

Rhododendron control workshop –
NTS Visitor Centre Glencoe
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Workshop objectives

- Present up-to-date information on *rhododendron* management and control.
- Stimulate discussion on current techniques and the efficacy of control strategies.
- Demonstrate correct application techniques to achieve good control.
- Identify areas for future research.



Structure of workshop

Session one

- 0945 - Objectives for workshop, research update. – CE
- 1015 - NTS operational experiences – KS
- 1045 - Professional training & Contract experience - ND
- 1115 - Coffee break

Session two

- 1145 - Research on cut stump treatment – DN
- 1215 - Predicting seed dispersal –JT
- 1245 - Open discussion (all presenters to front)

- 1315 - Lunch (leaving 1400 sharp)



Structure of workshop

1415 - Application demonstrations - [45 mins]

Stem treatment

Foliar application

Hand pulling seedlings

Cut stump treatment

1500 - Site visit Glencoe Lochan



Order to visit Demonstrations (15 mins each)

Stem treatment 1

Stuart Findlay

Colin Leslie

Neil Beaton

Helen Watt

Donald Kennedy

John Mulgrew

Professor Rory Putman

Lucy Sumsion

Janet Beveridge

Fran Lockhart

Foliar spray 2

Keith Miller

Dave Bruce

Donald Sansom

Nigel Barrass

Alison Devey

Andy Malcolm

James Gilmour

Grant Moir

Chris Stark

Paul Schofield

Hand pull 3

Roddy Macleod

Andy Walker

Malcolm Hobson

David Anderson

Gordon French

Fraser MacDonald

Gill Calver

Marina Curran-Colthart

Marina Smith

Mark Foxwell

Cut Stump 4

Margaret MacCallum

Malcolm Macdougall

Kirsty Park

Lisa Cowling

Graham Lorimar

Ian Adams

Iain McNicol

Andrew Jarrott

Ross Martin

Jake Willis

Sandy Coppins



Research Update

- Publication of Practice Guide
- Modelling expansion & Growth
- Prioritising control efforts
- Restoration of sites following control operations

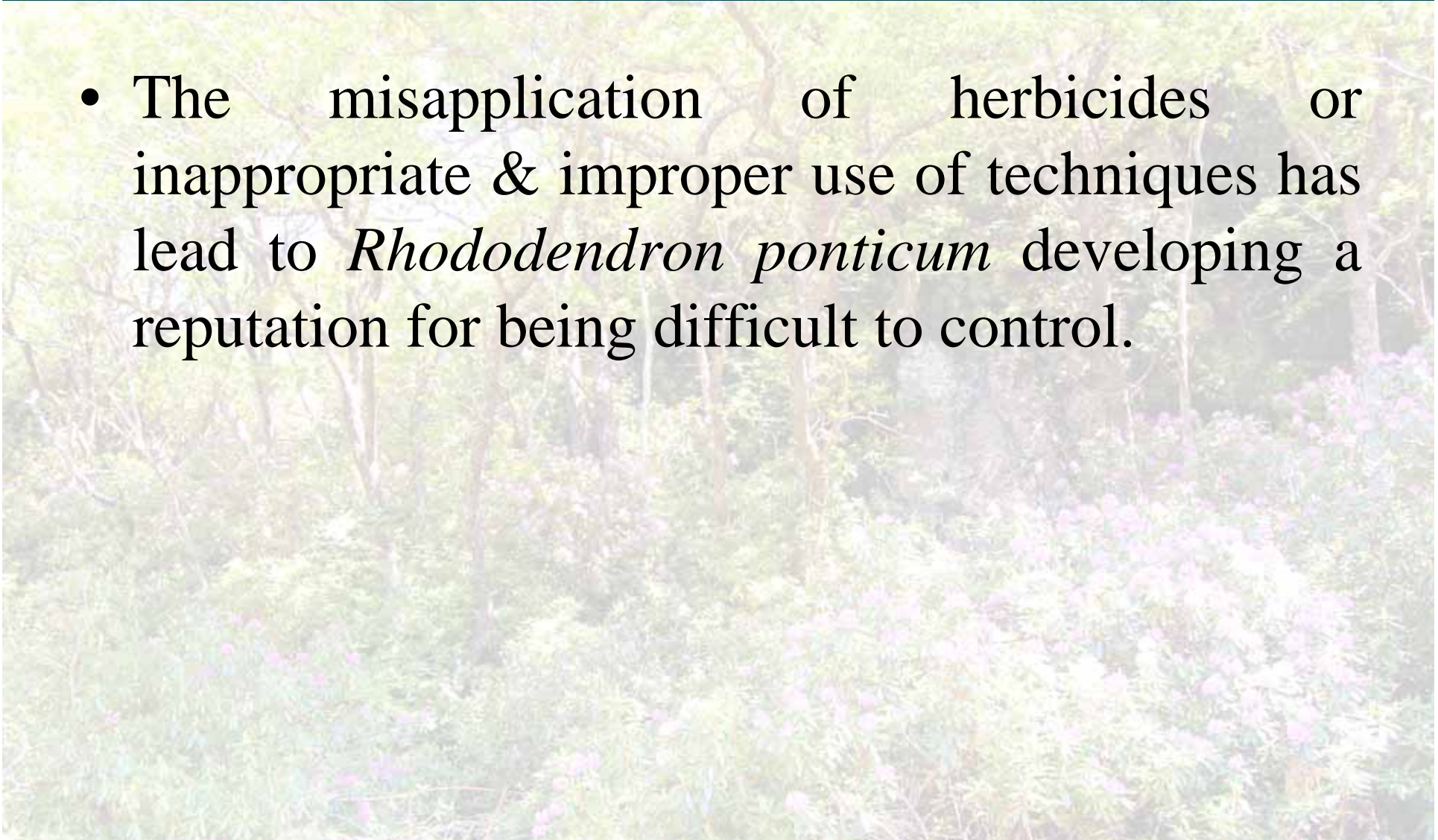


Why so successful? – A Problem statement



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- The misapplication of herbicides or inappropriate & improper use of techniques has lead to *Rhododendron ponticum* developing a reputation for being difficult to control.



Why so successful? – A Problem statement

- The misapplication of herbicides or inappropriate & improper use of techniques has lead to *Rhododendron ponticum* developing a reputation for being difficult to control.
- There has been no systematic approach to, or the development of, an eradication program for *Rhododendron ponticum* control.

Think of control in terms of a simple predictive model

$$I = (S * R) - K$$



Where:

I = plant invasion of a site

S = seed source or vegetative expansion

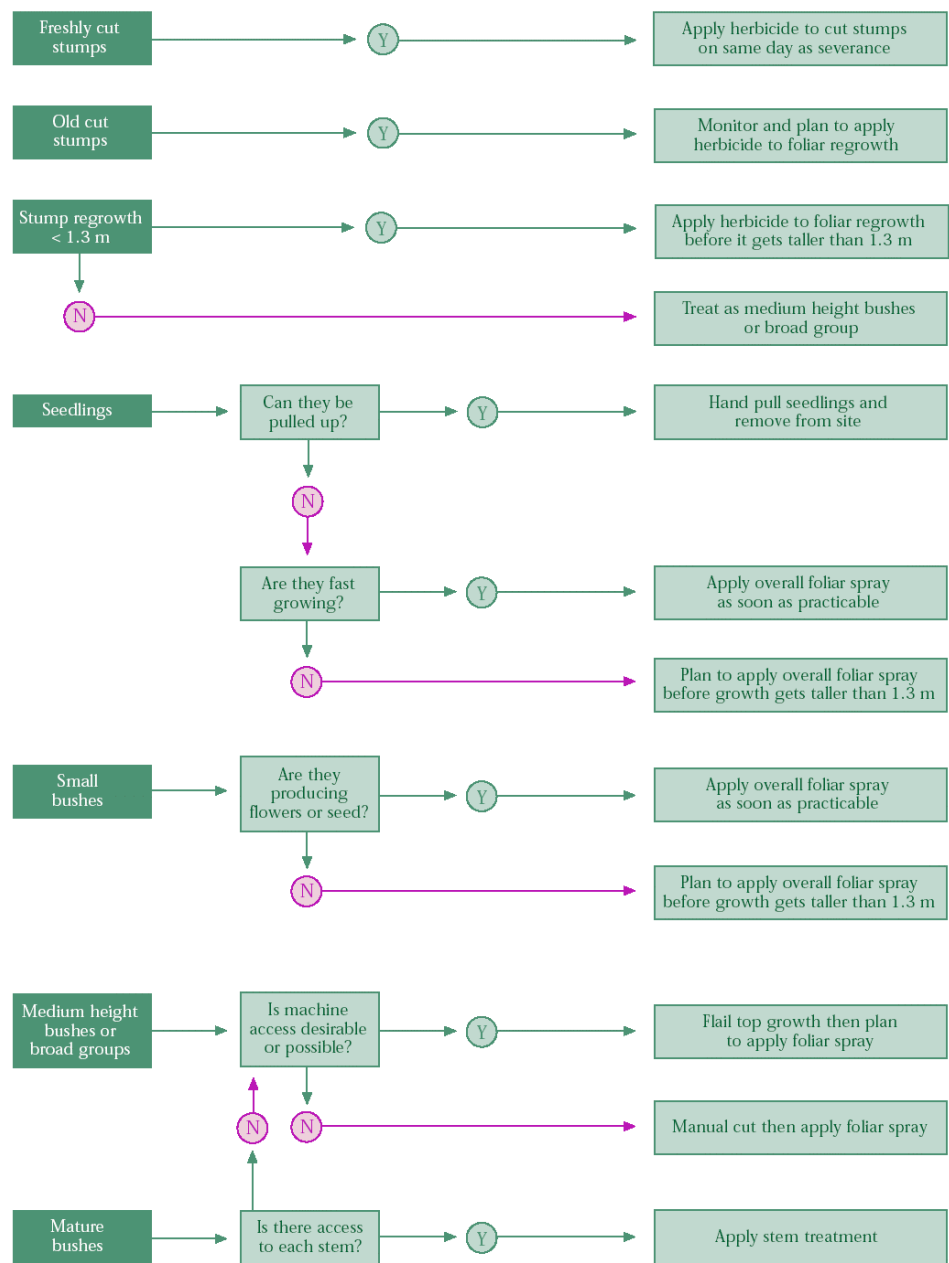
R = rate of seedling recruitment

K = mortality, either natural or artificial



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Decision chart - to identify the recommended control methods for bushes of a specific type (see table 1).



Methods of control

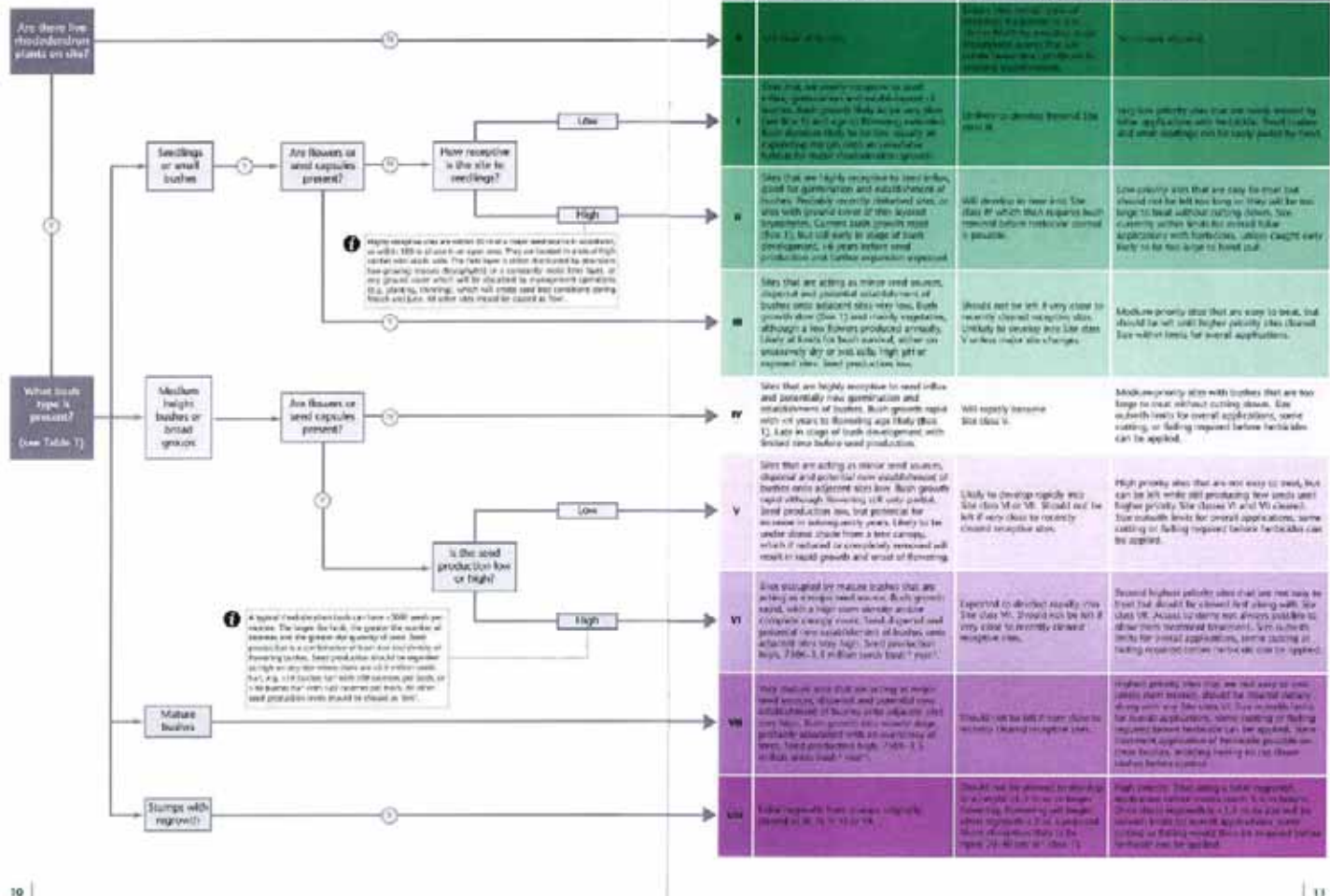


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Figure 15 – control priority



Figure 15 Description of the site, site class, potential site development, and suggested priority and control options.



Approved Herbicide Methods & Rates

Herbicide	Hazard classification for products	Selectivity	Application method & rates
Glyphosate	Roundup ProBiactive and Envision – none. For other products, refer to FC Practice Guide and product labels	Non-selective	Cut stump – 20 % solution Foliar spray – 2% solution (plus 2% Mixture B) ‡ Stem injection – 25% solution
Triclopyr	Irritant to eyes and skin Harmful if swallowed or in contact with skin Harmful to aquatic life	Perennials and woody weeds	Cut stump – 8 % solution Foliar spray – 2.5% solution
2,4-D/dicamba/triclopyr	Irritant to eyes and skin Harmful if swallowed Harmful to aquatic life	Annuals, perennials and woody weeds	Foliar spray – 7.5 % solution
Ammonium sulphamate (Amcide)	None Harmful to fish	Non-selective	Cut stump – 40 % solution Foliar spray – 40% solution
Adjuvant (High Trees Mixture B)	Irritant to eyes and skin Harmful if swallowed Harmful to fish	n/a	Foliar spray - 2% total spray volume

‡When near water do not use Mixture B – apply 10 l ha⁻¹ or 2.5% solution.

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Triclopyr	Irritant to eyes and skin Harmful if swallowed or in contact with skin Harmful to aquatic life	Perennials and woody weeds	Cut stump – 8 % solution Foliar spray – 2.5% solution
<p>Indications are this product is unlikely to be given Annex 1 listing by PSD, and may no longer be available from the end of 2006</p>			
Ammonium sulphamate (Amcide)	None Harmful to fish	Non-selective	Cut stump – 40 % solution Foliar spray – 40% solution
Adjuvant (High Trees Mixture B)	Irritant to eyes and skin Harmful if swallowed Harmful to fish	n/a	Foliar spray - 2% total spray volume

‡When near water do not use Mixture B – apply 10 l ha⁻¹ or 2.5% solution.

Age of regrowth at application of glyphosate.

Health scored 1-6, where 1 = healthy; 6 = dead.



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Health scored 1-6, where 1 = healthy; 6 = dead.

Age of regrowth when herbicide applied	Date of assessment	
	6 month	12 month
Control (no herbicide)	1	1
3 months	6	6
4 months	6	6
5 months	6	6
7 months	5.5	6
13 months	6	6
16 months	6	6



Date of foliar application.

Health scored 1-6, where 1 = healthy; 6 = dead



Date of foliar application.

Health scored 1-6, where 1 = healthy; 6 = dead

Application date	Date of health assessment		
	6 month	12 month	18 month
16 May 2002	5.8	6	6
20 June 2002	6	6	6
5 July 2002	5.7	6	6
16 Aug 2002	5.8	6	6
16 Sept 2002	6	6	6
19 Oct 2001	5	6	6
Control	1	1	1



Health score of treated stems 12 & 30 months after application (Kintyre 21).

Health scored 1 – 6, where 1 = healthy and 6 = dead.

Treatment	12 month assessment	30 month assessment
Control	1.4	1.2
Water	2.6	1.6
Girdling	1.8	3.6
Undiluted Glyphosate	6.0	6.0
50% Solution Glyphosate	6.0	6.0
25% Solution Glyphosate	6.0	6.0



Summary

- Select the correct application technique to fit bush size/type
- Apply herbicides at correct rate & correct manner
- Strategic planning is going to be more important in future if objective is eradication
- Think beyond simply bush control to consider seed source and recruitment

