



Gallup Biograde 450™

Barclay Gallup Biograde 450 is a systemic herbicide, as a soluble concentrate, for the control of annual and perennial grass and broad-leaved weeds in:

- Barley
- Durum Wheat
- Field beans
- Forest
- Forest nursery
- Grassland
- Green cover on land not being used for crop production
- Linseed
- Non-cropped areas
- Oats
- Oilseed rape
- Orchards: apple, pear, cherry, damson and plum
- Peas (combining)
- Stubbles of all edible and non-edible crops
- Wheat

For use only as an Agricultural, Horticultural, Industrial and Forestry non-selective herbicide.
(Please see inside for DIRECTIONS FOR USE)

FOR PROFESSIONAL USE ONLY

SAFETY INFORMATION

Keep out of reach of children.

Do not breathe spray.

Wear protective gloves/protective clothing/eye protection/face protection.

IF IN EYES: Get medical advice/attention. Rinse cautiously with water for several minutes.

IF ON SKIN: Wash with plenty of soap and water

Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for triple rinsed empty clean containers which can be disposed of as non-hazardous waste.

To avoid risks to human health and the environment, comply with the instructions for use.

PCS No 02434

Contains 450 g/l glyphosate in a soluble concentrate

Manufacturer

Barclay Chemicals Manufacturing Ltd.,
Damastown Way, Damastown Industrial Park, Mulhuddart, Dublin 15, Ireland.
Tel: +353 1 811 2900
Fax: +353 1 822 4678
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) Ltd, 2016.
™ Gallup and Biograde are registered Trademarks of Barclay Chemicals (R&D) Ltd.

PROTECT FROM FROST

20 Litres

PRECAUTIONS

In case of emergency contact the Poisons Information Center Tel: +353 1 8092566 or +353 1 8379964.

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).

DIRECTIONS FOR USE

Crop or situation	Maximum individual dose of product	Maximum number of treatments	Latest time of application	Maximum Total Dose
Wheat, barley, oats Durum Wheat	3.2 l/ha	One per season	7 days before harvest	3.2l/ha
Oilseed rape, linseed	3.2 l/ha	One per season	14 days before harvest	3.2l/ha
Peas (combining) Field beans	3.2 l/ha	One per crop	7 days before harvest	3.2l/ha
Stubbles of all crops	3.2 l/ha 1.2 l/ha	One per season One per season	5 days before drilling 2 days before drilling	3.2l/ha 1.2l/ha
Grassland	4.8 l/ha	One per season	5 days before cutting/grazing	4.8l/ha
Non-cropped areas	4.8 l/ha	Two per year	-	9.6l/ha
Apple, pear, plum, cherry and damson orchards	4 l/ha	One per season	After leaf fall but before green cluster of apples or white bud of stone fruit.	4l/ha
Forestry: Weed control Chemical thinning Stump treatment	4 l/ha 1.6ml per cut 10cm diameter of tree 160 ml product made up to 1 L with water (16% v/v)	Two per year		8l/ha
Green cover on land not being used for crop production	3.2l/ha	-	24 hours before cultivating	3.2l/ha

GENERAL INFORMATION

Barclay Gallup Biograde 450 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/scutch is most susceptible to Barclay Gallup Biograde 450 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 12-15 cm (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 5 cm (2") of leaf and broad-leaved weeds at least two expanded true leaves when sprayed.

Couch/scutch grasses and other grass and broad-leaved weeds are less susceptible to Barclay Gallup Biograde 450 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.

Do not apply lime, fertiliser, farmyard manure, pesticides or similar materials within 7 days of Barclay Gallup Biograde 450.

Note: Barclay Gallup Biograde 450 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.

WEED CONTROL IN STANDING CEREAL CROPS (PRE-HARVEST)		
<p>Weeds Controlled: Common couch/scutch (<i>Elymus repens</i>) Black bent (<i>Agrostis gigantea</i>) Creeping bent (<i>Agrostis stolonifera</i>) Onion couch (<i>Arrhenatherum elatius</i> var. <i>bulbosum</i>) in winter barley only - see Note. Perennial broad-leaved weeds</p> <p>Crops: Winter and spring wheat, including durum wheat, and winter and spring 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.</p>		
Time	Method	Dose rate
<p>Spray when the moisture content of the grain measures less than 30%.</p> <p>Target weeds must be green, actively growing and accessible to the spray.</p>	<p>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.</p> <p>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.</p>	<p>Annual weeds and grasses or low couch/scutch grass infestations up to 25 shoots/m²: 1.6 l/ha</p> <p>Apply in 80-150 l/ha water for this dose rate.</p> <p>Low-medium couch/scutch -grass infestations, up to 75 shoots/m²: 2.4 l/ha</p> <p>Medium-high couch/scutch -grass infestations, over 75 shoots/m²: 3.2 l/ha</p> <p>Perennial broad-leaved weeds: 3.2 l/ha</p> <p>Apply in 80-250 l/ha water.</p>
<p>Note: to gain successful control of onion couch with Barclay Gallup Biograde 450, the weed must be treated BEFORE the bulbous bases have matured. Application when the bulbous bases have matured will not prevent regeneration of the weed. Early ripening winter barley is the only crop likely to present an opportunity for pre-harvest control of onion couch.</p>		

WEED CONTROL IN STANDING OILSEED RAPE AND WEED CONTROL IN LINSEED (PRE-HARVEST)		
<p>Weeds Controlled: Common couch/scutch (<i>Elymus repens</i>). Black bent (<i>Agrostis gigantea</i>). Creeping bent (<i>Agrostis stolonifera</i>). Perennial broad-leaved weeds.</p> <p>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.</p>		
Time	Method	Dose rate
<p>Weed control: 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.</p>	<p>Spray the crop and weeds overall. Minimise crop damage by use of high clearance tractors with narrow wheels and crop dividers.</p> <p>After spraying: Wait at least 14 days before harvesting oilseed rape. Wait at least 14 days before harvesting linseed.</p> <p>Direct combine harvest the crop when fit. Treated straw must be chopped and incorporated or removed, after which normal cultivations may be resumed.</p>	<p>Low-medium couch/scutch - grass infestations up to 75 shoots/m²: 2.4 l/ha</p> <p>Medium-high couch/scutch - grass infestations over 75 shoots/m²: 3.2 l/ha</p> <p>Perennial broad-leaved weeds: 3.2 l/ha</p> <p>Apply in 200-250 l/ha water.</p>

WEED CONTROL IN FIELD BEANS AND PEAS (PRE-HARVEST)		
<p>Weeds Controlled: Common couch (<i>Elymus repens</i>). Black bent (<i>Agrostis gigantea</i>). Creeping bent (<i>Agrostis stolonifera</i>). Perennial broad-leaved weeds.</p> <p>Crops: Field beans, winter or spring. Peas to be harvested dry. DO NOT TREAT CROPS INTENDED FOR SEED.</p> <p>Note: This treatment is intended for weed control and not for crop desiccation.</p>		
Time	Method	Dose rate
<p>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.</p>	<p>Spray the crop and weeds overall. Minimise crop damage by use of high clearance tractors with narrow wheels and crop dividers.</p> <p>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.</p>	<p>Low-medium couch-grass infestations up to 75 shoots/m²: 2.4 l/ha</p> <p>Medium-high couch-grass infestations over 75 shoots/m²: 3.2 l/ha</p> <p>Apply in 200-250 l/ha water.</p>

STUBBLE - ANNUAL AND PERENNIAL WEEDS, VOLUNTEERS		
<p>Weeds Controlled: Common couch/scutch (<i>Elymus repens</i>). Black bent (<i>Agrostis gigantea</i>). Creeping bent (<i>Agrostis stolonifera</i>). Annual grasses and broad-leaved weeds. Volunteer cereals and potatoes (autumn only).</p> <p>Crops: Any crop to follow application on stubble.</p>		
Time	Method	Dose rate
<p>Autumn or winter applications: Spray when perennial weeds are actively growing, especially if after mid-October. Common couch/scutch should have at least 6 new leaves approx. 12 cm (5") long.</p>	<p>After harvest:</p> <ul style="list-style-type: none"> • 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. <p>After spraying:</p> <ul style="list-style-type: none"> ◆ 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. 	<p>Annual weeds and grasses or low couch/scutch grass infestations up to 25 shoots/m²: 1.6 l/ha Apply in 80-150 l/ha water for this dose rate.</p> <p>Low-medium couch/scutch -grass infestations up to 75 shoots/m²: 2.4 l/ha</p> <p>Medium-high couch/scutch -grass infestations over 75 shoots/m² and volunteer potatoes: 3.2 l/ha</p> <p>Apply in 150-250 l/ha water.</p> <p><i>Note: the effect of 1.6 litres product/ha rate on the long-term control of couch/scutch grass is not known.</i></p>
<p>Spring applications: Spray when weeds are actively growing as for autumn applications. Roots chopped by cultivations must show new leaf growth to be killed.</p>	<p>After harvest:</p> <ul style="list-style-type: none"> • Cultivate as required. • Leave for regrowth to appear – allow a minimum 21 days weed growth before spraying. <p>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.</p>	

STUBBLE/CULTIVATED LAND – ANNUAL WEEDS/VOLUNTEERS		
Weeds Controlled: Annual grasses and broad-leaved weeds Volunteer cereals.		
Crops: Any crop to follow application.		
Time	Method	Dose Rate Litre/ha
Autumn/Spring/Summer applications: Spray when perennial weeds are actively growing. <i>For optimum control:</i> - Annual grasses should have at least 10cm (4") of green leaf - Annual broad-leaved weeds should have at least 2 true leaves	After harvest or cultivations: Allow ground to remain undisturbed for as long as practicable to allow weeds to regrow. After spraying: - Wait at least 24 hours before cultivating. - Wait at least 48 hours before drilling.	1.2 l/ha Apply in 80-250 l/ha water

GRASSLAND		
Weeds Controlled: Rough stalked meadow grass (<i>Poa pratense</i>), Scentless Mayweed (<i>Matricaria inodorum</i>), Ivyleaf speedwell (<i>Veronica hederifolia</i>), Pathgrass (<i>Poa annua</i>), Common field speedwell (<i>Veronica persica</i>), Ryegrass (<i>Lolium multiflorum</i>), Couch grass (<i>Agropyron repens</i>), Perennial ryegrass (<i>Lolium perenne</i>), Broadleaf dock (<i>Rumex obtusifolius</i>), Common nettle (<i>Urtica dioica</i>), Field sowthistle (<i>Sonchus arvensis</i>)		
Crops: Any crop to follow application		
Time	Method	Dose Rate
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.	<ul style="list-style-type: none"> • 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. 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 and incorporate the ground limestone into the soil. Seeding may be conducted as required thereafter provided that the seeds are in contact with mineral soil.	1-2 years old, only annual weeds and grasses: 2.4 l/ha 2-4 years old, with perennial grasses: 3.2 l/ha Long leys e.g. 4-7 years old with perennial broad-leaved weeds: 4 l/ha Permanent grassland with ragwort or predominantly fine-leaved grasses: 4.8 l/ha Apply the recommended dose in 200-250 l/ha water

FORESTRY/WOODLANDS		
Use	Dose	Remarks
<p>Before planting: Most broad-leaved and grass weeds.</p> <p>After planting</p> <p>Most annual and perennial grasses and broad-leaved weeds.</p> <p>Moderate control of Broad-leaved woody weeds: bracken, beech, brush, bramble, sycamore, oak, hazel, willow, ash.</p>	<p>4 l/ha</p> <p>Apply in 80-250 l/ha water.</p> <p>Apply at the appropriate dose for the species to be treated as detailed below:</p> <p>3.2 l/ha in 250 l/ha water</p> <p>3.2 l/ha in 250 l/ha water</p>	<p>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.</p> <p>Apply by knapsack sprayer around fully guarded trees. It is ESSENTIAL to use a TREE GUARD for all applications made in the growing season.</p> <p>Treat bracken after frond 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.</p> <p>Important</p> <p>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.</p>
<p>Cut stump application to prevent regrowth of thinnings</p>	<p>Deciduous species: 1 volume product: 9 volumes of water (8% solution)</p> <p>Coniferous species: 1 volume product: 4 volumes of water (16% solution).</p>	<p>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.</p>
<p>Thinning by stem injection</p>	<p>All species: 1.6ml of undiluted product per cut.</p> <p>For trees more than 10 cm diameter make 2 or 3 cuts according to tree size and inject 2 ml of product into each</p>	<p>Cut into the live cambial tissue with a downward axe stroke. Cuts must be not more than 1 m from the ground. Inject the Barclay Gallup 450 into each cut. Treat at any time of the year except during the period of rising sap flow usually occurring during March to May.</p>
<p>Note: for ease of identification of treated trees a suitable commercially available water soluble violet dye may be added to the prepared solution at 1 ml dye per 10 litres of prepared spray solution</p>		

ORCHARDS		
Weeds Controlled: Most annual and perennial weeds.		
Time	Method	Dose
<p>Established (minimum 2 years) trees of: Apple Pear Plum Cherry Damson</p>	<p>Apply as a directed MEDIUM or COARSE spray. Spray after leaf fall in autumn or before green cluster stage of apple and pear or white-bud stage of stone fruit. 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.</p>	<p>4 l/ha in 250 l/ha water.</p>

NATURAL SURFACES NOT INTENDED TO BEAR VEGETATION, PERMEABLE SURFACES OVERLYING SOIL, HARD SURFACES: General use on non-cropped areas around the farm and on amenity and industrial areas		
Area of use	Dose	Remarks
Around buildings	General use: 3.2 l/ha	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		
Firebreaks	Perennial broad-leaved weeds present:	
Pavements	4.8 l/ha	DO NOT USE UNDER GLASS OR POLYTHENE.
Verges along public paths and roadways	<i>Mounted hydraulic sprayers:</i> apply in 80-250 l/ha water.	See KNAPSACK RATE RECKONER tables.
Around traffic signs and advertising hoardings	<i>Knapsack sprayers:</i> apply in 100-250 l/ha water	
Site preparation for landscaping projects; golf courses etc.		
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.		

GREEN COVER ON LAND NOT BEING USED FOR CROP PRODUCTION (SET-ASIDE)		
<p>Weeds Controlled: Scutch grass (<i>Elymus repens</i>), Black bent (<i>Agrostis gigantea</i>), Creeping bent (<i>Agrostis stolonifera</i>), Annual grasses and broad-leaved weeds. Volunteer cereals.</p> <p>Crops: Any to follow application. Users must ensure themselves compliant with the management rules of any grant-aided scheme before use; the guidance given in the following may be changed.</p>		
Time	Method	Dose rate
<p>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.</p>	<p>* Do not cut or cultivate prior to applying this product in this situation.</p> <p>* Spray before weeds set seed (but not before 15 April)</p> <p>* 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.</p>	<p>Annual weeds and grasses except black-grass: 1.2 l/ha</p> <p>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 2.4 l/ha in 150-250 l/ha water as for low-medium couch - see below)</p> <p>Low-medium couch/scutch - grass infestations up to 75 shoots/m²: 2.4 l/ha</p> <p>Medium-high couch/scutch - grass infestations over 75 shoots/m² and black-grass: 3.2 l/ha</p> <p>Ragwort, deep-rooted perennial broadleaved weeds and fine-leaved grasses present: 4.8 l/ha</p> <p>Apply in 150-250 l/ha water.</p>

MIXING

Tractor mounted sprayers

Pour the recommended quantity of Barclay Gallup Biograde 450 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 450 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.

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.

DO NOT MIX, APPLY OR STORE BARCLAY GALLUP BIOGRADE 450 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 spray (BCPC definition) through conventional hydraulic sprayers (tractor-mounted/drawn or knapsack) at nozzle pressures not exceeding 2.5 bar (35 psi). Barclay Gallup Biograde 450 is a systemic weedkiller and is active at low doses. **Always 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 450 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 450.

COMPATIBILITY

Barclay Gallup Biograde 450 is compatible with authorised adjuvant 91690. DO NOT mix with any herbicide, insecticide or fungicide.

FUTURE PLANTING

Barclay Gallup Biograde 450 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.

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 <i>METRIC-Medium Volume Application</i>	
PRODUCT RECOMMENDATION (litres of product in l/ha of water)	Amount Barclay Gallup Biograde 450 per 10 litres to treat 400 m²
2.4 litres in 250 l/ha	96 ml
3.2 litres in 250 l/ha	128 ml
4.0 litres in 250 l/ha	160 ml
4.8 litres in 250 l/ha	192 ml
<i>METRIC-Low Volume Application</i>	
PRODUCT RECOMMENDATION (litres of product in l/ha of water)	Amount Barclay Gallup Biograde 450 per 10 litres to treat 1000 m²
2.4 litres in 100 l/ha	240 ml
3.2 litres in 100 l/ha	320 ml
4 litres in 100 l/ha	400 ml
4.8 litres in 100 l/ha	480 ml