

Company Name: LANDMARK OPERATIONS LIMITED

Product Name: agVantage Diflu-Brom Selective Herbicide

eLabel Application No: DC7-80269243E10 APVMA Approval No: 80159/100328



Label Name:	agVantage Diflu-Brom Selective Herbicide				
Signal Headings:	POISON				
	KEEP OUT OF REACH OF CHILDREN				
	READ SAFETY DIRECTIONS BEFORE OPENING OR USING				
Constituent Statements:	ACTIVE CONSTITUENTS: 250g/L BROMOXYNIL present as the octanoate 25g/L DIFLUFENICAN				
	SOLVENTS: 428 g/L LIQUID HYRDOCARBONS 150 g/L N-METHYL-PYRROLIDONE				
Mode of Action:	GROUP C F HERBICIDE				
Statement of Claims:	For the control of certain broadleaf weeds in winter cereals and pasture as specified in the Directions for Use table.				
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Claims:	Directions for Use table.				

# Withholidng Periods:

Harvest:

Cereals, Grapes - NOT REQUIRED WHEN USED AS DIRECTED

Grazing: Pasture, Cereals – DO NOT GRAZE OR CUT FOR STOCK FOOD WITHIN 14

DAYS AFTER APPLICATION

Trade Advice:

# General Instructions:

This section contains file attachment.

File Name: General Instructions 80159.docx

File Size: 14690 bytes

# Resistance Warning:

## Resistant Weeds Warning

agVantage Diflu-Brom Selective Herbicide is a member of the nitrile and nicotinanilide groups of herbicides. agVantage Diflu-Brom Selective Herbicide is an inhibitor of photosynthesis at photosystem II and carotenoid biosynthesis. For weed resistance management, agVantage Diflu-Brom Selective Herbicide is a Group C, F herbicide. Some naturally occurring weed biotypes resistant to agVantage Diflu-Brom Selective Herbicide and other Group C, F herbicides may exist through normal genetic variability in any weed population. The resistant individuals can eventually dominate the weed population if these herbicides are used repeatedly. These resistant weeds will not be controlled by agVantage Diflu-Brom Selective Herbicide or other Group C, F herbicides. Since the occurrence of resistant weeds is difficult to detect prior to use, agVantage Wholesale Group accepts no liability for any losses that may result from the failure of agVantage Diflu-Brom Selective Herbicide to control resistant weeds.

#### **Precautions:**

## Temperature warning

Do not apply agVantage Diflu-Brom Selective Herbicide if frosts are imminent. Frost causes stress on crops and weeds and could result in increased crop effects and/or decreased weed control. To ensure good results agVantage Diflu-Brom Selective Herbicide should only be applied once the weeds and crop are no longer under stress from the frost conditions.

Avoid application when maximum daily temperatures above 20°C occur, or are likely to occur for a few days after application, as increased crop damage may result.

### **CROP TOLERANCE**

### Cereals

After application some transient crop yellowing may occur. This usually appears as yellow or white banding on leaves. Provided the crop is not under stress from pre-emergent herbicide, root disease, insect damage, frost, dry or excessively moist conditions, the development of the crop and subsequent growth will be unaffected.

Lucerne

Warning

The tolerance of lucerne varieties to agVantage Diflu-Brom Selective Herbicide can vary with rate of application, soil type, crop health, stage of growth and degree of moisture and temperature stress. agVantage Diflu-Brom Selective Herbicide may result in transient crop yellowing and suppression of growth with a resultant initial reduction in dry matter. For this reason we recommend application prior to the 8 trifoliate leaf stage. However, under normal growing conditions subsequent growth and seed yield should not be affected. Crop damage may be increased if rates higher than 500mL/ha are used and in areas where spray overlapping has occurred.

Under normal growing conditions, the following lucerne have shown acceptable levels of foliage tolerance to agVantage Diflu-Brom Selective Herbicide applied at 500 mL/ha: Hunter River, Nova and Dekalb 185.

Varieties not listed should be tested before using agVantage Diflu-Brom Selective Herbicide over large areas.

Consult your local agVantage representative for advice on specific varieties.

Subterranean clover

Warning

The tolerance of subterranean clover varieties to agVantage Diflu-Brom Selective Herbicide can vary with rate of application, soil type, crop health, stage of growth and degree of moisture and temperature stress. agVantage Diflu-Brom Selective Herbicide may result in transient crop yellowing and suppression of growth with an initial reduction in dry matter. For this reason we recommend application prior to the 8 trifoliate leaf stage. However, under normal growing conditions subsequent growth and seed yield should not be affected. Crop damage may be increased if rates higher than 500 mL/ha are used and in areas where spray overlapping has occurred.

Under normal growing conditions, the following varieties have shown acceptable levels of foliage tolerance to agVantage Diflu-Brom Selective Herbicide applied at 500 mL/ha: Daliak, Dalkeith, Denmark, Goulburn, Karridale, Leura, Mt. Barker, Nungarin, Rosedale, Seaton Park, Trikkala and Woogenellup.

The variety Junee has shown increased sensitivity to agVantage Diflu-Brom Selective Herbicide so care should be taken if this variety is part of the pasture sward.

The effects of agVantage Diflu-Brom Selective Herbicide on subterranean clover seed yield have been tested on the following varieties. Under normal growing conditions they show acceptable levels of tolerance toaAgVantage Diflu-Brom Selective Herbicide applied at 500 mL/ha. However, higher rates may reduce seed yield under conditions of low weed pressure:

Denmark, Goulburn, Larissa, Nungarin, Seaton Park, Trikkala and Woogenellup. Varieties not listed should be tested before using agVantage Diflu-Brom Selective Herbicide over large areas.

Consult your local agVantage representative for advice on specific varieties. Other Clovers

Warning

The tolerance of clover varieties to agVantage Diflu-Brom Selective Herbicide can vary with rate of application, soil type, crop health, stage of growth and degree of moisture and temperature stress. agVantage Diflu-Brom Selective Herbicide may result in transient crop yellowing and suppression of growth with a resultant initial reduction in dry matter. For this reason we recommend application prior to the 8 trifoliate leaf stage. However, under normal growing conditions subsequent growth and seed yield should not be affected. Crop damage may be increased if rates higher than 500 mL/ha are used and in areas where spray overlapping has occurred. The effect on seed yield of other clovers has not been determined.

The following varieties of clover have shown increased sensitivity to agVantage Diflu-Brom Selective Herbicide:

Big Bee, Sacromonte (Berseem), Haifa (White), Zulu (Arrowleaf), Kyambro, Lupers and Maral (Persian).

Care should be exercised if these clovers are part of the pasture sward.

Varieties not listed should be tested before using agVantage Diflu-Brom Selective Herbicide over large areas.

Consult your local agVantage representative for advice on specific varieties.

Subsequent Crops

To reduce effect on subsequent susceptible crops (e.g. canola), ensure thorough cultivation of soil prior to the sowing of these crops.

#### Warning

DO NOT use crop oils with agVantage Diflu-Brom Selective Herbicide or agVantage Diflu-Brom Selective Herbicide tank mixtures in cereals.

As formulations of other manufacturers' products are beyond the control of agVantage, all mixtures should be tested prior to mixing commercial quantities.

**Protections:** 

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures. Wash sprayer thoroughly after use.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT Dangerous to fish. DO NOT contaminate streams, rivers or waterways with the chemical or used containers.

# Storage and Disposal:

Store in the closed, original container in a cool, well ventilated area.

Do not store for prolonged periods in direct sun light.

Keep from contact with fertilisers, insecticides, fungicides and seeds.

This containers can be recycled if it is clean, dry, free of visible residues and has the drumMUSTER logo visible. Triple or preferably pressure rinse containers before disposal. Dispose of rinsate by adding it to the spray tank. DO NOT dispose of undiluted chemicals on site. Wash outside of the container and the cap. Store cleaned container in a sheltered place with cap removed. It will then be acceptable for recycling at any drumMUSTER collection point or similar container management program site. The cap should not be replaced but may be taken separately.

If not recycling, break, crush, or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the empty containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

For Refillable containers (110L, 1000L): Empty contents fully into application equipment. Close all valves and return to point of supply for refill or storage.

## Safety Directions:

Product is harmful if inhaled or swallowed. Will irritate the eyes, nose, throat and skin. Avoid inhaling spray mist. When preparing spray wear elbow-length PVC gloves and face shield. If product in eyes, wash it out immediately with water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each days use, wash gloves, face shield contaminated clothing.

# First Aid Instructions:

If poisoning occurs, contact a doctor or Poisons Information Centre. Phone Australia 13 11 26. If swallowed, do NOT induce vomiting. Give a glass of water. If in eyes, wash out immediately with water.

### First Aid Warnings:

CROP	WEEDS	WEED STAGE	RATE/HA	STATE	CRITICAL COMMENTS
	CONTROLLED				
Wheat, barley, triticale, cereal rye (including	Wild radish	Up to 2 leaf stage and not more than 60 mm in diameter and where weed density is less than 50 plants/m <sup>2</sup>	350 mL	WA only	CROP STAGE: Cereals 2 leaf to fully tillered (Zadok's Z12-29)
undersown with clover and/or	Wild mustard Wild radish	Up to 4 leaf stage and not more than 120 mm in diameter	500 mL	All States	Optimum results are achieved when sprayed at 4-8 weeds post-sowing.  Warning: agVantage Diflu-Brom Selective Herbicide may cause transient
Lucerne), and these <b>cover</b>		Up to 6 leaf stage and not more than 150 mm in diameter	750 mL		crop yellowing of cereals. (Refer to "Crop Tolerance" section of General Instructions).
crops in vineyards.		Up to 8 leaf stage and not more than 180 mm in diameter	1.0 L		Clover and Lucerne Application is recommended prior to the 8 <sup>th</sup> trifoliate leaf stage.
Pasture Clover and/or	Canola (rapeseed) charlock	Up to 2 leaf stage and not more than 60 mm in diameter	500 mL	_	Application can be made from the 1 <sup>st</sup> trifoliate leaf stage in Qld, NSW, ACT and Vic only.
Lucerne based	turnip weed wild turnip	Up to 4 leaf stage and not more than 120 mm in diameter	750 mL		In other States applications prior to the 3 leaf stage may result in crop damage if seedlings are under stress and in sandy soils.
pasture (newly sown or	Shepherd's purse		1.0 L		DO NOT apply to annual medics.
established) including cover crops in vineyards	Capeweed	Up to 4 leaf stage and not more than 120 mm in diameter	500 mL		Warning: agVantage Diflu-Brom Selective Herbicide may affect growth and seed set of some varieties of clover and Lucerne. (Refer to "Crop Tolerance" section of General Instructions).  COVER CROPS IN VINEYARDS: When using in vineyard situations, apply during vine dormancy only. Contact with vines must be avoided. Particular care should be taken if applied in late autumn or early spring, when vines may not be fully dormant.
		Up to 6 leaf stage and not more than 150 mm in diameter	750 mL		
		Up to 8 leaf stage and not more than 180 mm in diameter	1.0 L		
	Corn gromwell	Up to 4 leaf stage	500 mL		
		Up to 6 leaf stage	750 mL		
	Climbing buckwheat	Up to 2 leaf stage	500 mL		
		Up to 4 leaf stage	750 mL		WEED STAGE:
		Up to 6 leaf stage	1.0 L		Apply from early post-emergence.
	Deadnettle, Paterson's	Up to 2 leaf stage	500 mL		
	curse (Salvation Jane), rough poppy	Up to 4 leaf stage	750 mL		APPLICATION: Apply when weeds are actively growing. Ensure thorough coverage of
	Amsinckia				weeds. Where crop or weed density is high, increase water volume.
	Doublegee (spiny emex)	Up to 2 leaf stage	500 mL	Qld,NSW, ACT, Vic,Tas, WA only	In most situations the rate specified for each weed size will give satisfactory control. However, under certain conditions such as:  • high crop and weed density,  • late season germinations,
		Up to 4 leaf stage	750 mL	All States	<ul> <li>abnormal weed growth (including early flowering);</li> <li>higher rates of product (up to the maximum rate of application specified for that weed) may be required.</li> </ul>

CROP	WEEDS CONTROLLED	WEED STAGE	RATE/HA	STATE	CRITICAL COMMENTS
Wheat, barley, triticale, cereal rye (including undersown with clover and/or Lucerne), and these cover crops in	Chamomile, common peppercress, lesser swinecress, purple calandrinia (mountain sorrel), tree hogweed  Fat hen, field madder, saffron thistle, variegated thistle	Up to 4 leaf stage.	1.1 L	All States	Critical Comments continued from previous page agVantage Diflu-Brom Selective Herbicide will not effectively control: • regrowth of suppressed weeds, • transplanted weeds, • regrowth from rhizomes or roots, • weeds growing under stress from previous herbicide applications. • Radish plants beyond rosette stage
vineyards	Ox-tongue, wireweed	Up to 2 leaf stage			WIII D D A DIOU
Pasture Clover and/or Lucerne based pasture (newly	Fireweed	Up to 4 leaf stage	500 mL	Qld, NSW, ACT, Vic, SA, WA, NT only	WILD RADISH:  Effective residual activity of this product may be reduced where:  • rates lower than 1.0 L/ha are used;  • dry conditions prevail;
sown or	Common cotula (bird's eye)	Up to 4 leaf stage	560 mL	SA only	poor coverage of the soil surface is achieved;
established) including cover crops in vineyards	Pheasants eye (Adonis)	Greater than 4 leaf stage	1.1 L		<ul> <li>crop is grown in non-wetting sand;</li> <li>soils have a high content of clay or organic matter.</li> <li>VOLUNTEER LUPINS:</li> <li>In some situations, the higher rate of 1.0L/ha may be required to effectively</li> </ul>
Wheat, barley, triticale, cereal rye	Fumitory	2-6 leaf stage	350+200 mL/ha terbutryn (500 g/L)	WA only	suppress volunteer lupins at the 4 leaf stage.  #agVantage Diflu-Brom Selective Herbicide will suppress seedling dock but will not suppress regrowth from transplanted roots.
Wheat, barley,		Suppression of the following Weeds			
triticale, cereal rye (including undersown with	Dense-flower fumitory	Up to 2 leaf stage Up to 4 leaf stage	750 mL 1.0 L	All States	
clover and/or Lucerne), and these cover crops in vineyards  Pasture Clover and/or Lucerne based pasture (newly sown or established including cover crops in vineyards	Chickweed, common sowthistle (milk thistle), dock#, hexham scent (King Island melilot), prickly lettuce, scarlet pimpernel, skeleton weed, sorrel, speedwell, three-horned bedstraw, toad rush Volunteer lupins  Crassula (stonecrop)  Long storksbill	Up to 5 leaf stage Up to 4 leaf stage	500mL-1.0L 500mL		

## **DIRECTIONS FOR USE**

CROP	WEEDS	WEED STAGE	RATE/HA	STATE	CRITICAL COMMENTS	
	CONTROLLED					
Wheat, barley,		Suppression of the following				
triticale, cereal	Volunteer field peas	Up to 5 node stage	750 mL	All States	(refer Critical Comments above pages)	
rye (including	Ward's weed	Up to 5 leaf stage	1.0 L	İ	(11111111111111111111111111111111111111	
undersown with	Vetch	Up to 2 leaf stage				
clover and/or	Mouse-eared chickweed	1		NSW &		
lucerne), and				ACT only		
these <b>cover</b>	Mexican poppy			Qld only		
crops in	Mintweed, spoon cudweed	Up to 4 leaf stage		NSW &		
vineyards				ACT only		
Pasture	New Zealand spinach	Up to 2 leaf stage	750 mL	Qld only		
Clover and/or	Cleavers	Up to 1 whorl stage	1.0 L	SA only		
lucerne based	Ball mustard	Up to 4 leaf stage				
pasture (newly	Horehound	Pre-emergence				
sown or	Marshmallow	Up to 2 leaf stage				
established)						
including cover						
crops in						
vineyards						

WEEDS CONTROLLED	WEED STAGE	RATE/HA	STATE	CRITICAL COMMENTS
Wild radish	Up to the 4 leaf stage and not more than 120 mm in diameter	350mL plus 200mL MCPA LVE (500g/L)	WA only	Refer also to all Critical Comments for cereals above.  DO NOT use this tank-mix if cereals are undersown with lucerne or annual medics.  DO NOT use this tank-mix in vineyards
	150 mm in diameter	200mL MCPA LVE (500g/L)	All States	Crop Stage agVantage Diflu-Brom Selective Herbicide 350 mL + MCPA LVE 200 mL: Apply from 3 leaf to fully tillered (Zadok's Z13 to Z30). agVantage Diflu-Brom Selective Herbicide 500 mL + MCPA LVE 200 mL:
	Up to the 8 leaf stage and not more than 180 mm in diameter	500mL plus 400mL MCPA LVE (500g/L)		apply from 3 leaf to fully tillered (Zadok's Z13 to Z30). agVantage Diflu-Brom Selective Herbicide 500 mL + MCPA LVE 400 mL: Apply from 5 leaf to fully tillered (Zadok's Z15 to Z30). Optimum results are achieved when sprayed at 4-8 weeks post sowing.  Warning: agVantage Diflu-Brom Selective Herbicide may cause transient crop yellowing of cereals. (Refer to "Crop Tolerance" section of General Instructions) Observe instructions also on MCPA LVE product label.
	CONTROLLED	Wild radish  Up to the 4 leaf stage and not more than 120 mm in diameter  Up to the 6 leaf stage and not more than 150 mm in diameter  Up to the 8 leaf stage and not more than	Wild radish  Up to the 4 leaf stage and not more than 120 mm in diameter  Up to the 6 leaf stage and not more than 150 mm in diameter  Up to the 6 leaf stage and not more than 150 mm in diameter  Up to the 8 leaf stage and not more than 180 mm in diameter  Up to the 8 leaf stage and not more than 180 mm in diameter  Up to the 8 leaf stage and not more than 180 mm in diameter	Wild radish  Up to the 4 leaf stage and not more than 120 mm in diameter  Up to the 6 leaf stage and not more than 200mL MCPA LVE (500g/L)  Up to the 6 leaf stage and not more than 150 mm in diameter  Up to the 8 leaf stage and not more than 180 mm in diameter  Up to the 8 leaf stage and not more than 180 mm in diameter  Up to the 8 leaf stage and not more than 180 mm in diameter  WA only  WA only  All States

NOT TO BE USED FOR ANY PURPOSE OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION

This product is a post-emergence contact herbicide, which may provide residual control of wild radish up to 4 weeks after application.

Apply agVantage Diflu-Brom Selective Herbicide immediately after mixing. Do not allow to stand in the spray tank overnight.

Optimum results will be obtained if good soil moisture exists at and after application and weeds are not stressed.

Some pre-emergence herbicides, such as atrazine, can cause stress to certain crops resulting in an increase in crop damage when using this product. Crops which are particularly sensitive are lucerne and subterranean clover.

#### **MIXING**

To ensure even mixing, half fill the spray tank with clean water and add the required amount of product. Agitate thoroughly while carrying out spray operations. Reseal part-used container immediately after use.

#### **APPLICATION**

#### **Boom Sprayer**

A minimum of 50L water/ha should be used, however, for optimum results, water rates of 70-100L/ha are recommended. Increase the water volume where weed infestation is heavy or the crop cover is dense. Complete coverage of weeds is essential. Higher water volumes (up to 100L/ha) will ensure faster activity of the product on the weeds but may increase the symptoms of crop damage.

The following settings are examples which will ensure excellent coverage of exposed weeds:

Water Rate	50L/ha	75L/ha	75L/ha
Nozzle	Hardi No. 10 or equivalent	Hardi No. 12 or equivalent	Hardi No. 14 or equivalent
Speed	10 km/h	10 km/h	12 km/h
Pressure	240 kPa (2.4 bar)	220 kPa (2.2 bar)	210 kPa (2.1 bar)

### **Controlled Droplet Application (CDA)**

Insufficient information is available to recommend the application of this product by CDA.

## Warning

The rubber components present in some spraying units may be affected by exposure to the solvents in agVantage Diflu-Brom Selective Herbicide. To reduce this risk it is recommended that the spray unit be thoroughly washed with a boom cleaner and fresh water after use.

#### **Aircraft**

Insufficient information is available to recommend the application of this product by air.