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In the paddock

BNSEasyflo makes Best Practice easy for the Bongers family



Tony and Peter Bongers (Jambin, near Biloela, Qld) have recently attended the Soil and Plant Nutrition Workshop to learn the latest cutting edge science of crop and pasture management. Although the Bongers family have made some exciting innovations in past years, they are continually searching for ways to improve their soil health and management skills. Each year they ask the question, "How can we do the job better?" The Bongers family, including Tony and Bridget and Peter and Janelle Bongers, operate a highly successful family business comprising nearly 900 hectares of grain crops in dryland and irrigated country. The family also runs up to 100 head of cattle on grass pastures.

A key to the success of this business is the incorporation of crop rotations and managing for soil health. According to Tony Bongers, "Any rotation is a good rotation as we don't like growing the same crop

• Tony and Peter Bongers are seeing things differently in the paddock now and are committed to taking action after attending the Soil & Plant Nutrition workshop.

back to back in a paddock for any more than two years." He continued, "the key to crop rotation is having a combination of summer and winter crops using cereals and legumes." The Bongers main summer crops include sorghum, corn and mung beans, while winter crops include wheat, chickpea's and occasionally barley. Mr Bongers pointed out the rotations help to minimize disease in the soil and the following crops as well as improving soil microbial activity. So with more microbial activity, fertilizer use is reduced. Mr Bongers commented, "our soils are very Nitrogen hungry and the legumes help reduce the cost and demand of granular fertilisers." The Bongers enterprise uses controlled traffic and zero till technologies to minimize the effect of heavy machinery crossing their paddocks. Their planting equipment is set up with disc openers for minimum soil and stubble disturbance therefore helping to store more soil moisture. Mr Bongers said, "these management strategies definitely help with the physical impact on our soils but don't address the nutrition and life in the soil." He added, "we need to lift our knowledge and understanding on how the soil and plants really work together."

Mr Bongers continued, "earlier this year we attended a Soil and Plant Nutrition course to learn more about liquid fertilisers and see how liquid nutrition could benefit our system while improving the bottom line. The workshop presented by Bart Davidson answered many of our questions, using science and practical know how." He felt that the most important things we learnt were:

- * Interpreting soil and sap tests
- * The benefits of Sap testing in crop;
- * How to improve nutrient cycling in soils
- * How to get more free Nitrogen
- * How healthy soils can grow crops on less rainfall
- * How liquid injection systems work and set up
- * How to build organic Carbon levels in soil
- * How high analysis fertilisers burn up soil Carbon.

Tony and Peter Bongers are seeing things differently in the paddock now and are committed to taking action. Mr Bongers said, "we had some stubble from two crops ago in the paddock that had not broken down. After attending from Soil & Plant Nutrition Workshop, we now understand the microbes in the soil aren't working as well as they could be and that much of the nutrients and Carbon that were in the stubble have been lost to the atmosphere. This means we have an added cost to our business purchasing replacement nutrients." He added, "now we know how to recycle those nutrients back to our soil." continued page 2



Farm Ready Off-line

The well known farmer training subsidy, Farm Ready has been so successful that it has been taken off the radar for seven months, until the 1st July 2011. The program has been fully subscribed for the 2010/ 2011 financial year. That is all of the available funds have been allocated for approved primary producers. If you have applied to complete a course, but have not attended as yet, you can still complete the course in the new year. If you were booked in to attend a course, but did not make it, you can still attend under the agreed program. In total, there have been 27,600 bookings and 17,600 farmers have attended courses in the period to date. Please contact the GBP office if you are unsure of your booking or approval. We will be running TOGG and SPN courses in the new year.

SOME OUTSTANDING READING FOR THE HOLIDAYS

**** Should Meat be on the Menu? -

David Mason-Jones

This book explains the background of carbon and the grazing industry in lamens terms—just read it.

**** Pinched or Planted? -

Susan McDonald

This book explains the background of the biggest cattle theft or mistaken theft in central Queensland's history - very intriguing

Rotational Grazing Field Day

Where - ALBENI

Springsure Qld

When - 20th January 2011

Cost - \$20.00 per person

Bookings - ph 0749383919

This was originally planned for 9th December and postponed due to very wet conditions.

BNSEasyflo makes Best Practice easy for the Bongers family

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This spring the Bongers are trialling a different approach to recycling stubble. Mr Bongers explained, "in one paddock we had autumn harvested sorghum stubble still standing. So following the biological program, in late August we sprayed the standing stubble with FungalFUEL and CalPac to feed the microbes. Then we mulched the stubble to recycle the maximum amount of nutrients back to the soil as fast as possible." He continued, "we have set up a BNSEasyflo liquid injection system on our planter for applying liquids with the seed at planting. This system allows us to apply nutrients (liquid fertiliser) and microbial foods and microbes as well as legume inoculants all in the one application at planting directly onto the seed." Mr Bongers said "we have used the liquid injection to plant Mung beans and Sorghum so far this season and we have had both time savings and cost savings."

At a recent field day held at Bongers farms, a crop of ten day old Mung beans were inspected comparing the conventional treatment with the new method. In the early stages of the crop there was no visible difference to the plants above the ground, however, "below the ground the liquid inject treated plants had double the root system and substantially more Nitrogen fixing nodes on the roots." Mr Bongers added, "there were very encouraging worm populations present in the soil as well helping to recycle nutrients." Bonger family is very pleased with the observations in the crop so far. "We will be weighing the different treatments at harvest and monitoring quality of the beans allowing us to compare the economics of different treatment programs in the current and future crops", Mr Bongers concluded.

BEST PRACTICE GROUPS MONITORING SOIL AND PLANT HEALTH

In the past year, GBP has partnered with several organisations to develop a process and protocols for benchmarking soil health and plant health. This has been a steep learning curve for many clients and staff who have improved their skills and knowledge of nutrient cycling and microbe management and analysis.

We now have a well structured website and support program which is world standard for members of the BestPrac Groups Network. The network is open to all primary producers who have completed the Technology of Growing Grass or Soil and Plant Nutrition workshops and have committed to benchmarking their resources.

All group members are assisted with best practice monitoring guides to conduct soil nutrient tests incl carbon, soil biology, plant sap tests and potentially dung analysis for grazing businesses. The program will also include water testing protocols for stock and irrigation supply. This program aims to support members in identifying constraints of their soils and plants and to develop a plan to improve productivity. Chantelle James is the Groups Coordinator and will be working with all clients to develop individual plans. If you have any queries, please call Chantelle to discuss. 0749383919.

PARTNERS IN SUSTAINABILITY

Thank-you to all our valued clients in 2010.

2010 has been an exciting year for our passionate team at GBP and we look forward to catching up early in 2011.

Some of the organisations working with Grazing BestPrac supporting the farming and grazing community include:

- * *BioNutrient Solutions*
- * *Farm Stuff, Biloela*
- * *Think Water*
- * *EAL, Lismore*
- * *Nu-tank*
- * *CIAAF, Sth Australia*
- * *The Meterman*
- * *CQUniversity*

and many more.....

We thank-you all for your support— Merry Christmas and Happy New Year. Mick and the GBP Team.



Biological farming – To lead the future:

Dr Maarten Stapper

Biological farming systems specialist Dr. Maarten Stapper (BioLogic AgFood), is advocating a change in focus from chemical farming to natural systems. Dr Stapper recently delivered a workshop at Emerald with Grazing Bestprac explaining the difference between conventional agriculture and the biological method of bringing soils back to health. He said, in the 1980's, conventional agriculture included tillage and fertilisers, while today, it is zero-tillage and more chemicals plus even more fertilisers. He said the soils of today are little more than a medium to hold the plant up. Soils are becoming dead and sterile with little activity of beneficial soil biology and this management is leading to many soil-borne and foliar diseases. With time we are finding more disease issues, more weed problems and lower production requiring more fertiliser than the previous year. Agriculture is on a downward spiral, causing farmers to

become unviable even in good years. Dr Stapper said trials worldwide have demonstrated the profit from biological farming is higher in dry years and at least equal to conventional in good seasons.

He explained, scientists are becoming so specialised that they are solving symptoms of problems as they cannot see the real problem. For example, millions of dollars are used to develop a chemical to spray a weed or pathogen, which is a symptom of the problem – unhealthy soils. This is called reductionist science and completely ignores that farmers are managing a system. Dr Stapper said the real problem is our soils are simply not healthy, due to chemical farming practices. Healthy soils have active biology and good carbon content, smell rich and hold lots of water. They respond to small rain events and do not need large licks of fertilisers or chemicals to perform. Using fertilisers has mined our carbon/ humus and so destroyed the sponge that held nutrients and water. Our soils have been mined and microbes killed, so that they cannot adapt to changing climates. The soil with active biology, a diversity of fungi, bacteria, protozoa, nematodes up to higher organisms such as ants and worms, will have the ability to adapt to changing conditions and to protect the plants from nutrient deficiency, drought and disease. The microbes are essential to cycle nutrients, such as nitrogen, phosphorous and zinc to plant roots. Dr Stapper said most fertilisers require microbes to convert mineral fertilisers, such as lime and crushed rock dust, into plant available nutrients. He continued, corporate big business (through use of pesticides, herbicides, chemical fertilisers etc) has all but destroyed agriculture within Australia.

These multi-nationals have enormous resources and are able to create experiments to demonstrate any outcome they want on a short term basis. However, very few products being released today have any long term research being carried out. Many of our best agricultural scientists specialise in these fields as this is often the only avenue for career development. And government research is supported by corporate funds, which are only given to achieve the right research outcome with a product. Dr Stapper explained, in research many scientists can design experiments to achieve a specific result. It is quite easy to design an experiment for a desired outcome.

In closing, Dr Stapper cautioned the group to accept any research which is used to market any chemical or fertiliser product, as numbers can be made to say anything. In many experiments the bad results are ignored by the manufacturer and the good ones used as the only result. In Australia, it seems much of our peer review science is simply a group of people patting themselves on the back for writing papers. It is important for farmers and graziers to conduct their own trials to demonstrate positive outcomes to themselves.

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PETER ANDREWS AND REHYDRATING AUSTRALIA.

Nearly 100 primary producers from the Western and Central Western Queensland region attended three separate one day forums and field days on climate change – titled “healthy soils, healthy pastures”, held at Blackall and Mitchell last week. The programs were run by Grazing Bestprac and funded by AWI Bestprac as well as Federal Government support from caring for our country and Farm Ready. The program sourced two of the top Non Government NRM Speakers in Australia to present the latest science and practical systems for managing the variable climate. Each forum had a practical session in the paddock to consider the application of the concepts. Producers attended from as far afield as Alpha, Charleville, Muttaborra, Longreach, Springsure, Roma, Morven and Mitchell.

The speakers included, Dr Maarten Stapper who is an ex CSIRO Senior Research scientist and farming systems agronomist as well as the iconic Mr Peter Andrews, who is famous for his redesigning the Australian landscape to rehydrate the land.

Both speakers have been well known around Australia for their time on the →

SOIL & PLANT HEALTH

Soil and plant health is an exciting new frontier which is only understood by a few specialists at the fringe of conventional science. In fact we believe this is an area of science which farmers and graziers are and will continue to lead the way ahead.



ABC TV Australian story segments in the past 2 years. The two speakers are highly sought after advocates for improving the health of the soil and pasture base as well as working on biological systems. They discussed the need to get away from the old thinking of the 1960's and to create a new paradigm for the future.

Weeds - A sign of deficiency.

In a recent tour of central Queensland, I was able to work closely with one of Australia's top biologic agricultural scientists, Dr Maarten Stapper of BioLogic AgFood. Dr Stapper is well known throughout Australia for his disagreement with the CSIRO belief that GM (Genetically Modified) organism development is the key to future world food supplies. He commented that CSIRO only went that way because there was a lot of money being handed around by multi-nationals and government had dropped agricultural research as a priority.

Dr Stapper believes this was selling out the industry for a short term gain and it may put the future of our rural industries at risk if GM becomes accepted. He explained other countries are rejecting GM after finding the enormous issues with managing GM versus non GM. He said there is a need to understand issues such as weeds which are part of this GM focus. We have GM products being developed which are able to handle chemical applications, so weeds can be sprayed in crops. That simply means more chemicals in our crops. Weeds are not the problem, they are a symptom of the soil being unhealthy as the weeds that emerge are the only organisms able to source specific nutrients. Each weed is playing a role in repairing the soil and making the system healthy. For example,

**** Stinging Nettle is a sign of calcium deficiency and**
**** Galvanised burr is a sign of low carbon and compaction in your soil.** This science is hundreds of years old and many chemical fixes are less than 2 decades old. Many of these problems can be managed by improving the organic matter on the soil and building humus in the soil.

Fifty years ago, we had high organic matter, no weed problems and no chemical use as stock grazed the weeds, while today, we have low organic matter, lots of weed problems and lots of chemicals. The new weeds are not wanted by animals as they are nature's way of repairing soil.

The most appropriate method of controlling most weeds is to find out what the limiting nutrients are and treat the soil or allow the weeds to mulch down to release the nutrients to the soil. Either way, the soil must receive the nutrients to remedy the problem. The reason we do not have research bodies trialling these practices is that nobody but the farmer can make money from the solution. There is no way a chemical manufacturer can profit from healthy soils.

By Dr Maarten Stapper.

For more information on soil and plant testing for nutrients and biology, go to the www.grazingbestprac.com.au website

NAMOI CMA - LEAD THE WAY IN CARBON AND PMP TRAINING

More than 140 farmers and graziers from the Namoi Region of New South Wales have undertaken the latest cutting edge training program available in the country. The program was developed and delivered by Grazing BestPrac and BioNutrient Solutions and funded by the Namoi CMA under the Caring For Our Country funding arrangements with the Australian Government.

The program included a three day workshop with a focus on management and sequestration of Carbon in pasture and cropping soils.

The three day program included a number of topics linking the science to practical hands on application of how we can best manage for variable climate and methods of adapting to changing climates. The focus was on improving the sequestration of Carbon, enhancing soil health and plant health and strategies to achieve healthier resources.

There is so much positive science in both farming and grazing enterprises and it is so sad that most organisations focus on the negatives. Every region has highly successful innovative farmers who are achieving sustainable outcomes.

Some of the topics included, grazing management, rotational grazing, soil and plant nutrient balancing, soil and plant testing, compost and compost tea brewing, property planning, vegetation management and the effect of water quality and soil nutrients on livestock performance.. If you would like to know more about the workshops, go to www.grazingbestprac.com.au and follow the links or phone 0749 383919. The photo below is Graeme Dunn of Attunga at the Bendemere workshop in September checking the pH of dam water.



To Find out more about the Carbon Sequestration Workshop Program being run with the Namoi CMA, go to - www.grazingbestprac.com.au