

July 2012

PROLIANCE QUATTRO



Product registration number MAPP 13670

PROLIANCE QUATTRO is a soluble concentrate containing 360 g/litre glyphosate, a surfactant and water conditioning system

A systemic herbicide for the control of a wide range of annual and perennial weeds in industrial and amenity areas and in forest and forest nurseries.

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

This product label is compliant with the CPA Voluntary Initiative (VI) guidance.



Net contents

Syngenta Crop Protection UK Limited
CPC 4, Capital Park, Fulbourn,
Cambridge CB21 5XE
Tel: Cambridge (01223) 883400

In case of toxic or transport emergency ring +44 (0)1484 538444 any time

PROTECT FROM FROST
SHAKE WELL BEFORE USE
Product code / Print date / xxxxxx

Batch Number

DO NOT USE OR KEEP PROLIANCE QUATTRO IN GALVANISED OR UNLINED MILD STEEL SPRAY TANKS OR CONTAINERS. DO NOT LEAVE SPRAY MIXTURE IN TANK FOR LONG PERIODS AND MAKE SURE TANKS ARE WELL VENTED

SAFETY PRECAUTIONS

(a) 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 or handling contaminated surfaces.

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

WEAR SUITABLE PROTECTIVE CLOTHING (COVERALLS), SUITABLE PROTECTIVE GLOVES, RUBBER BOOTS AND FACE PROTECTION (FACESHIELD) when applying by hand-held weedwiper, making cut stump treatments or making stem injection treatments.

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.

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

(b) Environmental protection

KEEP LIVESTOCK OUT OF TREATED AREAS.

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

(c) 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.

PROLIANCE QUATTRO



DANGEROUS FOR THE ENVIRONMENT

Proliance Quattro is a soluble concentrate containing 360 g/litre glyphosate, a surfactant and water conditioning system

TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT

Keep out of reach of children.

Keep away from food, drink and animal feeding stuffs.

When using do not eat drink or smoke.

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

Use appropriate containment to avoid environmental contamination.

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

IMPORTANT INFORMATION

FOR USE ONLY AS AN AGRICULTURAL/ HORTICULTURAL/ INDUSTRIAL/FORESTRY HERBICIDE

For use on:

Crops/situations	Maximum individual dose (litres product/ha)	Maximum number of treatments	Latest time of application
Natural surfaces not intended to bear vegetation, permeable surfaces overlying soil, hard surfaces.	6.0	-	-
Forest, Forest Nursery	5.0	-	-
Forest, Forest Nursery – Chemical thinning by injection	2 ml product per cut per 10cm diameter of tree	-	-
Forest, Forest Nursery – Stump applications	See 'Other Specific Restrictions'	-	-

Other specific restrictions:

When applying through rotary atomisers, the spray droplet spectra must be a minimum Volume Median Diameter (VDM) of 200 microns.

The maximum individual dose for hydraulic knapsack sprayers must not exceed 22.5 g/l glyphosate.

Users must consult the appropriate water regulatory body (Environmental Agency/Scottish Environmental Protection Agency) before using the product near water.

For stump applications, the maximum concentration must not exceed 200 ml product made up to a total volume of 1 litre with water (20% solution).

When using weedwipers, the maximum concentration must not exceed a 1:2 dilution with water in a Weedwiper Mini or a 1:1 dilution with water in other wipers.

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.

This leaflet is part of the approved Product Label.

DIRECTIONS FOR USE

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.

GENERAL PROPERTIES

PROLIANCE QUATTRO is an advanced glyphosate formulation which incorporates a fully optimised surfactant system and water conditioner. Having no hazard classification, PROLIANCE QUATTRO offers a high standard of operator and environmental safety when used as directed. To maximise the intrinsic safety of PROLIANCE QUATTRO to the operator, consumer and environment, the label recommendations and the DEFRA/HSE publication, 'Code of Practice for using plant protection products' should be adhered to.

CONDITIONS FOR OPTIMUM USE

PROLIANCE QUATTRO applied to foliage is translocated throughout the plant, controlling all parts including roots, rhizomes or stolons. After treatment, discolouration of the leaves is seen first on grass weeds but takes longer to appear on broad-leaved weeds. The time for complete kill of weeds depends on species and growing conditions, and may vary from a few days to a few weeks.

To allow PROLIANCE QUATTRO to translocate to maximum effect, it is important that perennial weeds are not broken up before treatment, so do not cultivate before spraying.

Extreme care should be taken to avoid spray drift as this can severely damage neighbouring crops or plants. Do not spray in windy weather, especially if applying a spray with smaller droplet size.

In good growing conditions PROLIANCE QUATTRO is rainfast within 6 hours. Where weed growth and uptake is slowed by adverse conditions, a rain-free period of up to 24 hours following spraying may be necessary. For best results, PROLIANCE QUATTRO should be applied to a dry target.

In order to allow full translocation of PROLIANCE QUATTRO, do not apply other pesticides, lime, fertilizer or farmyard manure either before or within 5 days after application of this product.

WEEDS CONTROLLED

PROLIANCE QUATTRO controls many species of emerged annual and perennial grass and broad-leaved weeds. After application the active ingredient is translocated from the treated foliage to the roots and other underground parts of perennial plants. It is important that all weeds are at the correct growth stage when treated, otherwise some re-growth may occur and this will need re-treating.

For best control, apply PROLIANCE QUATTRO to weeds which are actively growing, with enough leaf to absorb the product. Weeds are less susceptible to this product when growth is restricted by natural senescence or by factors such as

drought, waterlogging, frost or high temperature. Such conditions at, or soon after, spraying may result in reduced control.

The PROLIANCE QUATTRO formulation has been fully optimised such that additional tank mix adjuvants are not required when applying at minimum rates recommended on this label.

Strains of some annual grasses (e.g. black-grass, wild oats 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 copies are available from the HGCA, CPA, your distributor, advisor or product manufacturer.

TIMING FOR OPTIMUM CONTROL OF WEEDS

Common Couch and other perennial grass weeds	Treat only when a full emergence of actively growing green leaf is reached. Common Couch reaches this susceptible stage of growth from the beginning of tillering and new rhizome growth, usually when plants have 4 or 5 leaves with at least 10 cm of new growth.
Perennial broad-leaved weeds	Best treated when actively growing and at or near flowering, but before senescence begins.
Annual weeds	Must be actively growing, with sufficient leaf area for uptake of the spray. Annual grasses should have at least 5 cm of leaf and annual broad-leaved weeds at least 2 expanded true leaves before spraying. Annual weeds emerging after treatment will not be controlled.

CROP SPECIFIC INFORMATION

NATURAL SURFACES NOT INTENDED TO BEAR VEGETATION, PERMEABLE SURFACES OVERLYING SOIL, HARD SURFACES

PROLIANCE QUATTRO can be used for vegetation control in a variety of non-cropped areas, such as:

Along roads, paths, fence lines and ditch edges.

Around walls, buildings, yards, storage areas, waste ground and similar situations in amenity and industrial areas.

For the destruction of plants along railway embankments, railway lines and railway ballast and on airfields and Ministry of Defence land.

Apply this product carefully. When applying to hard surfaces (excluding railway ballast) ensure spraying takes place only when weeds are actively growing (normally March to October) and is confined only to visible weeds including those in the 30cm swath covering the kerb edge and road gully – do not overspray drains.

DO NOT USE in hedgerows, or allow drift into hedgerows.

Allow 14 days after spraying before cultivating, drilling or planting.

Apply in 80-250 litres of water per hectare through conventional mounted or knapsack sprayers, or 40 litres of water per hectare through rotary atomisers. 200-250 litres per hectare is the preferred volume where crop or weeds are dense and good coverage is necessary.

Application should be made according to the rates in the table below. Select the lowest rate which provides control of all the required weeds

Weed	Rate: litres per hectare
Perennial broad-leaved weeds*	5.0
Perennial grasses**	4.0
Annual weeds	1.5

* 6.0 l/ha may be used for control of pernicious broad-leaved weeds namely Colt's-foot, Common ragwort, ground-elder, Meadowsweet, St John's-wort, Scotch thistle, white clover.

** A reduced dose of 3 litres product/hectare may provide adequate control of couch grass under optimum application conditions.

FOREST AND FOREST NURSERY – WEED CONTROL

Pre-planting

PROLIANCE QUATTRO may be used for the control of annual and perennial weeds in arable land, grassland areas and land to be re-planted prior to planting. Planting can take place 21 days after application.

Apply in 80-250 litres of water by means of a hydraulic nozzle sprayer or knapsack sprayer. 200-250 litres per hectare is the preferred volume where weeds are dense and good coverage is necessary.

Alternatively apply in 20-40 litres of water per hectare using a rotary atomiser sprayer ensuring that the spray droplet spectra produced is of a minimum Volume Median Diameter (VMD) of 200 microns.

Apply PROLIANCE QUATTRO at a rate of 5.0 l/ha for the control of annual and perennial broad-leaved weeds and 4.0 l/ha for the control of annual and perennial grasses.

Post-planting directed spray in conifers and deciduous trees

PROLIANCE QUATTRO may be used for control of annual and perennial weeds around coniferous and deciduous trees (including Christmas trees, ornamental trees, shrubs and woody ornamentals) as a directed spray application using a hand-held sprayer.

Application should be made according to the rates in the table below.

Weed	Rate: litres per hectare
Annual and perennial grasses and broad-leaved weeds	4.0
Brambles	3.0

For all applications made during the growing season, a tree guard must be fitted to the sprayer to avoid damage to trees. Care must be taken to avoid contact, either directly or indirectly, with the green parts of the plants otherwise damage to the trees is possible.

PROLIANCE QUATTRO may also be used for weed control on bare areas around coniferous and deciduous trees or under old trees with no young green growth. Woody weeds are treated before leaf senescence, but after new growth of crop has hardened (June - August / September).

Post-planting overall application in the dormant season

PROLIANCE QUATTRO may be used as an overall application to certain coniferous species (Corsican Pine, Lawson Cypress, Lodgepole Pine, Norway Spruce, Scots Pine, Sitka Spruce and Western Red Cedar), except Douglas Fir and Larch, in the dormant season for the control annual and perennial grasses and broad-leaved weeds, bracken and brambles. Do not make an overall application to Christmas trees or other species grown for ornamental purposes.

PROLIANCE QUATTRO should be applied between October and November after the complete cessation of crop growth, when the buds are woody and brown and leader shoot growth has hardened off. To avoid damage to Lammas growth, direct

spray away from the leaders. The actual time when this occurs can vary considerably according to location and season. It is recommended to make a trial application to a small area of trees to check crop safety under local conditions before wide-scale application in following years.

Application should be made according to the rates in the table below in 80-250 litres of water by means of a hydraulic nozzle sprayer or knapsack sprayer. 200-250 litres per hectare is the preferred volume where weeds are dense and good coverage is necessary.

Weed	Rate: litres per hectare
Grass Weeds in lowland areas	1.5
Grass weeds in upland areas Bracken, Beech and Birch	2.0
Brambles	3.0

Chemical thinning by injection of tree stems

PROLIANCE QUATTRO may be used for chemical thinning by direct injection into tree stems of all coniferous and deciduous tree species.

Make a notch cut with an axe in the tree stem and apply 2.0 ml of undiluted PROLIANCE QUATTRO into the notch. For trees up to 10cm in diameter, make one cut, in trees with a diameter greater than 10cm, make two or three cuts. Do not apply to trees in the period of active sap flow (spring / early summer).

Stump application

PROLIANCE QUATTRO may be used for chemical thinning by stump application to all coniferous and deciduous tree species.

For deciduous trees apply a dilution of 1 part PROLIANCE QUATTRO to 9 parts water (10% solution). For coniferous trees apply a dilution of 1 part PROLIANCE QUATTRO to 4 parts water (20% solution). A suitable water based dye may be added to the dilution in order to mark treated stumps.

Apply the diluted solution liberally to the rim of a freshly cut tree surface, to saturate the surface. Apply with a spot gun, paintbrush or specially adapted clearing saw. Apply to cut stumps as soon as possible (within a week) after cutting. Application must only be made during the period of November to March and before the start of active sap flow in spring or early summer. Do not make channels, trenches or holes in the cut stump for the application of the diluted solution. Do not use undiluted product.

MIXING AND SPRAYING

Conventional hydraulic sprayers

Mixing: Ensure that the sprayer is clean and correctly set to give an even application at the required volume. Half-fill the spray tank with clean water and start agitation. Shake the container and add the required amount of PROLIANCE QUATTRO to the sprayer using a filling device (e.g. induction bowl or closed transfer unit) or by direct addition to the sprayer tank. 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. Top-up the tank with water to the required level.

Spraying: Apply through a well maintained conventional hydraulic sprayer as a MEDIUM or COARSE spray (BCPC definition). Ensure that the sprayer is correctly calibrated before use. Do not leave the spray liquid in the sprayer for long periods (i.e. during meals or overnight). Ensure that the sprayer boom is adjusted in height so that the spray pattern gives good, even cover.

Knapsack applicators

PROLIANCE QUATTRO may be applied through knapsack sprayers. Use 200 ml PROLIANCE QUATTRO in 9.8 litres of CLEAN water to make 10 litres of spray liquid. This quantity will cover 500 square metres at a dose rate equivalent to 4.0 litres per hectare, or 330 square metres at a dose rate equivalent to 6.0 litres per hectare. Cover weed leaves evenly, but do not spray to the point of run-off.

CDA applicators

When using rotary atomisers the spray droplet spectra produced must be of a minimum Volume Median Diameter (VMD) of 200microns. Select the correct rate of PROLIANCE QUATTRO and make up to desired volume with CLEAN water. Calibrate and operate according to manufacturer's instructions.

Hand-held weedwipers

PROLIANCE QUATTRO may be applied through a hand-held weedwiper. Use a concentration of 1 part of PROLIANCE QUATTRO to 2 parts water. Do not exceed this maximum concentration. A water based dye may be added if required.

After use

It is essential to clean out thoroughly sprayer tanks, pumps and pipelines between applying this product and other pesticides. Traces of PROLIANCE QUATTRO left in the equipment may seriously damage or destroy crops sprayed later.

Wash equipment thoroughly immediately after use with a commercial tank cleaner, in accordance with the manufacturer's instructions. Dispose of tank washings and rinse containers safely according to the DEFRA Code Of Practice.

COMPATIBILITY

PROLIANCE QUATTRO must NOT be tank mixed with pesticides, fertilizers or adjuvants. Such mixtures may lead to reduced weed control.

For further information please see www.greencast.co.uk

This product is to be used only in accordance with the recommendations and instructions given on the labels provided with this pack.

PROLIANCE QUATTRO is a trademark of a Syngenta Group Company.

Syngenta Crop Protection UK Limited, CPC 4, Capital Park, Fulbourn, Cambridge, CB21 5XE. Tel: 01223 883479