



The benefits of concentrate spraying with Nufarm's leading super-spreaders.

Du-Wett and Designer – tips and benefits to optimise your coverage and performance.



Grow a better tomorrow



Background

The concept of concentrate spraying has enabled horticulture growers to maximise coverage and resulting efficacy of pesticides such as preventative or curative fungicides as well as insecticides, whilst improving operational efficiencies through reduced water usage and application timeframes.

Increased coverage of the target results in superior pesticide performance of fungicides and insecticides, especially those that rely on coming in contact with the disease or insect pest for efficacy.

Concentrate Spraying

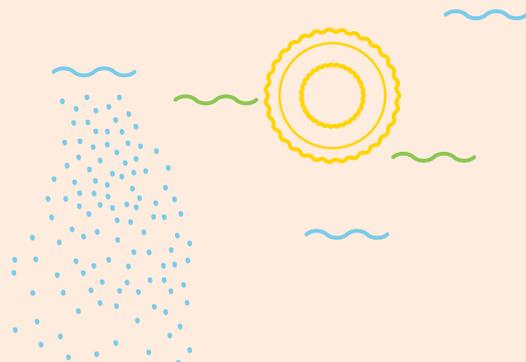
Learn more, grow better

Pesticide application to Horticulture crops is predominantly referred to as a rate of product (expressed as millilitres or Litres, grams or Kilograms etc) diluted per 100L water to be applied to the crop, hence the term "dilute spraying". This ensures that the amount of active ingredient within the pesticide applied to the target area is consistent per 100L total volume, and sufficient to achieve a level of efficacy comparable to that achieved for registration of the use pattern, irrespective of the total amount of water applied to the target. As the water rate applied increases to account for increased canopy growth and height, so does the amount of active ingredient added to the spray tank, to maintain the desirable dilution rate.

Concentrate spraying, utilising reduced water rates and adding unique organo-silicone based super-spreading surfactants to significantly increase pesticide spreading on the crop target, has enabled pesticide efficacy to be at least maintained and even improved in many cases compared with dilute spray volumes. These super-spreading surfactants, namely Du-Wett® and Designer®, are able to spread into concealed places generally not accessible to solutions mixed with conventional surfactants.

The significant benefit of concentrate spraying is that a dramatically reduced total application (water) volume may be applied, resulting in improved operational efficiencies, with significant reductions in pesticide application timeframes and water usage.

Reducing the timeframe to spray results in sooner completion of spray programs, more timely application of the pesticide to the target (preventing further damage that would occur with a traditionally more prolonged application timeframe), and frees-up farming labour resources sooner.



Spot the difference

NO Du-Wett
Onions



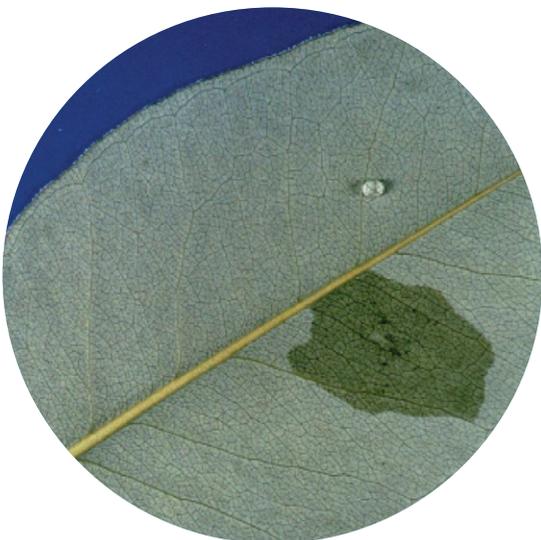
With Du-Wett
Onions



Selecting your spray: Du-Wett or Designer

If enhanced rainfastness or protection from overhead irrigation is desired, Designer should be used instead of Du-Wett. Designer is also an organosilicone-based super spreader though differs from Du-Wett in that it also contains a latex polymer. The polymer enhances the adhesion of chemicals in wet weather.

A concentrate spray volume is often expressed as an X Factor of the dilute spray volume. For example, at a concentrate spray Factor of 3X, a concentrate spray volume of 330L water/ha is used instead of the dilute spray volume of 1000L water/ha. With a Factor of 3X, one spray tank will now spray three times as much acreage. It is therefore also extremely important to remember to multiply the volume of pesticide dilute label rate by the X Factor and add the resulting volume to the spray tank to maintain the overall amount of active ingredient applied. Always refer to individual pesticide product labels for recommended dilute and concentrate spray volumes for various crops.



Water droplet VS Du-Wett

Concentrate spray tips

It is important to ensure spray equipment is designed and set-up appropriately for concentrate spraying to achieve optimal coverage and performance.

1. Always refer to the Product label for dilute and concentrate spray volume recommendations.
2. Ensure spray equipment is suitable for concentrate spray application
 - a. nozzle size is appropriate to deliver the desired concentrate spray volume, with a FINE spray pattern.
 - b. Equipment has suitable air-flow capacity to achieve desirable coverage with the reduced water volume utilised.
3. Calibrate the spray rig to ensure the desired concentrate spray volume is being applied.
4. Utilise water sensitive paper, spray dyes, spray marker clay etc to review application and adjust machine set-up as appropriate.

Improved air-flow and adjuvant technologies make concentrate spraying a reliable and robust spray method, with numerous benefits.





The benefits of concentrate spraying with Du-Wett or Designer super-spreaders.

- Unique organo-silicone super-spreaders
- Specifically developed for use in Horticulture
- Improve pesticide coverage and efficacy
- Reduce spray-tank re-fills (water cartage time) and water usage
- Optimise spray timing, critical under high pest and disease pressure
- Operational efficiencies – better utilisation of farm labour / increased productivity
- Designer – additional benefit of enhanced rainfastness or protection from overhead irrigation



The information and recommendations set out in this brochure are no substitute for professional or expert advice and are based on tests and data believed to be reliable at the time of publication. Results may vary, as the use and application of the products is beyond our control and may be subject to climatic, geographical or biological variables, and/or developed resistance. To the maximum extent permitted by law, Nufarm Australia Limited disclaims all warranties of any kind, whether express or implied, including but not limited to any warranty that the information is up-to-date, complete, true, legally compliant, accurate, non-misleading or suitable.

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