



Frost Protectant

Liquid seaweed when applied as a foliar feed has been known for several decades to reduce frost damage on apple and pear trees. **Fair Dinkum Fertilizers** has devoted considerable resources to understanding how frost damage occurs and has, with the help of university researchers, developed two liquid seaweed products specifically for frost protection, **"COSY WRAP"** and **"FROST GUARD"**.

The damage caused by frost to apples, pears, stone fruit and grapes is considerable in Australia and in sometimes the damage to cereal and canola crops can be dramatic. In 2006 the frost damage was estimated at over \$1 billion. For canola and most fruit, the cost of preventative action is minor compared with the potential loss.

No preventative measure is 100% guaranteed. Frosts of -8° to -10°C will wipe out most crops if they occur at the flowering, fruit set or fruit development stage. **"COSY WRAP"** and **"FROST GUARD"** give frost damage protection for inversion frosts but may be less effective in situations where rain freezes on the foliage, (which only occurs rarely in Australia). **"COSY WRAP"** is a tried and tested product which gives about $2-3^{\circ}\text{C}$ extra frost tolerance for apples, pears and stone fruit for temperature inversion frosts if sprayed at 2.5-3 L/ha every 10-12 days during the frost danger period. For grapes the extra frost tolerance is slightly less and the application should be made every 7-8 days if the shoots are longer than 10 cms. **"COSY WRAP"** also gives some additional protection (at least 2°C of extra frost tolerance) for canola and cereal crops. **"FROST GUARD"** is based on the similar technology to **"COSY WRAP"** but can be applied by boom spray without any fear of blockage. It contains a slightly higher level of potassium which provides frost protection a lot quicker. **"COSY WRAP"** and **"FROST GUARD"** give comparable frost protection on fruit trees and grapes. Trial results indicate that **"FROST GUARD"** can give up to 4°C additional frost protection on canola and at least 2°C additional protection on potatoes.

Because **"FROST GUARD"** contains more potassium than **"COSY WRAP"** it should be used on grapes or fruit trees with care as it can have some minor effect on increasing fruit set. It is important to include other previous farming practices when using liquid seaweed in an overall strategy and you can obtain one of the several info sheets from **Fair Dinkum Fertilizers** relevant to your crop. Of course the use of any liquid seaweed product will have additional benefits such as increased fruit quality. **"COSY WRAP"** and **"FROST GUARD"** are specifically designed to reduce frost damage but **"NB3"**, **"GOLD"**, **"GOLD 100"**, **"SUPERFINE"** (alkaline) are also used for some crops.

The specification of the products are as below with products arranged in order of increasing price;

	Sprayer	Made From	Comments
NB3	Coarse	Dried seaweed	Suitable for frost down to 2 degrees. Protection takes 2-3 days. Filtered to 600 microns.
SUPERFINE (alkaline)	Fine	Dried seaweed	Suitable for frost down to 2 degrees. Protection takes 2-3 days. Filtered to 100 microns.
GOLD	Coarse	Fresh seaweed	Suitable for frost down to 2 degrees. Protection takes 2-3 days. Filtered to 600 microns.
GOLD 100	Fine	Fresh seaweed	Suitable for frost down to 2 degrees. Protection takes 2-3 days. Filtered to 100 microns.
FROST GUARD	Fine	Dried seaweed	Protection takes approx 30 hrs to build up. Contains 9.2% W/V Potassium. Filtered to 100 microns.
COSY WRAP	Fine	Fresh seaweed	Protection takes approx 36 hrs to build up. Filtered to 100 microns
HiP	Fine	Dried seaweed	Protection takes approx 25-30 hrs. High Potassium content 8.5%. Filtered to 100 microns



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Fair Dinkum Fertilizers
manufacturers of quality seaweed products