

Gallup®

Biograde® 360

MAPP No. 12660

A systemic herbicide, as a soluble concentrate, for the control by foliar uptake of most broad-leaved and grass weeds, especially common couch, or scutch, in pre-emergence of drilled crops, stubble, set-aside or in cultivated land,

in cereals, peas harvested dry, field beans, linseed and oilseed rape pre-harvest, in orchards, woodlands and forests, on land not intended for cropping; for the destruction of grassland prior to re-cropping; for the pre-harvest desiccation of oilseed rape; for weed control on or near water.

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 when handling the concentrate and contaminated surfaces.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES AND RUBBER BOOTS when using hand-held sprayers and hand-held rotary atomisers, weed-wiping equipment or when making cut stump treatments.

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES, RUBBER BOOTS AND FACE PROTECTION (FACESHIELD) when using stem injection equipment.

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.

DO NOT BREATHE SPRAY.

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

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

ENVIRONMENTAL PROTECTION

Do not contaminate water with the product or its container* (Do not clean application equipment near surface water/Avoid contamination from farmyards and roads) *except when used as directed.

* The maximum concentration of glyphosate in the water must not exceed 0.2 ppm or such lower concentration as the appropriate water regulatory body may require.

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.

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 users on request.

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

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

PROTECT FROM FROST**IMPORTANT INFORMATION**

FOR USE ONLY AS AN AGRICULTURAL/INDUSTRIAL/FORESTRY/AQUATIC HERBICIDE AND DESSICANT

See Statutory Area on attached leaflet for the following:

Crop/Situations, Maximum individual dose of product, 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.

Manufacturer: Barclay Chemicals Manufacturing Ltd.,

Damastown Way, Damastown Industrial Park,

Mulhuddart, Dublin 15, Ireland.

Tel: 353 (0) 1 8112900 Fax: 353 (0) 1 8224678

E-mail: info@barclay.ie Website: www.barclay.ie

Approval Holder: Barclay Chemicals R&D Ltd

Contact details as above.

Copyright © Barclay Chemicals (R&D) Limited, 2007.

Gallup and Biograde are registered trademarks of Barclay Chemicals (R&D) Ltd.

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/INDUSTRIAL/FORESTRY/AQUATIC HERBICIDE AND DESSICANT			
<u>Crops/situations</u>	<u>Maximum individual dose of product</u>	<u>Maximum number of treatments</u>	<u>Latest time of application</u>
Wheat, barley, oats, durum wheat, oilseed rape, linseed, mustard, combining peas, field beans, sugar beet, swede, turnip, onion and leek.	1.5 l/ha	One per crop	Pre-emergence of the crop
Wheat, barley, oats, durum wheat	4 l/ha	One per crop	7 days before harvest
Oilseed rape, linseed	4 l/ha	One per crop	14 days before harvest
Peas (combining), field beans	4 l/ha	One per crop	7 days before harvest
Stubbles of all edible and non-edible crops	1.5 l/ha	One per situation	2 days before drilling or planting of the following crop
Stubbles of all edible and non-edible crops	4 l/ha	One per situation	5 days before drilling or planting of the following crop
Grassland	6 l/ha	One per crop	5 days before harvest, grazing or drilling
Natural surfaces not intended to bear vegetation, permeable surfaces overlying soil, hard surfaces.	6 l/ha	-	-
Apple, pear	5 l/ha	One per year	After harvest but before green cluster stage
Forest	10 l/ha	see Other specific restrictions	-
Enclosed water, land immediately adjacent to aquatic areas, open waters.	6 l/ha	see Other specific restrictions	-
Green cover on land not being used for crop production	6 l/ha	see Other specific restriction	24 hours before cultivating
Other specific restrictions			
1. The total dose applied to green cover on land not being used for crop production must not exceed 6 litres of product per ha per year			
2. Users must consult the appropriate water regulatory body (Environment Agency/Scottish Environment Protection Agency) before using the product near water and must obtain their agreement before using this product to control aquatic weeds.			
3. When applying through rotary atomisers, the spray droplet spectra produced must be of minimum Volume Median Diameter (VMD) of 200 microns.			
4. For stump application, the maximum concentration must not exceed that produced by 200ml product made up to 1 litre with water (20 % v/v).			
5. Weed-wipers may be used in any crop where the wiper does not touch the growing crop. The maximum concentrations used must not exceed the following (a) Weedwiper Mini - 1:2 dilution with water (b) Other wipers - 1:1 dilution with water.			
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.			

GENERAL INFORMATION

Barclay Gallup Biograde 360 is a foliar acting herbicide that controls annual and perennial grasses and most broad-leaved weeds when used as directed. It is translocated from treated vegetative growth to underground roots, rhizomes or stolons. Leaf symptoms, being a reddening then yellowing of the foliage, are first seen on grass weeds but take longer to appear on broad-leaved weeds.

It is *particularly important* that the weeds have sufficient leaf growth and are actively growing when treated.

Perennial grass weeds must have produced fresh leaves, which are green and vigorous. Common couch or scutch is most susceptible to Barclay Gallup Biograde 360 when it is tillering and when new rhizomes have begun to grow. This is usually when the plants have about 5-6 leaves, each with approximately 12-15cm (5-6") of new growth.

The majority of perennial broad-leaved weeds are most susceptible if treated when they are actively growing and are at or near flowering stage.

Annual weeds should be actively growing with grasses having at least 5cm (2") of leaf and broad-leaved weeds at least two expanded true leaves when sprayed.

Couch or scutch grasses and other grass and broad-leaved weeds are *less susceptible* to Barclay Gallup Biograde 360 when growth is restricted by drought, waterlogging, frost, very high temperatures or natural dieback. Efficacy will be reduced if such conditions occur at or immediately after spraying.

Occasionally a slight check to crop growth may occur, particularly after direct drilling when crop seeds germinate amongst a mass of decaying foliage, stolons, rhizomes or roots. Thorough cultivations are necessary to disperse or bury decaying organic matter. Consolidate loose soils and ensure crops are adequately fertilised and appropriate measures are taken to prevent insect and fungal damage to the following crop, especially where following grassland.

DO NOT apply lime, fertiliser, farmyard manure, pesticides or similar materials within 7 days Barclay Gallup Biograde 360.

Note: Barclay Gallup Biograde 360 does not give acceptable control of horsetail (*Equisetum arvense*).

WEATHER CONDITIONS

A period of at least 6 hours and preferably 24 hours free of rain must follow spraying. Do not spray onto weeds suffering from drought stress as reduced control may occur. Do not spray in windy conditions as drift onto other crops or vegetation can cause severe injury or destruction. Do not spray during frosty weather that prevents active growth and can induce weed senescence.

PRE-EMERGENCE OF DRILLED CROPS - ANNUAL WEEDS/VOLUNTEERS

Weeds Controlled: Annual grasses and broad-leaved weeds.
Volunteer cereals.

Seed must be drilled and drills firmly closed with a minimum 15mm (½") of settled soil above the seed. Annual weeds must be small when treated following direct drilling. DO NOT ALLOW SPRAY TO CONTACT THE LEAVES OF ANY CROP.

CAUTION: Ensure that spraying precedes ANY crop emergence.

<u>Crop</u>	<u>Time and method</u>	<u>Dose rate</u>
Drilled crops of: Wheat, barley, oats, durum wheat	Spray after drilling but not later than 72 hours before crop emergence.	1-1.5 l/ha
Oilseed rape, linseed, mustard, combining peas, field beans, sugar beet, swede, turnip, onion and leek.	Spray up to 48 hours after drilling	Apply in 80-150 l/ha water

WEED CONTROL IN STANDING CEREAL CROPS (PRE-HARVEST)

Weeds Controlled: Common couch or scutch (*Elymus repens*) Black bent (*Agrostis gigantea*)
 Creeping bent (*Agrostis stolonifera*) Perennial broad-leaved weeds

Crops: Wheat including durum wheat, and oats destined for milling or feed.
 Barley destined for malting or feed.
 (Consult purchasers of crops grown on contract and prospective purchasers of malting grade barley before treatment)
 DO NOT TREAT CROPS INTENDED FOR SEED. DO NOT TREAT UNDERSOWN CROPS.

Time

Spray when the moisture content of the grain measures less than 30%.

Target weeds must be green, actively growing and accessible to the spray.

Method

Spray the crop and weeds overall. Use high clearance tractors with narrow wheels and crop dividers. Adjust boom height to maximise spray retention on the target weeds.

After spraying:

Wait at least 7 days before harvesting. Treated straw must be chopped and incorporated or removed, after which normal cultivations may be resumed. Treated straw may be used for feed and litter, but must not be used for horticultural purposes.

Dose rate

Annual weeds and grasses or low couch or scutch grass infestations up to 25 shoots/m²: 2 l/ha

Apply in 80-150 l/ha water for this dose rate.

Low-medium couch or scutch-grass infestations, up to 75 shoots/m²: 3 l/ha

Medium-high couch or scutch-grass infestations, over 75 shoots/m²: 4 l/ha

Perennial broad-leaved weeds; other perennial grasses: 4 l/ha

Apply in 150-250 l/ha water.

Barclay Gallup Biograde 360 is accepted by the Brewing and Licensed Retailers Association for use on Malting Barley.

DETERMINATION OF HARVEST FOR WHEAT AND BARLEY (aided dessication of the crop already in the ripening phase)

Crop: Wheat, for milling and feed.
 Barley, for malting or feed.
 (Consult purchasers of crops grown on contract and prospective purchasers of malting grade barley before treatment).
 DO NOT TREAT CROPS INTENDED FOR SEED. DO NOT TREAT UNDERSOWN CROPS.

Time and method

Spray when the moisture content of the grain measures less than 30%. Spray the crop and any weeds overall. Use high clearance tractors with narrow wheels and crop dividers.

Dose rate

1-1.5 l/ha
 (Use 1.5 l/ha if annual broad-leaved weeds are present)

Apply in 80-150 l/ha water for these doses.

Conditions

After spraying, treated straw must be chopped and incorporated or removed, after which cultivations may be resumed. Treated straw may be used for feed and litter, but must not be used for horticultural purposes.

Harvesting:

Wait at least 7 days before harvesting.

Barclay Gallup Biograde 360 is accepted by the Brewing and Licensed Retailers Association for use on Malting Barley.

WEED CONTROL AND DESICCATION IN STANDING OILSEED RAPE AND LINSEED (PRE-HARVEST)

Weeds Controlled: Common couch or scutch (*Elymus repens*). Black bent (*Agrostis gigantea*).
Creeping bent (*Agrostis stolonifera*). Perennial broad-leaved weeds.

Crops: Oilseed rape, winter or spring.
Linseed, winter or spring

The treatment is suitable only for uniform, evenly maturing crops proceeding to harvest in prime condition.
DO NOT TREAT CROPS INTENDED FOR SEED.

<u>Time</u>	<u>Method</u>	<u>Dose rate</u>
Weed control/crop desiccation: Spray 2-3 weeks before harvest when the natural ripening of the seed is progressing and the moisture content of the seed measures less than 30%. Target weeds must be green, actively growing and accessible to the spray.	Spray the crop and weeds overall. Minimise crop damage by use of high clearance tractors with narrow wheels and crop dividers. After spraying: Wait at least 14 days before harvesting Oilseed rape. Wait at least 14 days before harvesting linseed although up to 28 days may be necessary to achieve the required degree of desiccation. Direct combine harvest the crop when fit. Treated straw must be chopped and incorporated or removed, after which normal cultivations may be resumed.	Low-medium couch or scutch-grass infestations up to 75 shoots/m² and crop desiccation: 3 l/ha Medium-high couch or scutch-grass infestations over 75 shoots/m² and crop desiccation: 4 l/ha Perennial broad-leaved weeds; other perennial grasses: 4 l/ha Apply in 200-250 l/ha water.

WEED CONTROL IN FIELD BEANS AND PEAS (PRE-HARVEST)

Weeds Controlled: Common couch or scutch (*Elymus repens*). Black bent (*Agrostis gigantea*).
Creeping bent (*Agrostis stolonifera*). Perennial broad-leaved weeds.

Crops: Field beans, winter or spring.
Peas, winter or spring, to be harvested dry.
DO NOT TREAT CROPS INTENDED FOR SEED.

Note: This treatment is intended for weed control and not for crop desiccation.

<u>Time</u>	<u>Method</u>	<u>Dose rate</u>
Spray when the natural ripening of the seed is progressing and the moisture content of the seed measures less than 30%. Target weeds must be green, actively growing and accessible to the spray.	Spray the crop and weeds overall. Minimise crop damage by use of high clearance tractors with narrow wheels and crop dividers. After spraying: Wait at least 7 days before harvesting. Direct combine harvest the crop when fit. Treated straw must be chopped and incorporated or removed, after which normal cultivations may be resumed.	Low-medium couch or scutch-grass infestations up to 75 shoots/m²: 3 l/ha Medium-high couch or scutch-grass infestations over 75 shoots/m²: 4 l/ha Apply in 200-250 l/ha water.

STUBBLE - ANNUAL AND PERENNIAL WEEDS, VOLUNTEERS

Weeds Controlled: Common couch or scutch (Elymus repens). Black bent (Agrostis gigantea).
 Creeping bent (Agrostis stolonifera). Annual grasses and broad-leaved weeds.
 Volunteer cereals and potatoes (autumn only).

Crops: Any crop to follow application on stubble.

Time

Autumn/winter applications:

Spray when perennial weeds are actively growing, especially after mid-October. Common couch or scutch should have at least 6 new leaves approx. 12cm (5") long.

Method

After harvest:

- Do not cultivate.
- Remove straw.
- Allow weeds to regrow.
- Spray during mild conditions.
- Allow volunteer potatoes to make ample top growth and spray well before onset of frost or natural senescence.

After spraying:

- If before mid-November, wait at least 5 days before cultivating.
- If after mid-November, wait for perennial grass leaves to turn red/yellow before cultivating.

Dose rate

Annual weeds and grasses or low couch or scutch-grass infestations up to 25 shoots/m²: 2 l/ha

Apply in 80-150 l/ha water for this dose rate (7-13.5 gal/ac).

Low-medium couch or scutch-grass infestations up to 75 shoots/m²: 3 l/ha

Medium-high couch or scutch-grass infestations over 75 shoots/m² and volunteer potatoes: 4 l/ha

Apply in 150-250 l/ha water.

Note: the effect of 2 litres product/ha rate on the long-term control of couch/scutch grass is not known.

Spring applications:

Spray when weeds are actively growing as for autumn applications. Roots chopped by cultivations must show new leaf growth to be killed.

After harvest:

- Cultivate as required.
- Leave for regrowth to appear - allow a minimum 21 days weed growth before spraying.

After spraying:

Wait at least 5 days before cultivating. Re-treatment may be necessary pre-harvest or in autumn as emergence in spring may be incomplete.

STUBBLE/CULTIVATED LAND - ANNUAL WEEDS/VOLUNTEERS

Weeds Controlled: Annual grasses and broad-leaved weeds.
 Volunteer cereals.

Crops: Any crop to follow application.

Time

Autumn/spring/summer:

Spray when weeds are actively growing.

Method

After harvest or cultivations:

Allow ground to remain undisturbed for as long as practicable to allow weeds to regrow.

Dose rate

1.5 l/ha

Apply in 80-125 l/ha water

For optimum control:

- Annual grasses should have at least 10cm (4") of green leaf.
- Annual broad-leaved weeds should have at least 2 true leaves.

After spraying:

- Wait at least 24 hours before cultivating.
- Wait at least 48 hours before drilling.

GRASSLAND

Grasses/Weeds Killed: Annual and perennial grasses.
Annual and perennial broad-leaved weeds.

Crops: Any crop to follow application.

Time

Spray when grasses and weeds are actively growing at the following times and growth stages:

Annual grasses and annual broad-leaved weeds:

- Spring, summer or autumn.
- Annual grasses have at least 10cm (4") of green leaf.
- Annual broad-leaved weeds have at least 2 expanded true leaves.

Perennial grasses and perennial broad-leaved weeds:

- Mid to late summer.
- Perennial grasses have at least 12cm (5") of leaf or 5 fully expanded leaves.
- Perennial broad-leaved weeds have substantial leaf area or are near flowering.

Method

- Lightly cut or graze and allow regrowth for about 4 weeks until the recommended growth stages are reached.
- Spray at the dose rate recommended for the weed or grass type.
- Wait at least 5 days, when the leaves become yellowed, before removing the growth for conservation or by grazing as required, prior to cultivating or drilling.
- Surface mats of old grassland must be thoroughly broken by cultivations before reseeding - see also GENERAL INFORMATION and CULTURAL ADVICE (below)

Dose rate

1-2 years old, only annual weeds and grasses: 3 l/ha

2-4 years old, with perennial grasses: 4 l/ha

Long leys e.g. 4-7 years old with perennial broad-leaved weeds: 5 l/ha

Permanent grassland with ragwort or predominantly fine-leaved grasses: 6 l/ha

Apply the recommended dose in 200-250 l/ha water.

Important: If poisonous weeds, such as ragwort, are present, keep livestock out of treated areas until such time that poisonous weeds have been removed.

CULTURAL ADVICE

Direct drilling of grass after a short-term ley

Direct drilling may be practised after a short-term ley provided that all nutrient and lime deficiencies have been corrected and there is no surface trash.

Sowing to grass after late-summer dessication of long leys or permanent pasture with surface mats

Either: defer seeding until the following spring to allow surface mats to decompose

Or: apply 2.5 tonnes/ha (1 tonne/ac) of ground limestone to the surface mat not less than seven days after treatment followed by rotary cultivation to break the surface mat and incorporate the ground limestone into the soil. Seeding may be conducted as required thereafter provided that the surface mat has been completely broken down and the seeds will be in contact with mineral soil.

GREEN COVER ON LAND TEMPORARILY REMOVED FROM PRODUCTION (SET-ASIDE)

Weeds Controlled: Common couch or scutch (*Elymus repens*). Black bent (*Agrostis gigantea*).
 Creeping bent (*Agrostis stolonifera*). Annual grasses and broad-leaved weeds.
 Volunteer cereals.

Crops: Any crop to follow application.

Users must ensure for themselves compliance with the management rules of any grant-aided scheme before use; the guidance given in the following may be changed.

Time

Spray whilst the green cover is actively growing at any time consistent with the prevailing weather conditions and within the management rules of any grant aided scheme. Normally destruction of green cover cannot be started before 15 April and must be accomplished by 31 August. Deep-rooted perennial broad-leaved weeds are best controlled when well grown and are at or near flowering.

Method

- Do not cut or cultivate prior to applying this product in this situation.
- Spray before weeds set seed (but not before 15 April)
- After spraying do not cut, cultivate or prepare land for the next crop until permitted to do so by the management rules; in any event do not cut or cultivate for 1 day (after 1.5 l/ha) or 5 days (after 3-6 l/ha) after application.

Dose rate

Annual weeds and grasses except black-grass: 1.5 l/ha

Apply in 80-150 l/ha water for this dose rate. (note - if the green cover is dense and/or well established, use the higher dose of 3 l/ha in 150-250 l/ha water as for low-medium couch - see below)

Low-medium couch or scutch-grass infestations up to 75 shoots/m²: 3 l/ha

Medium-high couch or scutch-grass infestations over 75 shoots/m² and black-grass: 4 l/ha

Ragwort, deep-rooted perennial broad-leaved weeds and fine-leaved grasses present: 6 l/ha

Apply in 150-250 l/ha water.

ORCHARDS

Weeds Controlled: Most annual and perennial weeds.

Time

Established (minimum 2 years) trees of:
 Apple, pear

Method

Apply as a directed MEDIUM or COARSE quality spray. Spray after leaf fall in autumn or before green cluster stage of apple and pear. Avoid spraying or allowing drift to contact the trunk above 30cm (12") from the ground, or any branches. Spray must not contact any damaged bark.

Dose rate

5 l/ha in 250 l/ha water.

FORESTRY

Use

Before planting:

Most broad-leaved and grass weeds

Dose Rate

5 l/ha

Hydraulic sprayers: apply in 80-250 l/ha water

Rotary atomisers: apply in total spray volume of 40 l/ha.

Remarks

If the ground has been disturbed by forestry operations, allow the weeds to recover. Apply when weeds are showing green leaf and are actively growing. Wait at least 7 days before any cultivation or before planting trees.

After planting (as directed spray) in competitive forestry

situations: for cleaning-up around trees; conifer release.

Most annual and perennial grasses and broad-leaved weeds.

Broad-leaved woody weeds: bracken, beech, brush, bramble, sycamore, oak, hazel, willow, ash

Heather (peat soils).

Heather (mineral soils).

Rhododendron

Use the 'Weedwiper Mini' or apply by knapsack sprayer. For knapsack application apply at the appropriate dose for the species to be treated as detailed below:

4 l/ha in 250 l/ha water

3 l/ha in 250 l/ha water

4 l/ha in 250 l/ha water

6 l/ha in 250 l/ha water

By knapsack sprayer:
10 l/ha or 8 l/ha in 250 l/ha water plus authorised adjuvant ADJ 0161 (PCS 91597) at 2% of final spray volume.

The Weedwiper Mini is not recommended for the control of rhododendron.

Use the 'Weedwiper Mini' (except rhododendron) or apply by knapsack sprayer around fully guarded trees. It is ESSENTIAL to use a TREE GUARD for all applications made in the growing season. Treat bracken after front tips are unfurled but pre-senescence. Treat heather late-August to end-September. Treat all other woody weeds June to August before leaf senescence, but after new growth of crop has hardened.

Important

The time of hardening of leader growth in any year varies with species, location and weather amongst other factors; hardening might occur from end-July up to October or even later. Always direct the spray away from leaders to avoid damage to Lammas growth.

Cut stump application to prevent regrowth of thinnings.

Deciduous species:

1 volume product: 9 volumes of water (10% solution).

Coniferous species:

1 volume product: 4 volumes of water (20% solution).

Apply immediately after felling or simultaneously whilst sawing, with a special attachment to the saw, during November to March. Do not apply during the period of rising sap flow usually occurring during March to May.

Thinning by stem injection

All species:

2ml of undiluted product per cut.
For trees more than 10cm diameter make 2 or 3 cuts according to tree size and inject 2ml of product into each.

Cut into the live cambial tissue with a downward axe stroke. Cuts must be not more than 1m from the ground. Inject the Barclay Gallup Biograde 360 into each cut. Treat at any time of the year except during the period of rising sap flow usually occurring during March to May.

Note: for ease of identification of treated trees a suitable commercially available water soluble violet dye may be added to the prepared solution at 1ml dye per 10 litres of prepared spray solution.

NATURAL SURFACES NOT INTENDED TO BEAR VEGETATION, PERMEABLE SURFACES OVERLYING SOIL, HARD SURFACES: General use around the farm and on amenity and industrial areas

Weeds Controlled:	Most annual and perennial weeds.	
Area of use	Dose Rate	Remarks
Around buildings	General use:	Apply at any time of the year when weeds are showing green leaf and are actively growing. Weeds germinating after application will not be controlled. Avoid drift onto crops, lawns, amenity plants or any desirable species.
On industrial sites	4 l/ha	
Firebreaks	Perennial broad-leaved weeds present:	
Pavements	6 l/ha	
Verges along public paths and roadways.	<i>Hydraulic sprayers:</i> apply in 80-250 l/ha water	DO NOT USE UNDER GLASS OR POLYTHENE.
Around traffic signs and advertising hoardings	<i>Knapsack Sprayers:</i> apply in 100-250 l/ha water	See KNAPSACK RATE RECKONER tables.
Ste preparation for landscaping projects: golf courses etc.	<i>Rotary atomisers:</i> apply in total spray volume of 40 l/ha.	DO NOT SPRAY HEDGE BOTTOMS.

Important: If poisonous weeds, such as ragwort, had been present before treatment, then grazing animals, such as horses, should be kept clear of treated areas until such time that poisonous weeds have been removed.

AQUATIC WEED CONTROL: Enclosed waters, land immediately adjacent to aquatic areas, open waters

Situations: For weed control in or near watercourses and lakes in the presence or absence of fish.

Note: provided that use is as directed on this label, water may be used for irrigation or livestock without interruption.

Important: Consult the appropriate regional water regulatory body (Environment Agency/Scottish Environment Protection Agency) responsible for the water catchment area before applying any treatment in or near water - see Other Specific Restrictions.

Consult and observe the code of practice entitled 'Guidelines for the use of herbicides on weeds in or near watercourses and lakes. DEFRA booklet PB2289.

Weed species	Dose Rate	Remarks
Waterside weeds:	Treat as for NATURAL SURFACES NOT INTENDED TO BEAR VEGETATION.	As for NATURAL SURFACES NOT INTENDED TO BEAR VEGETATION.
.....		
Emergent weeds:	5 l/ha in 250 l/ha water.	For most species treat actively growing plants during August-September. Best results against water-cress are obtained from spraying in June. Treat bulrush in late July.
Bent, creeping		
Bulrush		
Canary-grass, reed		
Reed, common		
Sedge spp.		
Soft-rush		
Sweet-grass, reed		
Water-cress		
Whorl-grass		
Floating weeds:	6 l/ha in 100-200 l/ha water.	Treat actively growing water-lily during July-August. Apply with a suitable mounted hydraulic sprayer moving slowly against the current. Re-treatment of disturbed weeds along the path of the boat/carrier may be necessary 2-3 weeks later.
Water-lily, white		
Water-lily, yellow	Maximum permitted concentration of glyphosate in the treated water = 0.2ppm	

WICK/WIPER APPLICATORS (e.g. WEEDWIPER MINI)

Certain weeds, particularly those with an erect growth habit and having a spatial separation from desirable species, can be effectively controlled by wiping a concentrated solution of Barclay Gallup Biograde 360 onto the leaves or stems. Weeds must be actively growing at application. Do not apply when rain is expected within 6 hours as, apart from unsatisfactory weed control, herbicide might be transferred to desirable species by rain splash or foliar contact.

Barclay Gallup Biograde 360 dilution

Maximum Concentrations must not exceed the following:

Weedwiper Mini:	1 volume Barclay Gallup Biograde 360 : 2 volume of water
Other wipers:	1 volume Barclay Gallup Biograde 360 : 1 volume of water for normal conditions; under warm, dry conditions use 1:2 dilution with water.

Weedwiper may be used in any crop where the wiper does not touch the growing crop.

Note: for ease of identification of treated weeds, a suitable commercially available water soluble dye may be added to the prepared solution at 1ml dye per 10 litres of prepared spray solution.

Control of Bolters in Sugar Beet

Treat by a series of three applications during early July to early August with 2 weeks between treatments; for high populations repeat each treatment after 24 hours in the reverse direction.

CAUTION

Wick/weedwiper applications may be used in any crop where the wiper does not touch the growing crop. Ensure that there is a minimum 5cm (2") between the top of the tallest desired vegetation and the impregnated wiper. Bolters should be a minimum 10cm (4") taller than the desired vegetation for safe application.

MIXING**Tractor mounted sprayers**

Pour the recommended quantity of Barclay Gallup Biograde 360 into the spray tank already half-filled with clean water and under agitation. Top up the tank with more clean water to the required level, whilst maintaining agitation. Spray out on the day of mixing.

Knapsack sprayers

Add the recommended quantity of Barclay Gallup Biograde 360 to the knapsack spray tank approximately one-third filled with clean water. Agitate thoroughly with a clean rod or by shaking after replacing the lid until thoroughly mixed. Top up the tank with more clean water to the required level and agitate thoroughly before use. Spray out on the day of mixing.

DO NOT MIX, APPLY OR STORE BARCLAY GALLUP BIOGRADE 360 IN GALVANISED OR UNLINED MILD STEEL CONTAINERS OR TANKS. KEEP TANKS WELL VENTED AND CLEAR OF ALL SOURCES OF IGNITION.

APPLICATION & SPRAY QUALITY**Conventional hydraulic sprayers****Knapsack sprayers**

Prepared spray solution should be applied as a MEDIUM or COARSE quality spray (BCPC definition) at nozzle pressures not exceeding 2.5 bar (35psi). Barclay Gallup Biograde 360 is a systemic weedkiller and is active at low doses.

Take extreme care to avoid spray drift. DO NOT SPRAY in windy weather or near to desirable species or amenity plants as drift onto other crops or vegetation can cause severe plant injury or destruction.

SOILS

Barclay Gallup Biograde 360 may be used to control weeds on all mineral or organic soils or surfaces, including ash and gravel. Only weeds showing green leaf at the time of application can be killed. There is no residual activity with Barclay Gallup Biograde 360.

COMPATIBILITY

Barclay Gallup Biograde 360 is compatible with authorised adjuvants 'GC 800 Adjuvant' (ADJ 0354) and when used for rhododendron control 'Mixture B' (ADJ 0161). DO NOT mix with any herbicide, insecticide or fungicide.

FUTURE PLANTING

Barclay Gallup Biograde 360 has no long-lasting herbicidal activity in soils after application. Agricultural and horticultural quality soils may be planted up with trees after not less than 7 days after application, unless directed otherwise. Other amenity plants may be planted after the treated vegetation has died back or after cultivation. Under normal weather conditions, cultivations may be conducted 7 days after treatment. Under poor growing conditions wait for the characteristic red/yellow leaf symptoms to appear before cultivating.

WEED RESISTANCE STRATEGY

There is a low risk of weeds developing resistance to Barclay Gallup Biograde 360. 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 these label recommendations.
- Adopting complementary weed control measures.
- Minimising the spread of weeds and their seeds.
- Implementing good spraying practices to achieve maximum weed control.
- Using the correct nozzles to maximise weed coverage.
- Applying only under appropriate weather conditions.
- Monitoring performance and reporting unexpected results to Barclay Chemicals Ltd.

Strains of some annual weeds, 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. This should include integrating herbicides with a programme of cultural control measures. 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.

CARE OF EQUIPMENT

Wash equipment thoroughly after use with water and cleaning agent to remove traces of herbicide. Traces of herbicide left in the equipment may seriously damage or destroy crops sprayed with the same equipment at a later date.

KNAPSACK RATE RECKONER

METRIC-Medium Volume Application

PRODUCT RECOMMENDATION

(litres of product in l/ha of water)

3L in 250L per hectare

4L in 250L per hectare

5L in 250L per hectare

6L in 250L per hectare

Amount Barclay Gallup Biograde 360
per 10 litres to treat 400m²

120 ml

160 ml

200 ml

240 ml

METRIC-Low Volume Application

PRODUCT RECOMMENDATION

(litres of product in l/ha of water)

3L in 100L per hectare

4L in 100L per hectare

5L in 100L per hectare

6L in 100L per hectare

Amount Barclay Gallup Biograde 360
per 10 litres to treat 1000m²

300 ml

400 ml

500 ml

600 ml