



Spring UPDATE 2008

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- Healthier Plants
- Stronger Plants

Welcome to our Spring newsletter.

It has been a very busy year for us at BdMax, with the addition of some explorations into overseas markets. This spring has seen BdMax products being made available in Australia, and the United Kingdom, with trials begun in Spain. This has required trips to these countries during the 'slow times' we have throughout the year in New Zealand.

Part of this development has been funded by a grant from Trade and Enterprise, which, while a blessing, it does mean a certain amount of activity has to take place, within a given period of time.

While Australia is an obvious place to expand to, apart from the drought conditions, that has seen very little horticulture actually going forward, my interest in Europe is more focused on making use of the alternate seasons. While this will help even out our cashflow, it also provides a full 12 months of the year, to be used for research. Some of our early UK results are in the following pages.

This research occurs with farmers, experiencing similar problems as here in NZ, and with the students I am able to tutor at Emerson College in England.

BdMax pricing

Due to the radical impact of rising prices in the New Zealand economy and the reduced income for the kiwifruit industry - who are our main clients - we have decided to keep our prices the same as last season till January 2009.

This means that ThermoMax prices will not be increased this season.

In past seasons we have had discounts in July, which we did not do this season.

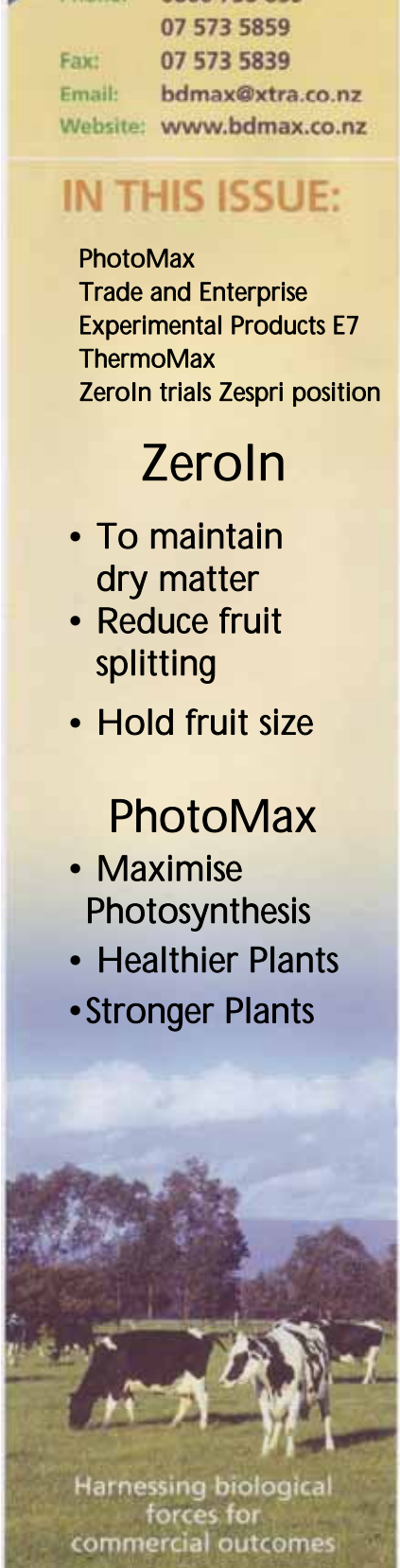
We hope that this will help you, a little, during what looks to be a long and cold spring period this year.

Trade and Enterprise

Last year we became aware of funding, from Trade and Enterprise to help NZ companies, in their exporting efforts to other countries around the world. As we had already begun exploring overseas opportunities, this funding seemed to be a good support, to where we were already heading. We were able to secure some funding last year, which in reality we were only able to use a small part of.

This gave us a chance to refine our expectations, of the funding and ourselves, so that our application this year more closely reflects what we think we can achieve. Our application has been accepted, which in turn provides a whole range of new opportunities.

A 'quirk' of every marketplace, is growers and distributors want trials done in their country, to see first hand the effectiveness of the products. A benefit of this is that we are now in a continuous process of collecting more results, from many diverse regions. This has to be good for our New Zealand growers. Market entry is a slow process though and we are very appreciative of the support we are getting from Trade and Enterprise



Harnessing biological forces for commercial outcomes

PhotoMax

PhotoMax is a product that helps with the plants utilisation of the available light. It is especially useful in early spring and during periods of low light and overcast conditions, during the growing season.

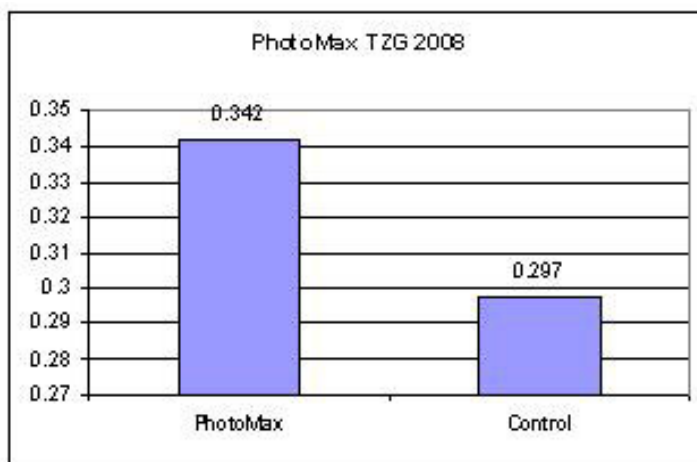
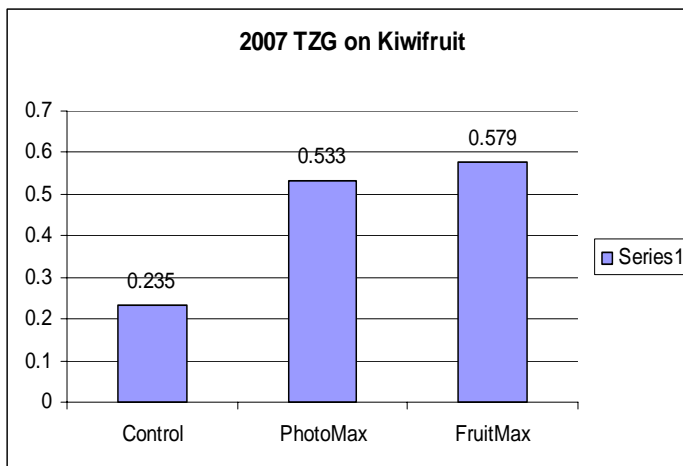
PhotoMax was trialed with Hort Research (client report No 11255) in 2003 and was found to increase photosynthesis on grapes by 20%.

Increased photosynthesis means the plant is working harder and therefore manufactures more dry matter for a given amount of light energy.

The focus of our research since the HortResearch trials has been to find farmer relevant uses and outcomes.

We have reported in the past, on some of the kiwifruit trials, which showed an increase in fruit size as well as higher TZG readings which in turn lead to higher payout. During the 2006 - 7 season, when we had a particularly dull early summer, the PhotoMax area had a significantly increased dry matter and therefore a TZG reading nearly double the control area.

These trials continued through the 2007-8 season. PhotoMax was applied monthly, throughout the whole season. While there was far more sunshine hours than the season before, the PhotoMax area still outperformed the control. (See graph)



Dairy Pasture

Our work with pasture has been taking place simultaneously in New Zealand and in the UK.

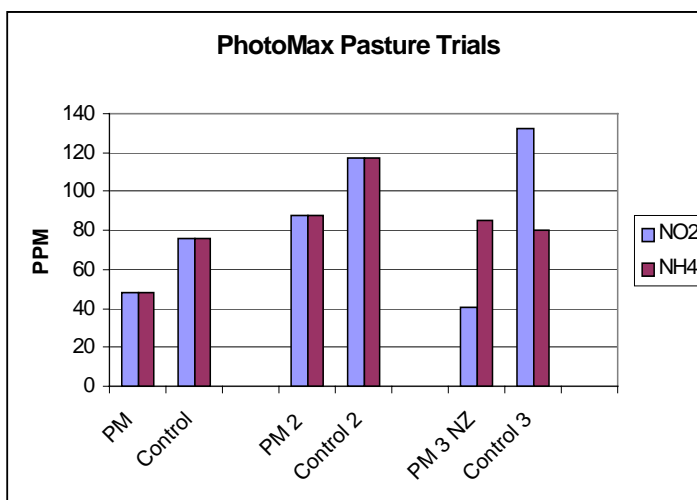
A very common problem with spring and autumn pasture for animals is the high levels of dangerous nitrates that concentrate in the leaves. It is well accepted that this is caused by low light circumstances that do not allow for sufficient photosynthesis to occur, for the nitrate to be used and transformed into proteins. This leads to cows dying from nitrate poisoning. This is also a common problem in leaf vegetables for human consumption.

Trials in the UK began in their spring of 2008 on both pasture and grain crops. To date we only have some foliar mineral tests back. The outstanding and common result was that the leaf nitrogen levels were significantly reduced.

Trials on dairy pasture in New Zealand were begun in July of 2008. Even better results were found in mineral leaf levels here.

The graph (bottom right of the previous page) shows a 60% drop in the NO₂ leaf levels, while the slightly higher NH₄ levels suggest some stabilisation of the nitrogen is occurring.

All of these results are confirming the HortResearch results from 2002.



PhotoMax has very beneficial and economically significant effects on plants through enhancing their photosynthesis activity.

This effect is especially noticeable and useful in the low light periods of the spring and autumn.

Naturally there is far more testing that can be done to illustrate quality and quantity benefits of using PhotoMax, and we intend this is ongoing in both NZ and the UK.

PhotoMax is registered in NZ as an accepted plant input, and like all our products is Bio Gro registered for organic production. There is no withholding periods once it is sprayed on pasture or other plants.

Etherics 7

Our distributors in the UK are a homeopathic company, that specialises in animal remedies, and therefore they have access to many dairy farms.

Therefore we are having an opportunity to expand our efforts into the problems facing this sector. One of the main issues facing these farms – as well as in NZ – is the dairy effluent. While this is a similar issue to NZ, in that it is often accumulated in a large pond, before being spread back onto pasture, the UK has particular problems with the close vicinity of most farms to some kind of urban population. Therefore the issues around the smell, both during storage and spreading are paramount. Added to this is the long term water logged soils the UK experience and the issues around leaching and this issue takes up a lot of time and attention.

Many years ago I did some trials on the reduction of smell, especially around dog kennels, and with newly cleaned septic tanks, both of which showed we could have a beneficial effect. One NZ fish fertiliser manufacturer found it has helped reduce the smell of his processing, as well as increased the breakdown of the solid matter.

So it seemed a natural step to start trials in the UK with our Etherics 7 (E7) product.

To date these have provided very noticeable and beneficial results for the farmers. Sadly we have been unable to finalise any 'scientific' trials yet, due mostly to not having adequate control ponds alongside the treated ponds.

We do however have the farmers experiences.

This product is applied by being squirted over the milking pad, at a rate of 100mls every three days, during the pond filling period. A maximum of 2lts per 150,000 gallons is all that was

Some of the farmers comments have been

Chris & Ken Ede - 29.11.07

"Since using E7 we have noticed a reduction of crusting on the slurry lagoon of at least 50%. We have also been aware of less odour both from the lagoon and as we spread the slurry onto the ground. In addition to this we have noticed that the field we spread the treated slurry onto looks well even late into the season.

Nigel Potter - 30 November 2007

We have used E7 in our slurry store and noticed various results from using it. One of the first was a definite reduction in odour, then when it came to time to spread it we saw a lot less crusting and found that what crust there was broke up easier than we have previously been used too.

Once it had gone onto the pasture and the milk cows were allowed back on we noticed that they seemed to like the area treated with E7 as they ate the grass lower there than the rest of the ground they had access to. We also noticed how well the grass grew.

We have also put some onto ground now sown with winter wheat and are already seeing strong plant growth.

Norman Bell has told us that he is very happy with the progress he has from the E7 used in his slurry store which has a mix of both pig and cow muck going into it. He is now harvesting the grass and making silage from it. He says it is a dense crop and is better than the field next door, which is not his, but he knows had fertiliser on as well as slurry whereas the E7 field had no fertiliser just treated slurry. Both fields have been harvested by the same contactor. He also said that he uses a haybob rowing in machine he usually puts five rows into one before the forage harvester goes along. In the E7 field he can only get four rows into one because the crop is heavier.

Another grower contacted the distributor concerned that there was no crusting on his pond and what this might mean for pumping. However when he did begin spreading he found the solids evenly distributed throughout the liquid. The smell was greatly reduced.

The UK is facing the same issues of nutrient budgeting due to nitrogen ground water levels, as in NZ, however due to their huge problems with bedding and effluent management, near populations, they appear to be under more pressured to find solutions.

We expect to begin some trials of Etherics 7 in NZ effluent this season, however I would hope these results from the UK might be enough to encourage farmers to begin using it here immediately. At present it is priced at \$150 per litre. Between 1 and 2 litres are required per pond rotation.

Registrations



BioGro

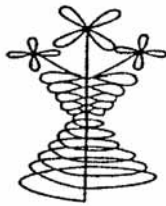
This is for inputs into the New Zealand organic industry

BDAA

This is an accreditation we have from the UK Biodynamic Association, which accepts BdMax products as approved inputs for organic and Biodynamic (Demeter) farms throughout the EU.



The NZ Demeter does not have any similar label, however via correspondence, with NZ Demeter, BdMax products are accepted for use on Demeter farms in NZ



Garuda Logo

This is the logo of Garuda Homeopathics Ltd, issued to BdMax, as approved suppliers of their products

ACVM exempt

In accordance with NZ regulations, BdMax products have been submitted to the NZFSA and have been granted exempt status from registration

If you need

Material Data Sheets

ACVM exemptions

BioGro Certification

Demeter registration

They are at our website under 'Accreditations' on the left hand column

ThermoMax

UPDATE

Nutrition

Good plant nutrition is necessary component of ThermoMax performing at its peak.

Part of the control of frost is achieved by the ratio of plant solids to the amount of water in the cell. It is this basis upon which products like Urea and seaweed work. By adding more solids there is less water to freeze. This same process is still working with ThermoMax. If the solids ratio is below par, then ThermoMax will have a harder task to perform as well as it might.

On grapes this season, where ThermoMax only achieved good results to -1.5C, it was obvious from the vine health, that the nutrition was not what it should have been. In all other cases, where vine nutrition was sufficient, protection to the -2C, as achieved.

One grape client has reported repeatedly that with the inclusion of 1lt per hectare of seaweed with his ThermoMax application he has achieved successful control against frost of -4C. This could be a practice that could be adopted more widely. **Should WE market a ThermoMax Seaweed product?**

We rely heavily on growers experience and feedback for us to then be able to give out accurate information. So please let us know your experience. We can only pass on what we know back from you.

Etherics Update

In an effort to simplify the use of our products, you will notice that we have standardised the instructions for the use of Etherics 1000.

Etherics 1000 is applied one week before every fourth application of BdMax spray.

Zeroln Results from 2007

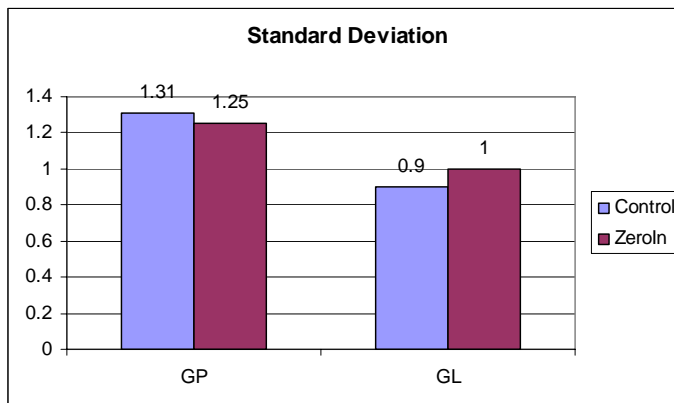
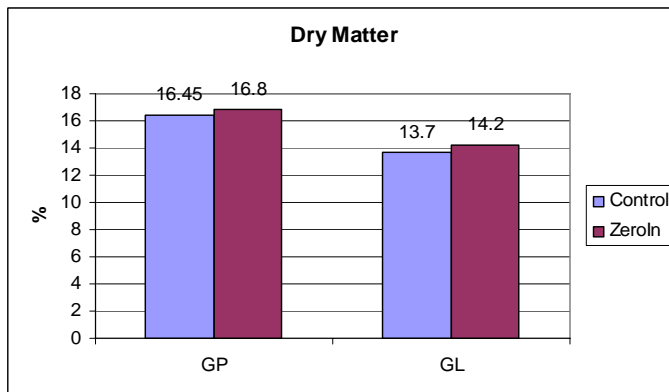
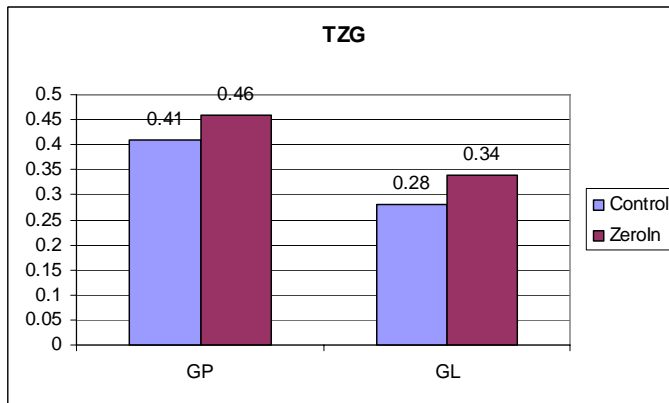
Kiwifruit

Various results from Zeroln on kiwifruit have reasserted our experience that Zeroln is useful to kiwifruit, when used in the last two weeks before harvest, when there is a rain event that will adversely effect your dry matter readings. If there is rain during this period, then using Zeroln will help in achieving a higher TZG and thus higher fruit band.

During dry periods, just before harvest, Zeroln will have very little effect on dry matter.

Below are two orchards results. GP orchard achieved, a T band on the treated block, while the untreated achieved R band

Zeroln



Zeroln Usage

Kiwifruit

Applied in the last two weeks prior to harvest, if rain is likely.

Apply a day or two before the rain event if possible. Applications one week apart can be used if there is consistent rain during this harvest period.

If Zeroln is applied and no rain is experienced the Etherics 1000 can be applied a day or so before any picking tests.

Fruit Splitting

For use on Stone Fruit and Grapes

Apply Zeroln a week prior to harvest if rain is expected during that period.

If the rain is likely to be heavy eg 2 inches or more, apply a second application, just prior to the rain.

If the rain is likely to be more than 2 inches add SilicaMax to your Zeroln applications.

Potatoes and Kumura

To speed up top die off and tuber filling.

One application three weeks prior to your desired harvest time. A further application can be made ten days later if you wish.

Transplanting

Trees

A few days prior to wrenching, use one application followed by a second application immediately after transplanting.

General

Use one application immediately after transplanting

BdMax Mid Winter Seminar

On the weekend of the 21st June 2008, we held a two day seminar, investigating the structure of the 'Agriculture Lectures' Dr Rudolf Steiner gave, exactly 80 years earlier.

The impetus for this seminar, came from the previous two day seminars, I gave to the Spanish Biodynamic association, on a similar subject. This topic is the basis of a two week program, I present at Emerson College in the UK, and so the experience in Spain, with an interpreter, showed me a way of compressing this large subject into a much tighter time frame.

As we had this seminar at our property in Te Puke, we limited the numbers to 20. Everyone attending had a close connection to the land and also a firm interest in the Biodynamic way of viewing things. Naturally their understanding of the Agriculture lectures varied greatly, however this did not seem to be a great limitation.

Steiner's Agriculture lectures are notoriously difficult, as they are peppered with complex images and language that was intended for a very select group of farmers. These lectures were given with the expectation of previous understanding of Dr Steiner's previous books and lectures. Thus there are many ideas and even word usage that seem very foreign and at times even contradictory.

It has been my good fortune to have been able to use various understandings from my Astrological studies, and some guidance from various people, to find a coherent structure, or 'golden thread', that enables many aspects of this series of lectures to fall into place. It is my contention, that once this structure is applied to ones reading of the text, that nearly all of the difficulties become much clearer.

This has indeed been the feedback from the seminars in the UK and Spain.

On a more practical side, the weather during the seminar was appalling. While this helped the farmers to not feel so guilty about being inside all weekend it did present some logistical issues. Thankfully we setup a marquee on the lawn, which allowed us to spread out during the breaks.

I would like to specially thank, Gillian for her organisation, Caroline for her refreshments and my daughter Freya who came from Wellington bringing her catering skills, so that everything ran smoothly.

We are hoping that this mid winter seminar will become an annual event, where Biodynamics can be explored at a deeper level than is presently available in New Zealand.

The topic we would like to present next winter is an introduction to my efforts into 'Biodynamic Chemistry'. We are hoping that a seminar on this subject will be able to be held at Emerson College in March of 2009. We are hoping to bring together people who have done some exploration into this approach to share their insights and see if we can move along the practical implications of my initial efforts. The NZ winter seminar is then hoped to attract people from Australia and New Zealand, to consolidate these beginnings.

For background into last June's seminar and also for next years seminar, you can find the books on these subjects at Garuda website in the on line books section .
www.garudabd.org

2009 Lecture Program

A side benefit of our export drive, is that I get to be in a range of countries, throughout the year. This is allowing me to take part in various Biodynamic conferences and courses, while there.

The highlights of this coming year are

September

- A presentation to a Horticulture group from the Universidad de Chile.

-A two day seminar to interested biodynamic farmers near Santiago, Chile.

January

- Two weeks tutoring the Biodynamic course at Emerson College

February

-5 hours of 'working seminar' at the 'Agriculture Course' conference at the Goetheanum in Dornach Switzerland

- General BD seminar to UK farmers

March

-Weekend seminar for 'Biodynamic Chemistry' at Emerson College UK

April

-Weekend seminar to the Spanish BDA

June

- Weekend Biodynamic seminar on Vancouver Island, Canada

- Weekend seminar on "Biodynamic Chemistry" in NZ.