



# IMPROVE YOUR BROADACRE YIELD

with Spraygro Liquid Fertilizers liquids range

Many growers have adopted the revolutionary liquid fertiliser technology all over the world. The Australian wheat and barley growers have achieved higher yields under adverse climatic and soil conditions. Research in South Australia has comprehensively demonstrated the benefits of liquid starters over conventional solids in broadacre crops.

Spraygro Liquid Fertilisers have a wide range of products suited to a wide range of soil and climatic conditions. Starter plays an important role in seed germination and seedling vigour, which sets the plants to achieve their maximum genetic potential. Starters in combination with essential trace elements such as zinc works as icing on the cake. Spraygro Liquid Fertilisers have the unique ability to blend zinc with their starters such as MaxiPhos Injecta 21, an ammonium polyphosphate blend (14-21-0). We can custom blend 1-2% fully available zinc with APP to give crops a quick and healthy start. We also have the ability to incorporate copper and manganese along with zinc in our 14-21-0. Generally, APP does exhibit sequestering ability to bind zinc, however, zinc bound to the terminal phosphate of APP is not readily available, and does not give a clear solution. Furthermore, only very low amount of zinc can be mixed with APP, which makes it economically less viable. We also have the ability to design the custom blend especially for highly calcareous alkaline soils with high pH. APP does not encourage better crop establishment in very high soil pH conditions, farmers generally apply phosphoric acid to supply phosphorous and reduce the soil pH at the same time.

We also have a comprehensive liquid micronutrient range suitable for foliar application and fertigation. Smartrace series of chelated micronutrients have a unique property of spray adhesion and facilitation of micronutrient penetration into the leaves. These include

[Smartrace Zinc](#), 10% chelated zinc (click product for more info)

[Smartrace Zinc/Manganese](#), 5% zinc, 5% manganese (click product for more info)

[Smartrace Manganese/Copper](#), 8% manganese, 1.5% copper (click product for more info)

Many cereal growing areas are deficient in zinc and manganese. Zinc favours the biosynthesis of natural plant hormones, called auxin. Auxin induced ethylene production helps the seedling to emerge from the ground. Ethylene is another gaseous hormone responsible for seed germination, seedling establishment, and growth. Auxin helps in elongation growth of the cereal seedling once it has emerged from the soil. This availability of zinc is the most important biochemical requirement for crop emergence and establishment. Manganese stimulates certain enzymes required for nitrogen metabolism and photosynthesis. The application of nitrogen in the form of ammonium or urea as part of a starter program is useless in absence of adequate levels of manganese in soil. Plants with deficient manganese are shorter in length, pale and look sick especially in alkaline soils.

Copper on the other hand is most suitable at flowering/heading phase of development. Copper deficient plants show small and lighter grains, and brown to black awns. The grain during the grain filling stage of cereals is the most sensitive biochemical factory that relies on the efficient translocation of resources from the stem. Application of nitrogen (to boost grain protein) at grain fill can further aggravate copper deficiency in copper deficient plants.

Spraygro Liquid Fertilisers have every answer to achieve the maximum genetic potential of your broadacre crops.