

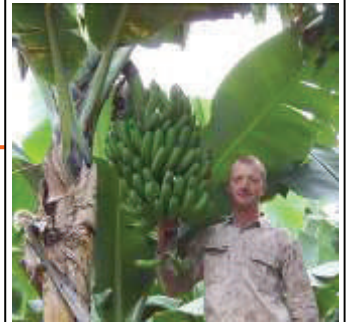
First Edition Newsletter

Welcome to the first edition of the quarterly Paton Fertico Horticulture news. Our aim is to provide an update on the Paton Fertico range as well as providing updates on the latest in new fertiliser technology.

A Sustainable Approach to Banana Growing in the Coffs Harbour Region



When a crop is being grown on the same ground for up to 60 years, a sustainable approach is the way to go. Read about the experience of Robert Pike and his use of Paton Fertilisers on his Coffs Harbour banana plantation in the article on the following page.



Robert Pike showing Bananas proudly grown with Paton Fertilisers

AMMO - N



In response to a demand for a replacement for Ammonium Nitrate, Paton Fertilizers is now able to offer a liquid form called **AMMO - N**. It has been difficult for many growers, especially those with fertigation or hydroponic systems to satisfactorily replace Ammonium Nitrate in their fertiliser programs. **AMMO - N** is a straight Nitrogen product that has the benefits of the Ammonium and Nitrate Nitrogen without the need to have a SSAN licence. **AMMO - N** is available in 20L drums.

Paton and Fertico Products

Paton Fertilizers and Fertico are proud to announce that they are now both able to offer for sale the Fertico and Paton range of products. Fertico manufactures a quality range of products. For more details, speak to your local account manager.

Custom Blending

Don't forget Paton Fertico can create a custom blend fertiliser to your exact requirements. A custom blend can differentiate you from your competitors, and be tailored to suit local conditions. Contact your account manager for more details

NutriSmart in Horticulture

NutriSmart is a crop nutrition technology which enables greatly reduced reliance on chemical fertilisers. Many growers are able to use up to 50—70% less chemical fertilisers with the obvious benefits that this brings in terms of less salt buildup in the soil and reduced fertiliser losses through leaching and runoff. The prolonged use of NutriSmart can help in improving the soil's health and Organic Matter content. Excellent results have been recorded in a number of Horticultural crops including Lettuce, Tomatoes, Cabbage and Potatoes. For more information please speak to your Paton Fertico Account Manager.



multiAGRI



In this issue of Horticulture News, Ron Bollard talks to Peter McGruddy about his use of Paton Multi-agri Strawberry Blend on his farm in Caboolture. Peter has been using Multi-Agri for the last 2 years as the basal fertiliser for his strawberries. Multi-agri utilises the Multicote controlled release technology from Haifa to gradually release nutrients over a 8 month period. For more information, please see the article on the third page of this newsletter.

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A SUSTAINABLE APPROACH TO BANANA GROWING IN THE COFFS HARBOUR REGION.



Bananas have been grown on the Pike's property for sixty years. Robert Pike says, *"We've had to learn to look after our soil as we crop continuously in the same ground year after year"*.

Robert believes in preserving the biology of the soil in order to maintain the farms long term viability. The Pikes use recycled green waste to supplement existing mulch on the farm. The heavy organic mulch layer around the bananas creates an environment in which the soil beneficial insects, fungi and bacteria thrive. Banana leaf trash is retained where possible around the stool to create a moist environment for surface root development.

Robert states, *"Good soil balance is essential for sustainable Agriculture. There is more to good crop nutrition than NPK fertiliser alone. I believe in a combination of organic fertilisers with the chemical NPK products. That's what I like about the fertiliser blends on offer from Paton Fertilizers."*

Robert, in conjunction with Paton Fertilizers, has developed a fertiliser which suits the Pike's approach to farming. Robert is using a 9-1-20 blend with Calcium, Magnesium and Boron. This blend contains Ammonium Nitrate, Sulphate of Ammonia, Sulphate of Potash, trace elements and meat meal. The organic component in this blend provides slower release organic nutrients that feed the microbes in the soil. Robert believes the trace elements in the blend are essential to produce good fruit quality.

Robert says, *"Fertiliser placement is critical in the plantation to minimise acidification of the soil and reduce the impact of highly concentrated areas of nitrogenous fertilisers which may damage roots and soil biology."* The Pikes apply Paton Fertiliser evenly over the whole of the interspaces between the stools. This allows uptake by the surface roots of a more uniform amounts of nutrient.

Robert says, *"I am not a total organic grower because at the end of the day I can only spend so much money in order to maximise my yields. Banana prices have been good last year with the effects of Cyclone Larry in North Queensland, but with lower prices in 2007, the focus is once again on using economic inputs"*.

An inspection of the soil beneath the trash layers around the bananas reveals abundance in soil biology that is reflected in the thick banana stools and the healthy bunches. Worms abound in the soil, and beneficial fungi can be seen amongst the trash. The surface white roots are everywhere beneath the trash and extend across the interspaces between stools.

The Pike's farm is typical of the Coffs region where bananas are grown on the steep slopes which are subject to erosion during high rainfall periods in the summer months. Good trash retention helps to minimise the effects of this erosion. Nutrient leaching is an issue with the high rainfall. It is for this reason that fertiliser is applied regularly through the summer months.

Robert regularly conducts soil and leaf testing to monitor crop nutrition and makes adjustments to the fertiliser program in order to keep the nutrients balanced in the soil.

Robert states, *"To see a visual positive or negative effect to crop yield a 20% difference in growth has to occur. By this stage, particularly with a yield reduction, a 20% difference is too late to correct within the one crop cycle. Soil and sap testing allows for corrections before problems develop"*.

Soil salt levels are low on the farm as they have always selected Sulphate of Potash as a Potassium source over Muriate of Potash. A 20% level of potash in the Paton Fertiliser blend ensures good fruit size. A 9% Nitrogen level allows for vegetative growth without jeopardising negative effects on microbes and roots. Root growth is also enhanced by the use of seaweed and fish emulsion applied via under tree irrigation. Calcium Nitrate is also applied to supply Calcium through the root profile particularly during the active summer growing period.

The Pikes take a realistic approach to Banana growing in a competitive economic market place. Robert says, *"The fertiliser program and cost has to be balanced with the farms return on investment. Working with soil biology is essential for sustainable farming where bananas have been grown on ground here for the last 35 to 60 years"*.

Ron Bollard

Paton Fertilizers

Technical Sales Representative Qld /Nth NSW.

Paton Multi-Agri Strawberry Blend Fertiliser Success at Caboolture Qld.

Peter and Pam McGruddy grow 1 million strawberry plants on their property , **Berry Power** , near Caboolture. The three varieties grown are Festival, Camarosa and Driscoll . For the last two years the McGruddy's have been using Paton's Multi-Agri Strawberry blend as a basal fertilizer prior to planting. They apply the fertiliser prior to the laying of the plastic mulch. They use a Kelp product after planting the runners to improve root establishment early in the crop.

Multi-Agri is a blend of coated and uncoated fertiliser based on the Haifa Chemicals Ltd Multicote polymer coated controlled release technology.

The insoluble polymer coating prevents the rapid release of the fertiliser core. Nutrients are released in a slow gradual manner that more effectively meets plant needs.

The slow, constant release offers a smooth release curve with no peaks and troughs. Thus, the plant enjoys continuous feeding with no fear of hazardous excesses or damaging deficiencies. The only factor affecting this release rate is soil temperature – as the temperature increases, the release rate increases. Multi-Agri is used at the rate of 15 to 20 grams per plant.

Peter McGruddy says, "Multi-Agri Strawberry provides continual on going feeding of the plants for up to 8 months. I have light sandy soils and leaching of nutrients is a problem. Multi-Agri strawberry blend over comes this problem by providing even continual release of nutrients meeting the plants growth requirements".

"I obtain my first Sap test at flowering in May to determine plant nutrient levels. Sap tests are conducted through out the life of the crop. I balance the nutrients with the use of soluble fertilisers applied via the trickle irrigation. As the fruit load increases the levels of N,P,K & Trace elements are varied according to the plant requirements. This practice avoids excessive leaf growth and undersized fruit associated with nutrient imbalances", Peter said.

Peter states, "Paton's Multi-Agri Strawberry Blend gives me stable nutrition all the way through the crop whilst maximising my yields and fruit quality".

Ron Bollard

Paton Fertilizers
Technical Sales Representative Qld /Nth NSW.

multi AGRI



Pictured (from Left) Frank Scherpenseel, (Farm Management Systems Officer with Driscolls Oz Fresh Australia), Jerry Spencer (Paton Fertico) and Peter McGruddy .