

Rejuvenating Growing Media using Biology

Joe Zammit - The Oaks NSW - Spring 2001

Treatment: 1) OziVerm added to growing media at 10% and fertilizer reduced by 50%.

Control: 2) Nil OziVerm & normal fertilizer rates.

Two batches of Broccoli seeds were planted in two different planting mixtures, one containing 10% OziVerm by volume, and the other was a standard peat mix. The OziVerm treatment was further altered, by reducing the additions of fertilizer by 50%.

Observations

Joe had used OziVerm previously for his Winter plants (adding it to the planting mix at 10% by volume) and had achieved good results. He believed however, that with the OziVerm having such an impact on his plants, he could afford to reduce his basal fertilizer, particularly as we were moving into the warmer months.

Joe's theory proved to be absolutely correct and the treated seedlings grew much better than their untreated counterparts, despite the fertilizer reduction the plants grew better, were stronger and ready for planting earlier.

OziVerm is now an integral part of Joe's seed planting mixture. He uses about half the base fertilizer in the mix and has also stopped using liquid fertilizers on his seedlings in the greenhouse. Some of the consistent advantages that Joe has seen from the changes are.

- **More uniform establishment and more vigorous growth from day one.**
- **Stronger stems and well developed root systems.**
- **No supplementary liquid feeds required - compared to weekly applications on untreated.**
- **Treated seedlings are ready for planting one-two weeks ahead of untreated plants.**
- **Treated plants also grow into a better crop once planted out.**



Treated trays outside the glasshouse being hardened off.

The **centre-front tray** is an untreated tray from the greenhouse, planted at the same time.

Soilsmart products and technical services are specifically designed to help manage one of the most complex and diverse ecosystems on earth - the interface between the soil and the plants we grow.

Soilsmart products will help you to build a strong and balanced biological soil ecosystem, maintain aerobic soil conditions and develop a disease suppressive environment in the root zone.

Biological Diversity

The plants we rely on to grow quality crops, turf surfaces and landscapes all evolved in the presence of, and rely on, a strong and symbiotic relationship with beneficial soil organisms which play a significant role in regulating the health of the entire plant/soil eco-system.

The key to success however is diversity -- nature is built on it -- consequently we have developed a range of products and programs that have a broad bio-diversity and offer long term benefit. They are also based around indigenous Australian biological species which are suited to our climatic and soil conditions.

Even small changes to your existing programs can improve biology and quickly translate into improved aerobic soil conditions and healthier and more resilient plants. These advances also result in more extensive and vigorous root systems and an increase in water use efficiency. Maintaining bio-diversity and balance also encourages the conversion and retention of minerals, increasing fertilizer efficiency and minimising the need for repeated applications.

Soilsmart products and programs allow you to stay ahead of pests and disease and offer a truly preventative approach to soil and plant health by:

- Building Organic Carbon reserves in your soil.
- Establishing a natural defensive network against disease and pests.
- Strengthening plant health and stress tolerance.
- Increasing fertilizer efficiency.
- Sustaining soil Oxygen levels.
- Reducing costs and improving risk management.

The science that enables us to measure and manipulate the soils' biological properties has advanced rapidly in the past decade, bringing about a much better understanding of how we can influence this very complex bio-system to our advantage. Soilsmart have maintained an association with and are accreditation with organisations like The Soil Foodweb Institute USA, who are at the forefront of research and technology development in this important area of environmental management.