



# CLAYTON GEAR

Contains 37.5%w/w cyprodinil and 25% w/w fludioxanil. A fungicide for the control of certain fungal diseases in a range of vegetable, fruit, horticultural and forestry nursery crops.

MAPP 17169

	<p><b>Clayton Gear:</b> contains 37.5% w/w cyprodinil and 25% w/w fludioxanil</p> <p><b>Signal Word – Warning</b> <b>May produce an allergic reaction</b></p> <p><b>VERY TOXIC TO AQUATIC ORGANISMS WITH LONG LASTING EFFECTS. Keep out of reach of children.</b> <b>Avoid release to the environment.</b></p>
	<p>Wear protective gloves/protective clothing/eye protection/face protection. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Collect spillage. Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.</p>
<p><b>To avoid risks to man and the environment, comply with the instructions for use.</b></p>	

THE (COSHH) CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS MAY APPLY TO THE USE OF THIS PRODUCT AT WORK.

<p><b>Approval Holder:-</b> Clayton Plant Protection (UK) Ltd., Bracetown Business Park Clonee, Dublin 15. Ireland.</p> <p>Tel: (00 353) 1 8210127 Email: <a href="mailto:info@claytonpp.com">info@claytonpp.com</a> <a href="http://www.claytonpp.com">www.claytonpp.com</a></p>	<p><b>PROTECT FROM FROST.</b> <b>STORE IN A COOL, DRY PLACE.</b></p> <p><b>Pack size:-</b></p> <p><b>Batch no:-</b> * see Conditions of supply</p> <p><b>ADR - UN3077</b></p>
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**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. \* Clayton batch numbers have complete traceability back to the original manufacturer's batch numbers and are available to CRD on request. Clayton Gear with MAPP number 17169 has been confirmed by CRD to be identical to the reference product MAPP No: 15129.

## SAFETY PRECAUTIONS Operator protection

Spray equipment must only be used where the operator's normal working position is within a closed cab on a tractor or on a self-propelled sprayer when making broadcast air-assisted applications.

Other engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment.

WEAR SUITABLE PROTECTIVE GLOVES when handling the product or handling contaminated surfaces.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) AND SUITABLE PROTECTIVE GLOVES when applying by hand-held equipment.

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

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

### Environmental protection

To protect aquatic organisms respect an unsprayed buffer zone to surface water bodies in line with LERAP requirements.



DO NOT ALLOW DIRECT SPRAY from horizontal boom sprayers to fall within 5 m 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 1 m of the top of a ditch which is dry at the time of application.

DO NOT ALLOW DIRECT SPRAY from hand-held sprayers to fall within 1 m of the top of the bank of a static or flowing water body. Aim spray away from water. This product qualifies for inclusion within the Local Environment Risk Assessment for Pesticides (LERAP) scheme. Before each spraying operation from a horizontal boom sprayer, either a LERAP must be carried out in accordance with CRD's 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 30 m<sup>#</sup> or 10 m<sup>##</sup> of the top of the bank of a static or flowing waterbody, unless a Local Environment Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 5 m of the top of a ditch which is dry at the time of application. Aim spray away from water.

# for applications to apple, crab apple, pear and quince

## for applications to blackberry, raspberry, ornamental plant production and forest nursery

Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Avoid contamination via drains from farmyards 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.

<b>IMPORTANT INFORMATION FOR USE ONLY AS AN AGRICULTURAL/HORTICULTURAL FUNGICIDE</b>	
<p><b>Crops:</b> Runner bean, broad bean and dwarf French bean (excluding harvested dry)  <b>Maximum individual dose (kg/product/ha):</b> 1  <b>Maximum no. of treatments (per crop):</b> 2  <b>Latest time of application(days before harvest):</b> 14</p> <p><b>Crops:</b> Vining pea and edible podded pea  <b>Maximum individual dose (kg/product/ha):</b> 1  <b>Maximum no. of treatments (per crop):</b> 2  <b>Latest time of application(days before harvest):</b> 14</p> <p><b>Crops:</b> Broad bean harvested dry, dwarf French bean harvested dry and combining pea  <b>Maximum individual dose (kg/product/ha):</b> 1  <b>Maximum no. of treatments (per crop):</b> 2  <b>Latest time of application(days before harvest):</b> 28</p> <p><b>Crops:</b> Strawberry  <b>Maximum individual dose (kg/product/ha):</b> 1  <b>Maximum no. of treatments (per crop):</b> 2  <b>Latest time of application(days before harvest):</b> 3</p> <p><b>Crops:</b> Raspberry, blackberry  <b>Maximum individual dose (kg/product/ha):</b> 1  <b>Maximum no. of treatments (per crop):</b> 3  <b>Latest time of application(days before harvest):</b> 14</p> <p><b>Crops:</b> Bilberry, blackcurrant, redcurrant blueberry (outdoor), cranberry (outdoor), gooseberry (outdoor)  <b>Maximum individual dose (kg product/ha):</b> 1  <b>Maximum no. of treatments (per crop):</b> 3 per year  <b>Latest time of application (days before harvest):</b> 10</p>	<p><b>Crops:</b> Carrot  <b>Maximum individual dose (kg/product/ha):</b> 0.8  <b>Maximum no. of treatments (per crop):</b> 3 per year  <b>Latest time of application (days before harvest):</b> 7</p> <p><b>Crops:</b> Celeriac  <b>Maximum individual dose (kg/product/ha):</b> 0.8  <b>Maximum no. of treatments (per crop):</b> 2 per year  <b>Latest time of application(days before harvest):</b> 14</p> <p><b>Crops:</b> Apple, crab apple, pear, quince  <b>Maximum individual dose (kg/product/ha):</b> 0.8  <b>Maximum no. of treatments (per crop):</b> 3  <b>Latest time of application(days before harvest):</b> 3</p> <p><b>Crops:</b> Ornamental plant production and forestry nursery (outdoor)  <b>Maximum individual dose (kg/product/ha):</b> 1  <b>Maximum no. of treatments (per crop):</b> 3  <b>Latest time of application(days before harvest):</b> -</p> <p><b>Crops:</b> Ornamental plant production and forestry nursery (protected)  <b>Maximum individual dose (kg/product/ha):</b> 0.8  <b>Maximum no. of treatments (per crop):</b> 3  <b>Latest time of application(days before harvest):</b> -</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>	

**IMPORTANT:** This information is approved as part of the Product Label. All instructions within this section must be carefully read in order to obtain safe and successful use of this product.

### PROPERTIES OF CLAYTON GEAR

CLAYTON GEAR is a fungicide containing cyprodinil and fludioxonil and is best used as a protectant treatment or in the earliest stages of disease development.

CLAYTON GEAR may be used as part of a programme of sprays. To maintain a high level of protection, and to prevent or limit the development of *Botrytis* strains less sensitive to the product, further applications of CLAYTON GEAR should not be made consecutively but should be used in alternation with fungicides with different modes of action, with satisfactory efficacy against the pathogen.

### DISEASES CONTROLLED

<p><b>Fresh and dried beans</b>  <i>Botrytis</i> (Grey Mould) [Moderate control]  <i>Sclerotinia sclerotiorum</i></p>	<p><b>Protected and outdoor raspberry, blackberry <i>Botrytis</i></b></p>
<p><b>Fresh and dried peas</b>  <i>Mycosphaerella pinodes</i>, <i>Ascochyta pisi</i> (both giving a useful level of control)  <i>Botrytis</i> (grey mould) [Moderate control]  <i>Sclerotinia sclerotiorum</i></p>	<p><b>Apples, crab apples, quince and pears</b>  When Clayton Gear is applied in a pre-harvest spray programme a reduction in the following orchard and storage rots may be achieved:</p>

<b>Carrots</b> Alternaria Leaf Blight ( <i>Alternaria dauci</i> ) [Moderate control] <i>Sclerotinia sclerotiorum</i> [Moderate control]	<i>Botrytis cinerea (Botryotinia fuckeliana)</i> <i>Monilinia spp.</i> <i>Nectria spp.</i> <i>Penicillium spp.</i> <i>Colletotrichum spp.</i> <i>Fusarium spp.</i> <i>Gloeosporium spp.</i> <i>Alternaria spp. Venturia spp.</i>
<b>Celeriac</b> <i>Sclerotinia sclerotiorum</i> [Moderate control]	<b>Pears</b> <i>Stemphylium vesicarium</i> (brown spot) [Moderate control]
<b>Strawberries</b> <i>Botrytis</i> (Grey Mould)	<b>Ornamental plant production and forestry nursery</b> <i>Botrytis</i>

## CROP SPECIFIC INFORMATION

Best results will be achieved from applications of CLAYTON GEAR made in the earliest stage of disease development or as a protective treatment following a disease risk assessment or the use of appropriate support systems.

### **Fresh beans (dwarf french, green, runner, broad beans) and dried beans (dwarf french, navy [phaseolus], kidney, haricot, dried broad beans)**

Rate Of Use : 1 kg product per hectare

Timing : CLAYTON GEAR should be applied at the first signs of disease infection, from early flowering onwards. A second application may be required if disease pressure remains high. Allow a minimum of 10 days between applications for all crops.

**Beans for processing** : If a crop of beans is destined for processing, consult your processor before treating with CLAYTON GEAR.

### **Vining peas, edible podded peas and dried peas (combining peas including marrowfat)**

Rate Of Use : 1 kg product per hectare

Timing : Apply CLAYTON GEAR at the first sign of disease infection, from early flowering onwards. A second application may be required if disease pressure remains high. Allow a minimum of 10 days between applications for all crops.

Crop Safety : CLAYTON GEAR shows good crop safety on vining peas. Before applying ensure the crop is free from any stress caused by environment or agronomic effects. Check wax level if necessary using the Crystal Violet test.

**Peas for processing** : If a crop of peas is destined for processing, consult your processor before treating with CLAYTON GEAR.

### **Carrots**

Rate of use : 0.8 kg product per hectare.

Timing : For optimum results apply CLAYTON GEAR at the first signs of disease, from 4th true leaf unfold onwards (BBCH 14). A further two applications may be required if disease pressure remains high. Allow a minimum of 12 days between applications.

**Carrots for processing** : If a crop is destined for processing, consult your processor before treating with CLAYTON GEAR.

### **Celeriac**

Rate Of Use : 0.8 kg product per hectare

Timing : For optimum results apply CLAYTON GEAR at the first signs of disease, from the 4th true leaf unfold onwards (BBCH 14). A second application may be required if disease pressure remains high, Allow a minimum of 14 days between applications.

### **Protected and outdoor strawberries**

Rate Of Use : 1 kg product per hectare

Timing : For optimum results apply CLAYTON GEAR as a protectant spray at the beginning of blossom (white bud). A second application of CLAYTON GEAR can be made if disease pressure remains high. Application should be made in sequence with other products as part of a fungicide programme during flowering at a minimum interval of 10 days.

**Strawberries for processing** : If a crop of strawberries is destined for processing, consult your processor before treating with CLAYTON GEAR.

#### **Raspberry and blackberry**

Rate Of Use : 1 kg product per hectare

Timing : CLAYTON GEAR should be applied as a protectant spray from early flower (white bud). A further two applications may be required if disease pressure remains high. Allow a minimum of 10 days between applications for all crops.

**Raspberries and blackberries for processing** : If a crop of fruit is destined for processing, consult your processor before treating with CLAYTON GEAR.

#### **Outdoor crops of blueberry, bilberry, cranberry, redcurrant, blackcurrant, whitecurrant and gooseberry**

Rate Of Use: 1 kg product per hectare

Timing: CLAYTON GEAR should be applied as a protectant spray from late grape stage of currants and first open flower for gooseberry and other berries. A further two applications may be required if disease pressure remains high. Allow a minimum of 10 days between the first and second application and 28 days between the second and third application.

Processing : Where a crop of fruit is destined for processing, consult your processor before treating with CLAYTON GEAR

#### **Apple, crab apple, quince and pear**

Rate Of Use : 0.8 kg product per hectare

Timing: For optimum results apply CLAYTON GEAR as a protectant spray from the end of flowering. Two further applications of CLAYTON GEAR may be made if disease pressure remains high up to 3 days prior to harvest. Application should be made in sequence with other products as part of a fungicide programme. Allow a minimum of 7 days between applications.

For best control of *Stemphylium* in pears three applications should be made shortly after fruit set in late May and early June.

#### **Specific warning for Bramley apple**

Limited trials data show that when CLAYTON GEAR is used on Bramley apple there is the potential for increased fruit russeting to occur. Growers should be aware of this and consult with processors or marketing organisations where necessary before using the product.

#### **Ornamental plant production and forestry nursery (outdoor and protected)**

Rate Of Use : 1 kg product per hectare (OUTDOOR). 0.8 kg product per hectare (PROTECTED) Timing : CLAYTON GEAR should be applied as a protectant spray. A further two applications may be required if disease pressure remains high. Allow a minimum of 7 days between applications.

**Crop tolerance** : CLAYTON GEAR has been successfully used at the recommended doses on a range of species and cultivars without crop damage. However because of the large number of species and cultivars of ornamentals, cultivar susceptibility should always be checked by treating a small number of plants in the first instance.

Multiple applications of CLAYTON GEAR to Anemone, Begonia, Kalanchoë have shown some phytotoxicity symptoms therefore it is advised to limit the number of applications to two with an extended application interval of 10 days.

Use only a single application on Saintpaulia.

Application to *Exacum affine* and *Impatiens spp.* is not advised.

#### **Recommendations for Mixing and Spraying**

Check the sprayer is set to apply an even application at the correct volume. Fill the spray tank with half the required volume of clean water and start agitation. Add the required amount of CLAYTON GEAR. Agitate the mixture thoroughly before use and continue agitation during spraying.

Wash out containers thoroughly, preferably using an integrated pressure rinsing device, or manually rinse three times. Add washings to the sprayer at the time of filling. Complete filling to the required volume and continue to agitate throughout the spraying operation.

Do not leave the spray liquid in the sprayer for long periods (such as during meal breaks or overnight). Thoroughly wash all spray equipment with water immediately after use.

### Volume of water and spraying

Apply CLAYTON GEAR through conventional crop spraying equipment using a medium quality spray (BCPC) at a pressure of at least 2 bar.

Fresh beans, fresh peas and dried peas, carrot and celeriac	Apply in at least 200 litres of water per hectare.
Protected strawberries	Apply in at least 600 litres of water per hectare.
Outdoor strawberries	Apply in at least 500 litres of water per hectare.
Redcurrant, blackcurrant, whitecurrant, gooseberry, blueberry, bilberry, cranberry, raspberry and blackberry.	Apply in at least 800 litres of water per hectare.
Apple, pear, quince, crab apple and dried beans	Apply in at least 400 litres of water per hectare.
Ornamental plant production and forestry nursery	Apply in a maximum concentration of 80 grams product per 100 litres of water

### After Spraying

Thoroughly wash out sprayer according to manufacturer's guidelines and dispose of washings and clean containers according to DEFRA Code of Practice and local water authority guidelines.

### RESISTANCE MANAGEMENT

In order to minimise the likelihood of the development of resistance, it is recommended that CLAYTON GEAR should be used in a programme with products of different chemical groups. Alternating or mixing fungicides with different modes of actions is a recognised disease resistance management strategy. CLAYTON GEAR contains cyprodinil, an anilinopyrimidine chemical. Application should be made in accordance with the FRAC anilinopyrimidine (AP) working group botrytis guidelines.

Where only 2 applications are made per season, the number of anilinopyrimidine products should be limited to 1. Where up to 6 botrytis treatments are made per crop and season, a maximum of 2 applications of anilinopyrimidine-containing products are recommended. Where more than 6 fungicide treatments are made per crop and season, a maximum of 3 applications of anilinopyrimidine containing products are recommended