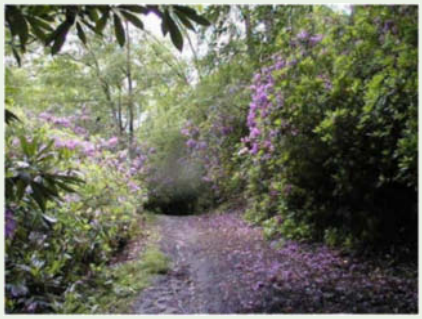
TECHNICAL BULLETIN

Series: Difficult Weeds
Keywords: Roundup ProBio, Rhododendron

CONTROL OF

RHODODENDRON
with Roundup ProBio



BACKGROUND

Rhododendron, *(Rhododendron ponticum*), brought to the UK by the Victorian plant hunters, was widely planted throughout upland Britain in gardens, and in woodlands on sporting estates, to provide cover for game birds, particularly pheasants. From this beginning the species has escaped into woodland, both natural and commercial, scrubby areas and into open country. High densities can greatly reduce biodiversity and the invasion is so great in some areas, especially in wet western Britain, the decision has been made to establish management programmes.

More recently Rhododendron plants have been identified as major reservoir for tree diseases *Phytophthora ramorum*, and *Phytophthora kernoviae* (sometimes known by the US term of Sudden Oak Death). Since 2009 the spread of the fatal disease to Japanese Larch, (*Larix kaempferi*) has been widely linked to Rhododendron. These diseases are notifiable pathogens and destruction of infected plants is a statutuory requirement. Contact your local Fera plant health and seeds Inspector for more details.

The sheer physical size of the plant, up to 8m in places, together with its tough, waxy leaves make Rhododendron a difficult weed to control. In addition, it will quickly re-grow if it is not completely killed.

CONTROL WITH ROUNDUP PROBIO

There are several methods of controlling Rhododendron using Roundup ProBio. Overall spraying is not suitable for larger plants or for thick stands, as it is difficult to spray and the older plants tend to be less susceptible. These taller bushes must first be cut back to ground level before treatment. They can either be hand cut using power tools, such as a brush saw or chainsaw, or by using a hydraulic flail typically mounted on a crawler or other armed tractor base. The cut stumps may be treated immediately using the cut stump method or the foliage left to re-grow for 2-3 years and sprayed.

Foliar Sprays

An overall spray applied to the foliage will provide effective control of young bushes up to 1.3m high or as re-growth 2-3years after cutting back. The best time for application is from early May to late September but in milder areas applications earlier and later than this have in the past proved successful. A high dose of Roundup ProBio is required for this species, 10 l/ha, and complete coverage of the plant is required. Addition of Mixture B, a non-ionic surfactant/spreader, at 2% of the spray volume can improve control and allows the recommended dose rate to be reduced to 8.0 l/ha.All parts of the foliage should be sprayed since the plant exhibits

For more information including risk phrases & symbols visit
www.monsanto-ag.co.uk
E-mail: **technical.helpline.uk@monsanto.co.uk**
Telephone the Monsanto Hotline on **01954 717 575**

Monsanto UK Ltd 2012(MS)

transcendental translocation, which means spray droplets falling on one side of a bush will be translocated down to roots on the same side but will not be distributed across to the opposite side. A small missed area can result in re-growth and rapid re-colonisiation.

Cut stump

Cut stump treatments are best made from November through to March or April, and not during the period of active sap flow. Application of Roundup Pro Bio must be made to a fresh cut so that uptake into the phloem is maximised. A two-man operation is often the most practical for a quick post-felling treatment. If more than a few minutes of time have elapsed, recutting the stump will restore the effectiveness of the application. (Uptake is almost immediate from a fresh cut and will be rainfast within 10 minutes. Application to a cut that has partially sealed means absorption is slow and rain within 6 hours will wash some of the product off.) Apply a 20% solution of Roundup Pro Biactive in clean water using a knapsack sprayer, spot gun or paintbrush.

Chemical thinning

This method works from slightly earlier in the season, late summer, which may be useful to use before stump painting could commence in November. It has the benefit of not requiring the stump to be freshly cut, so it can be used where they have already been cut back, or where the plant is to remain in situ. It is also easy to see which areas have been treated.

Neat Roundup ProBio is introduced straight into the phloem through a hatchet cut into the bark of the standing Rhododendron or stump. The cut can be made using a small axe - it is advisable to make a second cut under the first to catch any surplus herbicide. Alternatively a small hole can be drilled with an 8 mm rechargable drill at a slight angle towards the centre of the trunk.

Rate per hatchet cut/hole: 2mls of neat product per10 cm diameter of trunk

A Spot gun with a solid stream nozzle is recommended. A cut/hole with 2mls Roundup ProBio is needed for each 10cm diameter of the trunk. Work out how many are needed and space them round the girth. e.g. trunk of 30 cm diameter requires 3 x 2mls cuts. Remember to plan to revisit the site and spray out any new seedlings. These will rapidly germinate after the removal of the canopy and following soil disturbance. A visit 2-3 years after the initial treatment would be appropriate to control both seedlings and re-growth.

RATES AND WATER VOLUMES

Dose rates and application tips

Overall spray

10 l/ha or 8 l/ha + Mixture B @ 2% spray volume

Ensure effective coverage of all foliage but avoid run off.

Cut stump

20% solution in clean water

Apply using knapsack sprayer, spot gun or paintbrush

Chemical thinning

2 ml per 10 cm diameter of trunk

Two hatchet cuts per 10 cm trunk diameter, one below the other to catch drips; or drill one hole with 8mm drill approximately 40mm long downwards radially towards centre, per 10 cm trunk diameter.

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.

Spot treatment in knapsack

Standard 200 l/ha nozzles

Area Sprayed	Volume of Roundup Pro Bio	Volume of Water
50 m^2	25 ml	1 L
500 m^2	250 ml	10 L
1000 m^2	500 ml	20 L

For more information including risk phrases and symbols, visit www.monsanto-ag.co.uk

We Support The Voluntary Initiative

MONSANTO