

## AVOCADOS- HOW TO MANAGE THEM

### IMPORTANCE OF BALANCED NUTRITION

Balanced nutrition plays a major role, if not the biggest role in the production of quality produce and the regulation of tree growth. The aim of the grower should always be to optimise fertiliser practices and never cut costs by cutting out on fertilisers. All tree crops have nutrient demands and these demands vary among the many crops. Over the years, growers have had the tendency to use larger amounts of Nitrogen which can lead to nutrient imbalances and even promote the onset of pests and diseases.

Under field conditions, fertiliser applications should be modified to suit soil type, and soil fertility. From time to time, serious nutrient disorders will appear in a crop and this can cause a severe setback in crop yield and quality. The severity of the setback will depend on how soon the problem can be identified. Regular checks on nutrition using leaf analysis gives the earliest possible warning of nutritional stress. Crop monitoring is an extremely valuable technique to ensure yield, quality and crop health are all at their optimum. Zadco can offer soil and leaf analysis services to all growers.

### THREE TYPES OF GROWTH

#### ROOTS:

Root system is shallow and inefficient for water uptake. Extremely susceptible to *Phytophthora spp.* Produces growth regulators which maintain balance between shoots and roots. Roots play important role in water and nutrient uptake.

#### SHOOTS:

Store tree reserves, aid in utilising energy. There is an optimal shoot to root ratio. Skilful control of the vegetative flush growth has the greatest impact on tree productivity.

#### REPRODUCTIVE GROWTH:

Begins with flowering, followed by fruit set and then maturity. Fruit development is competitive with root and shoot growth and exerts the most attraction of resources from the tree.

### IMPORTANT POINTERS

- Growth very responsive to Nitrogen fertilisers.
- Managing the vigour of summer and spring flushes in avocados is very important.
- As tree begins to flower, water requirement is very high as flower panicles are the first to show water stress and may suffer permanent damage.
- Once fruit is established, water requirements are not too critical. However, should not stress the tree because fruit quality will be reduced.

Effective irrigation management reduces fruit drop and increases final fruit size, and makes the application of fertilisers more economically profitable.

### COMPLETE FERTILISERS..... WHAT'S THE BEST?

Avocados are susceptible to high sodium levels in soil and develop symptoms of toxicity. Chlorides can severely affect avocados. Reduction in growth, premature leaf fall and reduced yields due to high Chlorides have been observed. The causes of Sodium and Chloride build-up results from irrigation water, manures and some commercial fertilisers. Therefore, many growers have converted to using **FERTILE** which is **free from Sodium and Chlorides**.

**FERTILE** is specially formulated to give young and established crops a strong start. It is ideal for use in all fertigation systems.

**FERTILE** is ideal for use on older trees if they lack vigour, flowering, and fruit set.

**FERTILE** is ideal for post harvest applications to build enough nutrient reserve into trees for next year's crop.

**FERTILE** has high amounts of soluble P and K which makes it ideal if used in periods of stress (cold and hot weather).

The rates of application for **FERTILE** will vary according to the initial soil nutrient status.

## DOES YOUR SOIL LOCK-UP NUTRIENTS?

A highly productive soil, with high fertility does the following:-

- \* mobilises soil nutrients from the reserves
- \* transforms fertiliser nutrients into easily available forms thus preventing leaching
- \* offers the plants a balanced nutrient supply due to its self regulating system
- \* And most importantly; Does not 'fix' nutrients (ie, lock them up, or convert them into an unavailable form.

**Unfortunately, such a soil does not exist!!**

**So what do you do?**

**\*\*\*USE MOBILIZER!\*\*\***

Mobilizer reduces the precipitation of Phosphorus, mobilises Calcium, Potassium, Magnesium and Trace elements.

It increases the availability of Macro and Micro nutrients by increasing the permeability of the cell membrane.

It increases the Chlorophyll content of the leaves, hence better leaf colour and photosynthesis.

MOBILIZER is a buffer and **CAN BE USED ON ALL SOILS**, regardless of the pH. It is known to **aid in leaching Sodium** out of the soil. It can also be used as a foliar spray.

The most pronounced effects of **Mobilizer** are obtained when using it in **early season soil treatments** followed with **successive foliar sprays throughout the season**.

This product has shown outstanding results in all field trials and is a must for growers to optimise soil and plant productivity.

**Apply it now and all throughout the growing season for the best results. Many growers swear by it!!!**

### TRACE ELEMENT MYTHS

There are a few myths in the industry about the use of Trace elements. The most common myth is that foliar application of trace elements (especially zinc) on avocados is not an effective method of correcting trace element deficiencies.

However, trials conducted in California and Western Victoria have proven that the Biomin trace elements are readily taken up and available to the crop when applied at any growth stage.

Usually, growers target actively flushing shoots before full leaf expansion is reached, however, with the Biomins, this is not necessary. **THEY ARE WAX SOLUBLE AND HIGHLY BIO-AVAILABLE.**

### BIOMIN CALCIUM:

Very important after fruit set to give fruit structure and good skin thickness to protect against pests and diseases. **Highly systemic**, unlike other forms of Calcium. **EXTREMELY IMPORTANT!**

### BIOMIN BORON:

Important for fruit shape and skin elasticity. Also, critical for pollen germination and growth.

### BIOMIN ZINC:

Needed before flowering, to ensure adequate flowering and fruit set. Also best utilised during spring and summer vegetative flushes.

### PROBLEMS WITH FLOWERING, FRUIT SET, OR FRUIT SIZE?

**BIO-SIZE:** Improves flowering and fruit set, decreases fruit drop, produces more uniform fruit and fruit sizes.

### PHYTOPHTHORA PROBLEMS ?



A grower put Trichoderma (commercially found in **TRI-D25**) and **PHOSCARE** to the test and the results were PHENOMINAL. (See above)

**For more information, contact us!**

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