

DELUGE[†] LOW FOAM

WETTING AGENT

Deluge Low Foam - Overview

- High performance non-ionic surfactant
- Registered for Horticulture, Grapes, Tree crops, Sugercane & Broadacre
- Increases activity of agricultural products when used as directed
- Excellent wetting and spreading of spray droplet on plant surfaces
- Low foaming - helps reduce foam of highly foaming products
- ACO Certified for use on organic crops
- Soft on crops, beneficial insects and the environment
- Suitable for IPM programs
- Available in easy to lift 10L pack
- Biodegradable – based on renewable materials
- Manufactured according to a quality management system

Deluge Low Foam - Description

Deluge Low Foam is a low foaming, non-ionic wetting agent compatible with most agricultural products and mixing with most quality spray water.

Deluge Low Foam is generally crop-safe and soft on beneficials when used as directed, suited to Integrated Pest Management (IPM) programs.

Derived from renewable plant sources, Deluge Low Foam is organic input approved, biodegradable and less environmentally persistent.

Unlike most other non-ionic surfactants available in Australia, the active constituent in Deluge Low foam is a Fatty Acid Ethoxylate, making it ideal for export crops grown for countries where adjuvants from the Alkylphenol Ethoxylate group of chemicals such as Nonylphenols (NP) and nonylphenol ethoxylates (NPE) use is increasingly being restricted.

Deluge Low Foam - Safety

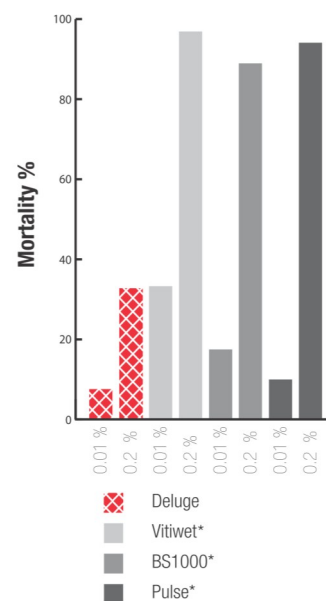
Deluge Low Foam has been tested for phytotoxicity effects on beneficial insects and sensitive crops where it has been shown to be amongst the safest of available wetting agents including Alkylphenol ethoxylates. (eg Vitiwet*, Agral*)

Graph 1 shows the low toxicity of Deluge Low Foam to the predatory mite *Typhlodromus occidentalis*, when compared with other wetting agents applied at low (0.01%) and high (0.2%) rates.

While Graph 2 comparing phytotoxicity of different types of wetting agents based on the effects observed when they were applied alone, multiple times through a season to apples, tomatoes, lettuce and grapes. The Organosilicone surfactants (eg Pulse*, Sprinta[†]) and Alcohol ethoxylates (eg BS1000*) were found to be much more likely to cause adverse crop effects.

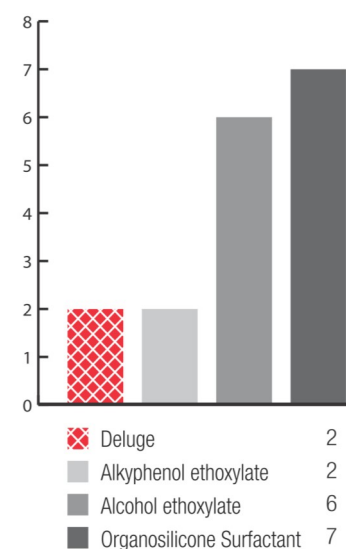
DATA

Graph 1
Organism Toxicity Study
Beneficial Organism - Predatory Mite



Solutions of the wetting agents were applied directly to the mites by spraying to the point of run-off. Mortality was assessed after 24 hours.

Graph 2
Plant Phytotoxicity Study
Crops: Apples, Tomatoes, Lettuce, Grapes



0 No observable effects in most circumstances
10 Severe effects have been observed

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Key Benefits

- Increases the performance of agricultural products when used as directed on product labels
- Soft on crops, beneficial insects and aquatic life
- Short environmental persistence
- Suitable for IPM programs and is Organic Inputs Approved
- Compatible with most agricultural products and spray water
- Useful standalone foam suppressant
- Wholly Australian Owned and Manufactured in a dedicated surfactant facility with no chance of cross contamination

Product Performance

Deluge Low Foam reduces water surface tension, foaming & increases

- Efficacy of tank mix partners
- Droplet retention on the target surface
- Droplet spreading & wetting (coverage) on the target surface
- Plant uptake via the aqueous pathway
- At higher rates, Deluge Low Foam is the only wetting agent not to kill most mites

General Specifications

Appearance	Slightly Hazy Pale Liquid
Colour	2-4 Gardner
Specific Gravity (20°C)	1.04 g/ml

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The Company

Victorian Chemical Company is an Australian company headquartered in Coolaroo, VIC. The company was founded in 1933 and is committed to providing quality products and professional & friendly service. Our products are used for:

- Improving farm productivity and land management,
- Construction of infrastructure, commercial & industrial facilities.

Through our efforts we are helping to meet the demands of a growing world population for food, infrastructure and economic development.

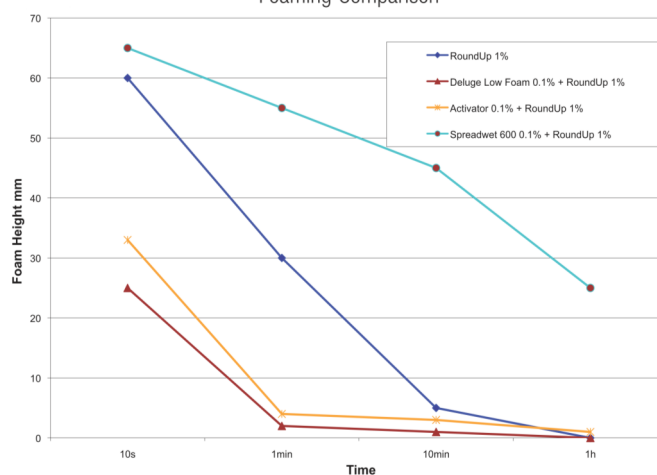
Suggestions for Use

For High Volume Horticultural applications, Deluge Low Foam should be used at 10ml/100L of spray solution and can be used with most fungicides & insecticides unless specified on their label.

Deluge Low Foam is a low foaming surfactant. Add to spray tank to help reduce foaminess of other products.

Herbicide applications generally require higher rates of Deluge Low Foam in the range 12 - 200ml/100L. (see label for details)

Graph 3
Foaming Comparison



Method: Solutions were prepared by adding the wetting agent and RoundUp to 50mL of deionised water at 25°C in 100mL measuring cylinder.

The cylinder was capped and shaken vigorously for 15 seconds then allowed to stand. Foam height was measured above the liquid level at various intervals.

Graph 3 shows that Deluge Low Foam can be used to reduce the foaming of products such as RoundUp. Note that many other wetting agents will increase or stabilize the foaming rather than reduce it.

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