

Dead Sure[®]

DRIFT MITIGATING ADJUVANT

Tech Note



Dead Sure is a new Australian developed drift mitigating and glyphosate adjuvant that, when used in accordance with APVMA spraying guidelines, reduces risk of off-target herbicide damage during fallow weed spraying. And, as an excellent glyphosate adjuvant, Dead Sure makes sure that a *coarse* (or larger) spray quality actually improves weed control.

Reducing Drift Risk

Droplets that are most likely to drift during spraying have diameters smaller than 150µm (called fines). That is why the APVMA is restricting spraying of some herbicides to *coarse* (or larger) spray qualities. But while drift reducing nozzles can do a great job, some still produce up to 22% fines, still leaving a lot of risk of drift. But with as little as 0.25% v/v Dead Sure in the tank-mix, these fines can be reduced by as much as 70%.

Dead Sure is a patented blend of naturally occurring carbohydrate polymers, oils and surfactants which reduces formation of fines through a wide range of *coarse* nozzles used in ground based herbicide application, while at the same time enhancing the performance of glyphosate.

Dead Sure was developed following extensive research of the latest worldwide regulatory trends, spray droplet drift modelling advances

and drift control strategies used across Europe and the USA. An exhaustive wind tunnel testing program was conducted at CPAS (Centre for Pesticide Application and Technology, UQ, Gatton) and adjuvant field trials laid down across Australia to measure the benefits of Dead Sure.

What situations to use it in:

Use Dead Sure in fallow spraying situations from a ground based boom spray rig when using glyphosate and/or phenoxy herbicide tank mixtures.

Why use it:

Use Dead Sure to maintain or increase nozzle spray quality (e.g. *fine/medium/coarse*) and reduce risk of off-target spraying and enhance the rate of weed kill and the final weed kill performance of the herbicides.



Can ammonium sulphate be used with Dead Sure?

Yes. Dead Sure still reduces formation of driftable fines from all nozzles tested with commonly used ammonium sulphate formulations.

Features

- Patented blend of naturally occurring carbohydrate polymers, oils and surfactants that reduce driftable fine droplet production by up to 70% from *coarse* nozzles.
- Effective in reducing fines from *coarse* and larger spray qualities produced by nozzles such as AIXR, AITTJ, TTJ, TT, TTI, MD and AM.
- Effective in improving rate of glyphosate-kill of grass and broadleaf weeds in fallow situations
- Effective in fallow situations with a wide range of glyphosate brands.
- Maintains glyphosate efficacy in hard water
- Is compatible with ammonium sulphate adjuvants
- Is effective when 2,4-D herbicides e.g. Amicide 625, are used in the same tank mix as glyphosate

Benefits

- Coarser spray droplets can raise concerns about herbicide performance against difficult to control weeds. Dead Sure ensures that the spray quality needed to minimise drift risk does not result in an efficacy penalty.
- Fewer fine droplets reduces off-target drift risk and ensures more herbicide strikes the target weeds.
- Peace-of-mind during spraying

- Potential to use a reduced buffer zone¹
- Robustness in herbicide performance while using lower drift risk spray quality
- Carbohydrate polymer absorbs droplet impact energy aiding in large droplet retention

Drift Reducing Nozzles and Dead Sure

Spray nozzles are given their spray quality rating (*fine, medium, coarse* etc) based on testing with water only. But nozzles rated as *coarse* can still produce up to 22% driftable fines² which present significant off-target risk, particularly in surface temperature inversion conditions. Furthermore, some tank mixtures can reduce the spray quality by up to two categories which means you may not be reducing risk of spray drift even when using Coarse rated nozzles. Dead Sure ensures the nozzle you are using is producing at least the intended spray quality.

General Spraying advice to avoid drift and maintain efficacy:

Dead Sure is not a replacement for responsible spraying decisions. It is a tool that complements best practice approaches to reducing off-target spraying which involves consideration of at least the following parameters:

- Surface temperature inversions
- Wind speed and direction
- Buffer zones
- Nozzle selection
- Spray pressure



¹ Industry funded research is currently developing models that will enable the APVMA to reduce proposed buffer zones when drift mitigation adjuvants are used.

² As measured during CPAS testing of some herbicide mixtures in Caltex research.

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