

May 08, 2007

Supa Humus: Healthy Sustainable Soil

Do you want to build up your soils water retention capacity? Do your crops have stunted growth? Are you having problems with nutrient availability in you heavy clay or sandy soils?



Poor growth due to low microbial activity in soil

Soil organic matter, or what is commonly called humus, is one of the most important ingredients for maintaining and improving soil fertility. Most Australian soils contain less than 1% humus, with very few soils having more than 2 to 3% humus. This is not enough to maintain sustainable soil fertility and allow your crops to yield to their optimum potential.



Soil profiles of heavy clay soil and sandy soil

Soil and Biological Benefits of Supa Humus

- Improves soil pH buffering capacity
- Encourages soil micro-organisms
- Improves friability of soil
- Increases soils water holding capacity
- Increases nutrient translocation
- Unlocks board phosphates
- Increases plant chlorophyll and root growth

SUPA HUMUS

12% Liquid Humic Acid

Humus and soil fertility what's the link?

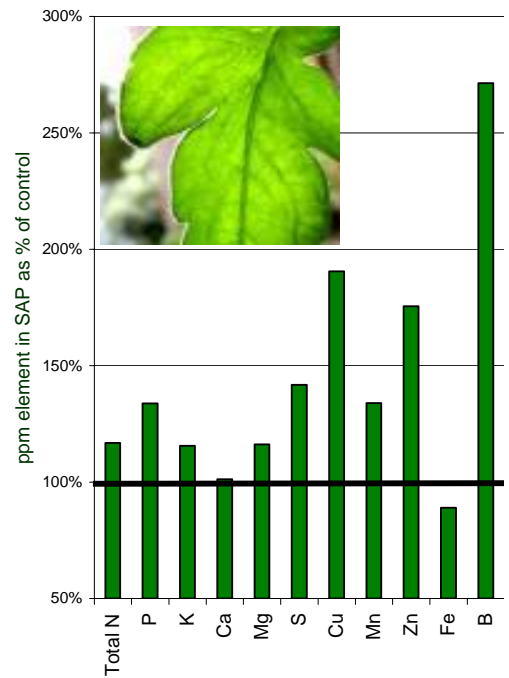
The humus content of soil directly impacts the moisture retention of the soil and enhances its nutrient retention properties. A recent University study has shown the application of humic acids enabled a vineyard soil to hold nearly 50% more water than the untreated soil. More importantly, it also improved wet ability in the treated soil, which helped reduce surface crusting and improved water penetration, especially after prolonged periods of dryness. Humus also promotes better soil structure and stimulates beneficial microbial activity by providing a carbon food source and increases the availability of nutrients.

Humus is derived from the natural decomposition of plant and microbial matter over a prolonged period of time. Humic acid is a complex compound formed during this breakdown and is a very high organic matter concentrate. Application of Supa Humus will not only improve soil structure and water retention but will also improve the current soil nutrition, and help retain nutrient inputs from additional fertilisers and help fixed phosphate availability. This is because the organic matter content in a soil provides most of the soils ability to hold nutrients and make them available to the plants. This is very important in sandy soils which have high levels of nutrient leaching or in calcareous soils which are prone to nutrient lock up.



Supa Humus Improving Nutrient Uptake

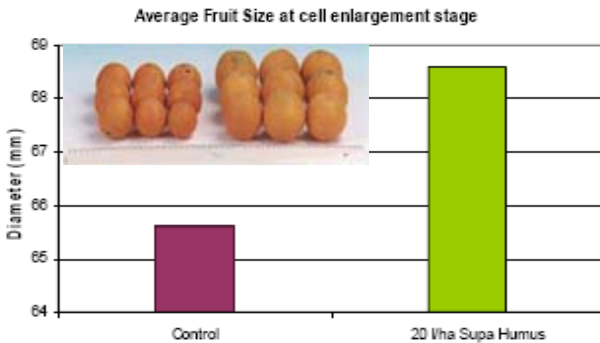
Supa Humus has been successfully used with fertilisers to help ensure that the applied fertilisers remain readily available to the plants. Supa Humus also helps maintain a better balance of all the essential macro-nutrients and micro-nutrients for uptake by the plants. Many nutrients such as ammonium, potassium, calcium, magnesium and all the essential trace elements like iron, zinc, copper, manganese and molybdenum are held in the soil until they are required by the plants. These nutrients would otherwise have been lost through leaching down the soil, especially in sandy soils where there is very little or no humus. It can be seen in Trial 1 (Tomatoes) that the application of 20L/ha of Supa Humus to a Tomato block significantly increased the retention of major and trace elements compared to an untreated block.



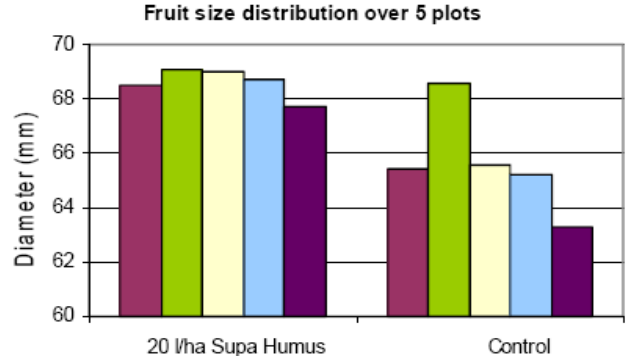
Trial 1(Tomatoes): Percentage increase of nutrient uptake in Sap of Tomato leaves treated with 20L/ha Supa Humus over the untreated control block.

Supa Humus Improving Fruit Size and Evenness in Citrus

Supa Humus's ability to improve nutrient uptake in crops will lead to improvements in fruit size and also help with even size distribution.



Trial 2(Citrus): Average fruit size at cell enlargement stage of block treated with 20L/ha Supa Humus vs control block



Trial 3(Citrus): Fruit size distribution over five plots of block treated with 20L/ha Supa Humus vs control block

Grower Testimony

Mr Steve Beckwith, Manager of Guilderton Olives in Guilderton, WA.

The soils are sand and have no organic content at all:

"I have used Supa Humus for the last three years through our reticulation system. On these (sandy) soils we have seen improved wetting, nutrient availability and uptake."

For further information about Supa Humus contact your local agrichem rep or our agronomy team.

