

KVH Best Practice Advice

Knapsack Spray Guidance



Knapsack spraying of kiwifruit vines with agrichemicals that can cause phytotoxicity, such as copper, is **not** recommended.

Ideally, growers should use a calibrated air-blast sprayer with only a few nozzles open to spray young grafts. However, we understand some growers will want to use knapsack sprayers, especially on small areas. Please note—significant risks can come with knapsack spraying.

- Mixing such small quantities is **very risky** as small differences result in large rate changes. Mixing a larger volume, eg 100L into another container and then decanting, can help mitigate this risk. The mix will need to be thoroughly remixed each time before decanting as copper will settle out of the solution.
- Knapsack sprayers have no method of agitation and rely on the physical movement of the pack to keep solution mixed. If you stop spraying for more than a few minutes, ensure you shake the knapsack well before reusing. Some copper products will settle out very quickly if not in constant agitation.
- It is very easy to over, or under-dose, when spraying with a knapsack, as there is no control over the volume of spray that is applied to the plant.

When spraying with super-spreaders, it is important that you only wet the leaf or cane and do not spray to run off. Ensure the knapsack is producing a fine, even mist. Only pass over the plant once—and quickly. Do not pause and hold the spray on the plant as this will quickly result in runoff.

Below is a conversion chart to provide examples on how to calculate the required amount of chemical. It includes simple conversions using metric teaspoon and tablespoon measurements. Note—use metric teaspoons/tablespoons. Do not rely on the accuracy of standard kitchen cutlery.

		Rate / 100L	Rate / 1L	Rate / 15L	15L conversion
Nordox®	Pre budburst	55g	0.55g	8.25g	
	Post budburst	37.5g	0.375g	5.625g	½ teaspoon
Kocide Opti®	Pre budburst	90g	0.9g	13.5g	
	Post budburst	70g	0.7g	10.5g	2 teaspoons
Champ® DP		80g	0.8g	12g	
KeyStrepto™		60g	0.6g	9g	
Actigard™		20g	0.2g	3g	
Du-Wett®		40ml	0.4ml	6ml	1 teaspoon

1 metric teaspoon = 5ml or 5g

1 metric tablespoon = 15ml or 15g

Kocide Opti® has been designed to be identical in weight or volume (ie, 100ml equals 100g).

Nordox® does not equate the same way as Kocide Opti®. For Nordox® 2.5ml is just under 5g, so suitable for a 15L mix.

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