  Do not apply prior to any type of soil disturbance. If application is to be made after soil disturbance, apply only after the soil settles.
Grapes	Preemergence	DO NOT apply INDAZIFLAM 500 SC Herbicide to grapes that have been established for less than <b>five</b> full growing seasons after transplanting.
		Do not apply prior to any type of soil disturbance, including hilling/dehilling operations. If application is to be made after soil disturbance, including hilling/dehilling operations, apply only after the soil settles.
		Do not apply in grapes grown on sand or loamy-sand soils.
		Ensure that the grapes have been planted at least 30 cm deep or that there is 30 cm of soil barrier (berm) between the soil surface and the major portion of the root system prior to using INDAZIFLAM 500 SC Herbicide or injury may occur.

# 8.2 WEEDS CONTROLLED AND APPLICATION RATE

INDAZIFLAM 500 SC Herbicide provides residual control of susceptible grass and broadleaf weeds when applied preemergence to the soil. A single application of INDAZIFLAM 500 SC Herbicide will control the following annual broadleaf and grassy weeds:

Barnyard grass Bluestem broomsedge Brome grasses including downy brome, ripgut brome, and cheat Giant foxtail Green foxtail Italian ryegrass Large crabgrass Medusa head Wild proso millet Yellow foxtail Volunteer common rye Wild barley Wild oats Witch Grass Annual sow-thistle Black mustard Common groundsel Cudweed Dog fennel Field bindweed Kochia¹ Lamb's-quarters Morning glory Prickly lettuce¹ Redroot pigweed¹ Shepherd's purse Smooth hawk's-beard Spotted spurge St. John's wort Stork's-bill	APPLICATION RATE	WEED SPECIES			
Brome grasses including downy brome, ripgut brome, and cheat Giant foxtail Green foxtail Italian ryegrass Large crabgrass Medusa head Wild proso millet Yellow foxtail Volunteer common rye Wild barley Wild oats Witch Grass Annual sow-thistle Black mustard Common groundsel Cudweed Dog fennel Field bindweed Kochia¹ Lamb's-quarters Morning glory Prickly lettuce¹ Redroot pigweed¹ Shepherd's purse Smooth hawk's-beard Spotted spurge St. John's wort		Barnyard grass			
ripgut brome, and cheat  Giant foxtail  Green foxtail  Italian ryegrass  Large crabgrass  Medusa head  Wild proso millet  Yellow foxtail  Volunteer common rye  Wild barley  Wild oats  Witch Grass  Annual sow-thistle  Black mustard  Common groundsel  Cudweed  Dog fennel  Field bindweed  Kochia¹  Lamb's-quarters  Morning glory  Prickly lettuce¹  Redroot pigweed¹  Shepherd's purse  Smooth hawk's-beard  Spotted spurge  St. John's wort		Bluestem broomsedge			
Giant foxtail Green foxtail Italian ryegrass Large crabgrass Medusa head Wild proso millet Yellow foxtail Volunteer common rye Wild barley Wild oats Witch Grass Annual sow-thistle Black mustard Common groundsel Cudweed Dog fennel Field bindweed Kochia¹ Lamb's-quarters Morning glory Prickly lettuce¹ Redroot pigweed¹ Shepherd's purse Smooth hawk's-beard Spotted spurge St. John's wort		Brome grasses including downy brome,			
Green foxtail Italian ryegrass Large crabgrass Medusa head Wild proso millet Yellow foxtail Volunteer common rye Wild barley Wild oats Witch Grass Annual sow-thistle Black mustard Common groundsel Cudweed Dog fennel Field bindweed Kochia¹ Lamb's-quarters Morning glory Prickly lettuce¹ Redroot pigweed¹ Shepherd's purse Smooth hawk's-beard Spotted spurge St. John's wort					
Italian ryegrass  Large crabgrass  Medusa head  Wild proso millet  Yellow foxtail  Volunteer common rye  Wild barley  Wild oats  Witch Grass  Annual sow-thistle  Black mustard  Common groundsel  Cudweed  Dog fennel  Field bindweed  Kochia¹  Lamb's-quarters  Morning glory  Prickly lettuce¹  Redroot pigweed¹  Shepherd's purse  Smooth hawk's-beard  Spotted spurge  St. John's wort		Giant foxtail			
Large crabgrass Medusa head Wild proso millet Yellow foxtail Volunteer common rye Wild barley Wild oats Witch Grass Annual sow-thistle Black mustard Common groundsel Cudweed Dog fennel Field bindweed Kochia¹ Lamb's-quarters Morning glory Prickly lettuce¹ Redroot pigweed¹ Shepherd's purse Smooth hawk's-beard Spotted spurge St. John's wort					
Medusa head Wild proso millet Yellow foxtail Volunteer common rye Wild barley Wild oats Witch Grass Annual sow-thistle Black mustard Common groundsel Cudweed Dog fennel Field bindweed Kochia¹ Lamb's-quarters Morning glory Prickly lettuce¹ Redroot pigweed¹ Shepherd's purse Smooth hawk's-beard Spotted spurge St. John's wort					
Wild proso millet Yellow foxtail Volunteer common rye Wild barley Wild oats Witch Grass Annual sow-thistle Black mustard Common groundsel Cudweed Dog fennel Field bindweed Kochia¹ Lamb's-quarters Morning glory Prickly lettuce¹ Redroot pigweed¹ Shepherd's purse Smooth hawk's-beard Spotted spurge St. John's wort		Large crabgrass			
Yellow foxtail  Volunteer common rye  Wild barley  Wild oats  Witch Grass  Annual sow-thistle  Black mustard  Common groundsel  Cudweed  Dog fennel  Field bindweed  Kochia¹  Lamb's-quarters  Morning glory  Prickly lettuce¹  Redroot pigweed¹  Shepherd's purse  Smooth hawk's-beard  Spotted spurge  St. John's wort					
Volunteer common rye Wild barley Wild oats Witch Grass Annual sow-thistle Black mustard Common groundsel Cudweed Dog fennel Field bindweed Kochia¹ Lamb's-quarters Morning glory Prickly lettuce¹ Redroot pigweed¹ Shepherd's purse Smooth hawk's-beard Spotted spurge St. John's wort					
Wild barley Wild oats Witch Grass Annual sow-thistle Black mustard Common groundsel Cudweed Dog fennel Field bindweed Kochia¹ Lamb's-quarters Morning glory Prickly lettuce¹ Redroot pigweed¹ Shepherd's purse Smooth hawk's-beard Spotted spurge St. John's wort		Yellow foxtail			
Wild oats Witch Grass Annual sow-thistle Black mustard Common groundsel Cudweed Dog fennel Field bindweed Kochia¹ Lamb's-quarters Morning glory Prickly lettuce¹ Redroot pigweed¹ Shepherd's purse Smooth hawk's-beard Spotted spurge St. John's wort		Volunteer common rye			
Witch Grass Annual sow-thistle Black mustard Common groundsel Cudweed Dog fennel Field bindweed Kochia¹ Lamb's-quarters Morning glory Prickly lettuce¹ Redroot pigweed¹ Shepherd's purse Smooth hawk's-beard Spotted spurge St. John's wort		·			
Annual sow-thistle  Black mustard  Common groundsel  Cudweed  Dog fennel  Field bindweed  Kochia¹  Lamb's-quarters  Morning glory  Prickly lettuce¹  Redroot pigweed¹  Shepherd's purse  Smooth hawk's-beard  Spotted spurge  St. John's wort					
Black mustard Common groundsel Cudweed Dog fennel Field bindweed Kochia¹ Lamb's-quarters Morning glory Prickly lettuce¹ Redroot pigweed¹ Shepherd's purse Smooth hawk's-beard Spotted spurge St. John's wort					
Common groundsel  Cudweed  Dog fennel  Field bindweed  Kochia¹  Lamb's-quarters  Morning glory  Prickly lettuce¹  Redroot pigweed¹  Shepherd's purse  Smooth hawk's-beard  Spotted spurge  St. John's wort					
Cudweed  Dog fennel Field bindweed Kochia¹ Lamb's-quarters Morning glory Prickly lettuce¹ Redroot pigweed¹ Shepherd's purse Smooth hawk's-beard Spotted spurge St. John's wort	150 mJ /h c				
Dog fennel Field bindweed Kochia¹ Lamb's-quarters Morning glory Prickly lettuce¹ Redroot pigweed¹ Shepherd's purse Smooth hawk's-beard Spotted spurge St. John's wort	150 mL/na				
Field bindweed  Kochia¹  Lamb's-quarters  Morning glory  Prickly lettuce¹  Redroot pigweed¹  Shepherd's purse  Smooth hawk's-beard  Spotted spurge  St. John's wort					
Kochia <sup>1</sup> Lamb's-quarters Morning glory Prickly lettuce <sup>1</sup> Redroot pigweed <sup>1</sup> Shepherd's purse Smooth hawk's-beard Spotted spurge St. John's wort					
Lamb's-quarters  Morning glory  Prickly lettuce <sup>1</sup> Redroot pigweed <sup>1</sup> Shepherd's purse  Smooth hawk's-beard  Spotted spurge  St. John's wort					
Morning glory Prickly lettuce <sup>1</sup> Redroot pigweed <sup>1</sup> Shepherd's purse Smooth hawk's-beard Spotted spurge St. John's wort					
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Shepherd's purse Smooth hawk's-beard Spotted spurge St. John's wort					
Smooth hawk's-beard Spotted spurge St. John's wort					
Spotted spurge St. John's wort					
St. John's wort					
Stork's-bill					
		Stork's-bill			
White sweetclover		White sweetclover			
Wild mustard		Wild mustard			
Yellow starthistle		Yellow starthistle			

<sup>&</sup>lt;sup>1</sup> Suppression only

## 8.2 MINOR USES

NOTE TO USER: READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATIONS (BELOW): The DIRECTIONS FOR USE for the uses described in this section of the label were developed by persons other than Bayer CropScience Inc. under the User Requested Minor Use Label Expansion program. For these uses, Bayer CropScience Inc. has not fully assessed performance (efficacy) and/or crop tolerance (phytotoxicity) under all environmental conditions or for all crop varieties when used in accordance with the label. The user should test the product on a small area first, under local conditions and using standard practices, to confirm the product is suitable for widespread application.

CROP	INDAZIFLAM 500 SC RATE	WEEDS CONTROLLED	REMARKS
Caneberry Subgroup (Crop Subgroup 13-07A)	150 mL/ha	Weed species listed under Section 8.3	Only use INDAZIFLAM 500 SC Herbicide in plantings established for at least one year and exhibiting normal growth and good vigour. Do not apply prior to any type of soil disturbance. If application is to be made after soil disturbance, apply only after the soil settles. Apply as a directed spray to the soil, either under dormant canes prior to bud break and new cane emergence or after mowing but prior to new cane emergence. Apply a maximum of one application per season, using ground equipment. Observe a PHI of 14 days. Refer to Section 9 for additional use information.  Not all cultivars, varieties, or roots stocks within Crop Subgroup 13-07A have been tested for tolerance to INDAZIFLAM 500 SC. Growers must test INDAZIFLAM 500 SC tolerance to a small area one year prior to adoption of INDAZIFLAM 500 SC in their spray program.

Caneberry Subgroup 13-07A:

Blackberry (including Andean blackberry, arctic blackberry, bingleberry, black satin berry, boysenberry, brombeere, California blackberry, Chesterberry, Cherokee blackberry, Cheyenne blackberry, common blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, evergreen blackberry, Himalayaberry, hullberry, lavacaberry, loganberry, lowberry, Lucretiaberry, mammoth blackberry, marionberry, mora, mures deronce, nectarberry, Northern dewberry, olallieberry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, Southern dewberry, tayberry, youngberry, zarzamora, and cultivars, varieties and/or hybrids of these), Loganberry (Rubus loganobaccus), Raspberry, black and red (Rubus spp.), Wild raspberry (Rubus muelleri) cultivars, varieties and/or hybrids of these.

Bushberry Subgroup (Crop Subgroup 13- 07B) (except lowbush blueberries)	150 mL/ha	Weed species listed under Section 8.3	Only use INDAZIFLAM 500 SC Herbicide in plantings established for at least one year and exhibiting normal growth and good vigour. Do not apply prior to any type of soil disturbance. Apply as a directed spray to the soil. Apply a maximum of one application per season, using ground equipment. Observe a PHI of 14 days. Refer to Section 9 for additional use information.  Not all cultivars, varieties, or roots stocks within Crop Subgroup 13-07B have been tested for tolerance to INDAZIFLAM 500 SC. Growers must test INDAZIFLAM 500 SC tolerance to a small area one year prior to adoption of INDAZIFLAM 500 SC in their spray program.
Lowbush Blueberries			Only use Indaziflam 500 SC Herbicide in plantings established for at least one year and exhibiting normal growth and good vigour. Do not apply prior to any type of soil disturbance.  Apply as a directed spray to the soil. Apply a maximum of one application per season (only one application in a 12-month period is allowed), using ground equipment when the crop is dormant (fall or early spring prior to bud swell). Do not apply Indaziflam 500 SC Herbicide to green foliage or fruit. Observe a PHI of 90 days. Refer to Section 9 for additional use information.

#### Bushberry Subgroup 13-07B:

Aronia berry (Aronia spp.), Currant (Ribes spp.), Blueberry, highbush (Vaccinium spp.), Blueberry, lowbush (*Vaccinium angustifolium*), Elderberry (Sambucus spp.), -Gooseberry (Ribes spp.), Buffalo currant (Ribes aureum), Huckleberry (Gaylussacia spp.), Chilean guava (Myrtus ugni), Currant, black (Ribes nigrum), Currant, red (Ribes rubrum), Elderberry (Sambucus spp.), European barberry (Berberis vulgaris), Gooseberry (Ribes spp.), Highbush cranberry (Viburnum opulus var. americanum), Honeysuckle, edible (Lonicera caerula var. emphyllocalyx), Huckleberry (Gaylussacia spp.), Jostaberry (Ribes x nidigrolaria), Juneberry (Saskatoon berry) (Amelanchier spp.), Lingonberry (Vaccinium vitis-idaea). Native currant (Acrotriche depressa), Salal (Gaultheria shallon), Sea buckthorn (Hippophae rhamnoides) Cultivars, varieties and/or hybrids of these.

Hops	150 mL/ha	Weed species listed under Section 8.3	Only use INDAZIFLAM 500 SC Herbicide in plantings established for at least one year and exhibiting normal growth and good vigour. Do not apply prior to any type of soil disturbance. Apply as a directed spray to the soil prior to shoot emergence when the hops are still dormant. Apply a maximum of one application per season, using ground
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	equipment. Observe a PHI of 120 days. Refer to Section 9 for additional use information.
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# 8.3 TANK MIXTURES

For burndown of emerged weeds and residual control of species listed for INDAZIFLAM 500 SC Herbicide alone, INDAZIFLAM 500 SC Herbicide may be tank mixed with one of the following herbicides:

# RECOMMENDED TANK-MIXTURES

PRODUCTS	PRODUCT RATES	CROP	WEEDS CONTROLLED	REMARKS
INDAZIFLAM 500 SC Herbicide + Ignite SN Herbicide	150 mL/ha + 2.7 - 5 L/ha	Apple, Pear, Cherry (sweet/sour), Peach, Plum, Grapes	Weed species controlled by INDAZIFLAM 500 SC Herbicide alone plus burndown control of emerged weeds.	Consult the label of the tank mix partner(s) for further instructions regarding directions for use, restrictions, PPE,
INDAZIFLAM 500 SC Herbicide  + Glyphosate (present as an isopropylamine salt, dimethylamine salt or potassium salt)	150 mL/ha + 800 – 4300 g a.e./ha	Apple, Pear, Apricot, Cherry (sweet/sour), Peach, Plum, Grapes, Chestnut, Walnut, Japanese heartnut		and precautions, and always observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.
	150 mL + 800 – 1250 g a.e./ha	Filbert, Hazelnut		

INDAZIFLAM 500 SC	150 mL/ha	Apple,	Weed species	
Herbicide	+	Pear,	controlled by	
+	1.5 L/ha	Apricot,	Indaziflam 500	
Sencor 480 F	or	Cherry	SC Herbicide	
or	1.0 kg/ha	(sweet/sour)	alone plus	
Sencor 75DF		Peach,	improved	
		Plum	residual control	
			of annual	
			broadleaf weeds.	

# SECTION 9: APPLICATION INSTRUCTIONS AND USE LIMITATIONS

## 9.1 GENERAL REMINDERS FOR SUCCESSFUL OPERATION

- INDAZIFLAM 500 SC Herbicide provides preemergence, residual control of weeds. Apply to soil before weeds germinate.
- Uniform, thorough spray coverage is important to achieve consistent weed control. INDAZIFLAM 500 SC Herbicide should be applied to the soil as a uniform broadcast or band application.
- INDAZIFLAM 500 SC Herbicide applied alone will not control weeds that are already emerged. If weeds have emerged, a foliar active herbicide may be added. Refer to Section 8.3 "Tank Mixtures" for recommendations.
- INDAZIFLAM 500 SC Herbicide treatments are most effective in controlling weeds when adequate moisture is present and the application is followed by rain or an irrigation event prior to weed seed germination. Dry soil conditions following the application of INDAZIFLAM 500 SC Herbicide may result in reduced weed control.
- Weed seeds and seedlings must come into contact with INDAZIFLAM 500 SC
  Herbicide prior to emergence to be controlled. If sufficient moisture is present, some
  weeds may germinate and emerge from below the treated layer of soil.
- Excessive crop or weed debris present on the soil surface at time of application may prevent uniform product distribution reaching the soil and reduce weed control.
   Performance may be improved by removing excessive debris prior to product application.
- Avoid disturbing treated soil after application of INDAZIFLAM 500 SC Herbicide. If treated soil is moved during tillage practices or other manner in such a way that the herbicide barrier is no longer intact, weeds may emerge from areas where treated soil has been disturbed.
- Use of spot spraying around desired plants is not recommended due to the variability of the actual application rate. Excessive application rates may result in severe crop injury or death. DO NOT apply using hand held or backpack sprayers.
- Crops that are stressed may be more sensitive to herbicide application. Do not use in crops that exhibit low vigor or poor health as they may be more susceptible to crop

- injury. Causes of reduced vigor may include such things as previous pesticide applications, excess fertilizer or salt, diseases, insects, nematodes, drought, flooding, wind damage, frost, nutrient deficiency, or mechanical damage.
- DO NOT allow spray or spray drift to contact crop foliage, flowers, green stems or bark, roots, berries or fruit of the crop being treated as it may cause localized crop injury or death.
- Do not use on soils with 20% or more gravel content or less than 1% organic matter content.
- Do not apply more than a total of 150 mL/ ha per year in a 12 month period for any crop.
- CAUTION: The soil surface where INDAZIFLAM 500 SC Herbicide is to be applied should not have open channels or cracks in the soil. This is to prevent the product from reaching the crop roots either through direct contact from the spray application or water movement from rain or irrigation as this may cause crop injury. If depressions in the soil such as from settling following transplanting exist around the base of the crop, fill them in with soil prior to application of INDAZIFLAM 500 SC Herbicide.
- Avoid applications under drought conditions, where soil may be cracked, or where regular irrigation may reduce the depth between soil surface and the major portion of the root system.
- CAUTION: Only crops listed on this label may be replanted within 24 months after the last application of INDAZIFLAM 500 SC Herbicide. Individual plants within an orchard or vineyard may be replanted anytime by removing all treated soil from the transplant hole and refilling around the plant with soil that has not received any application of INDAZIFLAM 500 SC Herbicide. Allow at least 12 months between the last application of INDAZIFLAM 500 SC Herbicide and replanting an orchard or vineyard with labeled tree or vine crops. Treated soil must be thoroughly mixed to a depth of at least 15 cm prior to planting. This may be accomplished through any combination of tillage operations such as ripping, disking, or plowing.
- Contact your Bayer CropScience representative for advice prior to planting other crops
  (i.e. other than those appearing on this label) following removal of an orchard or
  vineyard that was previously treated with INDAZIFLAM 500 SC Herbicide.
- Follow directions under Section 8 for the correct rate and timing of application.

# 9.2 GROUND APPLICATION

- Apply INDAZIFLAM 500 SC Herbicide alone or in tank-mixtures, by ground equipment only. DO NOT APPLY BY AIR. DO NOT apply using hand held or backpack sprayers.
- DO NOT apply INDAZIFLAM 500 SC Herbicide through any type of irrigation system.
- DO NOT use INDAZIFLAM 500 SC Herbicide in flood-irrigated orchards or vineyards.
- Apply INDAZIFLAM 500 SC Herbicide as a broadcast spray in a minimum of 93 litres of water per hectare.
- For best results use flat fan nozzles or comparable nozzles to achieve uniform spray distribution. DO NOT apply with hollow cone nozzles or with other application equipment which does not provide uniform coverage.
- Maintain adequate agitation at all times, including momentary stops.

- Do not apply irrigated water within 48 hours of application.
- DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.
- As this product is not registered for the control of pests in aquatic systems, DO NOT use to control aquatic pests.
- <u>Field sprayer application:</u> **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 S572.1) medium classification. Boom height must be 60 cm or less above the crop or ground.

# 9.3 APPLICATION METHOD

# **Broadcast Applications:**

For all crops listed on this label, apply INDAZIFLAM 500 SC Herbicide at the rate described in Section 8.3, **WEEDS CONTROLLED AND APPLICATION RATE.** 

# **Banded Applications:**

When making banded applications, use the same dosage rate as for broadcast applications but use proportionately less spray water and INDAZIFLAM 500 SC Herbicide. The use rate provided in Section 8.3, **WEEDS CONTROLLED AND APPLICATION RATE**, is for the treated area of the field regardless of the portion of the field that it represents. Banded applications may be made using the following formula to calculate the amount of herbicide and water volume needed for orchard or vineyard strip sprays:

Treated Band width in Metres Row width in Metres	- X	HERBICIDE RATE per Treated Hectare	=	Amount of HERBICIDE required for banded application
Treated Band width in metres	- X	WATER VOLUME	=	Amount of WATER VOLUME
Row width in Metres	21	per Treated Hectare	_	required for banded application

# 9.4 SPRAY BUFFER ZONES

Use of the following spray methods or equipment **DO NOT** require a spray buffer zone: low-clearance hooded or shielded sprayers prevent spray contact with crop, fruit or foliage.

The spray buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, rangelands, riparian areas and shrublands), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands).

		Spra	y Buffer Zones (me	etres)	
Mathad of		Required for the Protection of:			
Method of Application	Crop	Freshwater Habitat of Depths:		Terrestrial	
		Less than 1 m	Greater than 1	Habitat	
		Less man 1 m	m	Haonai	
Field Sprayer	All crops	1	1	15	

When tank mixes are permitted, consult the labels of the tank-mix partners and observe the largest (most restrictive) spray buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

# SECTION 10: PRE-HARVEST-, PRE-GRAZING/FEEDING AND RESTRICTED ENTRY INTERVALS

- DO NOT harvest caneberries or bushberries (excluding lowbush blueberries) within 14 days of INDAZIFLAM 500 SC Herbicide application.
- DO NOT harvest lowbush blueberries within 90 days of INDAZIFLAM 500 SC Herbicide application.
- DO NOT harvest hops within 120 days of application.
- DO NOT harvest other treated crops within 14 days of INDAZIFLAM 500 SC Herbicide application.
- If tank mixing, always respect the maximum pre-harvest/-grazing interval stated on the labels of all the tank mix products.
- Do not enter or allow worker entry into treated areas within 12 hours of application.

# **SECTION 11: MIXING INSTRUCTIONS**

INDAZIFLAM 500 SC Herbicide must be applied with clean and properly calibrated equipment. Prior to adding INDAZIFLAM 500 SC Herbicide, ensure that the spray tank, filters and nozzles have been thoroughly cleaned and that agitation system is properly working.

- 1. Fill spray tank with ½ to ½ of the required volume of water prior to the addition of INDAZIFLAM 500 SC Herbicide.
- 2. Add the proper amount of INDAZIFLAM 500 SC Herbicide slowly to the tank and agitate.
- 3. If INDAZIFLAM 500 SC Herbicide is applied in tank-mixtures with other pesticides, add INDAZIFLAM 500 SC Herbicide to the spray tank first and ensure that it is thoroughly dispersed before continuing to fill the spray tank and adding other pesticides.
- 4. Continue to fill the tank with water to the desired volume while agitating.

Proper agitation should be maintained while applying to ensure a uniform spray mixture.

INDAZIFLAM 500 SC Herbicide will settle if left standing without agitation. Reagitate the spray solution for a minimum of 10 minutes before application.

# **SECTION 12: SPRAYER CLEANUP**

Before and after using INDAZIFLAM 500 SC Herbicide, thoroughly clean all mixing and spray equipment, including tanks, pumps, nozzles, lines, filters, screens and nozzles with a good quality tank cleaner.

- Completely drain the spray and mixing tanks.
- Rinse the spray tank inside and outside and all lines and screens. A rotating cleaning nozzle may be beneficial to dislodge any product from the sides of the tank.
- Fill the tank with water and cleaner then circulate solution to ensure that the pumps, valves, and all lines are flushed.
- Remove and clean all filters, screens and nozzles.
- Drain all cleaning solution and then rinse once more with clean water.
- Visually inspect the filters, screens, and tank walls to ensure no product remains.

Any INDAZIFLAM 500 SC Herbicide left in the spray equipment and subsequently applied to another crop has the potential to injure the crop.

# SECTION 13: RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, INDAZIFLAM 500 SC Herbicide is a Group 29 herbicide. Any weed population may contain or develop plants naturally resistant to INDAZIFLAM 500 SC Herbicide and other Group 29 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 INDAZIFLAM 500 SC Herbicide or other Group 29 herbicides within a growing season (sequence) or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group when such use is permitted. To delay resistance, the less resistance-prone partner should control the target weed(s) as effectively as the more resistance-prone partner.
- Herbicide use should be based on an integrated weed management program that
  includes scouting, historical information related to herbicide use and crop rotation,
  and considers tillage (or other mechanical control methods), cultural (for example,
  higher crop seeding rates; precision fertilizer application method and timing to
  favour the crop and not the weeds), biological (weed-competitive crops or varieties)
  and other management practices.

- Monitor weed populations after herbicide application for signs of resistance development (for example, only one weed species on the herbicide label not controlled). If resistance is suspected, prevent weed seed production in the affected area if possible by an alternative herbicide from a different group. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.
- Have suspected resistant weed seeds tested by a qualified laboratory to confirm resistance and identify alternative herbicide options.
- Contact your local extension specialist or certified crop advisors for any additional
  pesticide resistance-management and/or integrated weed-management
  recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance contact Bayer CropScience Inc. via internet at www.bayercropscience.ca or telephone at 1-888-283-6847.

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