PROLIANCE QUATTRO (1-25 litre container)	
APPROVED LABEL TEXT	
David Payne February 2009	

## PROLIANCE QUATTRO

Product registration number PCS 03710



PROLIANCE QUATTRO is an aqueous 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.

## Safety Information

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

Keep out of reach of children.

Keep away from food, drink and animal feeding stuffs.

When using do not eat drink or smoke.

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

PCS No. 03710

Authorisation Holder	Marketing Company
Syngenta Crop Protection UK Limited	Syngenta Ireland Ltd
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Cambridge CB21 5XE	Cork Road
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	Tel 051 377203

PROTECT FROM FROST SHAKE WELL BEFORE USE

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

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.

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#### CONDITIONS OF USE

FOR USE ONLY AS AN AGRICULTURAL/ HORTICULTURAL/ INDUSTRIAL 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	2	-

## \*Other specific restrictions:

The spray droplet spectra must be a minimum Volume Median Diameter (VDM) of 200 microns.

#### **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 and applying through hand held equipment.

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

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

# (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 farmyards 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.

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'

## **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.

#### **WEEDS CONTROLLED**

## **OPTIMUM CONTROL OF WEEDS**

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, crop 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 also be used for vegetation control in a variety of other non-cropped areas, such as:

Creation of sterile strips around field margins.

Along roads, paths, fences and ditch edges.

Around buildings and in yards, storage areas and waste ground.

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

Root-crop storage areas - including re-growth of roots/tubers which will not be consumed.

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

DO NOT USE in covered areas such as glass houses or under polythene.

Exclude stock from treated fields. Livestock may not graze or be fed the treated forage, nor may it be used for hay, silage or bedding.

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

## **RATES OF USE**

Weeds are controlled by PROLIANCE QUATTRO at rates shown in the table below:

Weeds are controlled by PROLIANCE QUATTRO at rates marked 'S'. Select the lowest rate which controls all required weeds, and will destroy all grass species present in the sward. Well established swards and permanent pasture will need higher doses.

Grass Weeds and Rushes	Rate: litres per hectare			
	3.0	4.0	5.0	6.0
Annual Meadow-grass	S	S	S	S
Barren Brome	S	S	S	S
Black Bent		S	S	S

Grass Weeds and Rushes	Rate: litres per hectare			
Black-grass	S	s	S	S
Cock's-foot		S	S	S
Common Bent		S	S	S
Common Couch		S	S	S
Common Reed			S	S
Creeping Bent		S	S	S
Creeping Soft-grass		S	S	S
Crested Dog's-tail		S	S	S
False Oat-grass		S	S	S
Hard Rush				S
Italian Rye-grass	S	S	S	S
Meadow Fescue		S	S	S
Meadow Foxtail			S	S
Perennial Rye-grass		S	S	S
Red Fescue				S
Rough Meadow-grass	S	S	S	S
Sedges			S	S
Sheep's Fescue				S
Smooth Meadow-grass	S	S	S	S
Soft Brome		S	S	S
Soft Rush			S	S
Timothy		S	S	S
Tufted Hairgrass			S	S
Wild-oats	S	S	S	S
Yorkshire Fog		S	S	S

Broad-leaved Weeds and Bracken	Rate: litres per hectare			
	3.0	4.0	5.0	6.0
Amphibious Bistort				S
Bracken <sup>2</sup>			S	S
Broad-leaved Dock		S	S	S
Cleavers	S	S	S	S
Colt's-foot				S
Common Chickweed	S	S	S	S
Common Mouse-ear		S	S	S
Common Nettle			S	S
Common Ragwort				S
Common Sorrel			S	S
Creeping Buttercup <sup>1</sup>			S	S
Creeping Cinquefoil			S	S
Creeping Thistle			S	S
Curled Dock			S	S
Dandelion		S	S	S
Dock seedlings	S	S	S	S
Ground-elder				S
Hogweeds <sup>1</sup>		S	S	S
Japanese Knotweed				S
Mayweed species	S	S	S	S
Meadowsweet				S
Mugwort		S	S	S
Perennial Sow-Thistle			S	S
Plantains		S	S	S
Red Clover			S	S
St John's-worts				S
Scotch Thistle				S
Sheep's Sorrel			S	S
Spear Thistle			S	S
Speedwell species	S	S	S	S
White Clover <sup>1</sup>				S
White Dead-nettle			S	S
Willowherbs		S	S	S
Yarrow			S	S

<sup>&</sup>lt;sup>1</sup> Correct stage of growth at treatment is important. <sup>2</sup> At full frond expansion.

Other weed species should be treated at the rates shown below. Select the lowest rate which controls all required weeds.

Weed	Rate: litres per hectare
Perennial broad-leaved weeds	6.0
Perennial grasses** and volunteer potatoes	4.0
Annual weeds	1.5

<sup>\*\*</sup>A reduced dose of 3l product/hectare may provide adequate control of couch grass under optimum application conditions.

## **APPLICATION**

Water volume: **80-250 litres per hectare** through conventional mounted or knapsack sprayers, or

**20-40 litres 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.

# Pack Size - Hectarage Table

According to rate, this a 10 litre pack will treat the following areas:

Rate of Use	Area Treated
1.5 litres per hectare	6.66 hectares
2 litres per hectare	5.0 hectares
3 litres per hectare	3.33 hectares
4 litres per hectare	2.50 hectares
5 litres per hectare	2.0 hectares
6 litres per hectare	1.66 hectares

## **COMPATIBILITY**

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

## MIXING AND SPRAYING

## CONVENTIONAL HYDRAULIC SPRAYERS

Apply through a well maintained conventional hydraulic sprayer as a MEDIUM or COARSE spray. 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.

**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 QUATTROto 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.

## **APPLICATION - SPOT TREATMENT**

**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:** These applicators may be used in non-crop areas only.

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.

#### **AFTER USE**

It is essential to clean out thoroughly sprayer tanks, pumps and pipelines between applying this product and other pesticides.

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.

This product is to be used only in accordance with the recommendations and instructions given on the labels provided with this pack. Use in any other circumstances is entirely at user's risk.