

CLAYTON METAZACHLOR

MAPP 09688

contains 500 g/l (43% w/w) metazachlor

For the control of certain annual grass and broad-leaved weeds in winter and spring oilseed rape, broccoli, Brussels sprouts, cabbage, calabrese, cauliflower, swedes, turnips, ornamental trees and shrubs, nursery fruit trees and forestry.



HARMFUL

HARMFUL IF SWALLOWED
IRRITATING TO SKIN
MAY CAUSE SENSITISATION
BY SKIN CONTACT



DANGEROUS FOR THE ENVIRONMENT

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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

COMPLIANCE WITH THE FOLLOWING CONDITIONS OF USE AND ALL SAFETY PRECAUTIONS MARKED ❖ IS A LEGAL REQUIREMENT FOR USE ONLY AS AN AGRICULTURAL/HORTICULTURAL/FORESTRY HERBICIDE

Crops:	Oilseed rape, broccoli, Brussels sprouts, cabbage, calabrese, cauliflower, swede, turnip. Ornamental plant production – trees and shrubs, nursery fruit trees, forestry.
Maximum individual dose:	see Directions for Use
Maximum number of applications:	” ”
Latest time of application:	” ”

Other specific restrictions:

After use on nursery fruit trees, any fruit harvested within one year of application must be destroyed.

READ ALL OTHER SAFETY PRECAUTIONS AND DIRECTIONS FOR USE BEFORE USE

SAFETY PRECAUTIONS

Operator protection

- ❖ Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:
- ❖ WEAR SUITABLE PROTECTIVE GLOVES AND FACE PROTECTION (FACESHIELD) when handling the concentrate.
- ❖ WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND RUBBER BOOTS when applying the product through a knapsack sprayer.
- ❖ WEAR SUITABLE PROTECTIVE GLOVES when handling the spray boom or adjusting nozzles.
- ❖ However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.

WHEN USING, DO NOT EAT, DRINK OR SMOKE.

WASH CONCENTRATE from skin or eyes immediately.

DO NOT BREATHE SPRAY.

WASH HANDS AND EXPOSED SKIN before meals and after work.

IF YOU FEEL UNWELL, seek medical advice immediately (show the label where possible).

Environmental protection

DO NOT CONTAMINATE SURFACE WATERS OR DITCHES with chemical or used container.

- ❖ KEEP LIVESTOCK OUT of treated areas of swede and turnip for at least five weeks following treatment.
- ❖ KEEP LIVESTOCK OUT of treated areas until poisonous weeds, such as ragwort, have died and become unpalatable.

Storage and disposal

KEEP IN ORIGINAL CONTAINER, tightly closed, in a safe place.

KEEP OUT OF REACH OF CHILDREN.

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.

- ❖ DO NOT RE-USE CONTAINER for any purpose.

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

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

Safety data sheet available for professional user on request.

**Clayton Plant Protection (UK) Ltd.,
Unit F10
Bracetown Business Park
CLONEE
Co. Meath
Ireland**

Contents: **5 litres**

SHAKE THOROUGHLY BEFORE USE

PROTECT FROM FROST

Tel: (00 353) 1 8210127

Batch No:

This product is approved under the Control of Pesticides Regulations 1986.

Conditions of Supply: all goods supplied by us are of high quality and we believe them to be correct but, as we cannot exercise control over their storage, handling, mixing or use, or weather conditions before, during and 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, and no responsibility will be accepted by us or resellers 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.

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.

Crop	Maximum individual dose of product	Maximum number of applications	Latest time of application
Winter oilseed rape	2.5 l/ha or 1.5 l/ha	one per crop two per crop	Before 1 February in the year of harvest " " "
Spring oilseed rape	1.5 l/ha	one per crop	Before 10 true leaves
Broccoli Brussels sprouts Cabbage Calabrese Cauliflower	1.5 l/ha	one per crop	Six weeks before harvest
Swede Turnip	1.5 l/ha	one per crop	Pre-emergence of the crop
Ornamental plant production – trees and shrubs Nursery fruit trees Forestry	2.5 l/ha	three per year	-

Specific restriction:
After use on nursery fruit trees, any fruit harvested within one year of application must be destroyed.

Clayton Metazachlor is taken up from the soil solution by the roots of weeds, thus soil moisture is essential for activity.

High transpiration rates leading to high uptake of metazachlor or too much metazachlor in the soil solution in the root zone of the germinating crop may lead to reduced seedling vigour or loss of plants; this situation can also arise on stony or brash soils owing to rapid transfer of metazachlor to the crop root zone. The main factors leading to phytotoxicity and ways of avoidance are listed:

Heavy rain	<i>Avoid or delay a pre-emergence application if heavy rain is forecast.</i>
Excessive irrigation	<i>Limit irrigation to 10 mm per application.</i>
Insufficient soil cover	<i>Drill accurately to 15 mm depth measured after firming. Harrow after drilling; harrow direct drilled crops across the line of drilling to ensure coverage of the seed before spraying. Treat broadcast sown crops only post-emergence when firmly established.</i>
Inadequate consolidation	<i>Roll poorly consolidated seedbeds after drilling but before spraying.</i>
Soil of too low adsorbency	<i>Classify soil accurately and follow the recommendations. Soils are classified as per ADAS Soil Textures (85 system).</i>

Favourable conditions for vigorous crop growth e.g. adequate soil nutritional status, appropriate pH, sound drainage, lack of soil compaction, absence of pests and diseases, are required before treatment; do not treat if these conditions are not met.

Some leaf scorch may occur following application in frosty weather. Do not apply during frosty weather or if frost is forecast, especially if another product is to be applied in tank-mix also. Do not treat crops under moisture stress or suffering wilting.

TREATMENTS FOR WINTER OILSEED RAPE

Select one of the following three treatments, as appropriate to the conditions.

100% PRE-EMERGENCE

Situations treatable	Dose and timing	Remarks
<ul style="list-style-type: none"> ✓ MEDIUM and HEAVY soils. ✓ seed drilled 15 mm deep and covered ✓ firm, fine, moist seedbed 	2.5 l/ha in at least 110 l/ha water (35 fl.oz/ac in at least 10 gal/ac). Spray after drilling and before crop germination; this could be no more than 48 hours after drilling when the soil is warm and moist.	Usually gives best overall results if qualifying conditions can be met.
Exclusions <ul style="list-style-type: none"> * not SANDS, VERY LIGHT or LIGHT soils * not stony soils * not organic soils # * not broadcast crops * not late drilled * 		

60/40% SPLIT PRE/POST-EMERGENCE

Situations treatable	Dose and timing	Remarks
<ul style="list-style-type: none"> ✓ LIGHT, MEDIUM and HEAVY soils ✓ seed drilled 15 mm deep and covered ✓ firm, fine, moist seedbed 	Pre-emergence dose 1.5 l/ha in at least 110 l/ha water (21 fl.oz/ac in at least 10 gal/ac). Spray after drilling and before crop germination; this could be no more than 48 hours after drilling when the soil is warm and moist.	Capable of giving good weed control; if conditions allow use in preference to 100% post-emergence as cleavers, common poppy and shepherd's-purse are not susceptible to post-emergence applications.
Exclusions <ul style="list-style-type: none"> * not SANDS or VERY LIGHT soils * not organic soils # * not broadcast crops * not late drilled * 	Post-emergence dose 1 l/ha in at least 220 l/ha water (14 fl.oz/ac in at least 20 gal/ac). Spray when the crop has fully expanded cotyledons before weed emergence. Do not spray later than 31st January.	The post-emergence dose is not always necessary and sometimes economies can be made, most often on light soils, after a careful review of the weed situation following the pre-emergence dose.

100% POST-EMERGENCE

Situations treatable	Dose and timing	Remarks
<ul style="list-style-type: none"> ✓ LIGHT, MEDIUM and HEAVY soils ✓ firm, fine, moist seedbed 	2.5 l/ha in at least 220 l/ha water (35 fl.oz/ac in at least 20 gal/ac). Spray as soon as possible after the crop has fully expanded cotyledons. Do not spray later than 31st January.	Normally not so effective as either of the pre-emergence treatments, but can be used in a wider range of situations.
Exclusions <ul style="list-style-type: none"> * not SANDS or VERY LIGHT soils * not organic soils # 		

* usually after about 7 September in northern England and Scotland to about 14 September in southern England.

soils with greater than 10% organic matter

SPRING OILSEED RAPE, SWEDES, TURNIPS

Recommended as a follow-up treatment to the approved formulation of trifluralin MAFF 05817 applied before drilling.

Situations treatable	Dose and timing	Remarks
✓ LIGHT, MEDIUM and HEAVY soils	1.5 l/ha in 220-450 l/ha water (21 fl.oz/ac in 20-40 gal/ac).	If the ideal seed bed was not attained make some compensation by using the highest recommended volume of water.
✓ seed drilled 15 mm deep and covered	Spray after drilling and before crop germination; this could be no more than 48 hours after drilling when the soil is warm and moist.	
✓ firm, fine, moist seedbed		
Exclusions	Post-emergence option for spring oilseed rape only:	
* not SANDS or VERY LIGHT soils	spray when the crop has fully expanded cotyledons but before weed emergence. Do not spray after the crop has 10 true leaves.	
* not organic soils #		
* not broadcast crops		

soils with greater than 10% organic matter

TRANSPLANTED CROPS OF BROCCOLI, BRUSSELS SPROUTS, CABBAGE, CALABRESE, CAULIFLOWER

Recommended as a follow-up treatment to the approved formulation of trifluralin MAFF 05817 applied before transplanting.

Situations treatable	Dose and timing	Remarks
✓ LIGHT, MEDIUM and HEAVY soils	1.5 l/ha in 220-450 l/ha water (21 fl.oz/ac in 20-40 gal/ac).	Roots of the transplants must be well covered and firmed. Do not treat if these conditions are not met or if the plants are wilting. If the ideal planting bed was not attained make some compensation by using the highest recommended volume of water.
✓ firm, fine, moist seedbed	Spray when the crop has become established and acclimatised before weed emergence. Do not spray later than 6 weeks before harvest.	
Exclusions		
* not SANDS or VERY LIGHT soils		
* not organic soils #		Do not treat during periods when cold nights follow warm days.

soils with greater than 10% organic matter

ORNAMENTAL TREES AND SHRUBS, NURSERY FRUIT TREES AND FORESTRY
-see Tolerant Species

Situations treatable	Dose and timing	Remarks
✓ LIGHT, MEDIUM and HEAVY soils	2.5 l/ha in 220-450 l/ha water (35 fl.oz/ac in 20-40 gal/ac).	Plant roots must be well covered and surrounding soil firm. Do not treat plants under any growing stresses.
✓ firm, fine, moist surface soil	Apply as a directed spray to the surrounding soil when the trees and shrubs have become established and/or acclimatised, but before bud burst and before weed emergence.	
Exclusions		
✗ not SANDS or VERY LIGHT soils		
✗ not organic soils #		
✗ not on fruit trees within one year of cropping		
✗ not stock in containers		
✗ not stock under glass or polythene		

soils with greater than 10% organic matter

Tolerant species

Verify for one's-self the safety of the treatment on all-new or unusual species or varieties before proceeding to treat larger areas.

Alder	Corsican pine	Apple	Roses
Ash	Douglas fir	Cherry	
Beech	Japanese larch	Pear	
Birch	Noble fir	Plum	
Norway maple	Norway spruce		
Oak	Scots pine		
Poplar sets	Sitka spruce		
Sweet chestnut	Western red cedar		
Sycamore			
Wild cherry			
Willow sets			

MIXING AND APPLICATION

Shake the container thoroughly before use. Half-fill the sprayer tank with clean water. With the contents of the spray tank under agitation, add the required quantity of Clayton Metazachlor. Maintain agitation whilst topping up the tank to the required level and until the completion of spraying. Spray immediately after mixing. Apply as a MEDIUM spray (BCPC definition). Do not use filters finer than 50 mesh. Avoid overlapping spray swaths. Avoid spray drift.

COMPATIBILITY

Clayton Metazachlor is compatible in tank-mix for use on winter oilseed rape with one of the following approved formulations. The Directions for Use of this label and those of the selected product must be strictly followed. Apply in at least 220 l/ha water (20 gal/ac). Spray immediately after mixing.

Paraquat	MAPP 10526 (pre-emergence only)
Cycloxydim	MAFF 05251
Deltamethrin	MAFF 07172

PROCESSED CROPS

Consult the processor before treating a crop destined for processing.

CULTIVATIONS AFTER APPLICATION

Cultivations after application should be avoided.

SUCCEEDING CROPS

After full-term winter oilseed rape: no restrictions

After a spring crop: plough 15 cm (6") deep before recropping. Do not plant carrots, lettuce, onions or parsnips within 5 months of treatment.

Crop failure after an autumn/winter application: plough 15 cm (6") deep. Sow in the same season only with winter wheat (not durum) or winter barley; if sowing in the spring, sow spring wheat (not durum), barley or oats, maize, field beans, peas, potatoes, linseed or any brassica.

WEED CONTROL

Susceptibility to Clayton Metazachlor under conditions specified for application.

	2.5 l product/ha		1.5 l product/ha	
		Latest indication		Latest indication
Black-bindweed	MS	pre-emergence	-	
Black-grass	S	to 2 leaves	S	pre-emergence
Brome, barren	MS	pre-emergence	-	
Charlock	MR	pre-emergence	-	
Chickweed, common	S	to 4 true-leaves	-	
Cleavers	MS	pre-emergence	-	
Crane's-bill, cut-leaved	S	to cotyledons	-	
Dead-nettle, red	S	to 2 true-leaves	S	pre-emergence
Fat-hen	MS	pre-emergence	-	
Forget-me not, field	S	to 2 true-leaves	S	pre-emergence
Fumitory, common	R	pre-emergence	-	
Groundsel	S	to 2 true-leaves	S	pre-emergence
Hemp-nettle, common	MR	pre-emergence	-	
Knotgrass	R	pre-emergence	-	
Marigold, corn	S	to 2 true-leaves	-	
Mayweed spp.	S	to 4 true-leaves	S	pre-emergence
Meadow-grass, annual	S	to 2 leaves	S	pre-emergence
Nettle, small	MS	pre-emergence	-	
Parsley-piert	S	pre-emergence	S	pre-emergence
Poppy, common	S	pre-emergence	MS	pre-emergence
Shepherd's-purse	S	pre-emergence	S	pre-emergence
Speedwell spp.	S	to 2 true-leaves	S	pre-emergence
Spurrey, corn	MS	pre-emergence	-	
Redshank	MS	pre-emergence	-	

S = susceptible

MS = moderately susceptible

MR = moderately resistant

R = resistant

Refer to the label of the approved formulation of trifluralin MAFF 05817 for the additional weed susceptibilities of that product when used in the recommended programme.

Strains of some annual grasses, e.g. black-grass, wild-oat and Italian rye-grass, have developed resistance to herbicides which may lead to poor control. A strategy for preventing and managing such resistance should be adopted. Guidelines have been produced by the Weed Resistance Action Group and copies are available from the HGCA, CPA, your distributor, crop advisor or product manufacturer.

CLEANING OF EQUIPMENT

After each days use thoroughly clean all equipment with water and a cleaning agent recommended for the cleaning of sprayers.