

PREVENTING ISSUES IN THE SPRAY TANK

Juliet McDonald – Elders Agronomist
0427 884 980

Given that we have seen some nasty 'slime' form in spray solutions over the past 2 weeks it might be timely to refresh what can cause problems.

1. REVERSE EMULSIONS – this is caused when there are small amounts of water with large volumes of oils. Small amounts of water form emulsion droplets in the oil phase rather than small amounts of oil forming emulsion droplets in the water phase. This risk can arise when using granni pots or suction systems. Problems less likely to occur when oil is added directly to the spray tank containing a large volume of water.

2. COLD WATER – is most common during our winter months but can also be induced by the endothermic reaction which takes place when ammonium sulphate is added to ameliorate water quality issues. Dry Flowable granules contain surfactants which wet – disperse – suspend the chemicals. Cold water may reduce the activity of these surfactants and if not completely dissolved and suspended may become 'waxy' leaving a film of chemical in spray equipment which is difficult to remove.

3. INCOMPLETE DISSOLUTION - If dry flowable granules are not completely dissolved prior to the addition of an EC (oil based) formulation the granules can absorb the oil and form a thick 'sludge' which is quite difficult to resolve.

4. ALKALINITY – a silent enemy which does not show any physical incompatibility but destroys the value of the chemistry that is to be applied. Pesticides like Dimethoate can undergo alkaline hydrolysis and have 50% activity reduction in pH 9 water within 48 minutes (you wouldn't want to stop for a cuppa!) Use LI700 @ 1%.

