

aerial top-dressing and compatibility

Product incompatibilities cause problems for both groundspreader and aerial top-dressing operators. For groundspreader the difficulties are largely to do with operational issues, as spinners become clogged with wet, lumpy material.

For aerial top-dressing pilots, the consequences of product incompatibility are more extreme, so product stability is of even greater importance. This is influenced by:

- The time taken to cart material to the farm
- The conditions during cartage (e.g. exposure to moisture)
- The storage conditions on farm (e.g. quality of the bin floor, walls and cover)
- The length of time between delivery and use.

All of these factors are also influenced by the temperature, moisture content and chemical composition of the products to be used.

Some products present specific issues for aerial top-dressing. These are listed in the following table.

Product	Precaution
Nitrogen-containing blends , e.g. DAP sulphur super, some pasturemag products, urea and superphosphate blends	Risk of blend setting up in hopper. Even if product does not set up there is a strong possibility of striping from uneven spreading of product
Calmag	Magnesium oxide reacts with ammonium salts and releases ammonia gas, which is flammable and harmful if inhaled
Salt	Salt can cause pinpoint corrosion in metallic sections of the hopper. In time this can result in equipment failure
Durasul	Where a component of a blend, Durasul needs to be kept at or below 23% of the total mix. Failure to do this can result in a sulphur cloud forming during sowing, and this can ignite with the heat thrown off the plane
Dicalcics	Any dicalcic product to be spread must be well cured and fully reverted before being despatched from a store. Failure to do this carries a risk of product setting up in the hopper and/or striping from uneven spreading of product

