

## ORGANIC DAIRY PROGRAMME

TRANSITIONING WITH AGRISEA

# Why Organic?

Over recent years an increasing number of consumers have become concerned about the quality of the food they eat. They are more aware of the chemicals within food and the damage industrialised and manufacturing style farming systems do to the environment.

These 'ethical consumers' are willing to pay a premium for foodstuff that is certified to be of the highest quality and safety.

Consumer demand for the last 20 years has exceeded supply and the organic sector has experienced significant growth estimated to have exceeded more than NZ\$137 Billion dollars in 2015.

## What is Organic Farming?

Organic farming relies on positive management and preventative health to eliminate chemical inputs and the encouragement of natural, biological systems at all levels with a focus on soil and pasture management, to maximise the quality of food grown.

The emphasis in organic farming is to maintain animal health through preventative measures.

Organics like the majority of agricultural products is produced for overseas markets which dictate the requirements that need to be met. Dairy exports generally need to meet the United States Department of Agriculture National Organic Programme (NOP). Meat exports are generally done to the European Union Standard for organics and also to NOP standards.

To supply organic produce, New Zealand organic farmers need to be certified by either BioGro or AsureQuality. These independent organisations are audited by the Ministry for Primary Industries to ensure standards are maintained.

Both certifiers have approved inputs lists which are also certified organic. A lot of standard dairy shed cleaning products are on the certified list and there is a wide variety of organically certified PKS fertiliser products available in New Zealand.

AgriSea produces a range of certified organic products which stimulate and enhance the biological on farm process that an organic farm needs to be successful. A strong, healthy, biologically active soil is the cornerstone of an effective farming operation. Increased biological activity in the soil makes more nutrients available for plant growth and increases the water holding capacity of the soil.



## The Principals of Organic Farming

Farming systems that are now referred to as organic would have been how our farming forefathers operated before the adoption of synthetic fertilisers. Science and research worldwide supports how organic farms operate and shows how we can enhance natural systems for our own benefit. Many organic farms are at the forefront of technological research and adoption including robotic milking, genomics and innovative cropping and no-till techniques.

The key to successful organic farming is management practises and the ability to adapt to farming concepts that can be significantly different to those taught or previously used.

Learning how to make use and enhance the natural systems in a sustainable manner is a key part to the transition to certified organic farming.

Proactive management systems and attention to detail to stock health, pasture production and consumed feed will be required.

Organic farms tend to be self-contained operations due to limited numbers and limited access to external assistance like grazing and feed although there are graziers and fattening operations within the organic community.

Use of synthetic fertilisers and chemicals such as Urea and Superphosphate, weed sprays and the use of allopathic treatments (drenches etc.) are not allowed or very restricted with organic certification.

A biologically active soil can fix 750kgN/ha/yr through fixation of atmospheric nitrogen by clovers and other legumes and from free living nitrogen fixing bacteria in the soil — equivalent to 1.5t of Urea per hectare for free! Artificial nitrogen sources in excessive amounts can damage this natural cycle.

Research in New Zealand on organically certified farms show that production remains similar dependent on location, climate, breed and management.

The lower the level of external inputs and influences the easier the management change to organic farming will be. A System One dairy operation will have to make fewer changes than a System five farm.







# **Testimonials**

The farm had to transition and it took a few years – being patient is a big thing. It takes time but incrementally you see the improvements. The way the climate seems to be getting more and more extreme it's imperative to have a resilient system.

You don't know what's going to be thrown at you but you know it's going to be extreme at some point so you have to prepare for that. We have used AgriSea Animal Health Tonic for 12 years, the soil and foliar sprays for eight years and this autumn applied the new solid product.

We have found since using AgriSea products our soil test results are coming back with everything more in balance. AgriSea has been a huge part of our organic journey. The results speak for themselves – you can see how it benefits the soil and the stock. In regards to facial eczema and spore counting – prior to and during the early years of conversion to organics our spore count levels have dropped from 300-350,000 down to 15,000 this year with counts up to 500,000 in the district.

With organics it is critical to be proactive. We don't want to be fixing problems - that is really costly. Healthy soil and animals is key — we realise the benefits and recommend AgriSea products to anyone wanting to convert to organics.

With reduced empty rates and animal health costs and no facial eczema along with better soil biology it is money well spent.



#### Nick and Jo Collins

Pio Pio - dairy farming organically for 12 years





We started dairy farming organically 16 years ago and saw the benefits of using AgriSea products right from the beginning.

We view the seaweed as a balancer. Because it comes from the ocean it gets access to all the nutrients washing off the land – all of those many minor and major minerals and enzymes and amino acids and nutrients – you get the whole package in one product. We use the foliar and soil product on our pasture twice a year and the animal health tonic at all the crucial periods like leading up to mating, calving and drying off. It is important to give the cow what she needs to assist with her hormonal changes.

Two years into organics it was a really bad year for grass staggers and farmers were losing stock. Everyone in our discussion group had either none or only mild cases and the common denominator was the use of seaweed.

We like the integrity of the AgriSea. The family will not renege on their values and principals. We have great admiration for their dedication to bringing safe and nutritious products to farming people and it is also a New Zealand product providing local jobs throughout the country.

We know their dedication to sustainability. We have to look after the environment – both the land and the sea for our future generations.

We use the products on our own vegetables and feed our garden with it. We're very conscious that what goes into the soil goes through the plant and into the animals and humans.

We see AgriSea products as an essential tool in our farming operation – we wouldn't be without it now.



### Ray & Jenny Ridings – Hauraki Plains - Certified Organic since 2000





I was pretty much already farming organically as I had stopped using all nitrogen based fertilisers then transitioned on a three year Fonterra conversion, then supplied for another three years and now in my second season with the Organic Dairy Hub.
Right from the beginning I was interested in seaweed after researching it and now use all of AgriSea's products. I keep using it because I get results.

We do visual soil assessments with an AgriSea rep and monitor the improved results like increased root depth, more worms and the cow and pasture health has improved.

Other farms in the area have facial eczema problems and they find it hard to believe that I use a capful of product in a trough but we've had no signs of eczema due to the pasture health and soil health promoted by the seaweed.

It is a user friendly product and is easy to put on — these days via helicopter. The pilot said the AgriSea product was easy to apply and never blocked the jets.

I now also use the new Agrisea and Soil + product and apply this with my lime.

I have milked through the winter this year - an 18-month lactation to change my calving date to March. AgriSea products have got us through this uncharted territory to now – it has all worked out and I have heaps of grass now where others are still struggling. AgriSea are a great company to deal with, if I phone them up and require anything urgently they will get it to me.

It is all connected – when you have healthy pasture you have healthy cows.

#### **Greg Hill**

Miranda - 8th season dairy farming organically



# **Products**



## **PASTURE NUTRITION**

AgriSea Pasture Nutrition delivers an instant nutrient lift directly to your pasture. Pasture quantity & quality are key. Feed availability & quality significantly impact your overall animal health, production and profitability.





#### **SOIL NUTRITION**

AgriSea Soil Nutrition is a conditioner which will feed your biology, improve soil structure & fertility. An active and diverse soil biology ensures an ongoing feed source for your pasture and animals. Minerals and nutrients already in your soil become bio-available to your pasture.





AgriSea Animal Health Tonic provides a vast range of natural nutrients, minerals, vitamins and trace elements that are immediately bio-available to your animals. Bolster your animals immune system where nutritional deficiencies otherwise create health issues. Increasing resistance and recovery during periods of stress.



## SEAWEED PELLETS



Seaweed contains all major and minor nutrients, trace minerals, alginic acid, vitamins, tannins and natural sugars in a readily available absorbable form. The rich mineral content of seaweed makes the material very palatable to stock. This can be used as a standalone feed or mixed in with other supplements



## **BEE NUTRITION**



AgriSea's Bee Nutrition holds a wide variety of trace elements in a naturally chelated form that ensures easy and ready uptake by the Bee. The availability of amino acids also important for bees over winter are also readily available.

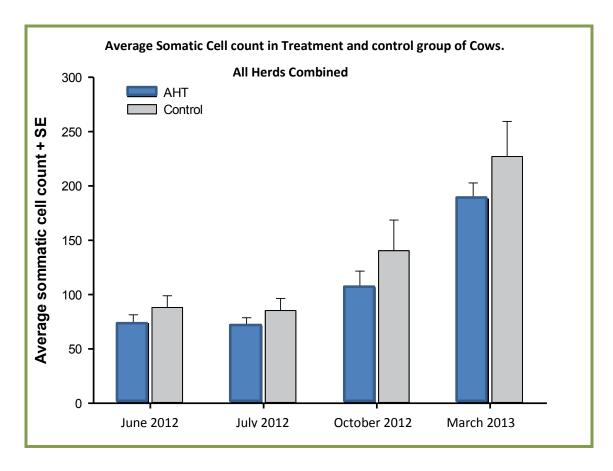


## **Research Results**

Cognosco — the research arm of Annexa Animal Health conducted research on the efficacy of AgriSea Animal Nutrition in 2012/2013. One thousand, three hundred and fifty-seven (1,357) cows were enrolled within commercial dairy herds located in the Waikato Region, New Zealand. The herds were split and half of the cows received AgriSea Animal Health Tonic — 60mls once per week by a trained technician.

## **High Somatic Cell Count Prevention - Results**

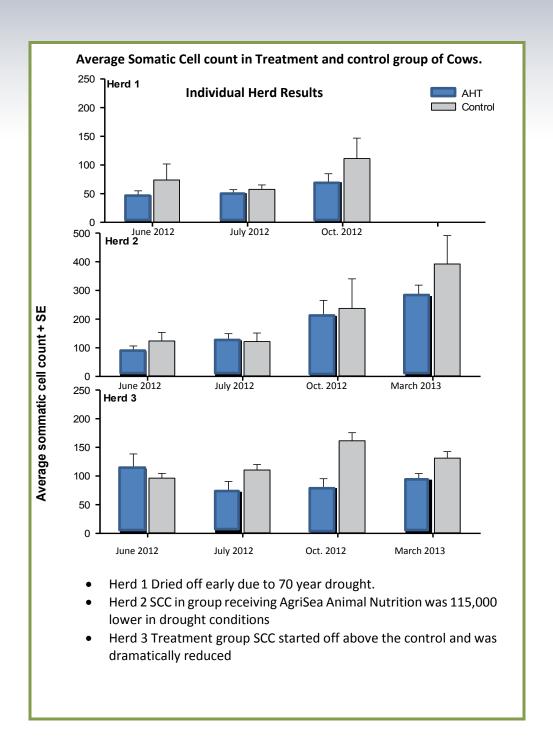
Overall the treatment group had a lower Somatic Cell count than the control group - spikes in SCC were prevented by using AgriSea Animal Nutrition. In some herds the AgriSea Animal Nutrition dramatically reduced the SCC.



#### Notes

- Due to 70 year drought, herds were under undue stress. In normal farming practices the dosage of AgriSea Animal Nutrition would have been increased over this period.
- AgriSea recommends increasing dose rates in response to mating/calving and during stress periods.

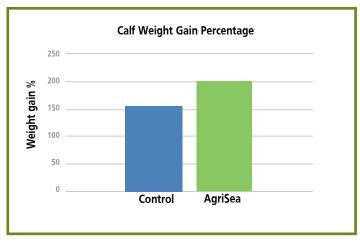




AgriSea helps increase weight gain and reduces scours

Results seen using; 20ml dose of Agrisea Animal Nutrition on arrival at the shed then 5ml per calf per day for 12 weeks.

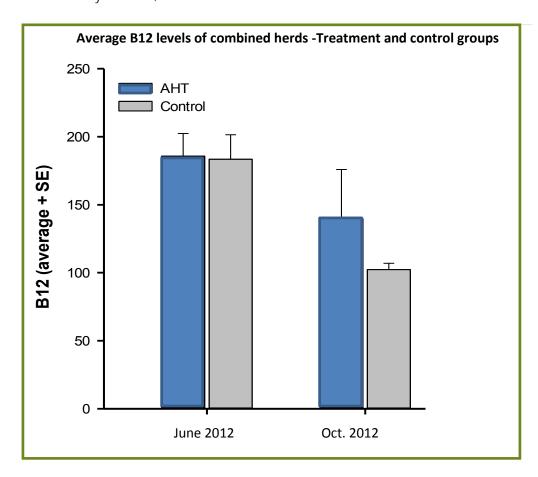
Cost per calf: \$3.52 for 12 weeks - based on a 1000L drum



# AgriSea Animal Nutrition Provides Trace Elements — Results

20 trial animals from each herd were blood & liver sampled for measurements of trace element concentrations. Significant increases were seen in both B12 and Copper levels. Positive trends were also seen in Zinc and Selenium levels of the treatment group.

The individual amount of each trace element is very small in each dose but it is very effective. For example there is 0.000384 mls of Cu in each weekly 60ml dose. It is not the amount that is important, it is the naturally balanced, bioavailable form which makes our Animal Nutrition so effective.



- B12 levels in the group receiving AgriSea Animal Nutrition was 37% higher on average than the control in October.
- B12 is important for rumen function and feed utilisation and is effected by cobalt.
- AgriSea Animal Nutrition contains most trace elements, vitamins, minerals, amino acids, long chain sugars and phytochemicals in a naturally balanced and bioavailable form.

#### **Other Results**

- Facial eczema incidence was reduced in the group using AgriSea Animal Nutrition. Due to the 70 year drought spore counts were very low. Therefore a true assessment was not possible.
- The treatment group were also found to have a slight improvement in udder cleanliness, coat condition and milk volume.

AgriSea NZ is committed to independent research and will be conducting more research with Cognosco in the near future.

# **Organic Certification**

All organic farms, whether fully certified or in the process of converting, need to be registered with an organic certification agency. These certifiers are:

#### AsureQuality (formerly AgriQuality Ltd)

AsureQuality is an internationally accredited provider of food safety and biosecurity services to the food and agricultural sector. It works with its customers to ensure what they produce meets the standards of safety, ethics and environmental sustainability.

AsureOuality's organic certification programme provides international market with **IFOAM** access 17020 accreditation, accreditation and MPI (Ministry for Primary Industries) approval as a Third Party Agency for the exports of organic product.

AsureQuality has a team of auditors nationally that are qualified to complete organic certification audits for primary producers. Information about its organic certification programme is available on its website.

For more information: www.asurequality.com, AsureQuality organic certification programme: www.organiccertification.co.nz, phone: 0508 0011 22, email: certificationservices@asurequality.com

#### **BioGro New Zealand Ltd**



BioGro has a long history with over 30 years experience since its establishment in 1983. BioGro's work is 100% focused on organics. It certifies a range of businesses including primary producers, wholesalers, retailers, importers and exporters, service providers, farm inputs, manufacturers, and producers of health and body care products and textiles.

BioGro has the accreditations to provide international market access with IFOAM accreditation, ISO 17020 and ISO17065 accreditation and MPI approval as a Third Party Agency for the exports of organic product.

BioGro has a team of auditors nationally that are qualified to complete organic certification audits for primary producers. Information about its organic certification programme is available on its website.

For more information about BioGro: www.biogro.co.nz, phone: 04 801 9741, email: info@biogro.co.nz

## **About Us**

AgriSea NZ Ltd is a multi-award winning sustainable New Zealand company, family owned and operated. The company produces Seaweed Soil, Foliar, Apiculture, Pasture and Animal Health concentrates now available in both liquid & solid form for Agriculture and Horticulture.

The New Zealand native seaweed species (ecklonia radiata) is batch-brewed with specially selected essential herbs for up to 90 days. The natural brewing process eliminates the use of processing with heat, chemicals, freezing or dehydration that might 'denature' the sensitive nutrient balance, allowing the natural growth stimulants and micro-nutrients to be released in



an active form to enhance soil and plant health. AgriSea's natural brewing methods are unique for commercial production.

Research into the benefits of seaweed has been more advanced internationally than in New Zealand, as seaweed products have been used internationally for generations. AgriSea would like to provide research that is specific to NZ seaweed. AgriSea is committed to funding ongoing research trials in NZ to establish accurate data relating to the efficacy of its products.



## **Top Customer Service**

Ours is a partnership – we're committed to assisting you to reduce production costs while maintaining high production, high yields and high profits.

We'll partner you with a highly trained Area Field Consultant along with specialist Advisors.

## **Personal Guarantee**

Our family stands behind our products. We promise to deliver high quality, effective products which will reduce your environmental footprint and add value to your farm.

For more information or for your free, no obligation soil assessment please phone your Area Field Consultant or AgriSea Customer Services on **0800 SEAWEED**.









0800 SEAWEED www.agrisea.co.nz