

## SAFETY PRECAUTIONS

### Operator protection:

WASH HANDS AND EXPOSED SKIN before meals and after work.

### Environmental protection:

Extreme care must be taken to avoid spray drift onto non-crop plants outside the target area.

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.

WASH OUT CONTAINER THOROUGHLY, empty washings into spray tank and dispose of safely.



**Product Identifier**  
according to Art.18  
of Reg. (EC) No  
1272/2008 [CLP]:  
Dow Shield 100

**Very toxic to aquatic  
life with long lasting  
effects**

Collect spillage

Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean triple rinsed 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. 03861



Dow AgroSciences



# Dow Shield<sup>®</sup> 100

## HERBICIDE

A soluble concentrate containing 100 g/litre (9.0% w/w) clopyralid as the monoethanolamine salt.

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

**FOR PROFESSIONAL USE ONLY**

**Triple Rinse Containers , Puncture and Invert to Dry at time of Use**

**PROTECT FROM FROST.**

**READ DIRECTIONS FOR  
USE ON ATTACHED LEAFLET.**

## 2 Litres e

### IMPORTANT INFORMATION.

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

#### Situation:

Sugar beet, red beet, fodder beet, mangels, swede, turnip, winter and spring oilseed rape, linseed, Brussels sprout, cabbage, broccoli/calabrese, cauliflower, bulb onion, forage maize, grassland, ornamental plant production

#### Maximum Individual Dose: }

Full details are given in the Important Information area on the attached leaflet

#### Maximum Total Dose: }

**Latest Time of Application: }**  
**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.**

#### Dow AgroSciences Limited

CPC2 Capital Park, Fulbourn, Cambridge, CB21 5XE

Telephone: (01462) 457272

Fax: (01462) 426605

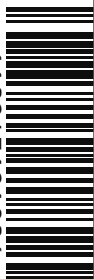
24 Hour Emergency Telephone

Number: +44 (0) 1553 761251

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("Dow") or an affiliated company of Dow



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## 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 USE ONLY AS AN AGRICULTURAL/HORTICULTURAL HERBICIDE

Crop/Situation	Maximum Individual Dose (rate of product per hectare)	Maximum Total Dose (rate of product per hectare)	Latest Time of Application
Sugar beet, red beet, fodder beet, mangels, swede, turnip,	2.0 litres	3.0 litres per crop	6 weeks before harvest
Bulb onion	2.0 litres	3.0 litres product/ha/crop	6 weeks before harvest
Winter and Spring Oilseed rape	2.0 litres	3.0 litres per crop	Before flower buds visible from above the crop canopy
Linseed	1.0 litre	1.0 litre product/ha/crop	Before flower buds visible from above the crop canopy
Broccoli/calabrese, cabbage, cauliflower	2.0 litres	3.0 litres product/ha/crop	6 weeks before harvest
Brussels sprout	2.0 litre	3.0 litre product/ha/crop	Up to and including 9 or more true leaves unfolded (BBCH19)
Forage maize	1.0 litre	1.0 litre product/ha/crop	Up to and including 9 or more true leaves unfolded (BBCH19)
Established Grassland	2.0 litres	2.0 litres per year	7 days before harvest or cutting for hay and silage
Outdoor woody Ornamental plant production	2.0 litres	2.0 litres per year	-

#### Other Specific Restrictions:

Do not use between the 31<sup>st</sup> August and 1<sup>st</sup> March.

For use on ornamentals applications must only be via directed sprays only to target weed foliage.

**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.**

Do not spray through a knapsack sprayer.

DOW SHIELD 100 herbicide is a soluble concentrate formulation of clopyralid, a foliar acting herbicide which is also translocated into roots, rhizomes and stolons. DOW SHIELD 100 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 DOW SHIELD 100 for composting or mulching.  
Do not use manure from animals fed on crops treated with DOW SHIELD 100 for composting.

### ALL CROPS (EXCLUDING LINSEED)

DOW SHIELD 100 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 compositae; glasshouse and protected crops.

To avoid risk to field crops following application of DOW SHIELD 100 to crops other than cereals, do not plant susceptible autumn-sown crops (e. g. winter beans) in the same year as treatment with DOW SHIELD 100. Where susceptible crops are to be planted in spring, do not apply DOW SHIELD 100 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.

### LINSEED STRAW:

Straw from linseed sprayed with DOW SHIELD 100 may contain residues which could damage certain crops. To avoid such risk:

Bale and cart away the linseed straw. Where linseed straw is chopped and incorporated do not plant winter beans in the same year as treatment with DOW SHIELD 100.

### NOTES

For best results apply DOW SHIELD 100 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 DOW SHIELD 100.

In common with good spraying practice DOW SHIELD 100 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.

Consult processors before using on crops grown for seed.

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

DOW SHIELD 100 is not subject to vapour 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 DOW SHIELD 100 can cause harm to susceptible crops (e. g. seed potatoes) sprayed later.

DOW SHIELD 100 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 DOW SHIELD 100. 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 DOW SHIELD 100 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 DOW SHIELD 100 added last. The spray mix must be agitated continuously until application is complete.

### SPRAY QUALITY

Apply DOW SHIELD 100 as a MEDIUM spray as defined by the BCPC system.

### ANNUAL WEED SUSCEPTIBILITY TO DOW SHIELD 100

Weed susceptibility to the most commonly recommended rates of DOW SHIELD 100 are given in the weed tables below. For further details of rates, timings, etc, please refer to the individual crop sections.

Weed	Growth Stage	
	1 litre/ha	2.0 litre/ha
<b>Susceptible: Good kill</b>		
Corn marigold	2 leaf	4 leaf
Groundsel	6 leaf	10 leaf
Pineappleweed	4 leaf	8 leaf
Scented mayweed	4 leaf	8 leaf
Scentsless mayweed	4 leaf	8 leaf
Smooth sow-thistle	2 leaf	4 leaf
<b>Moderately Susceptible: Moderate kill, strong suppression of survivors</b>		
Black-bindweed	1 leaf	2 leaf
<b>Moderately Resistant: Poor kill but useful suppression</b>		
Pale persicaria	1 leaf	2 leaf
Redshank	1 leaf	1 leaf

Please refer to individual crop sections for recommended rates for the control of creeping thistle.

### PERENNIAL WEED SUSCEPTIBILITY TO DOW SHIELD 100

Control by 1.0 litre/ha + 2.0 litres/ha programme.

Creeping thistle	S
Perennial sow-thistle	MS
Dandelion	S
Spear thistle	S
White clover (10 cm diameter)	MS

S = Susceptible; Complete or near complete kill

MS = Moderately Susceptible; Good kill under favourable conditions

DOW SHIELD 100 applied in the 1.0 litre/ha + 2.0 litres/ha programme will also give some suppression of young plants of amphibious bistort and colt's-foot.

### SUGAR BEET, RED BEET, FODDER BEET AND MANGELS

#### CONVENTIONAL VOLUMES

For the control of annual weeds apply 1.0 litre in 200 to 250 litres of water per hectare. For the control of creeping thistle apply 1.0 litre in 200 to 250 litres of water per hectare at the rosette stage, followed by a second application of 2.0 litres in 200 to 250 litres of water per hectare three to four weeks later.

#### Use Alone

DOW SHIELD 100 may be used alone from the fully expanded cotyledon stage of the crop.

#### Compatibility

DOW SHIELD 100 at 1.0 litre/ha is compatible with the following products at the rate recommended by the manufacturers.

	Minimum Crop Size	Notes
Approved formulation of metamilon 70% w/w + Newman Crop Spray 11E	First true leaves 10 mm long	Improves control of thistles and black-bindweed

#### LOW DOSE PROGRAMME

##### Compatibility

DOW SHIELD 100 at 1.0 litre in 80 to 100 litres of water per hectare may be applied as part of the sequential low dose programme with the following products.

	Minimum Crop Size	Notes
Approved formulation of metamilon 70% w/w + Newman Crop Spray 11E	First true leaves 10 mm long	Improves control of thistles and black-bindweed

DOW SHIELD 100 can be included once at any stage of the programme with the other herbicides provided the products are used according to manufacturers' instructions. To complete control of creeping thistle a second application of DOW SHIELD 100 alone at 2.0 litres/ha in 200 to 250 litres of water per hectare should be made 3 to 4 weeks later.

### WINTER AND SPRING OILSEED RAPE

#### AUTUMN SOWN OILSEED RAPE

DOW SHIELD 100 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 DOW SHIELD 100 at 2.0 litres in 200 to 250 litres of water per hectare at the weed rosette stage (up to 30 cm across).

#### Annual Weed Control

For annual weeds apply DOW SHIELD 100 at 1.0 litre/ha in the spring. In competitive crops of oilseed rape mayweeds up to 10 cm in diameter will be well controlled by DOW SHIELD 100 at 1.0 litre/ha. Apply in a water volume of 200-400 litres/ha.

#### SPRING SOWN OILSEED RAPE

DOW SHIELD 100 can be applied to all varieties of spring sown oilseed rape for the control of annual weeds or creeping thistle. For annual weeds apply DOW SHIELD 100 at 1.0 litre in 200 to 250 litres of water per hectare. For creeping thistle apply DOW SHIELD 100 at 1.0 litre/ha at the rosette stage followed by a second application three to four weeks later of 2.0 litres in 200 to 250 litres of water per hectare.

## BRASSICA CROPS

DOW SHIELD 100 may be applied to all types and varieties of cabbage, broccoli, calabrese, Brussels sprouts, cauliflower, swede and turnip in the spring. For the control of annual weeds apply DOW SHIELD 100 at 1.0 litre in 200 to 250 litres of water per hectare.

For the control of creeping thistle apply DOW SHIELD 100 at 1.0 litre/ha for the first application at the rosette stage, followed by a second application three to four weeks later of 2.0 litreS in 200 to 250 litres 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 (eg due to soil acidity).

### Compatibility

DOW SHIELD 100 when used at 2.0 litreS/ha should not be tank mixed for use on any brassica crop.

Do not use DOW SHIELD 100 in any tank mixture on early varieties of F1 hybrid Brussels sprouts.

## ONIONS

DOW SHIELD 100 may be applied to spring or autumn sown bulb onions in the spring. For annual weeds apply 1.0 litre in 200 to 250 litres of water per hectare. For the control of creeping thistle apply DOW SHIELD 100 at 1.0 litre/ha for the first application followed by a second application three to four weeks later of 2.0 litreS/ha in 200 to 250 litres of water per hectare.

DOW SHIELD 100 at 1.0 litre/ha should only be applied to onions after they have reached the two true leaf stage.

Extreme caution must be taken when applying DOW SHIELD 100 to onions particularly at the higher rate. The possibility of crop effects (chlorosis, leaf distortion and/or leaf prostration) will be reduced by observing the following: DOW SHIELD 100 should only be applied to onions which have an adequate wax layer.

Certain conditions will reduce the layer of protective wax; these include previous chemical applications, drought stress, periods of low night/high day temperatures or rapid growth caused by high nitrogen regimes and irrigation, etc.

Do not apply DOW SHIELD 100 to onions at temperatures above 20°C or when under stress.

## BRUSSELS SPROUT, SWEDE AND TURNIP

DOW SHIELD 100 may be applied to all types and varieties of Brussels sprout, swede and turnip in the spring. For the control of annual weeds apply DOW SHIELD 100 at 1.0 litre in 200 to 250 litres of water per hectare.

For the control of creeping thistle apply DOW SHIELD 100 at 1.0 litre/ha for the first application at the rosette stage, followed by a second application three to four weeks later of litre 2.0 litres/ha in 200 to 250 litres 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

DOW SHIELD 100 when used at 2.0 litres/ha should not be tank mixed for use on any brassica crop.

## FORAGE MAIZE

DOW SHIELD 100 can be applied to all varieties of forage maize after the three leaf expanded stage. For annual weeds apply 1.0 litre in 200 to 250 litres of water per hectare.

## ESTABLISHED GRASSLAND

DOW SHIELD 100 can be applied to all species and varieties of grass in established leys or permanent pastures following removal of any livestock.

Do not use on newly sown lays.

**Do not use on amenity grassland.**

Application should be made when weeds are actively growing at the 15 to 30 cm rosette stage. If grass has been cut for hay or silage, treat at least 2 to 3 weeks after cutting when sufficient regrowth has occurred.

### NOTE:

A 7 day period must elapse between the application of DOW SHIELD 100 and the reintroduction of livestock, or the cutting for hay or silage.

## LINSEED FOR OIL

DOW SHIELD 100 can be applied to all varieties of linseed in the spring from the two leaf expanded stage but before the flower buds are visible. For the control of annual weeds apply 1.00 litre in 200 to 250 litres of water per hectare.

## OUTDOOR WOODY ORNAMENTAL PLANT PRODUCTION

DOW SHIELD 100 can be applied as a directed spray on ornamental trees and shrubs, but all spray or drift contact with leaves, buds, suckers, or green stems of the crop must be avoided using a shielded or hooded sprayer if necessary.

Do not apply DOW SHIELD 100 within the root zone of species of the family Compositae (eg *Senecio* spp) or papilionaceae (eg *Laburnum*, *Genista*, *Cytisus* spp).

Apply DOW SHIELD 100 at 2.0 litres in 200 litres of water per hectare at the optimum time for control of target weeds (creeping thistle at the rosette stage up to 30 cm across).

### COMPATIBILITY

For the latest advice on tank mixes please contact Dow AgroSciences.

## TRADEMARK ACKNOWLEDGEMENTS

DOW SHIELD® is a trademark of the Dow Chemical Company (Dow) or an affiliate company of Dow.

All other brand names used in this document are trademarks of other manufacturers for which proprietary rights may exist.

### Dow AgroSciences Conditions of Supply

All goods supplied by us are of high grade and we believe them to be suitable but, as we cannot exercise control over their storage, handling, mixing or use, or the weather conditions before, during or after application which may affect the performance of the goods, all conditions and warranties, statutory or otherwise, as to the quality or fitness for any purpose of our goods are excluded. No responsibility will be accepted by us or re-sellers for any failure in performance, damage or injury whatsoever arising from their storage, handling, application or use. These conditions cannot be varied by our staff or agents whether or not they supervise or assist in the use of such goods.

To access the Safety Data Sheet for this product scan the QR code or use the weblink below:



<http://uk.dowagro.com/wp-content/uploads/DOW-SHIELD-100-SDS.pdf>

Alternatively contact your supplier

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## 2 Litres e

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

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