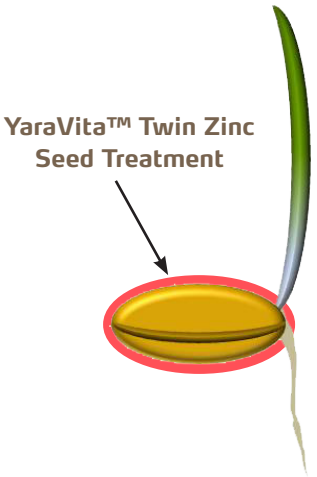
YaraVita™ Twin Zinc

Seed Treatment for Winter Crops

Replace Crop Removal while Improving Establishment

Seed treatment is the earliest opportunity to apply zinc and is the application method that best influences seed germination and crop establishment. Applying YaraVita™ Twin Zinc directly to the seed ensures every seedling has sufficient zinc to optimise establishment and promote early root development.



Zinc is essential for root development and crop establishment due to its role in auxin synthesis, which controls stem and root elongation. Crops at risk of early zinc deficiency include:

- Cereals, Faba Beans, Chickpeas
- Crops grown on soils with zinc levels < 0.3 and soil pH > 7
- Crops planted following a sulfonylurea herbicide application
- Very cold conditions during early crop growth

Applied as a seed treatment, YaraVita™ Twin Zinc is available from germination onwards, replenishing some of the zinc removed by previous crops. The table below compares zinc removed in the grain versus zinc applied by seed treatment for three winter crops.

Crop	Yield (Tonne/ha)	Zinc Removed* (g/ha)	Zinc Applied# (g/ha)
Wheat	3.0	87	84 (30kg/ha)
Chickpeas	2.5	95	140 (50kg/ha)
Faba Beans	2.5	70	196 (70kg/ha)

* Source: Australian Soil Fertility Manual, Third Edition.
\# YaraVita™ Twin Zinc applied at 4L/tonne of seed, seeding rate is given in ().

Seed Treatment Application Rates

Cereals, Chickpeas, and Faba Beans apply YaraVita™ Twin Zinc at 4L/tonne of seed.
Canola apply YaraVita™ Twin Zinc at 10 - 15L/tonne of seed.

Tank Mixing / Co-Application

YaraVita™ Twin Zinc is widely tank mixable with other crop sprays, for specific information relating to Australian tank mixes visit www.tankmix.com. Read ALL labels carefully and adhere strictly to the instructions for use and advice regarding whether or not products should be co-applied.

For further information please contact:

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Application Procedure

Care should be taken to calibrate the machine accurately, to obtain an evenly applied correct dosage. Product application to most cereal and legume seed is enhanced by diluting with water, this can vary with the moisture of the grain and the equipment used. Typically a total combined volume of seed treatment and water of up to 10L/tonne of seed is necessary for adequate coverage. Treatment of canola seed requires specialised mixing equipment and the addition of water is not recommended.

On farm, YaraVita™ Twin Zinc can be applied using a standard farm auger and a flow jet pump with two nozzles set in tandem aimed into the hopper where the grain is tumbled prior to moving up the auger. Apply through D7 nozzle disc (no swirl plate) or coarse flood jet.

Ensure thorough coverage by coating as many seeds as possible at the outset. To maximise secondary mixing in the auger keep the seed through-put to less than 50% of the auger capacity.

Grain Moisture Content Before Grading (%)	Grain Temperature (°C)	Recommended Water Addition (L/Tonne of seed)
Less than 9	Up to 25	2L
	25-35	3L
	Greater than 35	3L
9-10	Up to 25	2L
	25-35	2L
	Greater than 35	3L
10-11	Up to 25	1L
	25-35	2L
	Greater than 35	3L
11-13	Up to 25	1L
	25-35	1L

Planting and Storage

Allow YaraVita™ Twin Zinc treated seed to dry for a minimum of one hour prior to sowing. Re-calibrate the seeder prior to sowing.

Seed treated with YaraVita™ Twin Zinc should be sown the same season it was treated.