

# Notes on knapsack rates of Roundup Pro Biactive for spot treatment



Calibration of knapsack sprayers for application of Roundup Pro Biactive should be carried out by individual users according to the procedures covered in the syllabus of the PA6 Certificate of competence in hand held spraying and the Orange Code of Practice. However, where the use is for spot treatment of individual weeds the following guidelines can be followed. Target leaves should have a fine coverage of drops after spraying but not be saturated or have any run-off.

Most knapsack sprayers are supplied with a set of 4 deflector nozzles giving different swath widths but all delivering 200l/ha of water at 1 bar pressure and a walking speed of 1 metre per second.

*Using standard nozzles giving 200 litres per hectare, assume 20 litre knapsack covers 1000 square metres*

<u>Rate per hectare</u>	<u>Equivalent dilution</u>		<u>Weeds controlled</u>
3 litres	1: 67	or 15 ml per litre of water	Annual grasses, annual broad-leaved weeds.
4 litres	1:50	or 20 ml per litre of water	Arable weeds pre- planting of trees.
5 litres	1:40	or 25 ml per litre of water	Most perennial weeds.
6 litres	1: 33	or 30 ml per litre of water	Floating aquatic weeds.
10 litres	1: 20	or 50 ml per litre of water	Rhododendron.

However, Roundup Pro Biactive works very well at low volumes and as the user has to carry his spray on his back Monsanto recommend the use of special low volume anvil nozzles. Always choose nozzles which are designed to work at 1 bar pressure and never use nozzles designed for use on booms as they have uneven spray patterns which rely on a 50 % overlap to give the correct pattern.

Suitable Very Low volume Anvil or Deflector nozzles are Cooper Peglar VLVD-0.5 Orange , VLV DT-0.75 Green, Sprays International DEF-01 Orange or DEF-015 Green , Lurmark DT 0.5 Orange or DT0.75, Green. The Cooper Peglar Green for example delivers only 50 l/ha and so four times the area is covered by one knapsack fill.

To work out the dilution required with nozzles other than the standard given in the above table, divide the number of mls per litre from the table by the output of the nozzle used and multiply by 200. Eg The CPVLVD-0.5 orange delivers 35 l/ha , so for 5l/ha :-

the dilution required is  $25 \times \frac{200}{35} = 143$  ml Roundup Pro Biactive per litre of water.

Refer to the Hand-held & amenity sprayers handbook for a complete guide to safe effective spraying. ( BCPC Publications, Bear Farm, Binfield, Bracknell, BERKS, RG42 5QE Tel: 0118934 2727 )

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