

# BEETSHIELD 600

## RISK AND SAFETY INFORMATION

### WARNING

VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.

Keep out of reach of children. Avoid breathing vapors.

Do not eat, drink, or smoke when using this product. Use only outdoors or in a well-ventilated area.

Avoid release to the environment Collect spillage



Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for triple rinsed empty containers which can be disposed of as non-hazardous waste

To avoid risks to human health and the environment, comply with the instructions for use.

PCS No. 07045

## IMPORTANT INFORMATION.

### FOR PROFESSIONAL USE ONLY AS AN AGRICULTURAL/ HORTICULTURAL HERBICIDE

#### Situation:

Wheat, barley, oats, sugar beet, fodder beet, mangles, swede, turnip, oilseed rape, grassland, ornamental plant production

Maximum Individual Dose:	}	
Maximum Total Dose:	}	Full details are given in the Important
Latest Time of Application:	}	Information area on the attached leaflet
Other Specific Restrictions:	}	

READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.

A soluble concentrate containing 600 g/l clopyralid

A foliar acting herbicide effective against a range of perennial and annual weeds, in particular THISTLES and MAYWEEDS, in a variety of crops.

Manufacturing date and Batch No.: See packaging

#### Marketing company and approval holder:

DHM Agrochemicals Limited, Castle Lodge,  
Kilgobbin Road, Dublin 18

24 Hour Emergency telephone no.: 01)295 2377

## SAFETY PRECAUTIONS

### Operator protection:

WASH HANDS AND EXPOSED SKIN before meals and after work.  
If in eyes, rinse cautiously with water for several minutes.

### Environmental protection:

KEEP LIVESTOCK OUT of treated areas for at least 7 days and until foliage of any poisonous weeds such as ragwort has died and become unpalatable.  
Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from yards and roads.

### Storage and disposal:

KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.  
RINSE CONTAINER THOROUGHLY by using an integrated pressure rinsing device or manually rinsing three times. Add washings to sprayer at time of filling and dispose of safely.

## DIRECTIONS FOR USE

IMPORTANT: This information is approved as part of the Product Label. All instructions within this section must be read carefully in order to obtain safe and successful use of this product

## IMPORTANT INFORMATION.

### FOR PROFESSIONAL USE ONLY AS AN AGRICULTURAL/HORTICULTURAL HERBICIDE

Crops/Situation	Maximum Individual Dose (L product/ha)	Maximum Total Dose	Maximum Number of treatments	Latest time of Application
Wheat, Barley, Oats (winter and spring)	0.12 Litre	0.12 Litre product/Ha/crop	1	Before 3 <sup>rd</sup> node detectable stage (GS 33)
Sugar beet, fodder beet, mangles, swede and turnip	0.33 Litre	0.50 Litre product/Ha/crop	2 (7 day minimum application interval)	When crops meet between the rows (BBCH 39)
Grassland (established)	0.33 Litre	0.33 Litre product/ha/crop	1	7 days before harvest or cutting for hay or silage
Oilseed rape (winter and spring)	0.33 Litre	0.50 Litre product/ha/crop	2 (7 day minimum application interval)	Before flower buds visible from above the canopy
Outdoor woody ornamentals	0.33 Litre	0.33 Litre product/ha/crop	1	

**Other Specific Restrictions:**  
Applications must not be made earlier than 1<sup>st</sup> March in the year of harvest.  
Keep livestock out of treated areas for at least 7 days and until foliage of any poisonous weeds such as ragwort has died and become unpalatable.  
For use on ornamentals applications must only be via directed sprays only to target weed foliage. Do not use between the end of August and beginning of March.  
A 7 day minimum application interval must be observed for those crops with 2 applications.

**READ THE LABEL BEFORE USE. USING THIS PRODUCT IN A MANNER THAT IS INCONSISTENT WITH THE LABEL MAY BE AN OFFENCE. FOLLOW THE CODE OF PRACTICE FOR USING PLANT PROTECTION PRODUCTS.**

It is essential to select a rate appropriate for the weed size. Best results will be obtained when weeds are actively growing at treatment.  
Extreme care must be taken to avoid spray drift onto non-crop plants outside the target area.

## CAUTION

BEETSHIELD 600 SL herbicide is a soluble concentrate formulation of clopyralid, a foliar acting herbicide which is also translocated into roots, rhizomes and stolons. BEETSHIELD 600 SL is particularly active on weeds of the Compositae family e.g. annual and perennial thistles and mayweeds.

## GENERAL WARNING

### ALL CROPS

Do not use any plant material treated with BEETSHIELD 600 SL for composting or mulching.  
Do not use manure from animals fed on crops treated with BEETSHIELD 600 SL for composting.

A period of at least 90 days must be observed prior to planting of oilseed rape, sugar beet and cereals. A period of at least 125 days must be observed prior to planting of all other succeeding crops following treatment with BEETSHIELD 600 SL.

### ALL CROPS (EXCLUDING CEREALS)

BEETSHIELD 600 SL residues in plant tissues (including manure and digestate) which have not completely decayed may affect succeeding susceptible crops. If treated crop remains have not fully decayed by the time of planting following crops then avoid planting: peas, beans and other legumes; carrots and other umbellifers; potatoes; lettuce and other composite; glasshouse and protected crops.

To avoid risk to field crops following application of BEETSHIELD 600 SL to crops other than cereals, do not plant susceptible autumn-sown crops (e.g., winter beans) in the same year as treatment with BEETSHIELD 600 SL. Where susceptible crops are to be planted in spring, do not apply BEETSHIELD 600 SL later than the end of July of the previous year.

Chop and incorporate all treated plant remains in the early autumn (or as soon as possible after harvest) to release any residues into the soil, where they are more quickly broken down. Following good agronomic practice ensure that stubble and straw (including farmyard manure) and other treated plant remains have completely decayed before planting susceptible crops.

### CEREALS

Straw from cereals sprayed with BEETSHIELD 600 SL may contain residues which could damage certain crops. To avoid such risk:

Field Crops: Bale and cart away the straw. Where straw is chopped and incorporated do not plant winter beans in the same year as treatment with BEETSHIELD 600 SL.

Glasshouse Crops: Straw from treated crops should not be used or supplied for use as straw in compost, poultry litter, manure or spent mushroom compost for any glasshouse crop.

Straw from treated crops may be used for strawing down strawberries.

### NOTES

For best results apply BEETSHIELD 600 SL when the weeds are actively growing. Control of mayweeds may be reduced if they are suffering from drought stress at the time of application.

Control of creeping thistle and other perennial weeds may be impaired by cultivations either before or within a period of two weeks after application of BEETSHIELD 600 SL.

In common with good spraying practice BEETSHIELD 600 SL should not be applied when the crop is damp or when rainfall is expected within six hours.

Do not spray when crops are under stress from cold, drought, pest damage, nutrient deficiency etc.

Where 2 applications are made to a crop a 7day minimum application interval must be observed.

Consult processors before using on crops for processing.

Contract agents should be consulted before using on crops grown for seed.

Do not apply to crops under sown with clover or other legume containing mixtures.

BEETSHIELD 600 SL is not subject to vapor drift, but do not spray in windy weather and avoid drift onto susceptible crops (e.g. seed potatoes).

Take care to avoid drift onto crops and non-target plants outside the target area.

Wash spraying equipment thoroughly with water and a liquid detergent immediately after use. Spray out. Fill with clean water and leave overnight. Spray out again before storing or using another product, particularly where changing over from herbicides to insecticides. Traces of BEETSHIELD 600 SL can cause harm to susceptible crops (e.g. seed potatoes) sprayed later.

BEETSHIELD 600SL should be applied in tank mix with other products only if any requirement or restrictions on the other product label do not conflict with the requirements or restrictions of BEETSHIELD 600 SL. Tank mixes should not be allowed to stand in the tank and agitation should be maintained at all times.

### MIXING

Fill the spray tank half full with water and add the required amount of BEETSHIELD 600 SL mixing well, then complete filling. If using a tank mix the other products should be mixed with the water first following the label instructions, and BEETSHIELD 600 SL added last. The spray mix must be agitated continuously until application is complete.

### SPRAY QUALITY

Apply BEETSHIELD 600 SL as a MEDIUM spray as defined by the BCPC system.

### ANNUAL WEED SUSCEPTIBILITY

Weed susceptibility to the most commonly recommended rates of BEETSHIELD 600 SL are given in the weed tables below. For further details of rates, timings, etc, please refer to the individual crop sections.

Weed	Growth Stage	
	0.17 L/ha	0.33 L/ha
<b>Susceptible: Good kill</b>		
Corn marigold ( <i>Chrysanthemum segetum</i> )	2 leaf	4 leaf
Creeping thistle (from seed ( <i>Cirsium arvense</i> ))	4 leaf	6 leaf
Groundsel ( <i>Senecio vulgaris</i> )	6 leaf	10 leaf
Pineappleweed ( <i>Matricaria matricioides</i> )	4 leaf	8 leaf
Scented mayweed ( <i>Matricaria chamomilla</i> )	4 leaf	8 leaf
Scentless mayweed ( <i>Matricaria perforata</i> )	4 leaf	8 leaf
Smooth sow-thistle ( <i>Sonchus oleraceus</i> )	2 leaf	4 leaf
<b>Moderately Susceptible: Moderate kill, strong suppression of survivors</b>		
Black-bindweed ( <i>Fallopia convolvulus</i> )	1 leaf	2 leaf
<b>Moderately Resistant: Poor kill but useful suppression</b>		
Pale persicaria ( <i>Polygonum lapathifolium</i> )	1 leaf	2 leaf
Redshank ( <i>Polygonum persicaria</i> )	1 leaf	1 leaf

### PERENNIAL WEED SUSCEPTIBILITY

Control by 0.17 L/ha + 0.33 L/ha program.

Creeping thistle (*Cirsium arvense*) S

Perennial sow-thistle (*Sonchus arvensis*) MS

Dandelion (*Taraxacum officinale*) S

Spear thistle (*Cirsium vulgare*) S

White clover (10 cm diameter) (*Trifolium repens*) MS

S = Susceptible; Complete or near complete kill

MS = Moderately Susceptible; Good kill under favorable conditions

BEETSHIELD 600 SL applied in the 0.17 L/ha + 0.33 L/ha program will also give some suppression of young plants of amphibious bistort (*Polygonum amphibium*) and colt's-foot (*Tussilago farfara*).

### OILSEED RAPE

#### AUTUMN SOWN OILSEED RAPE

BEETSHIELD 600 SL can be applied to all varieties of autumn sown oilseed rape in the spring from the two fully expanded leaf stage but before the flower buds are visible above the crop canopy.

**Perennial Weed Control**

For the control of creeping thistle apply BEETSHIELD 600 SL at 0.33 L/ha in 200 liters of water per hectare at the weed rosette stage (up to 30 cm across).

**Annual Weed Control**

For annual weeds apply BEETSHIELD 600 SL at 0.17 L/ha in the spring. In competitive crops of oilseed rape mayweeds up to 10 cm in diameter will be well controlled by BEETSHIELD 600 SL at 0.17 L/ha. Apply in a water volume of 200 liters/ha.

**SPRING SOWN OILSEED RAPE**

BEETSHIELD 600 SL can be applied to all varieties of spring sown oilseed rape for the control of annual weeds or creeping thistle. For annual weeds apply BEETSHIELD 600 SL at 0.17 L/ha in 200 liters of water per hectare. For creeping thistle apply BEETSHIELD 600SL at 0.17 L/ha at the rosette stage followed by a second application three to four weeks later of 0.33 L/ha in 200 liters of water per hectare.

**SUGAR BEET, FODDER BEET AND MANGELS CONVENTIONAL VOLUMES**

For the control of annual weeds apply 0.17 L/ha in 200 to 250 liters of water per hectare. For the control of creeping thistle apply 0.17 L/ha in 200 to 250 liters of water per hectare at the rosette stage, followed by a second application of 0.33 L/ha in 200 to 250 liters of water per hectare three to four weeks later.

**Use Alone**

BEETSHIELD 600 SL may be used alone from the fully expanded cotyledon stage of the crop.

**Compatibility**

BEETSHIELD 600 SL at 0.17 L/ha is compatible with the following products at the rate recommended by the manufacturers.

	Minimum Crop Size	Notes
Spraygard	First true leaves 10 mm long	Improves control of thistles and black-bindweed

**LOW DOSE PROGRAMME****Compatibility**

BEETSHIELD 600 SL at 0.17 L/ha in 80 to 100 liters of water per hectare may be applied as part of the sequential low dose program with the following products.

	Minimum Crop Size	Notes
Spraygard	First true leaves 10 mm long	Improves control of thistles and black-bindweed

BEETSHIELD 600 SL can be included once at any stage of the program with the other herbicides provided the products are used according to manufacturers' instructions. To complete control of creeping thistle, a second application of BEETSHIELD 600 SL alone at 0.33 L/ha in 200 to 250 liters of water per hectare should be made 3 to 4 weeks later.

#### **CONTROL OF VOLUNTEER POTATO**

BEETSHIELD 600 SL, when used for the control of volunteer potato will give good stunting and loss of vigor to the potato. The control of green foliage will not be complete but the reduction in vigor will significantly reduce the competitive threat posed to the crop from this weed. As well as the reduction in vigor there can be a substantial reduction in number and weight of any daughter tubers that are produced. Any daughter tubers that are formed by a potato plant subsequent to the application of BEETSHIELD 600 SL can have reduced viability and loss of vigor.

#### **Timing**

The timing application of BEETSHIELD 600 SL is dependent upon the size of the potato. For best results, it is recommended that these timings are adhered to.

The first application should be made when the volunteer potato shoots are between 5 and 10 cm tall providing the sugar beet crop is at the sizes stated above. The second application should then be made when the volunteer potato is between 10 and 20 cm tall.

The size of potato for this second application is that of an untreated potato, for an accurate guide to when this stage is reached it is advisable to leave a small area of untreated potato in the field. Typically, the second application will be 7 to 14 days after the first.

Applications of BEETSHIELD 600 SL should in all cases be completed before the end of June. When applying BEETSHIELD 600 SL for the control of volunteer potato the total amount applied to the crop should not exceed 0.33 L/ha (i.e. 2 applications of 0.17 L/ha).

#### **Note**

Varieties of potatoes with particularly vigorous growth habits exhibit reduced sensitivity to BEETSHIELD 600 SL thus results may be less reliable than on other less vigorous varieties.

#### **SWEDE AND TURNIP**

BEETSHIELD 600 SL may be applied to all types and varieties of swede and turnip in the spring. For the control of annual weeds apply BEETSHIELD 600SL at 0.17 L/ha in 200 to 250 liters of water per hectare.

For the control of creeping thistle apply BEETSHIELD 600 SL at 0.17 L/ha for the first application at the rosette stage, followed by a second application three to four weeks later of 0.33 L/ha in 200 to 250 liters of water per hectare.

Application should only be made to direct drilled brassica crops after they have reached the two true leaf expanded stage. Transplanted crops can be treated once they are growing strongly and are fully established. Some chlorosis or leaf distortion may occur in crops with a reduced coating of leaf wax (e.g. due to soil acidity).

#### **Compatibility**

BEETSHIELD 600 SL when used at 0.33 L/ha should not be tank mixed for use on any brassica crop.

#### **GRASSLAND**

BEETSHIELD 600 SL can be applied to all species and varieties of grass in established leys or permanent pastures following removal of any livestock.

As an overall treatment, BEETSHIELD 600 SL should be applied at 0.33 L/ha in a water volume of 300 to 400 liters/ha.