




CLAYTON GLACIER

Contains 60 g/l flufenacet and 300 g/l pendimethalin in an emulsifiable concentrate, for the control of blackgrass, other annual grasses and broad-leaved weeds in winter wheat and winter barley. MAPP 15920

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|    | <p>CLAYTON GLACIER contains flufenacet and pendimethalin in an emulsifiable concentrate</p> <p>DANGER HARMFUL IF SWALLOWED. MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS. CAUSES SKIN IRRITATION. VERY TOXIC TO AQUATIC LIFE. VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.</p> <p>WEAR PROTECTIVE GLOVES IF SWALLOWED: IMMEDIATELY CALL A POISON CENTRE OR DOCTOR/PHYSICIAN. IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING. DO NOT INDUCE VOMITING. REMOVE/TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. COLLECT SPILLAGE.</p> <p>CONTAINS PENDIMETHALIN. MAY PRODUCE AN ALLERGIC REACTION. CONTAINS FLUFENACET. MAY PRODUCE AN ALLERGIC REACTION 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>TO AVOID RISKS TO HUMAN HEALTH AND THE ENVIRONMENT, COMPLY WITH THE INSTRUCTIONS FOR USE.</p> |
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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 HERBICIDE | | | |
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| Crop | Maximum individual dose of product | Maximum total dose of product | Latest time of application |
| Winter wheat Winter barley | 4 litres per ha | 4 litres per ha per crop | Before third tiller stage GS23 and before 31 December in the year of planting. |
| 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

Spray equipment must be constructed so that the operator's normal working position is within a closed cab on a tractor or on a self-propelled sprayer.

Engineering control of operator exposure must be used where reasonably practicable in addition to the following personal protective equipment:

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND FACE PROTECTION (FACESHIELD) when handling the concentrate.

WEAR SUITABLE PROTECTIVE GLOVES when handling contaminated surfaces.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS) when applying by vehicle-mounted or trailed equipment.

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

Wear suitable protective clothing and gloves.

Avoid contact with skin.

WHEN USING, DO NOT EAT, DRINK OR SMOKE.

WASH HANDS before eating and drinking and after work.

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

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

Environmental protection

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.

This product qualifies for inclusion within the Local Environmental 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 published guidance or the statutory buffer zone must be maintained. The results of the LERAP must be recorded and kept available for inspection for three years.



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, unless a Local Environmental Risk Assessment for Pesticides (LERAP) permits a narrower buffer zone, or within 1m of the top of a ditch which is dry at the time of application. Aim spray away from water.

RISK TO NON-TARGET INSECTS OR OTHER ARTHROPODS; see Directions for Use.

Storage and disposal

KEEP OUT OF REACH OF CHILDREN.

KEEP AWAY FROM FOOD, DRINK AND ANIMAL FEEDING STUFFS.

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

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

DO NOT RE-USE CONTAINER for any purpose.

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 the container safely.

This product is approved under the Plant Protection Products Regulations (as amended).

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| Approval Holder : Clayton Plant Protection Ltd., Bracetown Business Park, Clonee, Dublin 15. Ireland. Tel: (00 353) 1 8210127 www.cpp.ag Email: info@cpp.ag | Contents: 10 Litres e PROTECT FROM FROST: STORE ABOVE 0°C SHAKE THOROUGHLY BEFORE USE Batch No: * see footnote |
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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 Glacier with MAPP number 15920 has been confirmed by CRD to be identical to the reference product MAPP No: 13914

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.

MODE OF ACTION

Clayton Glacier is a both a residual herbicide acting upon weeds during their germination and also a contact foliar herbicide. Pre-emergence crop selectivity is achieved primarily by the crop seed being covered with a protective layer of firm soil. Soil moisture is necessary to activate herbicidal activity. The signs of weed control following post-emergence application may appear only slowly especially if the weather is cool.

WINTER WHEAT AND WINTER BARLEY

The best results are usually achieved from early application to remove competitive weeds from the crop as early as possible. Any treatment must be made before 31 December in the year of sowing.

All varieties of winter wheat and winter barley may be treated. Do not treat spring varieties which have been sown in the autumn.

| Application rate option | Time of application and remarks |
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| Clayton Glacier 4L/ha For black-grass, other annual grasses and broad-leaved weeds – See WEED CONTROL section for conditions. | Pre-emergence treatment Suitable for most soils and conditions. Crops must be sown before end-November. Seed must be covered by 32 mm of firmed soil. Spray before any weed or crop germination normally within 2 days of drilling. |
| Clayton Glacier 2L/ha For annual meadow-grass and some broad-leaved weeds – See WEED CONTROL section for conditions. | OR Post-emergence treatment Not suitable for Heavy soils* (sandy clay, clay and silty clay) as weed control may be variable. Spray before the 3 rd tiller stage. |

* Soil Texture (85) System

CROP AND SOIL CONDITIONS

- Straw, trash and ash must be removed or buried 15 cm deep otherwise poor weed control may result.
- The seed must be drilled 32 mm deep into a firm seedbed and well covered. Broadcast-sown crops and crops covered with less than 32 mm of firmed soil must be firmly established before treatment. The seed furrow of direct drilled crops must be properly closed over the seed and firmed.
- Established weeds surviving seed-bed cultivations must be controlled by other means before the application of Clayton Glacier.
- Seedbeds must have adequate fine-medium crumb; poor weed control may be obtained on loose or on cloddy soils and may also lead to crop damage as a result of inadequate soil cover. Roll after drilling if possible but only before treatment with Clayton Glacier. Any other rolling must be deferred until the following spring. DO NOT harrow any crop after spraying. Clayton Glacier must not be incorporated into the body of the soil.
- Do not spray crops on land subject to water-logging or poor drainage.
- Do not use Clayton Glacier on very stony or gravelly soils (contain 5 % or more by volume of stone or brash, greater than 2 mm across).
- Residual activity is reduced with increasing levels of soil organic matter; reduced efficacy may occur on soils containing 6 % or more organic matter. Do use on soils with 10% or more organic matter.
- Crops to be treated post-emergence must be healthy and not be suffering stress from any cause, such as severe disease or pest attack, grazing, nutrient deficiency or excessive soil compaction.

UNDERSOWN CROPS

Clayton Glacier must not be used on crops undersown or to be undersown.

WEATHER

Temporarily delay spraying if heavy rain is forecast for the period around application. Reduced crop vigour and reduced plant count, with possible yield reduction, might occur following heavy rain shortly after application. However adequate soil moisture is essential for herbicidal activity; best results are obtained when rain falls within 7 days of application. Dry weather after application may lead to poor weed control.

Ideally spray during a period of mild weather free of frost; avoid treatment when severe frosts are occurring or during prolonged frosty weather.

APPLICATION

Apply Clayton Glacier in 200 l/ha water as a MEDIUM spray (BCPC definitions). A forward speed of 6-8 km/h is recommended under normal conditions; a slower speed is advised on uneven ground or if the vegetation is denser. Avoid spray drift; spray or vapour drift onto adjacent land might damage sensitive crops growing or to be planted there. Do not spray in windy weather. Apply accurately to give even coverage. Avoid overlapping spray swaths and local overdosing.

MIXING

Invert the container several times and shake thoroughly before pouring. Half-fill the spray tank with clean water. With the sprayer contents under agitation, add the required quantity of Clayton Glacier. Continue agitation whilst topping up the tank with water and until the mix is sprayed out. Do not allow mixed spray to stand in the spray tank. When tank-mixing with a compatible product follow instructions as to the order of mixing. Add each product to the spray tank separately and disperse before mixing in the next product. Spray immediately after mixing.

Caution: Clayton Glacier, whether diluted with water or undiluted, will stain skin, clothing and equipment. Avoid spillages. In the event of spillage, remove contaminated clothes and wash skin and clothes immediately; similarly wash equipment immediately.

WEED CONTROL

The control of weeds and their stages for susceptibility to Clayton Glacier by pre-emergence or post-emergence treatment, as applicable, is indicated:

| Grass Weeds | 4L/ha | Latest stage | 2 L/ha | Latest stage |
|-----------------------------------|-------|-----------------------|--------|--------------|
| Black-grass (Light-Medium* soils) | S | To 2 leaves | - | - |
| Black-grass (on Heavy* soils) | MS | Pre-emergence only | - | - |
| Brome, sterile | MS | To 2 leaves | - | - |
| Meadow-grass, annual | S | To first tiller | S | To 2 leaves |
| Meadow-grass, rough | S | To 2 leaves | - | - |
| Rye-grass, Italian | S | To 3 leaves | - | - |
| Rye-grass, perennial | S | To 2 leaves | - | - |
| Silky-bent, loose | S | To 1 leaf | - | - |
| Broad-leaved weeds | | | | |
| Chickweed, common | S | To 5cm high or across | S | To 2 leaves |
| Cleavers | MS | Cotyledon stage | - | - |
| Dead-nettle, red | S | To 2 leaves | S | To 2 leaves |
| Fat-hen | MS | Pre-emergence only | - | - |
| Field-speedwell, common | S | To 2 leaves | S | To 2 leaves |
| Forget-me-not, field | MS | Pre-emergence only | - | - |
| Hemp-nettle, common | S | Pre-emergence only | - | - |
| Knotgrass | MS | Pre-emergence only | - | - |
| Marigold, corn | S | Pre-emergence only | - | - |
| Mayweed spp. | MS | Pre-emergence only | - | - |
| Pansy, field | MS | To 2 leaves | MS | To 2 leaves |
| Pimpernel, scarlet | S | Pre-emergence only | - | - |
| Poppy, common | S | To 4 leaves | S | To 4 leaves |
| Shepherd's purse | S | To 4 leaves | MR | - |
| Speedwell, ivy-leaved. | S | To 2 leaves | S | To 2 leaves |

* Soil Texture (85) System

S = Susceptible

MS = Moderately Susceptible

MR = Moderately Resistant

Resistant strains

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 are available from the HGCA, CPA, your distributor, crop advisor or product manufacturer.

The efficacy of both flufenacet and pendimethalin may be reduced by enhanced metabolism resistance properties evolved by black-grass and Italian rye-grass populations; loss of efficacy can occur even when treating these weeds at the early growth stages recommended for treatment with Clayton Glacier.

Weed resistance strategy

Growers are encouraged to implement a weed resistance strategy based on good agricultural practices and good plant protection practices. Good practice is achieved and enhanced by:

- Following WRAG Guidelines and these label recommendations.
- Using crop rotation and other cultural control measures to prevent and manage herbicide resistant grass weeds
- Using grass-weed herbicides with different modes of action throughout the cropping rotation.
- Using this product in conjunction with an effective graminicide with a different mode of action if herbicide resistant grass weeds are encountered.
- Using this product pre-emergence of the weeds whenever possible.
- Minimising the spread of weeds and their seeds.
- Implementing good spraying practices to achieve maximum weed control.
- Applying only under appropriate soil and weather conditions.
- Monitoring performance and investigating unexpected results.

NON-TARGET ORGANISMS

Avoid spraying within 6m of the field boundary to reduce effects on non-target insects or other arthropods.

FOLLOWING CROPS

After harvest, mould-board plough at least 15 cm deep before sowing or planting a following crop, however, ploughing is not compulsory in the cases of wheat, barley, peas and potatoes. Any crop may be planted subsequently following normal seedbed cultivations.

If, after spraying with Clayton Glacier, re-planting of land becomes necessary for any reason before normal harvest, plough at least 15 cm deep before re-planting. The new crop may be only potatoes, peas, wheat or barley in this situation.

Check also the following crop restrictions placed on other products used in a programme.

CLEANING OF EQUIPMENT

After spillages and immediately after each days use thoroughly clean all equipment with water and a cleaning agent recommended for the cleaning of sprayers. At least three tank rinses are necessary. For the final rinse, fill the spray tank with clean water and leave overnight. Spray out and allow equipment to dry. Dispose of washings in the approved manner.
