

Clinch XL

Contains 480 g/l (44.65% w/w) chlorpyrifos

An insecticide/acaricide for the control of various pests in listed cereals, grassland, sugar beet, potatoes, cabbage, carrots, maize, onions, apples, pears, plums, raspberry, strawberry, currants, gooseberry and in forestry.

FOR USE ONLY AS AN AGRICULTURAL INSECTICIDE

RISK AND SAFETY INFORMATION

HARMFUL IN CONTACT WITH SKIN AND IF SWALLOWED

MAY CAUSE LUNG DAMAGE IF SWALLOWED

IRRITATING TO SKIN

FLAMMABLE

VERY TOXIC TO AQUATIC ORGANISMS, may cause long term adverse effects in the aquatic environment

Chlorpyrifos is an anticholinesterase organophosphorus compound.

DO NOT USE if under medical advice NOT to work with such compounds

WASH CONCENTRATE from skin or eyes immediately.

DO NOT BREATHE SPRAY.

WHEN USING DO NOT EAT, DRINK OR SMOKE.

WASH HANDS AND EXPOSED SKIN before meals and after work.

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.

KEEP OUT OF REACH OF CHILDREN.

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

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

*DO NOT RE-USE CONTAINER for any purpose.

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

SAFETY DATA SHEET AVAILABLE for professional users on request.

TO AVOID RISKS TO MAN AND THE ENVIRONMENT, comply with the instructions for use.



(more Risk And Safety Information inside of leaflet)

PCS No: 90168

READ CAREFULLY THE RECOMMENDATIONS FOR USE PROVIDED WITH THIS CONTAINER.

PROTECT FROM FROST

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DIRECTIONS FOR USE

RISK AND SAFETY INFORMATION (Continued)

#EXTREMELY DANGEROUS TO FISH OR OTHER AQUATIC LIFE. Do not contaminate surface waters or ditches with chemical or used container.

#DO NOT ALLOW DIRECT SPRAY from broadcast air-assisted spray equipment to fall within 18m of surface waters or ditches with chemical or used container.

#DO NOT ALLOW DIRECT SPRAY from ground crop sprayers to fall within 5m of the top of the bank of a static flowing waterbody, or within 1m from the top of any ditch which is dry at the time of application.

DO NOT ALLOW DIRECT SPRAY from hand-held sprayers to fall within 1m from the top of a bank of a static or flowing waterbody. Direct spray away from water.

THIS PRODUCT IS NOT ELIGIBLE FOR BUFFER ZONE REDUCTION UNDER THE LERAP SCHEME.

#DANGEROUS TO BEES. Do not apply to crops in flower or to those in which bees are actively foraging.

Do not apply when flowering weeds are present.

WEAR SUITABLE PROTECTIVE GLOVES when handling the concentrate.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling drenched trays or peat blocks or modules of seedlings and handling freshly treated material.

***KEEP LIVESTOCK** out of treated areas for at least 14 days following treatment.

SYMPTOMS OF POISONING

These may include excessive sweating, headache, weakness, faintness and giddiness, nausea, stomach pains, vomiting, small pupils, blurred vision, muscle twitching.

FIRST AID

If any of the above symptoms occur, particularly if there is any known contamination: STOP WORK. Remove contaminated clothing. Wash exposed skin and hair. Prevent all exertion. Call doctor AT ONCE and show him this label.

GUIDE TO DOCTOR

This product contains an anticholinesterase organophosphorus compound.

Specific Treatment

1. IN ALL CASES AND AS EARLY AS POSSIBLE inject atropine sulphate 2 mg or pro-rata for children and repeat if necessary until fully atropinised.

2. IF AVAILABLE administer pralidoxime 1 gram by intra-muscular injection. Repeat after 3-4 hours.

Other measures

1. Keep airway clear.
2. Watch respiration - intubation with endotracheal tube or tracheotomy may be necessary in conjunction with artificial ventilation.
3. Put patient at complete rest in hospital for at least 24 hours.

Confirmation of Diagnosis

By estimating cholinesterase activity (5 ml blood, unhaemolysed, collected in an anticoagulant).

Further advice from the nearest National Poisons Information Centre.

Crop or Situation	Maximum individual dose of product	Maximum number of applications per crop	Latest time of application
Wheat, barley, oats, winter & spring	1.5 l/ha	3 per crop	14 days before harvest
Grassland including pasture	1.5 l/ha	2 per year	14 days before harvest
Amenity grassland			
Managed amenity turf	1.5 l/ha	2 per year	-
Head Cabbage	2 l/ha as a spray	3 per crop	21 days before harvest
Chinese cabbage	70 ml dilute solution per plant or 5 l per 30 m row as a drench in the field (see Other Specific Restrictions)	1 per crop	4 days after transplanting or at seeding emergence.
Head Cabbage	<i>Drench application to peat blocks</i> 100 ml product per 5000 blocks (see Other Specific Restrictions) <i>Drench application to modules</i> 50 ml product per 5000 modules (see Other Specific Restrictions)	1 per crop before planting out	4 leaves stage
Sugar beet	1.5 l/ha	2 per crop	End-July in year of harvest
Onion, Potato	2 l/ha	2 per crop	21 days before harvest
Carrot	2 l/ha	2 per crop see Other Specific restrictions	14 days before harvest
Apples, Pears, Plums	2 l/ha	-	14 days before harvest see Other Specific Restrictions
Strawberry	1.5 l/ha as a spray 570 ml dilute solution per plant as a drench	- 1 per crop	7 days before harvest see Other Specific Restrictions
Raspberry	1.5 l/ha	2 per crop	7 days before harvest
Blackcurrant	1.5 l/ha	3 per crop	14 days before harvest
Redcurrant			
Whitecurrant			
Gooseberry	1.5 l/ha	-	14 days before harvest
Maize	1.5 l/ha	-	21 days before harvest
Forest nursery - conifers	570 ml dilute solution per plant as a drench per Other Specific Restrictions	-	-
Forest	As a spray (cut logs) 700 ml dilute solution per m ² (see Other Specific Restrictions)	-	-

Other Specific Restrictions:

When applied as a drench the following maximum concentrations must not be exceeded: Listed brassicae treated in the field - 100 ml product per 100 litres water. Strawberries and conifers - 2 litres product per 1000 litres water. Peat blocks containing head cabbage - 100 ml product per 25 litres of water. Modules containing head cabbage - 50 ml product per 5 litres of water.

Barclay Clinch XL must only be applied as a drench treatment to strawberries between the end of the cropping season and the end of November. Fruit crops must not be treated whilst in flower.

When spraying cut logs the concentration of the spray must not exceed 1 litre product per 100 litres water.

Carrot

1. For carrots grown on mineral soil, that is soil containing up to and including 10% humified organic matter, the combined maximum total dose of approved organophosphorus insecticides must not exceed the equivalent of three full rate applications per crop. This may be applied as three full rate applications or, where split doses are permitted on individual product labels, as a larger number of split doses.

2. For carrots grown on organic soil, that is soil containing more than 10% humified organic matter, the combined maximum total dose of approved organophosphorus insecticides must not exceed the equivalent of four full rate applications per crop. This may be applied as four full rate applications or, where split doses are permitted on individual product labels, as a larger number of split doses.

See also **PRECAUTIONS** marked*.

<u>Crop</u>	<u>Pests</u>	<u>Time & Method</u>	<u>Rate</u>
Winter or spring crops of: Wheat Barley Oats	Frit fly	Spray between drilling and crop emergence or as soon as damage to the central shoot is seen, but not later than the 2 leaf stage. Later application may be less effective.	1.5 l/ha in 200-1000 l/ha water
	Leatherjacket	Spray when damage is first seen (usually March-May) and treatment warranted.	
	Wheat bulb fly	Spray in the early stages of egg hatch, usually early January to end-February. Starting treatment later is not recommended. Repeat, especially on organic soils, if egg hatch period is extended and attack persists. See also WEATHER.	
	Aphids (late spring/ summer treatment only)	Spray if counts reveal 1-2 aphid per ear during emergence or 5 per ear at the start of flowering.	0.7 l/ha in 200-1000 l/ha water .
	Wheat blossom midge	Spray before flowering, if counts reveal 1-2 midges per ear during ear emergence. Ears not emerged at application will not be protected.	1 l/ha in 200-1000 l/ha water .
Grassland including pasture Managed amenity turf Amenity grassland	Frit fly	Spray at seedling emergence if damage is anticipated or as soon as damage to the central shoot is seen.	1.5 l/ha in 200-1000 l/ha water.
	Leatherjacket	Preferably spray in early November if damaging attacks are anticipated. Treatment may be applied up to the end-March or when damage is first seen but these later timings may be less effective than earlier treatment. Avoid spraying during frosty weather when the pest is less active.	<i>Do not allow cows in lactation to graze on treated grassland for 14 days after application.</i>
Sugar beet	Leatherjacket (reduction of attack only) If sugar beet is to follow infested grassland, treatment of the old sward prior to destruction as under 'Grassland' is the method recommended to prevent serious attacks. The in-crop treatment may be applied in addition to reinforce control but by itself will only reduce attacks.	Spray when the beet have at least 2 true leaves each at least 10 mm long if pest or damage is seen. <i>Do not apply to crops under stress or within 5 days of a herbicide application.</i>	1.5 l/ha in at least 200 l/ha water . <i>Do not tank-mix with other products.</i>
Head Cabbage	First generation cabbage root fly: for use pre-planting on crops to be planted out after 1st April.	Treat when the plants have 3-4 true leaves. Give the plants a light irrigation before applying the drench. Immediately after application irrigate from above just to the point of saturation of the growing medium; leaching must be avoided to maintain optimum efficacy and avoid contamination of any underlying growing area and possible damage to future crops. The use of polythene sheet under the trays is recommended.	<i>Drench application to peat blocks:</i> 100 ml Barclay Clinch XL in minimum 25 litres water per 5000 blocks (45 mm cube) <i>Drench application to modules:</i> 50 ml (1¾ fl.oz) Barclay Clinch XL in minimum 5 litres (1 1/10 gal) water per 5000 modules (11-13 ml size).

Crop	Pests	Timing & Method	Rate
Head Cabbage Chinese cabbage	First generation cabbage root fly: for use in the field	<i>Planted/Sown before mid-April:</i> Treat after the 3rd week of April as a surface band along the rows or as a drench to each plant. <i>Planted/Sown after mid-April:</i> Treat within 4 days after planting or crop emergence as above.	Mix 100 ml Barclay Clinch XL per 100 litres of water. Apply 5 litres mixture per 30 m row in a 15 cm band or apply 70 ml mixture to the soil around the base of each plant.
	Aphid Note: aphids in the heads at the time of application may not be controlled.	Spray as soon as pest is seen. Use sufficient water to just wet the foliage.	1 l/ha in 600-1000 l/ha water. Add an authorised non-ionic wetting agent at the recommended rate.
	Caterpillar (small)	Spray as soon as pest is seen.	1.5 l/ha in 600-1000 l/ha water. Add an authorised non-ionic wetting agent at the recommended rate when treating a growing crop.
	Leatherjacket	Spray pre-drilling.	
Cabbage, Chinese cabbage, Carrot, Onion, Potato, Maize	Cutworm	Spray post-emergence, at egg hatch or upon advisory warnings. Do not apply to potatoes under water stress as damage might occur (var. Desiree is especially sensitive).	2 l/ha in 600-1000 l/ha water.
	Frit fly	Spray when crop begins to emerge or up to the 2-leaf stage if emergence is variable.	1.5 l/ha in 200-1000 l/ha water.
Apples <i>pre-blossom</i>	Apple blossom weevil	Spray at bud burst.	1 l/ha in 250-2000 l/ha water.
	Aphid	Spray at bud burst to pink bud	
	Tortrix moth		
	Winter Moth		
	Apple sucker Capsids	Spray at green cluster to pink bud	
Note: a spray at late green cluster to pink bud will control the listed pre-blossom pests except common green capsid, rosy leaf-curling aphid and rosy apple aphid which require further treatment post-blossom. Where rosy leaf-curling aphid is a known problem spray both pre- and post-blossom (see below).			
<i>post-blossom</i>	Sawfly	Spray at petal fall. Repeat 14 days later and again if necessary	2 l/ha in 250- 2000 l/ha water.
	Red spider mite (non-organophosphorus resistant strains)	May be controlled concurrently by sprays against other pests	
	Aphid including Rosy leaf-curling aphid Common green caspid	Spray at petal fall	Use at least 1000 l/ha water if pre-blossom spray is not applied against rosy leaf-curling aphid
	Woolly aphid	Controlled concurrently by the codling/tortrix programme.	
	Codling moth Summer tortrix	<i>First spray:</i> Spray just before the earliest eggs hatch (mid-late June). <i>Subsequent sprays:</i> Repeat after 2 weeks and again if necessary.	2 l/ha in 250-2000 l/ha water.
	Pears <i>pre-blossom</i>	Aphids, Capsids, Tortrix moth, Winter moth	Spray at bud burst to white bud.
<i>Post-blossom</i>	Red spider mite (non-organophosphorus resistant strains)	May be controlled concurrently by sprays against other pests.	2 l/ha in 250-2000 l/ha water.
	Capsid, Caterpillar Pear sucker	Spray when pests occur.	Spray at high volume for pear sucker and ensure good coverage of the foilage.
	Aphid Codling moth	Controlled concurrently by post-blossom sprays <i>First spray:</i> Spray just before the earliest eggs hatch (mid-late June in most seasons). <i>Subsequent sprays:</i> Repeat after 2 weeks and again if necessary.	2 l/ha in 250-2000 l/ha water.

Crop	Pests	Timing & Method	Rate
Plums <i>pre-blossom</i>	Aphid Winter moth Tortrix moth	Spray at bud burst to white bud.	1 l/ha in 250-2000 l/ha water.
<i>post-blossom</i>	Winter moth	Spray 7-10 days after petal fall at cot split.	2 l/ha in 250-2000 l/ha water.
	Mealy plum aphid Damsion hop aphid (non-organophosphorus resistant strains)	Spray when aphid first seen (May/June). Repeat as necessary to control successive immigrations.	
	Red spider mite (non-organophosphorus resistant strains)	If Barclay Clinch XL is used at cot split against winter moth, further acaricidal treatment may be unnecessary.	
Unstripped timber stockpiles	Ambrosia beetle	Spray shortly before an anticipated attack or immediately after the start of an attack.	Mix 1 l Barclay Clinch XL per 100 litres of water. Apply 700 ml as spray per m ² exterior surface of stack. For single logs apply 500 ml of spray per m ² .
	Larch shoot beetle	Thoroughly spray the surface of the stack including the ends.	
	Pine shoot beetle	For logs already infested, apply Barclay Clinch XL in paraffin or diesel oil: such treatment might also control the elm bark beetle.	
Raspberry	Aphid	Spray before flowering as necessary.	1 l/ha in 500-2000 l/ha water.
	Cane midge	Spray lower 60 cm (2 feet) of young cane growth and soil upon finding the characteristic splits on the spawn, usually in the first week of May in Southern areas or later after cold springs or upon professional advice. Repeat after 10-14 days.	
	Raspberry beetle	Spray at first pink fruit.	1 l/ha in 1000-2000 l/ha water.
	Red spider mite (non-organophosphorus resistant strains)	An application at first pink fruit to control raspberry beetle will also give concurrent control of red spider mite present or spray later as required.	1.5 l/ha in 500-2000 l/ha water.
Blackcurrant Redcurrant Whitecurrant	Aphid	Spray when attack occurs, but not during flowering.	1 l/ha in 1000-2000 l/ha water.
	Capsids	Spray before first open flower. Repeat at end of flowering.	
	Caterpillar	Spray just after flowering and repeat if necessary. Spray after picking if necessary.	1.5 l/ha in at least 2000 l/ha water.
Gooseberry	Red spider mite (non-organophosphorus resistant strains)	Spray when mites appear, usually late April to early May. Repeat if necessary.	1.5 l/ha in at least 2000 l/ha water.
	Aphid	Spray when attack occurs, but not during flowering.	
	Capsids	Spray before first open flower. Repeat at end of flowering	
	Caterpillar	Spray when necessary usually just after flowering. It is important to achieve penetration into the middle of bushes.	

<u>Crop</u>	<u>Pests</u>	<u>Timing & Method</u>	<u>Rate</u>
Strawberry	Aphid	<i>Non-protected crops:</i> Spray before aphid populations build up in mid-late April shortly before flowering. An earlier spray may be applied if necessary in late March. Repeat in late April to early May. <i>Protected crops:</i> Spray in March. Repeat before flowering if necessary. <i>Runner/maiden beds:</i> Spray in mid-May and repeat at 2-3 week intervals.	1 l/ha in 1000 l/ha water
	Tortrix	Spray in April when the pest appears. If necessary repeat in the summer and autumn.	
	Red spider mite (non-organophosphorus resistant strains)	An application of Barclay Clinch XL timed to control aphids will also control red spider mite. In some seasons a spray in early April may be necessary. Spray protected crops in early March to early April.	1.5 l/ha in 1000 l/ha water.
	Vine weevil (non-protected crops only)	Drench the crowns of the plants and surrounding soil after removal of leaves post-fruiting but before the end of November. <i>Verify varietal tolerance of the treatment before treating large areas.</i>	Mix 200 ml Barclay Clinch XL in 100 litres of water. Apply 285-570 ml mixture per plant according to size.
Conifer nursery stock <i>Verify species and varietal tolerance before treating large numbers of plants.</i>	Root weevils <i>Otiorhynchus spp.</i>	Drench the roots and surrounding soil from April/May onwards as soon as damage occurs.	Mix 200 ml Barclay Clinch XL in 100 litres of water. Apply 285-570 ml mixture per plant according to size.

Important: fruit crops must not be sprayed during flowering.

Soils: Barclay Clinch XL is active against recommended soil pests on all soil types, but activity may be reduced on organic soils.

Weather: Do not apply onto snow covered or frosted soils or during windy weather. Activity may be reduced when soil temperatures are below 5° C (41° F).

Mixing: Pour the required quantity of Barclay Clinch XL into the sprayer tank already half-filled with water and with the re-circulation system in action. Top up the tank with water and maintain re-circulation until the tank is sprayed out.

Application: Apply the prepared mix as a MEDIUM spray (BCPC definition). Operate equipment to achieve maximum foliar coverage and penetration into the middle of plants or bushes (where applicable). Spray booms fitted with pendant lances may enhance efficacy in some crops.

Tank Mixes: Barclay Clinch XL is compatible in tank-mix for application by conventional hydraulic equipment with one of the approved formulations listed below. When tank-mixing Barclay Clinch XL, the Directions for Use of both products must be strictly observed. Normally mix Barclay Clinch XL in the spray tank first unless directed otherwise. Spray out immediately after mixing.

Carbendazim 90221	Fenpropimorph 90438	Clopyralid 91664	Isoproturon 91429
Chlorothalonil 00198	Chlorotoluron 90169	Glyphosate 02044	Paraquat* 90694

* Always mix Barclay Clinch XL in the spray tank first.

Barclay Clinch XL is not compatible with zineb or highly alkaline products.

After flag leaf emergence of cereals, minimise the risk of leaf scorch in tank-mixes with fungicides by using the highest recommended volume of water common to each product, avoiding the use of adjuvants and spraying during the coolest part of the day.

Isoproturon-containing herbicides whether used alone or in tank mixture with Barclay Clinch XL should not be used on waterlogged or poorly drained soils or cloddy soils or applied before or during periods of frost. Some damage to the crop may occur on open, free-draining soils, especially sandy and gravelly soils, and stony soils if heavy rain falls soon after application. Early sown crops can be checked or damaged if treated whilst rapidly growing in autumn or if treated prior to a period of rapid growth.

Resistant Strains: Strains of some aphid species, pear suckers and spider mites resistant to one or more groups of insecticides are widespread. Where strains resistant to products containing chlorpyrifos occur, Barclay Clinch XL is unlikely to give satisfactory control. Repeat treatments are likely to result in lower levels of control. Where repeat treatments are necessary, use different active ingredients. For damson-hop aphid, wherever possible use different active ingredients in a programme of treatments.

Processed Crops: Consult processors before treating crops intended for processing.