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BioAg NEWSLETTER

Another Shipment of Phosphate on its Way

After being forced out of the world market last year by unconscionably high prices, we have again purchased a vessel load of prime Egyptian reactive phosphate rock, which will arrive in Geelong in mid-December, and conversion to BioAgPhos is scheduled to commence in early January 2010.

Since we sold the last of our BioAgPhos made from imported rock in late 2008, people have been asking when we will have some more, and our answer has always been the same – “When we can buy the rock at a price which will allow us to produce BioAgPhos at a price that farmers can afford”. Well, that time has come.

Special Early Bird Deal

For those customers in a position to order and pre-pay for BioAgPhos produced from the new rock shipment, we are offering a special Early Bird Deal. The early order discount details are as follows:

Order and pay before:	Price (ex GST) ex Geelong
31st December 2009	\$325/tonne
31st January 2010	\$330/tonne
28th February 2010	\$335/tonne
31st March 2010	\$340/tonne
30th April 2010	\$345/tonne
For payments received after 30th April 2010	\$350/tonne

Volume Discount

In addition we are offering, separately, a cumulative volume discount of 3% for every 100 tonne ordered, regardless of when the BioAgPhos is purchased. The discount works like this:

For orders of:	Volume discount:
100 tonne	3 per cent
200 tonne	6 per cent
300 tonne	9 per cent
400 tonne	12 per cent
500 tonne	15 per cent

As you can see, it's well worth your while to take advantage of these generous offers if you're in a position to do so.



Modern bulk carrier "Kuanyin", chartered by BioAg, preparing to load 20,000 tonne of reactive phosphate rock at Hamrawein, Egypt, in November.



Quality inspector sampling the phosphate rock from the conveyor belt as it is being loaded on to the vessel.

Fertiliser Prices Outlook

Free markets are prone to over-correction, and there is no greater example of this than that of the global phosphate fertiliser market over the past few years. In 2008 it reached unsustainably high price levels; in 2009 it retreated. Now we see global MAP and DAP prices at untenably low levels.

World fertiliser prices have come down by more than 50% since this time last year, mainly due to large unsold stockpiles in the supply chain as farmers have held off buying over the past six months. These are gradually being used up, and we believe that by autumn prices will be on the rise again.

Putting our money where our mouth is, we've purchased another shipment of Egyptian phosphate rock, at what the market indicators tell us is the bottom of the market, from which to make our ever popular BioAgPhos.

Most people are now familiar with the term "peak oil" since the oil shocks and price rises of the last two years. A similar situation exists with phosphate. We have reached a situation of "peak phosphate" supply. Global resources are finite and declining. The problem has not gone away; it merely has been forgotten in the GFC-induced bust. Phosphate fertilisers, including BioAgPhos, are cheap at the moment. If you need phosphate, and can afford to apply it, this is the year to do it.

BJ Blitzes Hay Biz with Fruit & Balance



Australian Fodder Industry Association Member Bartyn (BJ) Ball is a substantial hay producer at "Woodlands Hill", Kybunga (SA). He has worked with BioAg since its inception (and with MD Anton Barton for a few years before that).

This season, he conducted a trial on his property which really showed how a good foliar treatment can significantly improve the nutritional quality of hay.

He took an oat crop which he had sown with 3 L/ha of Soil & Seed® and divided it into three parts, one a control, one he treated with a fungicide at \$14/ha, and one with a BioAg prescription based on Fruit & Balance®.

We inspected the crop in September, after the oats were out in head, and it being a little later than ideal for foliar application, but BJ was hoping to suppress a fungal leaf disease. He tank mixed and applied

2 L/ha Fruit & Balance, 225 gm/ha CuSO₄, 300 gm/ha ZnSO₄ to one third of the crop.

The crop was cut down, rained on, baled and FeedTested. Because of the rain it was not perfect hay, but the benefits can be seen by comparing the three trial plots.

Three basic measures for domestic hay are Crude Protein (CP), Sugars (SolCHO) and Metabolisable Energy (ME).

The FeedTest results came out with the control and the fungicide plots delivering the same results at CP 8%, SolCHO 12.51% and ME 8.12%. The BioAg foliar treated hay produced CP 8%, SolCHO 15.7% and ME 9.28%.

The consequence was that the treated hay was upgraded from

C2 to B2, worth an extra \$30 per tonne. The yield was 6 t/ha so \$180/ha of extra value was added for a cost of \$13.50/ha for the BioAg treatment, plus application costs.



Baling hay on "Woodlands Hill".

BioAg Establishes Base in Guyra

BioAg Pty Ltd is pleased to announce the appointment of Guyra Rural Services as distributor of its biologically active solid and liquid nutrients for agriculture in the Guyra region of New England.

"Guyra Rural Services has operated in Guyra for 20 years" says Manager Campbell Wolfenden, "and supplies farmers and retailers with a range of fertilisers, stockfeeds, seed oats, seed potatoes, cotton seed meal, protein supplements and much more.

"We recently purchased the Guyra bulk fertiliser shed and distribute BioAgPhos® and other BioAg fertiliser products. We're working closely with local Ground Spreader, Malcolm and Jane Moffat, and can service farmers

promptly and conveniently with the bulk storage."

BioAgPhos® is a reactive phosphate rock that has been treated with a proprietary microbial culture to provide an immediate and continuing source of plant-available phosphate. About half the phosphorus content is available immediately for plant use, while the remainder is slowly digested by micro organisms and added to the nutrient reservoir in the soil. The improved microbial activity also unlocks phosphate, calcium and sulphur already in the soil, leading to long term benefits in soil structure and fertility.

BioAgPhos® rejuvenates natural soil fertility and structure, and improves



Guyra Rural Services storage facility on the New England Highway.

plant growth, nutritional values and yields. It can be easily mixed with lime or gypsum and applied with a belt spreader.

BioAg also markets a range of fermented microbial cultures that deliver essential nutrients and metabolites directly to pastures and crops, as well as stimulating microbial activity in the soil. The end results of BioAg's soil fertility programs are improved crops and pastures and healthier livestock. Contact Campbell Wolfenden 0407 022 802.

Heading for the EU

After discussions over the past two years, and small-scale trials last northern hemisphere Autumn, we appointed a distributor in the UK to cover the UK and Ireland in August.

Thomson & Joseph is based in Norwich and is an organisation not dissimilar in size to our own (except that T&J does no manufacturing). It was founded in 1951 as a pharmaceutical and fine chemicals supplier and has, since that time, developed a position as a specialist sales agency for manufacturers worldwide.

Today its primary business is the sale of nutritional ingredients to the industrial, agricultural, pharmaceutical, and chemical raw materials sectors, with the core of the business centred around UK storage and distribution of materials produced overseas. It has been accredited to ISO 9002 Quality Standard since 1994.

In September, we shipped our first 40' container of Digest-it® for Dairies to London, and MD Anton Barton went across to support Thomson & Joseph launch the product at Dairy Event, the largest dairy trade show in the UK.

Since then we have commenced trials in eleven dairies and one piggery. Of course, we have maintained our good working relationship with the Semex organisation which distributes Digest-it here in Australia, with Semex UK Limited conducting trials at another six dairies.

Progress is also being made in Ireland in getting trials started and we expect to get our first results back before the end of the year.

In the northern Spring, we will start trials with Soil & Seed® on pasture country in both UK and Ireland.

This arrangement with Thomson & Joseph has given us a toehold in the EU, which we will gradually extend into continental Europe over the next three years.



A semi-load of Digest-it® on its way to the Port of Melbourne for containerisation and shipment to the UK.

Christmas Message

The Directors and Staff of BioAg Pty Ltd wish all of our Customers and Friends a very Happy Christmas and Prosperous New Year.

Our Head Office will close at noon on Christmas Eve, and open again on Monday 4th January 2010.

BioAg Receives Accolades from NZ Growers

BioAg has been active in New Zealand for the past three years – its first foray into an export market – and this year, acquired an interest in its NZ distributor, Napier-based BioAg Limited.

Our big successes to date have been in viticulture (in New Zealand's prestigious wine districts), pip-fruit (apples) and other vine fruits such as kiwi fruit.

Growers have been generous in their praise of our programs, and we are delighted to publish extracts of some of the testimonials we have received this year.

Wine Grapes

"The vines are much more in balance – more even shoot growth, thicker canes, good inter-node spacing, and 100% lignification. Yields have increased to target levels and quality has also improved. All fruit from our BioAg blocks has superior colour and flavour and goes into our top label which is winning awards around the world. The vines seem to handle periods of stress (frosts, heat waves) better. We had extreme temps throughout late December and January but our water use was down 30%. Soil fertility and organic matter levels have improved. Chemical inputs have been reduced and will continue to be reduced. The products are very easy to handle and apply. *Kyle Mason, Viticulturalist, Gladstone Vineyard, Wairarapa, June 2009.*

Apples

"I have trialled many different products over the ten years we have been running our orchards organically. I am impressed by the response we get from BioAg. I don't completely understand how the products actually work, but as a 'visual' farmer I am pleased with what I see! I'm seeing really good extension growth in blocks that were previously poor. Overall fruit size and crop loading is much more even. Leaf health is much improved and bigger fruit buds are emerging from dormancy. I am also looking forward to continuing some extremely positive work with regard to apple black spot control using BioAg soil and foliar applications". *Tom Masterson, Director, Green Planet Ltd, Hawkes Bay, June 2009.*

At Last - The New Laboratory



After what seems an age, BioAg's laboratory has been completely refurbished and re-equipped for microbiological testing and research. The new facility replaces an old laboratory inherited when BioAg bought its Narrandera headquarters building in 2005.

Plant Chemist Peter Stoneman says "Some of the things we do are process and product controls, some are for product improvement, and others for research.

"We now run daily microbiological profile checks on our products during manufacture to ensure uniformity of the types and numbers of microbes they contain. Unlike chemicals, microbial cultures are tricky, and we've had to develop sophisticated practices and procedures to make sure that we get the same results every time.

"We're working on a battery of tests which will enable us to issue a Certificate of Compliance for each batch of our products, attesting that it meets our internal standards, such as for numbers of microbes after re-activation.

"We keep samples of every batch of product we make, and we've been using these to learn more about shelf life under different storage conditions. We have also been running accelerated shelf life testing. Our objective is to ensure that that our products maintain their viability well past their 'best before' date.

"Because our products form part of the food chain, we continually run checks for the presence of potentially human pathogenic bacteria such as *E.coli* as part of our risk management strategy.



BioAg's new laboratory commissioned and ready for action.

"On the research side, testing undertaken at our laboratory, in collaboration with other facilities, was crucial in coming to an understanding of the biological mechanisms occurring in dairy effluent ponds and how aerobic digestion could be enhanced, which led to the development of Digest-it® for Dairies. We are now testing this same technology in other confined animal production facilities, such as piggeries."

Now you see it.



Picture 1. Effluent pond before treatment, showing a thick, smelly surface crust.

Now you don't ...



Picture 2. Six months later. The crust and smell have gone, and the liquid can be pumped to pasture.

and back again.



Picture 3. The same pond after three months without treatment. The crust and smell have returned.

In January, when BioAg launched Digest-it® for Dairies, its microbial dairy effluent digester, it commenced monitoring a selection of the on-farm effluent ponds being treated with the product. Typically, before treatment, these ponds have thick surface crusts, unpleasant odours, and high solids contents. Often, annual mechanical de-sludging is required to avoid them becoming unusable for trapping the wastes from dairy pads. Normally, after a few months of Digest-it application, the crust dissolves, and the liquid becomes available for

application to pastures as a rich source of plant-available nutrients, reducing the need for fertiliser.

The pictures above show the changes in one pond we are monitoring in Gippsland (Vic.).

Before treatment, the pond was heavily crusted, as shown in Picture 1, and smelly. After six months of treatment, the pond was crust-free and the liquid free-flowing (Picture 2.). After treatment was stopped for three months, the crust

and smell had returned (Picture 3.)

– quite a contrast, and a good example of how regular maintenance with Digest-it keeps dairy effluent ponds clean. For further information, call Martin Preuss on 0448 453 412.



Better soils. Better crops. Better stock.™

**For more information,
phone 1300 599 911 or visit www.bioag.com.au**