

# CLAYTON PONTOON 48EC

MAPP 14555

Contains 480 g/l chlorpyrifos with xylene in an emulsifiable concentrate

Chlorpyrifos is an anticholinesterase organophosphate. Handle with care.

For the control of certain insect pests in a range of agricultural and horticultural crops.



**HARMFUL**

**Harmful by inhalation and if swallowed**  
**Harmful: may cause lung damage if swallowed**  
**Irritating to skin**  
**May cause sensitisation by skin contact**  
**Risk of serious damage to eyes**  
**Flammable**



**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.

## IMPORTANT INFORMATION

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

**Crops:** Wheat, barley, oats, forage maize, sugar beet, bulb onion, potato seed crops, grassland and managed amenity turf.  
Broccoli/calabrese, Brussels sprout, cabbage, cauliflower, Chinese cabbage.  
Raspberry, strawberry, apple, pear, plum, blackcurrant and gooseberry.  
Cut logs.

**Maximum individual dose:** See under DIRECTIONS FOR USE

**Maximum number of treatments:** " " "

**Latest time of application:** " " "

**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.**

## **SAFETY PRECAUTIONS**

### **Operator protection**

Chlorpyrifos is an anticholinesterase organophosphorus compound. DO NOT USE if under medical advice NOT to work with such compounds.

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 GLOVES when handling contaminated surfaces.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when handling freshly treated material.

However, engineering controls may replace personal protective equipment if a COSHH assessment shows they provide an equal or higher standard of protection.

WASH CONCENTRATE from skin or eyes immediately.

WHEN USING DO NOT EAT, DRINK OR SMOKE.

DO NOT BREATHE SPRAY.

WASH ALL PROTECTIVE CLOTHING thoroughly after use, especially the insides of gloves.

WASH HANDS AND EXPOSED SKIN before eating and drinking and after work.

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

IF SWALLOWED, do not induce vomiting; seek medical advice immediately and show this container or label.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

### **Environmental protection**

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

This product qualifies for inclusion within the Local Environment Risk Assessment for Pesticides (LERAP) scheme for BROADCAST AIR-ASSISTED SPRAYERS ONLY. Before each spraying operation from a broadcast air-assisted sprayer, either a LERAP must be carried out in accordance with CRD published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for three years.

DO NOT ALLOW DIRECT SPRAY from broadcast air-assisted sprayers to fall within 18m of the top of the bank of a static or flowing water body, unless a Local Environment Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 5m of the top of a ditch which is dry at the time of application. Aim spray away from water.

DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5m of the top of the bank of a static or flowing water body, 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 of the top of the bank of a static or flowing water body. Aim spray away from water. THIS PRODUCT IS NOT ELIGIBLE FOR BUFFER ZONE REDUCTION UNDER THE LERAP HORIZONTAL BOOM SPRAYERS 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.

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

### **Storage and disposal**

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.

This material and its container must be disposed of in a safe way.

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

DO NOT RE-USE CONTAINER for any purpose.

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

Safety data sheet available for professional user on request.

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

**Clayton Plant Protection (UK) Ltd.**  
**Unit F10, Bracetown Business Park**  
**CLONEE, Co. Meath, Ireland**  
Tel: (00 353) 1 8210127

Net contents: **5 litres**  
PROTECT FROM FROST  
SHAKE THOROUGHLY BEFORE USE  
Batch No:

FLAMMABLE LIQUID, N.O.S., (contains xylene). UN 1993; Class 3, Packing Group III

### **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 of the 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.



## 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.

## 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 INSECTICIDE			
Crop or use	Maximum individual dose	Maximum number of treatments	Latest time of application
Wheat, barley	1.5 l product/ha	Two per crop	Before flag leaf sheath extending (Zadoks GS 39)
	And 1 l product/ha	One per crop	Until beginning of flowering (Zadoks GS 61)
	Or 0.7 l product/ha	One per crop	14 days before harvest
Oats	1.5 l product/ha	Three per crop	Before second node detectable
Forage maize	1.5 l product/ha	One per crop	21 days before harvest
Grassland	1.5 l product/ha	One per year	14 days before cutting or grazing
Managed amenity turf	1.5 l product/ha	Two per year	-
Cabbage, cauliflower, broccoli/calabrese, Chinese cabbage	2 l product/ha	Two per crop	21 days before harvest
Cabbage, cauliflower, Brussels sprout, broccoli/calabrese	70 ml drench solution per plant – see <i>Other specific restriction 1a</i> .	One per crop	4 days after transplanting, or at seedling emergence
	Or 5 litres drench solution per 30m of row – see <i>Other specific restriction 1a</i> .	One per crop	4 days after transplanting, or at seedling emergence

Cont.

Cabbage, cauliflower, Brussels sprout, broccoli/calabrese	100 ml of product per 5000 blocks – see <i>Other specific restriction 1b.</i>	One per crop prior to planting out	4 leaf stage
Cabbage, cauliflower, Brussels sprout, broccoli/calabrese	50 ml of product per 5000 modules – see <i>Other specific restriction 1c.</i>	One per crop prior to planting out	4 leaf stage
Sugar beet	1.5 l product/ha	One per crop	End of July in year of harvest
Potato (seed)	2 l product/ha	Two per crop	21 days before harvest
Bulb onion	2 l product/ha	One per crop	21 days before harvest
Raspberry	1.5 l product/ha	Three per year – see <i>Other specific restriction 2 and 4.</i>	7 days before harvest
Strawberry	1.5 l product/ha	Two per crop (red spider mite use) – see <i>Other specific restriction 4.</i>	7 days before harvest
	Or 1 l product/ha	One per crop (aphids/tortrix use) – see <i>Other specific restriction 4.</i>	7 days before harvest
	Or 570 ml drench solution per plant – see <i>Other specific restriction 1d.</i>	One per crop – see <i>Other specific restriction 3.</i>	7 days before harvest
Apple	1 l product/ha	One per year – see <i>Other specific restriction 4.</i>	Pre blossom
	Or 2 l product/ha	Three per year post blossom – see <i>Other specific restriction 4.</i>	14 days before harvest
Pear	2 l product/ha	Two per year – see <i>Other specific restriction 4.</i>	14 days before harvest
Plum	2 l product/ha	Three per year – see <i>Other specific restriction 4.</i>	14 days before harvest
Blackcurrant	1.5 l product/ha	Three per year – see <i>Other specific restriction 4.</i>	14 days before harvest
Gooseberry	1.5 l product/ha	One per year – see <i>Other specific restriction 4.</i>	14 days before harvest
Cut log	500 ml spray solution per m <sup>2</sup> - see <i>Other specific restriction 5.</i>	Two per year	-
<p><b>Other specific restrictions</b></p> <p>1) Drench applications must not exceed the following maximum concentrations:</p> <ol style="list-style-type: none"> <li>Listed brassicas (field use): 100 ml product per 100 litres water.</li> <li>Peat blocks containing Brussels sprouts, cabbage, cauliflower and calabrese: 100 ml product per 25 litres water per 5000 blocks.</li> <li>Modules containing Brussels sprouts, cabbage, cauliflower and calabrese: 50 ml product per 5 litres water per 5000 modules.</li> <li>Strawberries: 2 litres product per 1000 litres water.</li> </ol> <p>2) For raspberries, the maximum total dose is 3 litres product per ha.</p> <p>3) This product may only be applied as a drench treatment to strawberries at the end of the cropping season but before the end of November.</p> <p>4) Fruit crops must not be treated during flowering.</p> <p>5) The spray application to cut logs must not exceed the concentration of 1 litre product per 100 litres of water.</p>			
<p><b>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.</b></p>			

**WINTER AND SPRING WHEAT, BARLEY AND OATS\***

<b>Pest</b>	<b>Treatment advice</b>	<b>Dose</b>
Leatherjackets	<b>Damage is seen</b> Spray immediately damage is seen if justified by high pest numbers. <b>Predicted attack</b> See section on leatherjackets in GRASSLAND if relevant to the cropping rotation.	1.5 l/ha in at least 200 l/ha water.
Frit fly	Winter wheat after grass and late-sown spring oats are most susceptible to attack. <b>Damage to central shoot seen</b> Spray immediately. The damage limitation of an application later than 2 leaves of spring oats is likely to be reduced.	1.5 l/ha in at least 200 l/ha water.
Wheat bulb fly	<b>Predicted attack</b> Take professional advice. Application is usually early January to end of February at the start of egg hatch. In some years egg hatch occurs over an extended period and a second application is justified, especially on organic soils. <b>Damage is seen</b> Spray immediately. The appearance of dead hearts indicates an established attack. Treatment at this time is less effective.  Do not apply onto snow covered ground.	1.5 l/ha in at least 200 l/ha water.
Wheat blossom midge larvae	Between ear emergence and the start of flowering as soon as threshold midge numbers are reached.	1 l/ha in at least 200 l/ha water.
Summer cereal aphids on wheat and barley only	Spray, if necessary, at least 14 days before harvest, when threshold numbers are reached.	0.7 l/ha in at least 200 l/ha water.

\* Note that the latest time of application on oats is before the 2<sup>nd</sup> node is detectable.

**GRASSLAND AND MANAGED AMENITY TURF**

Maximum number of treatments on grassland: one per year.

Maximum number of treatments on managed amenity turf: two per year.

Grassland must not be grazed or harvested for at least 14 days after application.

<b>Pest</b>	<b>Treatment advice</b>	<b>Dose</b>
Frit fly	<b>Predicted attack</b> Spray at crop emergence. <b>Damage to central shoot seen</b> Spray immediately.	1.5 l/ha in at least 200 l/ha water.
Leatherjackets	<b>Predicted attack</b> Spray from early-November to end-March during mild weather. The best time to spray to control leatherjackets in grassland is in early November. However efficacy is likely to be reduced at this time if the weather is cold, as the larvae are not so active at the surface during cold weather. The alternative is to treat during a subsequent period of mild weather occurring up to the end of March but reduced efficacy must be accepted. <b>Damage is seen</b> Spray as soon as practicable.	1.5 l/ha in at least 200 l/ha water.

**SUGAR BEET**

Maximum number of treatments per crop: one; before end-July in year of harvest.

<b>Pest</b>	<b>Treatment advice</b>	<b>Dose</b>
Leatherjackets in sugar beet	<b>Damage is seen</b> Spray as soon as practicable from 2 fully expanded true-leaves (each at least 12mm long) of the beet. Do not treat beet growing under stress or within 5 days before or after any other treatment. Do not apply in any tank-mixture. Leatherjacket populations will be reduced but are not fully controlled by this treatment.  <b>Predicted attack following grass</b> Spray the old grassland from early-November to end-March during mild weather but before ploughing - see leatherjackets in GRASSLAND.	1.5 l/ha in at least 200 l/ha water

## FORAGE MAIZE

Pest	Treatment advice	Dose
Frit fly	Spray at full crop emergence before the seedlings have more than two leaves. If emergence is variable spray when half the crop has two leaves.	1.5 l/ha in at least 200 l/ha water.

## BRUSSELS SPROUT, CABBAGE, CALABRESE, CAULIFLOWER (before planting-out)

Maximum number of drench treatments prior to planting-out: one per crop.

Additional field treatment may be required after planting-out if the cabbage root fly attack is expected to be heavy.

Pest	Treatment advice	Dose
Cabbage root fly	Lay the trays on polythene sheet at the time of sowing to avoid contamination of the underlying glasshouse soil when the planned treatment is applied – see Caution below.	<i>Peat blocks:</i> 100 ml in at least 25 litres of water per 5000 regular-size peat blocks
To control first generation larvae in crops to be planted-out after 1 <sup>st</sup> April. Do not treat peat blocks or modules to be planted-out before 1 <sup>st</sup> April.	Treat at 3-4 true leaves. 1. Irrigate lightly from above before treatment. 2. Repeat the irrigation after treatment for a longer period to wash the insecticide from the leaves and to disperse the insecticide within the growing medium, but not so much as to cause leaching. This will reduce the chances of the plants being scorched.  Do not apply with any other product. Apply accurately. Overdosing may result in crop damage. Do not over-water in the first 24 hours after treatment. Transplant as soon as practicable after treatment. When planting out, the surface of the peat block or module must be kept level with the surrounding soil and its treated surface fully exposed. Soil on the surface of the block might reduce efficacy.	<i>Modules:</i> 50 ml in at least 5 litres of water per 5000 regular-size modules

### Caution

The decay of chlorpyrifos under glass and other protected situations is slow; when applying Clayton Pontoon 48EC at high concentration, avoid contaminating the underlying soil. Susceptible crops, e.g. celery, lettuce, chrysanthemum, subsequently planted into contaminated soil may suffer damage.

## BROCCOLI, BRUSSELS SPROUT, CABBAGE, CALABRESE, CAULIFLOWER (post-planting/post-emergence in-field drench)

Maximum number of treatments: one drench application per crop.

Pest	Treatment advice	Dose
Cabbage root fly (first generation)	Apply as a drench in a 15 cm band along the row or as a single plant drench. <b>Direct-sown crops emerging after mid-April</b> Apply at seedling emergence <b>Crops transplanted after mid-April</b> Apply within 4 days of transplanting	100 ml product/100 l water applied at: <u>Band drench</u> 5 l drench per 30m of row. <u>Single plant drench</u> 70 ml drench/plant.

## BROCCOLI, CABBAGE, CALABRESE, CAULIFLOWER, CHINESE CABBAGE (post-planting in-field spray)

Maximum number of treatments: two spray applications per crop.

Pest	Treatment advice	Dose
Aphids	Spray immediately aphid influx occurs. Cover the plants thoroughly with spray. Results may be variable under dry weather in summer.	1 l/ha in at least 500 l/ha water plus authorised non-ionic wetting agent
Caterpillars (small)	Spray immediately larvae or damage is seen, ordinarily early summer.	1.5 l/ha in at least 500 l/ha water plus authorised non-ionic wetting agent
Cutworms	See general recommendation for this pest.	

Note: complete control of insect pests in Brussels sprout buttons is unlikely to be achieved.

## CUTWORMS IN DETAILED CROPS

Maximum number of treatments per crop: two for the detailed brassicas and seed crops of potato; one per crop for bulb onions. These applications are inclusive of applications recommended to control other pests given elsewhere on this label.

Crop	Treatment advice	Dose
Broccoli	Spray immediately cutworms or their damage is seen or upon professional advice provided that the crop is soundly established.	2 l/ha in at least 500 l/ha water.
Cabbage		
Calabrese	Drought stresses on potatoes must be relieved before application; var. Desirée is particularly sensitive.	
Cauliflower		
Chinese cabbage		
Bulb onion		
Potato for seed only		

## APPLES, PEARS, PLUMS

Dose for pre-blossom sprays	Dose for post-blossom sprays
1 l/ha product in 250-2000 l/ha water.	2 l/ha product in 250-2000 l/ha water.

### APPLES

Maximum number of treatments: one per year at 1 l/ha pre-blossom plus three per year at 2 l/ha post-blossom. Do not spray between pink bud and petal fall.

Pest	Treatment advice
<b>Pre-blossom</b>	
Aphids	These insect pests are usually controlled by a spray at green cluster to pink bud Repeat at petal fall for certain aphids and if common green capsids are present. Use at least 1000 l/ha water if curled leaf damage has been sustained.
Apple blossom weevil	
Apple sucker	
Capsids	
Tortrix moths	
Winter moths	
<b>Post-blossom</b>	
Aphid	Spray at petal fall. Repeat if necessary.
Sawfly	
Codling moth	Spray just before the first eggs hatch, usually mid-late June. Repeat 14 days later and again, after a further 14 days, if required.
Summer tortrix	
Woolly aphid	The sprays timed for codling moth and summer tortrix will normally give simultaneous control of woolly aphid.
Non-organophosphorus resistant strains of red spider mite	A programme of sprays timed to control the main insect pests of apples will normally give simultaneous control of susceptible strains of red spider mite.

### PEARS

Maximum number of treatments: two per year. Do not apply during flowering.

Pest	Treatment advice
Aphids	Apply at bud burst to white bud. Repeat post-blossom if necessary for aphid and capsid.
Capsids	
Tortrix moths	
Winter moths	
Pear sucker	Spray post-blossom if necessary; apply at high volume for this pest.
Codling moth	Spray just before the first eggs hatch, usually mid-late June. Repeat 14 days later.
Non-organophosphorus resistant strains of red spider mite	A programme of sprays timed to control the main insect pests of pears will normally give simultaneous control of susceptible strains of red spider mite.

## PLUMS

Maximum number of treatments: three per year.

Do not spray between white bud and petal fall.

Pest	Treatment advice
Aphids Winter moths Tortrix moths	Spray at bud burst to white bud. Repeat 7-10 days after petal fall, at cot split, for post-blossom winter moths.
Mealy plum aphid Damson-hop aphid (non-organophosphorus resistant strains)	Spray as soon as the aphids appear in May or June. Repeat as necessary
Non-organophosphorus resistant strains of red spider mite	A programme of sprays timed to control the main insect pests of plums will normally give simultaneous control of susceptible strains of red spider mite.

## RASPBERRY

Maximum number of treatments: three per year totalling no more than 3 l/ha

Pest	Treatment advice	Dose
Aphids	Before flowering as required.	1 l/ha in 500-1000 l/ha water.
Cane midge	Spray in early-mid May in the south ranging to late May or early June in Scotland, but as soon as the distinctive growth splits in the new canes appear or upon professional advice. Repeat after 10-14 days before the start of flowering at the latest. Spray the lower 60 cm of young cane. The time of appearance of the growth splits varies with the seasonal weather; in a cold spring, their appearance may be delayed by 7 days or so.	1 l/ha in 500-1000 l/ha water.
Raspberry beetle	At first pink fruit.	1 l/ha in at least 1000 l/ha water.
Non-organophosphorus resistant strains of red spider mite	Spray at fruit set and when the pest appears, if necessary. Sprays applied at first pink fruit to control insect pests will normally control susceptible strains of red spider mite present.	1.5 l/ha in 2000 l/ha water.

## GOOSEBERRY

Maximum number of treatments: one per year

Pest	Treatment advice	Dose
Aphids	Spray on appearance of aphid; do not apply during flowering.	1 l/ha in 1000-2000 l/ha water.
Capsids	Spray before the first flower opens.	
Caterpillar	Spray normally just after flowering on appearance of pest; do not apply during flowering. Spray must penetrate to the middle of bushes.	
Non-organophosphorus resistant strains of red spider mite	Spray normally end-April to early-May on appearance of the pest.	1.5 l/ha in 2000 l/ha water.

## STRAWBERRY

Pest	Treatment advice	Dose
Aphids Tortrix caterpillars	Spray on appearance of the pests before flowering. Do not spray again until post-harvest.	1 l/ha in 1000 l/ha water.
Non-organophosphorus resistant strains of red spider mite	If required, on appearance of the pest, ordinarily early April for non-protected crops but a month earlier for protected crops but in any event before the start of flowering. Sprays applied to control insect pests will normally give simultaneous control of susceptible strains of red spider mite making specific treatment unnecessary.	1.5 l/ha in 1000 l/ha water.
Vine weevil (non-protected crops)	Apply as a drench to the crowns after picking and leaf topping. Treat late-season varieties after harvest but before end-November. Users must test drench any unfamiliar variety to check the safety of the treatment before applying to large numbers of plants.	2 litres product per 1000 l water applied at 285-570 ml per crown.

## BLACKCURRANTS

Maximum number of treatments per crop: three

Pest	Treatment advice	Dose
Aphids	Spray on appearance of aphid; do not apply during flowering.	1 l/ha in 1000-2000 l/ha water.
Capsids Caterpillar	Spray before the first flower opens. Repeat 3 weeks later after flowering is complete.	1 l/ha in 1000-2000 l/ha water.
Non-organophosphorus resistant strains of red spider mite	Spray after the fruit is set. Repeat if required. Over-wintering populations can be prevented by an application after picking.	1.5 l/ha in 2000 l/ha water.

## CUT LOGS

Pest and situation	Treatment advice	Dose
Protection of unstripped logs against Ambrosia beetle, Larch shoot beetle and Pine shoot beetle.	Spray logs at risk before an attack is expected. Completely cover single logs with spray or as much as possible of the surface of stacked logs. Avoid application in windy or cold weather.	1 litre Clayton Pontoon 48EC in 100 litres of water <i>Single logs:</i> apply 500 ml of spray per m <sup>2</sup> surface area <i>Stacked logs:</i> apply 700 ml of spray per m <sup>2</sup> stack surface area

## RESISTANT STRAINS

Strains of some aphid species, pear suckers and spider mite resistant to one or more groups of insecticides are widespread. Where strains resistant to products containing chlorpyrifos occur, Clayton Pontoon 48EC 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.

## CROP, SOIL AND WEATHER FACTORS

When the availability of chlorpyrifos in soil is a relevant part of the control measure, e.g. for cabbage root fly and leatherjacket control, efficacy may be reduced on soils of raised organic matter or on organic or peaty soils owing to adsorption on the organic matter.

Do not apply during periods of cold weather, frost or snow or if cold weather has been forecast. The efficacy of Clayton Pontoon 48EC is reduced when soil temperature is 5°C (41°F) or below.

Do not apply to crops under any growing stress such as drought, waterlogging, physical damage, pesticide toxicity, improper nutrition or other disorder until the stresses have been relieved.

## SPRAY APPLICATION

Ensure that the spray equipment is clean, in good working order and correctly adjusted. Apply the recommended dose as a MEDIUM spray (BCPC) in the recommended volume of water using the highest volume in the densest crops.

Ensure good cover of the crop leaves including those in the middle of trees or bushes when relevant.

**SPRAY MIXING**

Invert the product in its container and shake thoroughly before opening. Half-fill the spray tank with clean water and put under agitation. Mix in the required volume of Clayton Pontoon 48EC through the top filter or filling device. Top up the tank with water and keep under agitation until sprayed out; do not allow mixed spray to stand. Use immediately after mixing.

**PROCESSED CROPS**

Consult processors before treating crops being grown for processing.

**EQUIPMENT MAINTENANCE**

Immediately after use wash the spraying machine and all utensils thoroughly with clean water and a wetting agent recommended for the cleaning of application equipment.

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