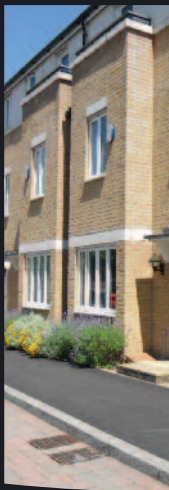




Hand Held Sprayer Rate Guide



Roundup ProVantage

Roundup ProVantage contains 480g/l glyphosate present in a unique formulation. This formulation is protected by patents. Roundup ProVantage can be assessed

under COSHH as non hazardous and does not carry any hazard symbols on the can. For best results it is important to follow the rates of use relevant to the particular situation.

Hand Held Sprayer Guidelines

Calibration for overall spraying should be carried out to enable an accurate application rate. (See further information section for more details.) Where the use is for spot treatment of individual weeds the following guidelines can be used.

Note: On non-porous hard surfaces such as asphalt, concrete and paved areas Roundup ProVantage must only be spot applied to weeds. Overall or blanket application is not allowed.

Hand held sprayers with adjustable nozzles can be used.

Knapsack sprayers with standard output nozzles are normally used.

These should be adjusted to give a droplet size in the range medium to coarse (BCPC). The droplets can be easily seen but are neither large enough to roll off the

target leaves nor fine enough to drift onto non-target areas and cause damage.

The leaves should have an even coverage of drops after spraying but not be saturated or have any run-off.

In a mixed weed population choose the rate to control the most difficult weeds present. Cutting the rates could lead to weed populations developing resistance.



Rate Guide

Label	Equivalent Dilution	Situation
Rate l/ha	Mls Roundup ProVantage per litre water*	Weeds controlled
1.13	1:182 or 5.5ml/litre water	Seedling annual grasses and annual broad-leaved weeds
1.5	1:133 or 7.5ml/litre water	Weed suppression Overall in conifers
2.25	1:87 or 11.5ml/litre water	Woody weeds around trees
3	1:66 or 15ml/litre water	Perennial grasses
3.75	1:53 or 19ml/litre water	STANDARD RATE Perennial broad-leaved weeds, Emergent aquatic weeds
4.5	1:44 or 23ml/litre water	Floating aquatic weeds, Difficult grassland weeds
7.5	1:27 or 37ml/litre water	Rhododendron, Ivy, Horsetail and difficult waxy-leaved weeds

* Using standard nozzles giving 200 litres per hectare, at 1 bar pressure and a walking speed of 1 metre per second, a 20 litre knapsack covers 1000 metres²

Watering Cans

Watering cans with a fine rose may also be used where a sprayer is not available or in areas where drift must be avoided.

The large drops produced by a watering can may not give optimum control of fine-leaved weeds.

The amount in mls per litre of water given in the Rate guide should be used in 5 litres of water in a watering can.

Further Information

1. For more information about Roundup ProVantage including:

- Use in different situations and with difficult weeds
- Material Safety Data Sheet
- Product Label
- COSHH Guide
- Environmental Impact Assessment

Select the relevant link or follow the link for 'Amenity' from the homepage at: www.monsanto-ag.co.uk

2. References for hand held sprayers:

- 'Hand-held and amenity sprayers handbook – A complete guide to safe and effective spraying' (BCPC Publications, Bear farm, Binfield, Bracknell, Berks RG42 5QE. Tel: 0118 934 2727)

- For full calibration details refer to the syllabus of the PA6A Certificate of competence in hand held spraying.
- The Code of Practice for the use of Plant Protection Products 2006.

3. For technical enquiries

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Roundup contains glyphosate. Roundup is a registered trade mark of Monsanto Technology LLC.

USE HERBICIDES SAFELY. ALWAYS READ THE LABEL AND PRODUCT INFORMATION BEFORE USE.

For information on safety phrases and symbols contact the technical department or visit www.monsanto-ag.co.uk

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