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## **BIG BENEFITS FROM FINE PARTICLE FERTILISER**

Fine particle fertilisers offer a number of significant benefits. Before discussing some of these, let's be sure we understand what we're talking about.

**What are fine particle fertilisers?** As the name suggests, fine particle fertilisers are finely ground solid fertilisers. The grinding process produces very small particles which are then suspended in water and applied by ground-spread trucks, fixed wing aircraft or helicopters. **Mainland Minerals** pioneered this fine particle fertiliser method over 15 years ago and continues to improve and enhance it.

**What are the benefits of using fine particle fertilisers?**

**First** - evenness of fertiliser spreading. This leads to improved fertiliser use efficiency. Rather than some areas of a paddock receiving more and others less than optimum nutrients, all areas receive the same application rate. This results in a more even pasture sward with a higher density of plants/unit area and better dry matter production.

**Second** – finely ground fertilisers products have a much greater surface area (often more than one hundred times) per kilogram of fertiliser applied than conventional solid fertilisers. The result is rapid uptake of nutrients into the soil system, which in turn means that nutrients are available to the plants more quickly, which leads to a quicker growth response.

**Third** – many nutrients can be directly taken up by the plant through its leaves. As a result of such foliar uptake, where a nutrient in the soil is at lower than desirable levels, this shortage can be rectified very quickly.

**Fourth** – Both macro-nutrients (nitrogen, phosphorus, sulphur and potassium) as well as trace elements or minerals can be applied at the same time. All the nutrients the plant requires can be applied in the right proportions, in the same fertiliser blend, at the same time.

**Fifth** – the proportions of each nutrient within the fertiliser can be varied. Mainland Minerals fertilisers are not standard with regard to the proportion of say phosphorus or sulphur as is the case with conventional fertilisers such as Superphosphate. Rather, the proportions of each nutrient within the blend can be varied according to need or specific requirement i.e. each blend produced is unique to each farm. For instance, an area may have adequate levels of sulphur but be low in phosphorus. If the farmer applies Superphosphate in this situation, he is paying for sulphur that he doesn't need i.e. every tonne contains 110-120kg of sulphur whether it's needed or not! This is not only poor economics but also poor farm management and could also be environmentally damaging.

**Sixth** – fine particle fertilisers are much more environmentally friendly. When you apply lesser quantities of only those nutrients that are required and these are applied accurately by highly sophisticated spreading equipment, then there is little opportunity for nutrient to get into a water body. Nor is any blown by the wind accidentally onto a water course. Further, because smaller quantities of highly reactive fertiliser are used with fine particle fertilisers, the nutrients are assimilated quickly into the soil with little opportunity to be carried by overland flow and course pollution.