

TECHNOTE USING PULSE PENETRANT WITH WOODY WEED HERBICIDES

WHAT IS PULSE AND HOW DOES IT WORK?

Pulse Penetrant is an organosilicone surfactant specifically designed to increase uptake and resulting herbicidal activity on difficult to penetrate weeds including "woody weeds".

It allows the spray solution to wet even the most hairy or waxy and difficult to wet surfaces, as experienced with many woody weeds.

Pulse Penetrant improves uptake of herbicides into the leaves through stomatal flooding and penetration into concealed places of plant material too hard to reach with ordinary surfactants.

Pulse is the adjuvant of choice for use on some woody weeds such as lantana, gorse, blackberries and many others.

Generally, these weeds are hard to kill not because the recommended herbicides don't work on them, but because standard spray solutions have physical difficulties in penetrating those places where they would be most effective.

Pulse Penetrant optimises the entire wetting of the plant and is the integral ingredient of the spray solution required to spread it where it will work best as well as improving uptake of the herbicide into the weeds.



Calotrope



Centro



Rubber vine



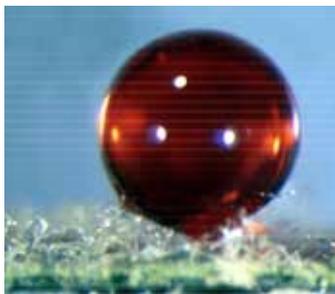
Blackberry nightshade



Fleabane



Lantana



Droplets inability to spread on hairy leaf.



Droplet spread with and without Pulse.



Regrowth under power lines



Regrowth on the road side

GENERAL GUIDELINES

Pulse should not be used as a general purpose surfactant, it is a specific adjuvant for certain uses.

Organosilicone surfactants are impacted by hydrolysis. The stability of Pulse Penetrant is therefore affected by the pH of the solution, with degradation in acidic (pH 2-5) and alkaline (pH 8-9) spray solutions.

When mixed into solutions in a pH range below 5 or above 8, spraying should be preferably completed within 6 hours to minimise breakdown.

PULSE ON WOODY WEEDS

WOODY WEED	PULSE RATE	HERBICIDE
Gorse, Lantana, Bracken	200 mL/100L	weedmaster® ARGO® weedmaster® DUO®
Lantana	100 mL/100L	Conqueror®
Gorse	200 mL/100L	Associate®
Eucalyptus spp. (seedlings less than 2 m)	200 mL/100L	weedmaster ARGO
English broom	200 mL/100L	Conqueror
Willows	200 mL/100L	weedmaster ARGO
Manuka	200 mL/100L	Conqueror
Bullich, Marri, Jarrah (seedlings less than 1.5 m)	200 mL/100L	weedmaster DUO
Blackberry	200 mL/100L	Associate
Apple box, Messmate, Stringybark, Peppermint gum, Red gum, Yellow box, Bellyache bush, Great mullein	200 mL/100L	Associate
Bitou bush / Boneseed, Privet, Sweet briar	200 mL/100L	Associate

Always refer to product label prior to use.

For more information on Pulse, visit nufarm.com.au



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