

CLIOPHAR 400

MAPP 15008



A soluble concentrate containing 400 g/l (36% w/w) clopyralid (527 g/litre clopyralid olamine) (MAPP No. 15008).

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

IMPORTANT INFORMATION

FOR USE ONLY AS AN AGRICULTURAL/HORTICULTURAL HERBICIDE

Situation: Winter and spring wheat, barley, oats, sugar beet, red beet, fodder beet, mangels, swede, turnip, oilseed rape, linseed, Brussels sprout, cabbage, broccoli/calabrese, cauliflower, bulb onion, forage maize, 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.**

The (COSHH) Control of Substances Hazardous to Health Regulations may apply to the use of this product at work.

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

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.

Livestock must be kept out of treated areas for at least 7 days following treatment. IF RAGWORT IS PRESENT, FOLLOW THE GUIDANCE IN THE 'DIRECTIONS FOR USE'. 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.

SEE ATTACHED LEAFLET FOR DIRECTIONS FOR USE

PROTECT FROM FROST

Manufacturing date and Batch no.:
see packaging

Manufacturer, marketing company and approval holder:

Arysta LifeScience Benelux sprl.
Rue de Renory 26/1
B-4102 Ougrée
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24-Hour Emergency Telephone Number :
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This leaflet is part of the authorised Product Label

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 (litres product/ha)	Maximum Total Dose	Latest Time of Application
Oilseed rape	0.5 litre	0.75 litre product/ha/crop	Before flower buds visible from above the crop canopy
Linseed	0.25 litre	0.25 litre product/ha/crop	Before flower buds visible from above the crop canopy
Sugar beet, red beet, fodder beet, mangels, swede, turnip	0.5 litre	0.75 litre product/ha/crop	When crops meet between the rows (BBCH 39)
Bulb onion	0.5 litre	0.75 litre product/ha/crop	6 weeks before harvest
Broccoli/calabrese, cabbage, cauliflower	0.5 litre	0.75 litre product/ha/crop	6 weeks before harvest
Brussels sprout	0.5 litre	0.75 litre product/ha/crop	Up to and including 9 or more true leaves unfolded (BBCH19)
Forage maize	0.25 litre	0.25 litre product/ha/crop	Up to and including 9 or more true leaves unfolded (BBCH19)
Grassland	0.5 litre	0.5 litre product/ha/year	7 days before harvest or cutting for hay and silage
Winter and spring wheat, barley, oats	0.175 litre	0.175 litre product/ha/crop	Before 3rd node detectable stage
Ornamental plant production	0.5 litre	0.5 litre product/ha/year	-

Other Specific Restrictions:

Do not use between the 31st August and 1st March.

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.

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.

CLIOPHAR 400 herbicide is a solution concentrate formulation of clopyralid, a foliar acting herbicide which is also translocated into roots, rhizomes and stolons. CLIOPHAR 400 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 CLIOPHAR 400 for composting or mulching.
Do not use manure from animals fed on crops treated with CLIOPHAR 400 for composting.

ALL CROPS (EXCLUDING CEREALS)

CLIOPHAR 400 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 CLIOPHAR 400 to crops other than cereals, do not plant susceptible autumn-sown crops (e.g. winter beans) in the same year as treatment with CLIOPHAR 400. Where susceptible crops are to be planted in spring, do not apply CLIOPHAR 400 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 AND LINSEED STRAW

Straw from cereals sprayed with CLIOPHAR 400 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 CLIOPHAR 400.

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.

LINSEED:

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 CLIOPHAR 400.

NOTES

For best results apply CLIOPHAR 400 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 CLIOPHAR 400.

In common with good spraying practice CLIOPHAR 400 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 for processing.

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

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

CLIOPHAR 400 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 CLIOPHAR 400 can cause harm to susceptible crops (e.g. seed potatoes) sprayed later.

CLIOPHAR 400 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 CLIOPHAR 400. 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 CLIOPHAR 400 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 CLIOPHAR 400 added last. The spray mix must be agitated continuously until application is complete.

SPRAY QUALITY

Apply CLIOPHAR 400 as a MEDIUM spray as defined by the BCPC system.

ANNUAL WEED SUSCEPTIBILITY TO CLIOPHAR

Weed susceptibility to the most commonly recommended rates of CLIOPHAR 400 are given in the weed tables below. For further details of rates, timings, etc, please refer to the individual crop sections.

Weed	Growth Stage	
	0.25 litre/ha	0.5 litre/ha
Susceptible: Good kill		
Corn marigold	2 leaf	4 leaf
Creeping thistle (from seed)	4 leaf	6 leaf
Groundsel	6 leaf	10 leaf
Pineappleweed	4 leaf	8 leaf
Scented mayweed	4 leaf	8 leaf
Scentless mayweed	4 leaf	8 leaf
Smooth sow-thistle	2 leaf	4 leaf
Moderately Susceptible: Moderate kill, strong suppression of survivors		
Black-bindweed	1 leaf	2 leaf
Moderately Resistant: Poor kill but useful suppression		
Pale persicaria	1 leaf	2 leaf
Redshank	1 leaf	1 leaf

PERENNIAL WEED SUSCEPTIBILITY TO CLIOPHAR

Control by 0.25 litre/ha + 0.5 litre/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

CLIOPHAR 400 applied in the 0.25 litre/ha + 0.5 litre/ha programme will also give some suppression of young plants of amphibious bistort and colt's-foot.

OILSEED RAPE

AUTUMN SOWN OILSEED RAPE

CLIOPHAR 400 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 CLIOPHAR 400 at 0.5 litre 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 CLIOPHAR 400 at 0.25litre/ha in the spring. In competitive crops of oilseed rape mayweeds up to 10 cm in diameter will be well controlled by CLIOPHAR 400 at 0.25 litre/ha. Apply in a water volume of 200-400 litres/ha.

SPRING SOWN OILSEED RAPE

CLIOPHAR 400 can be applied to all varieties of spring sown oilseed rape for the control of annual weeds or creeping thistle. For annual weeds apply CLIOPHAR 400 at 0.25 litre in 200 to 250 litres of water per hectare. For creeping thistle apply CLIOPHAR 400 at 0.25 litre/ha at the rosette stage followed by a second application three to four weeks later of 0.5 litre in 200 to 250 litres of water per hectare.

SUGAR BEET, RED BEET, FODDER BEET AND MANGELS

CONVENTIONAL VOLUMES

For the control of annual weeds apply 0.25 litre in 200 to 250 litres of water per hectare. For the control of creeping thistle apply 0.25 litre in 200 to 250 litres of water per hectare at the rosette stage, followed by a second application of 0.5 litre in 200 to 250 litres of water per hectare three to four weeks later.

Use Alone

CLIOPHAR 400 may be used alone from the fully expanded cotyledon stage of the crop.

Compatibility

CLIOPHAR 400 at 0.25 litre/ha is compatible with the following products at the rate recommended by the manufacturers.

	Minimum Crop Size	Notes
Goltix WG + Cropspray 11E	First true leaves 10 mm long	Improves control of thistles and black-bindweed

LOW DOSE PROGRAMME

Compatibility

CLIOPHAR 400 at 0.25 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
Goltix WG + Cropspray 11E	First true leaves 10 mm long	Improves control of thistles and black-bindweed

CLIOPHAR 400 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 CLIOPHAR 400 alone at 0.5 litre/ha in 200 to 250 litres of water per hectare should be made 3 to 4 weeks later.

CONTROL OF VOLUNTEER POTATO

CLIOPHAR 400, when used for the control of volunteer potato will give good stunting and loss of vigour to the potato. The control of green foliage will not be complete but the reduction in vigour will significantly reduce the competitive threat posed to the crop from this weed. As well as the reduction in vigour 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 CLIOPHAR 400 can have reduced viability and loss of vigour. Reduction or partial control of volunteer potato can be achieved by the use of Betanul Flow + Nortron Flo + CLIOPHAR 400 at 1.75 + 0.6 + 0.25 litres/ha respectively as a two spray programme.

Timing

The timing application of CLIOPHAR 400 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 CLIOPHAR 400 should in all cases be completed before the end of June.

When applying CLIOPHAR 400 for the control of volunteer potato the total amount applied to the crop should not exceed 0.5 litre/ha (i.e. 2 applications of 0.25 litre/ha).

Note

Varieties of potatoes with particularly vigorous growth habits exhibit reduced sensitivity to CLIOPHAR 400 thus results may be less reliable than on other less vigorous varieties.

BRASSICA CROPS

CLIOPHAR 400 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 CLIOPHAR 400 at 0.25 litre in 200 to 250 litres of water per hectare.

For the control of creeping thistle apply CLIOPHAR 400 at 0.25 litre/ha for the first application at the rosette stage, followed by a second application three to four weeks later of 0.5 litre 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

CLIOPHAR 400 when used at 0.5 litre/ha should not be tank mixed for use on any brassica crop. Do not use CLIOPHAR 400 in any tank mixture on early varieties of F1 hybrid Brussels sprouts.

ONIONS

CLIOPHAR 400 may be applied to spring or autumn sown bulb onions in the spring. For annual weeds apply 0.25 litre in 200 to 250 litres of water per hectare. For the control of creeping thistle apply CLIOPHAR 400 at 0.25 litre/ha for the first application followed by a second application three to four weeks later of 0.5 litre in 200 to 250 litres of water per hectare.

CLIOPHAR 400 at 0.25 litre/ha should only be applied to onions after they have reached the two true leaf stage.

Extreme caution must be taken when applying CLIOPHAR 400 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:

CLIOPHAR 400 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 CLIOPHAR 400 to onions at temperatures above 20°C or when under stress.

FORAGE MAIZE

CLIOPHAR 400 can be applied to all varieties of forage maize after the three leaf expanded stage. For annual weeds apply 0.25 litre in 200 to 250 litres of water per hectare.

GRASSLAND

CLIOPHAR 400 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, CLIOPHAR 400 should be applied at 0.5 litre/ha in a water volume of 300 to 400 litres/ha.

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.

Where ragwort is present users should consult the Code of Practice on How to Prevent the Spread of Ragwort. Ragwort plants sprayed with this herbicide are more palatable and contain higher levels of toxins. Animals should be excluded from treated areas until any ragwort has completely recovered or died and there is no visible sign of the dead weed. Do not include treated ragwort in hay or silage crops.

NOTE

A 7 day period must elapse between the application of CLIOPHAR 400 and the reintroduction of livestock, or the cutting for hay or silage.

LINSEED FOR OIL

CLIOPHAR 400 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 0.25 litre in 200 to 250 litres of water per hectare.

CEREALS (WINTER AND SPRING WHEAT, BARLEY, OATS)

CLIOPHAR 400 at 0.175 litre/ha added to Starane 2 will improve control of corn marigold, groundsel, pineappleweed, scented mayweed, scentless mayweed and smooth sowthistle.

Recommended water volume is 200 litres/ha.

CLIOPHAR 400 can be applied in the spring from the 2 leaf stage (Zadoks 12) up to and including the second node detectable stage (Zadoks 32).

ORNAMENTAL PLANT PRODUCTION

CLIOPHAR 400 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 CLIOPHAR 400 within the root zone of species of the family Compositae (e.g. *Senecio* spp) or Papilionaceae (e.g. *Laburnum*, *Genista*, *Cytisus* spp).

Apply CLIOPHAR 400 at 0.5 litre 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 Arysta Lifescience Benelux Sprl

TRADEMARK ACKNOWLEDGEMENTS

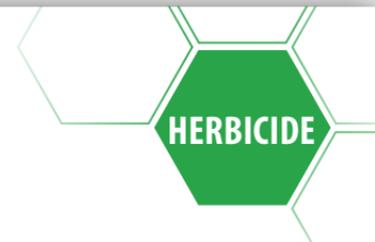
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Maximum Individual Dose: }

Maximum Total Dose: } Full details are given in the Important

Latest Time of Application: } Information area on the attached leaflet

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