

Organic Toolkit



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Fonterra Organic Programme

The Fonterra Organic Programme started in 2004 with a small but very passionate group of farmers. Over the years, the Programme has grown in size. It is now made up of over 100 farmers across the North Island that together supply over 10 million kg/MS annually.

In the early years of the Programme the incentives paid to farmers were linked to the Farmgate Milk Price. This meant that the price the organic farmers received wasn't linked directly with the value of their product, rather, it was related to the conventional Global Dairy Trade prices. This resulted in huge variability in payouts while the actual prices for organics remained more stable. In 2016/17 season, the Organic Programme introduced an independent Organic Milk Price. This gave the organic farmers a milk price linked directly to the revenue from their products while still being able to deliver a return to the wider co-op.

Fonterra ensures that all relevant certifications are held to allow us to sell our organic products into most major markets. We leverage our existing supply chain to make sure we can get product to market as quickly as possible to meet customer demand.

Fonterra has made a long term commitment to organics, including a robust conversion incentive that is paid for up to three years through the farmer's conversion process. Farmers involved in the Fonterra Organics Programme are supported by our Farm Source team via the following:

- On farm advice
- Conversion support
- Certification support
- Business updates
- Farm Environment Plans
- Mentoring from fellow Organic Farmers

Fonterra Organic Famer Advisory (FOFA): FOFA was established in 2016 to provide an avenue for increased transparency. The purpose of FOFA is to provide feedback directly from Fonterra organic suppliers to the management team on issues, opportunities and improvements to the Fonterra Organic Programme while also providing assistance when growing new supply. The farmer members attend meetings with Fonterra to discuss global market business and the Organic Milk Price. They then subsequently filter information back to our organic farmers on a regional basis.

What is Organic Certification?

Consumer awareness and global demand for organic foods and ingredients has been steadily growing over the past 15 years. This has been met with a growing need to reassure consumers that organic products are truly organic. Organic certification provides a guarantee to consumers that the product has been produced according to approved organic management practices.

Organic certification provides:

- Consumer trust
- Premium price
- Market access

Organic Production Standards

Fonterra requires all converting and certified organic farms to meet a set of organic production standards on-farm. This means that the milk you produce, and the products that Fonterra manufactures, can be exported to almost all international markets in order to achieve the highest possible price.

To gain organic status, farmers are required to register with their chosen certification body. Fonterra works closely with the two registered certification bodies within New Zealand: AsureQuality Limited and BioGro NZ Limited.



Phone: 0508 00 11 22 Contact Form: asurequality.com/contact These independent organic certification bodies conduct an annual audit of all converting and certified organic producers to ensure they are complying with the requirements of the markets we are exporting to.

Organic certification is a comprehensive and ongoing process – it takes up to three years of operating within the organic production standards before our farmers are able to supply fully certified organic milk. Fonterra requires farmers to be certified against the following to ensure access to all markets we export organic products to:

- MPI OOAP MPI Official Organic Assurance Programme.
 The MPI-OOAP programme is a group of standards that are met under equivalency agreements.
 Markets that have agreed equivalency are: EU, Switzerland, Taiwan and China
- MPI OER: OPR MPI Organic Export Requirements – Organic Production Rules.
- IFOAM International Federation of Organic Agricultural Movements.
- USDA NOP United States Department of Agriculture National Organic Programme level.
- COR Canadian Organic Regime.
- Korean Organic Regulations

See the 'Organic Standards Fact Sheet' and 'International Audit Guidelines Fact Sheet' for more details around the organic standards farmers are expected to reach/meet.



Phone: 04 801 9741 Email: info@biogro.co.nz

Organic Conversion — Where do I start?

Generally, it takes up to three years for a farm converting to organic production to become fully certified to the standards required by Fonterra. Through the conversion process your pasture and livestock are evaluated separately. The typical timeframe is outlined below:

• PRE-CONVERSION

Registration with Certification Body

• YEAR 1 (CO)

Land Conversion Commences

Initial OMP Verification Audit

Conventional +\$0.45 Conversion Incentive

12-Month Audit

YEAR 2 (C1)

Animal Transition Commences

24-Month Audit

$\phi \text{ YEAR 3 (C2)}$

Conventional +\$0.45 Conversion +\$0.15 Utilisation

36-Month Audit

Organic Milk Price

During the three-year conversion period, farmers move to a different organic status each year with full organic status reached by year four. Farmers who achieve full organic certification are then audited annually. Each farm is different, and as a result, the conversion time may be reduced depending on the history of your farm, your herd and most importantly, your record keeping. Your chosen certification body will be the best source of information on the likely journey required for your farm to become fully certified.

As Fonterra increases the organic markets we sell product to, the conversion or certification requirements may change.

Pre-Conversion

The decision to convert to organics is a significant one. As such, being prepared is essential. Everyone takes a different length of time to decide when to start the transition. The following sections contain some areas to consider prior to converting to help prepare a strong foundation. Use the 'Pre-conversion' checklist and other supporting fact sheets for more information.

Conversion Journey CO-C2 (Years 1-3)

The first step in the conversion process is to register with a certification body (i.e. either AsureQuality or BioGro). When registering with a certification body, you will need to provide a thorough farm management plan (including farm maps, history of inputs and soil tests). This is referred to as an Organic Management Plan (OMP). An OMP is a pivotal document in organics which farmers review and submit each year. Organic farmers are required to demonstrate annually that they have successfully complied with the standards while also detailing any differences from the previous year or expected changes in the year ahead.

During the first year of conversion farmers are audited against their OMP to verify their management practices. Once approved, the transition into organic production begins with the utilisation of the practices outlined in the OMP. organic production utilising the practices outlilned in their OMP. Those who can show they have successfully met the standards at their annual compliance audit are accepted into the second year of conversion (C1).

The annual audit in a farmer's second year of conversion is similar to year one. Attention is paid to the progress made towards the certification milestones for each standard. A successful audit will allow the farm to move into the third and final conversion year.

Typically, farmers become eligible to meet 'Utilisation Certification' part way through their third year of conversion. Once this has been achieved, the final stage is animal conversion to meet the United States NOP and Canadian (COR) standards. Demonstrating compliance with all the standards at the annual audit will enable farms to achieve full organic status. From this point on, farmers are subsequently audited annually.

Case Study

Moxham Milk LTD

Angela and Wayne Moxham

Farm Location: Levin, Manawatu

Farm Size: 400hα

Cow Numbers: 650, Milking Across two Farms

Years in Organic Programme: Fully Certified Since 2010



Q. What were the reasons behind your decision to convert to organic production?

"The farm was initially a conventional system under Wayne's management for around 10 years (Wayne's family had been farming that way for approximately 50+ years). Initially, Wayne didn't set to go organic, however concerns with lameness and animal health opened the opportunity to consider different options. He started by researching the links between soil and animal health which in turn led him to stop using Urea and Nitrogen on farm which reduced the incidences of lameness. This, and the Fonterra Organic Milk Price, helped convinced Wayne to go fully organic."

Q. When going through the conversion process, what were a few things that you wish you knew before hand?

"Wayne had a good grasp on what needed to be done and understood the impacts of land inputs. However, paperwork was the one standout thing he wish he knew more about or had more support with. Considering the documentation challenges now vs 10+ years ago, it's safe to suggest this would still be a concern for people moving towards this type of system."

Q. Are there any quick wins/tips you would recommend when it comes to keeping records?

"We use both digital and paper recording systems. In 2019, the farm experienced a fire at the cow shed which resulted in a lot of paper records being lost. As such, developing a digital system made sense. However, we do like to keep both systems for back up reasons. At audit time, we always discuss with the auditor what could be done better to ensure we keep streamlining our process so it remains relevant for each individual year."

A key call out would be to keep things up to date and do things as you go. We also check our online platform weekly and update our inputs or add to our OMP as required.

Q. What difficulties did you encountered when making the transition to organic production? How did you overcome/solve those difficulties (i.e. were their people, resources or networks that you utilised)?

"Wayne knew what he wanted to achieve in the animal and land health space. However, at the start of conversion, there weren't a lot of people to bounce ideas off. The difference for farmers starting the conversion process now is that there appear to be a lot more open channels in terms of veterinary support, soils experts and a wider understanding amongst farmers.

"As a general rule, most challenges we have encountered have been ongoing. For example, it's taken about 10 years to re-grass in mixed species. However, we are now noticing these mixed species paddocks are regenerating more and more without needing any additions. This just goes to show that not all will be achieved by the end of the conversion process. Rather, it is important to realise that it is a lengthier process. It can take time to see the changes and improvements on farm. We have reached a stage where our cows are now relying solely on pasture."

Q. What was the biggest change/challenge you encountered when transitioning?

"Salespeople – they lack an understanding of organics and what they are trying to sell on farm. It is also important to get to know the online platform you may be working with. This will help make your work in the inputs and supplements space a lot easier."

Q. In your opinion, what are the pros of running an organic farm (e.g. from a financial and sustainability/lifestyle perspective)?

"Financial. You use less inputs which means you're not "buying your production". Furthermore, banks are also supportive of farmers that show environmental awareness. There are also fewer animal health related issues. At least this is the case on our farm but we realise this isn't alway the case.

"We are more self-sufficient in terms of supplementary feed on farm. We have a greater ability to manage our own feed.

"We find that the wellbeing of our workers, animals and farm is consistently getting better each year."

Q. Parting Comment

"We've talked a lot about the farm and the benefits, however we just wanted to cover some points around how a change to organics can impact personal/family life and experiences. We have found that our mental health is much better due to not having so much financial pressure and being prepared with organic compliances. This preparedness has in turn transferred across the farming system. For example, we are always prepared for any given season with feed, which in turn, takes the pressure off as we know our animals will always be fed."

Note: Angela is happy to connect with anyone wanting to discuss better ways to organise paperwork and prepare for audits based on her systems. Their system is a mixed digital/paper system working with the CB's online platform.



Farm Inputs and Record Keeping

One of the most important factors of organic farming is product traceability. Customers that purchase organic products want complete assurance that no chemicals - such as synthetic fertilisers or herbicides – have been used in the food chain. To be able to meet these expectations, organic farmers are required to keep very detailed records. In conjunction with completing an OMP, you will be required to keep complete/maintain records of animal health treatments and receipts of all your farm inputs. Each input requires a copy of the invoice that details the product name and the date that it was purchased to be kept. Inputs are either permitted, restricted (approved use with restrictions) or prohibited. For permitted inputs, there are additional documentation requirements (e.g. seed requires a GE free statement from the supplier). A detailed list of records you should be keeping is in the 'Record Keeping Fact Sheet'.

Certified organic inputs

Some inputs are certified for organic use. In New Zealand, most inputs are certified by BioGro or AsureQuality. Both of these companies have a list of products that they have assessed and approved which is a great starting point when it comes to selecting the right product. If you are using an organic certified product, please ensure you have a copy of the product's organic certification certificate. It is important to check that the certificate lists the exact product you are going to use, includes the markets you are certified to (or in some cases working towards) and that the expiry date is valid for the time you plan to use it. Even if a product is certified organic you still need to record it in your OMP and get approval from your chosen certification body to use it on your farm.

Three-point check for organic inputs:

- Certificate
- Lists the correct product
- Is it valid?

Farm inputs without organic certification

There are some inputs that can be used in organics that may not have an organic certification status. If you want to use a product that hasn't been listed in your OMP during the year, it is necessary to contact your organic certification body for approval in writing prior to use.

Input approval process: To gain permission to use non-certified organic products, you first must obtain a product ingredient sheet from the supplier such as a Material Safety Data Sheet (MSDS). Your organic certification body requires this information to determine if you can use the product in organic farming. Detailing the product in your OMP allows the certification body to approve these at the time of your audit for the next 12 months – provided you have the appropriate records as outlined above. Alternatively, an application for an input approval can be made at any time by working with your certification body directly to gain approval before using the input on-farm.

Important to note:

Do not apply or use any products without having first gained approval from your organic certification body either:

- At the time of your annual audit OR
- By making an individual application for a certain product during the year.

Additionally, make sure you have all the necessary documentation – do not apply the product if the supplier has not yet provided the correct paperwork even if they say it is OK.

If you apply a product that is not compliant you are jeopardising your organic status and the organic status of any product the programme manufactures with your milk. The use of a non compliant product either intentionally or by accident can result in you losing your organic status indefinitely.

Audits - What to expect

The auditing process requires time and preparation, its an opportunity for your auditor to become familiar with you and your farming operation.

Although no two audits are the same (due to individual circumstances), it's recommended that you set aside at least half a day to ensure you get the most out of the visit.

To simplify and make your audit day run as efficiently as possible, it is a good idea to prepare the following paperwork in advance:

- Your completed OMP and/or supporting evidence.
- Property maps (including boundaries between organic and non-organic land).
- Test results.
- Product information.

The auditor will also want to have a tour around your property to ensure the information you have submitted in your written documents accurately represents the physical land features and appropriately describes their management.

Farm Biodiversity

Fundamental organic principles

- Organic farming works to maintain and improve the quality of the ecosystem in which the farm operates.
- Organic agriculture develops viable and sustainable agro-ecosystems by working compatibly with natural living systems and cycles.
- Organic management encourages practices based on a knowledge of natural systems. This in turn reduces the need for synthetic inputs.

What is the auditor is looking for?

The auditor will want to see that you have an awareness of the resources on your property and that these are detailed on your farm map. They will expect to see you maintain and improve the resources on your property via your OMP.

Land exemptions – from organic status

In dairy, the product which holds the organic certification status off the farm is 'milk'. Therefore, any part of the farm that could be considered a contributing factor must be managed under the organic production standards (i.e. pastures and cows). However, there are areas of the farm that can be exempt from organic status. In these areas you are able to use non- organic products providing you effectively manage any risks between the exempt area and farm boundary.

House/Sections: On your farm map, house sections for example can be zoned out from organic certification by indicating the boundaries on your map.

Tree Plantings: Areas fenced off for plantings or waterways may also be exempt at the discretion of your organic certification body (these will also need to be included on your map). This can be useful when establishing trees that are typically vulnerable to weed invasion. You need to be aware that this area will not have organic status and therefore cannot be grazed by stock. However, there is the possibility that it could be brought back into the organic system if a three-year conversion is completed.

Woody Weeds: Marginally productive country that has a significant woody weed (e.g. gorse) problem can be retired from organic production. It could then be managed in a similar fashion to tree plantings (discussed above) and returned to organic status over time. Alternatively, this area could be grazed by nonorganic animals such as sheep, or beef cows depending on the size of the area.

Quarantine area: It is a requirement to have a designated quarantine area so that animals treated with substances prohibited in organics or non-organic stock brought onto the property can be isolated. Generally, stock will be required to be quarantined for 48 hours before they can graze the organic land. For specific rules about quarantine areas contact your organic certification body.

Note: Prohibited substances such as chemical sprays cannot be stored on organic land.

Pasture Management

Fundamental organic principles

In organic farming, pasture provides stock a full and balanced diet with a complete range of minerals, proteins, sugars, and fibre. Organic farmers are encouraged to consider:

- Increasing the range of species present in pastures.
- Maintaining appropriate stocking rates and pasture rotations to preserve pasture quality and optimise pasture growth.

Herbal leys (grass groundcovers made up of various grasses and herbs) are often used in organic farming. A general-purpose ley can include perennial ryegrass, clovers (white and/or red), plantain, chicory and other grass species such as cocksfoot or timothy.

TIP: A key requirement is to always make sure any seed supplied has a Non-GMO certificate and is bare. No seed treatment or coating can be used in an organic pasture system.

What is the auditor is looking for?

The auditor will want to see that you are achieving an adequate pasture cover to maintain the animal nutritional requirements at your current stocking rate (i.e. that you have good pasture covers and your stock meets target industry weights). Achieving an adequate stocking rate for your property has the added benefit of decreasing the need for sourcing external supplements. Additionally, the auditor will verify via certificates that purchased seeds meet organic criteria (i.e. bare seeds with Non-GMO status).

Establishing a pasture with a diverse range of species

Plant species uptake minerals in different ratios. Therefore, increasing the number of plant species in pasture will expand the range of minerals available for animal health. In particular, deep rooting herbal species such as plantain and chicory are recommended. In addition to their animal health benefits, plantain and chicory also have deep root structures which support good soil structure and enable them to access soil moisture in dry conditions when the growth of grass and clover species is typically compromised.

Each plant species has a particular 'niche'- an ideal set of conditions in which it thrives. Increasing the number of species in the pasture can increase pasture resilience by providing more opportunity to maintain growth throughout the season. An overlap in niches of plants in a diverse pasture increases the likelihood of a species being present that will tolerate or even thrive in a given set of conditions.

Achieving a closed sward makes it more difficult for weed species to establish (which can be difficult to manage in an organic system). Having multiple species present helps ensure there's always something growing. This in turn maintains ground cover which helps minimise weed establishment/growth.

See the 'Pasture Fact Sheet' for additional information.

Water Management

Fundamental organic principles

Organic farming uses techniques that conserve water resources. Common examples include:

- Increasing the organic matter content of the soil (regenerative grazing and/or compost applications) which enables more water to be held in the soil profile.
- Optimal timing of cultivation and cultivation practices.
- Applying water and inputs in a way that does not pollute surface water via run-off or ground water via leaching. This is achieved through effluent utilisation and appropriate practice design/scheduling.
- Effluent is managed to promote nutrient uptake by pasture and is spread over as large an area as possible to reduce nutrient loading.
- Designing systems that use water resources responsibly and in a manner appropriate to local climate and geography.

Case Study

Q. What were the reasons behind your decision to convert to organic production?

"The primary reason behind the decision to convert to organics was to future proof the farm."

Q. When going through the conversion process, what were a few things that you wish you knew before hand?

"Timeframes. It would have been beneficial to have a better idea of the specific timeframes for conversion for areas like animal and land."

Q. Are there any quick wins/tips you would recommend when it comes to keeping records?

"Simply write down/record everything as it happens so you have a detailed/complete record of what's happening on farm."

Q. What was the biggest change/challenge you encountered when transitioning?

"Getting into the right headspace/adapting to organics. Obviously organics is not the same as conventional and as such, appreciating and adapting to the differences can be challenging."

Q. What difficulties did you encounter when making the transition to organic production? How did you overcome/solve those difficulties (i.e. were there people, resources, or networks that you utilised)?

"Finding relevant information and help was one of the difficulties we encountered when making the transition. In the end, the best resource to help overcome knowledge gaps was other farmers."

Q. In your opinion, what are the pros of running an organic farm (e.g. from a financial and sustainability/lifestyle perspective)?

"Being able to proactively tick all of the environmental "boxes" that are being enforced"

"Having healthy animals and soils"

"Obtaining a good payout"

"Less stress on staff, animals and soils"

JW & HS Robinson Partnership

Farm Location: Manawatu

Farm Size: 140ha Milking Platform, 40ha Runoff

Cow Numbers: **300**

Years in Organic Programme: Fully Certified Since 2018



What is the auditor is looking for?

Your OMP must detail how you anticipate, address and mitigate the effect of practices on water resources including, but not limited to, the application of effluent, stocking densities and the application of fertilisers and soil conditioners. Additionally, the auditor will want to see that you:

- Have identified the key water resources on your property (e.g. rivers/stream, drains, lakes, and wetlands) and that you have protected them from contamination from grazing stock.
- Have identified the water source and recorded any water treatments undertaken.
- Monitor the quality of the water for stock and dairy shed use to ensure it does not contain anything harmful or prohibited.
- Take measures to actively conserve water.
- Keep accurate records showing the area that effluent is applied daily as well as the average application rates (this could be on a farm map or recorded in your farm Dairy Diary).

Soil Fertility and Management

Fundamental organic principles

Organic farming recognises that maintaining soil health is vital to achieve optimal pasture growth and animal health. The aim should be to improve the organic matter content and achieve good soil structure. Key benefits include improving aeration, drainage, water holding capacity, plant root penetration and providing an optimal environment for soil biology.

Factors to consider as part of soil management and fertility:

- Organic farming fertiliser practices maintain or increase soil organic matter to conserve or increase topsoil.
- Farming practices minimise the loss of topsoil through minimal tillage, contour ploughing, crop selection and soil plant cover maintenance.
- Soil fertility is managed by pasture species management. This includes the cultivation of legumes, green manures and deep rooting plants in appropriate rotations.

- Biodegradable, microbial plant and/or animal material produced from organic practices should form the basis of the fertility programme.
- Permitted brought-in fertilisers should be regarded as only one component of the nutrient system, and as a supplement to, and not a replacement for nutrient cycling.
- Nutrient inputs are managed in a manner that does not contribute to the contamination of crops, soil or water by nutrient leaching and/or runoff.
- Grazing management seeks to prevent soil erosion, compaction, pugging and other forms of soil degradation.

See the 'Fertilisers Fact Sheet' for more information on selecting the right sources of nutrient for your farm.

What is the auditor is looking for?

- Evidence that the different soil types on the property have been identified. Furthermore, the auditor will be wanting to see that the soil characteristics are known and taken into consideration.
- Areas of steep slope are managed to avoid erosion.
- Regular soil monitoring is undertaken.
- Evidence that the fertiliser programme is based on your soil test recommendations (i.e. the application of nutrients is based on deficiencies or issues identified through a robust monitoring and planning system).
- Records of all of your fertiliser inputs (including invoices and organic product certificates (where applicable)). Assessing the compliance of fertiliser inputs is a large part of the audit.
- Soil types or specific areas that are vulnerable to structural damage (e.g. pugging or compaction) have been identified and a plan has been put in place to minimise the impacts of grazing stock and/or machinery.

TIP: Organic certification bodies may request copies of soil and/or herbage test results before approving soil input applications for fertiliser and soil conditioners.

Use of Supplementary Feeds

Fundamental organic principles

- To provide animals with feed that is of good quality, meets all their nutritional needs and allows them to exhibit their natural feeding and digestive behaviour.
- A balanced nutritional diet is also part of a successful animal health prevention management program as it maximises the health of animals, which in turn, helps increase natural resistance to disease.

There are particular rules relating to the status of feed that cows can receive during the conversion stages. Organic farming requires farmers to be well prepared when it comes to sourcing feed. In the final year of conversion (C2), you must ensure all of your stock are fed either on fully certified organic feed or on pasture from your own land transitioning to organics. Land must also be in its last year of conversion (C2).

A key consideration is harvesting surplus pasture on-farm to make your own supplementary feed. When transitioning from C1 to C2 and C2 to full organic certification, supplements that have been made on-farm cannot be carried across these organic status milestones. In other words, harvested supplementary feed must be fed within the same conversion period. This restriction is important to consider when deciding when to begin your conversion process. As a general rule, the best time of year to start the conversion to organics is in Spring (i.e. September to November), when pasture growth is typically fastest, and you are more likely to be harvesting surplus pasture. This will give you the majority of the season in which to feed it out. Additionally, you may be able to feed out anything remaining at the end of the season to other (non-organic) animals in an exclusion zone on your property. Alternatively, surplus supplementary feed can be sold to another farmer – either a conventional farmer or to anyone converting to organic farming at an earlier stage of conversion than you.

		C	AN BE FED ON		
IF HARVESTED		CO	C1	C2	Certified Organic
	CO	Yes	Yes	No	No
	C1	Yes	Yes	No	No
	C2	Yes	Yes	Yes	No
	Certified Organic	Yes	Yes	Yes	Yes

- Supplement made in the C1 year cannot be fed in the C2 year.
- Supplement made in the C2 year cannot be fed when full organic status is achieved.
- When in the first two years of conversion (CO and C1), there is the option to buy in and feed a percentage of conventional (non-organic) feed. This however will need to be fed on a hard surface (e.g. a feed pad) and not in the paddock. The percentage will need to be confirmed and approved with your organic certification body prior to use.
- When in the last year of conversion (C2), any feed purchased will need to be fully organic (i.e. NOP status) as your animals will be converting to NOP at this stage. All feed grown within your farming system is fine to feed throughout the year.

Feed budgeting

Completing an annual feed budget is critical in organic farming. Like conventional farming, it is advisable in organics to keep enough supplementary feed on hand for the worst-case scenarios. However, it is even more important for organics due to potential difficulties you may encounter in sourcing the appropriate organic feed (i.e. limited to feed at the same or higher stage of conversion).

Note - your OMP requires you to document risk mitigation plans for potential shortages of feed. Although some scopes allow dispensation in extreme circumstances, it is important to communicate with you certification body to ensure all your market approvals are met, for example USDA NOP animals are fed in line with USDA NOP rules.

What is the auditor is looking for?

Records that show the supplementary feed sources utilised for all organic animals. For example, an auditor will want to see stock movement records if stock have left the farm, feed budgets and a record of supplements purchased/made. The auditor will verify that animals are able to graze freely. This isn't such an issue in New Zealand where animals are not routinely housed. However, cows should have regular daily access to pasture or crops in situ.

Fonterra Organics uses a 365 days access to pasture claim within our marketing documents. This refers to cows having time to graze on pasture each day.

Animal Health Management

Fundamental organic principles

Organic animal health management is based on planned prevention rather than the treatment of illness/disease symptoms. Management principles include:

- Selection of appropriate breeds resistant to diseases, parasites and infections.
- Use of preventative health programmes such as vaccination and regular/routine health assessments (e.g. Body Condition Scoring, mineral assessments, mobility scoring, Udder Health Scoring etc.)
- Training farm staff in preventative herd health and early identification/intervention.
- Provision of high-quality feed.
- Appropriate stocking rates, grazing rotation and management.

What is the auditor is looking for?

An auditor will look to verify that a comprehensive 'animal health management plan' is in place that focuses on preventive measures. Additionally, they will want to see that there is a long-term genetic selection strategy towards animals that are better suited to organic farming.

See the 'Animal Fact Sheet' for more information on animal health management.

Work alongside your vet to review your herd health records and build an Animal Wellbeing Plan that contains preventative health programmes that can include vaccination, parasite control, udder health, mobility and mineral support.

Animal health and welfare takes priority, like it does on any farm. The use of conventional treatment is at times necessary, though it may impact on the animal's organic status.

Calf Rearing/Management

Fundamental organic principles

The organic principles outlined in the "Animal Health Management" and the "Use of Supplementary Feeds" sections of this manual also apply to rearing calves.

What is the auditor is looking for?

- Calves are reared in a manner that mirrors natural processes and that they are provided with all of the necessary resources required to grow to their full genetic potential.
- That the calves are reared on whole milk for a minimum period of 12 weeks.
- Calf health is managed in a preventative manner through the use of natural products that support their immune system.

From 1 June 2023, Fonterra farmers must ensure all their non-replacement calves enter a value stream. Your calf management strategy should align to Fonterra's non-replacement calf strategy with no onfarm euthanasia other than for humane reasons or if the calves are not able to be raised on-farm and they are not able to be sold to a third party and/or there is no third-party processing option available.

Contract Requirements

Contracted Fonterra organic farmers must meet all the standard terms and conditions of supply under the current Fonterra 'Terms of Supply'. Fonterra organic farmers must also meet additional requirements which are specified in their 'Organic Milk Supply Agreement'. These key additional operational requirements are outlined below:

Additional Specifications: Farmers must comply with additional specifications for quality requirements.

Audits: Farmers must co-operate fully for audits (both domestic and international).

Certification Body: A change of your chosen certification body requires at least four weeks' written notice to Fonterra.

Certification Status: Any change of your certification status (e.g. new certification milestones, stand downs or requests to withdraw) must be notified to Fonterra immediately.

Notification/Issue: If there is ever any issue (potential or real) on your farm that could put your organic certification at risk, you must notify your Fonterra Organics Team immediately.

Organic Vat Stickers: All certified organic suppliers must display the applicable certification market vat sticker above their vat outlet, in clear view for the tanker collection.

Farms meeting the utilisation conditions must also display a blue local market organic milk sticker.

Fully Certified farms must display the green Organic sticker. If you need a new sticker, just call or email the Specialty Milks Team.

Vat Storage: You must have vat capacity to allow skip day collection, as it helps to maximise our collection efficiencies. To meet customer demands, your milk may be collected daily for short periods of time. This is to ensure we maintain the regulations linked to some products we manufacture for export.

Our On Farm Assets team can work with you on the best way to achieve this on your farm.

Case Study

Swiss Bell Trust

Peter & Yvonne Arnold

Farm Location: South Taranaki

Farm Size: **57ha Milking Platform, 28ha Runoff**

Cow Numbers: 175 (Plus Youngstock)

Years in Organic Programme: Currently Converting, fully certified during the 22/23 season

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Q. What were the reasons behind your decision to convert to organic production?

"We were always low input farmers that questioned the high use of urea and palm kernel. However, we never thought we were going to farm organic. It was the organic payout that initially got us interested. We then realised that for our small dairy farm, it made more sense to chase a premium rather than push for more production."

Q. When going through the conversion process, what were a few things that you wish you knew before hand?

"As a matter of fact, we wished we had converted a few years earlier. After we got started and had our first audit, we realised it was not that hard to do. But again, being a low input farm to start also meant less paperwork."

Q. Are there any quick wins/tips you would recommend when it comes to keeping records?

"We keep digital records through AsureQuality's My Organics. Currently, we have just one laptop for private, family and farm use. However, we are going to invest in a new device for organics only. We feel it will be quick and easy to find things if there is nothing else on the device. Additionally, we always save and make back up copies of our records."

Q. What difficulties did you encountered when making the transition to organic production? How did you overcome/solve those difficulties (i.e. were there people, resources, or networks that you utilised)?

"We really struggled to get started with the paperwork. When we first started, AsureQuality still had the old system and we printed out a lot of forms and didn't know where to start. In the end, we hired a person who knew the system. She ended up spending a day on-farm and by nightfall, we had most of the information ready to submit."

"When it comes to getting answers to questions, attending organic discussion groups like the ones hosted by DairyNZ and OrganicAg and talking to other farmers is usually best. However, there is also a lot of good information available on the internet."

Q. What was the biggest change/challenge you encountered when transitioning?

"We initially struggled with our young stock. In the first winter we lost a few. As such, we started to feed milk 'ad lib' for the first 5 weeks to get them heavier at weaning. In addition to this, we also gave them more supplements."

"Somatic cell count has also been a bit of a challenge as it is higher compared to when we were conventional"

Q. In your opinion, what are the pros of running an organic farm (e.g. from a financial and sustainability/lifestyle perspective)?

"The biggest pro for us is that our thinking has changed. We think now the organic, sustainable, more environmentally friendly way. We're definitely more open minded and think we have a great future ahead; and of course, the likelihood of a higher payout helps."



Case Study

Q. What were the reasons behind your decision to convert to organic production?

"We didn't really start off with the idea of going Organics in mind. We initially were interested in regenerative agriculture after listening to a number of speakers at various seminars, such as Dr Christine Jones and Nicole Masters. The more we learned the more we realised we were essentially

Ivo Farms Limited

Darryl & Debbie Coleman

Farm Location: Manawatu

Farm Size: 245ha Milking Platform, 100ha Continuous Runoff

Cow Numbers: 500

Years in Organic Programme: Currently Converting, will be fully certified during the 2022/2023 season

farming in an organic fashion. As such, we decided to go down the organic route with the idea that we wanted to start working with nature and wanted to be proactive rather than reactive, which is something we are passionate about and find rewarding."

Q. When going through the conversion process, what were a few things that you wish you knew before hand?

"Lack of information. We wish we knew more about the whole process before starting. In the initial stages, the process felt impossible due to the fact that you have to give away tools and techniques you're used to relying on, whether it's certain types of feed or animal health remedies. Everything can seem hard, which means a leap of faith is required. In many ways, there was a vacuum of information in the process. Having to find the information yourself is a bit like jumping in the deep end. We found that while attending organic discussion groups helped us understand some of the general concepts and ideas, we needed detailed information on the conversion strategies specific to our own farm."

"In the end, working with a specialised soil consultant, who had a detailed knowledge of organic compliance and the conversion process, was a great help as was reading books. I suppose to put it simply, the lack of information around conversion could be a barrier to entry for some."

"We also wish we chose a different time to begin conversion due to the impact conversion dates/milestones can have on the classification of supplementary feed, like when feed can and cannot be fed to stock based on the stage of conversion. This in turn meant we had to hold off on silage production to ensure it had the correct classification. This is again where knowledge in relation to the conversion timeline is so important."

"In hindsight, it would have been nice to have more of a heads up on the requirements for record keeping pre-audit. Additionally, we wish we had a better idea of what the audits themselves would entail prior and what we needed to have on hand."

Q. Are there any quick wins/tips you would recommend when it comes to keeping records?

"We are accountants by trade, so we are pretty diligent record keepers. For all paper documents, like invoices, we store them in folders in chronological order. For all our seed applications and supplementary feed production, we use a map driven software tool called 'Feildmargin'. It's really simple to use and it easily records proof of placement for our seed and is perfect for recording when we harvested silage. However, we still like to keep physical records in a book as it is easy to stand back and view/calculate things at a glance which is something we do for our grazing plans. We can have a simple row, column and highlighter set up which allows us to quickly recognise patterns."

"Getting an early understanding of the Input Approval process that your Organic Certifier uses reduces the anxiety around what you can or can't use. Adopting the habit of getting prior approval for anything you intend to use on the farm, via their input approval system, eliminates the risk of using non-compliant inputs."

Q. What difficulties did you encountered when making the transition to organic production? How did you overcome/solve those difficulties (i.e. were there people, resources, or networks that you utilised)?

"Considering we are still in the conversion phase, for obvious reasons, the problems are still very fresh in mind. The main issue is pretty much a lack of information. We've managed to address that problem via a number of sources including books, consultants and specialised soil and animal health businesses."

Q. What was the biggest change/challenge you encountered when transitioning?

Darryl said "As previously mentioned, there are a number of challenges that stick out:

- Lack of information and support.
- Matching the timing of supplementary feed production and the conversion timeline.
- Waiting for our soils to recover and adapt to an organic system.
- Understanding that organic animal health treatments are not a quick fix and that a proactive approach is best. Additionally, dealing with the unknown with regards to animal health. For example, we didn't know what to do if mastitis became a problem. Would we need to keep more replacements to compensate etc? In the early stages you simply don't know what you don't know.
- In the end, doing away with intramammary antibiotics and dry cow wasn't that hard. If we found a cow that was clinical for mastitis, we could treat her with homeopathics (yes, they do work), leave her in the milking herd, put a bucket on her for maybe one or two milkings and, as long as the BSCC wasn't too high and the clots disappeared, she went back into the vat very quickly, with minimal lost milk. The worry of antibiotic milk getting into the vat was gone. We also found that feeding calves as nature intended, with more milk, doing away with meal, focusing on developing the rumen with hay, and higher grazing residuals to avoid worms, does work. At weaning the calves were stronger, bigger, and more able to cope with health challenges.

Q. In your opinion, what are the pros of running an organic farm (e.g. from a financial and sustainability/lifestyle perspective)?

"For us, we get satisfaction knowing that we are helping heal the world through improving the health of our soil, producing healthier food and farming in a more natural way. We no longer worry about antibiotics and feel better about caring for our animals naturally. At the end of the day, we're happier working in harmony with the environment and take pride in being organic."

Milk Price

In June 2016, following requests from the Fonterra organic farmers, Fonterra moved to the market-linked Organic Milk Price payment schedule. This approach was supported by the Fonterra Management Team and approved by the Co-operative Relations Committee and The Board.

This pricing system reflects a sharing of the rewards and risks, by both the Fonterra organic farmers and the wider Co-operative.

Organic Milk Price Breakdown

The Fonterra Organic Milk Price is derived from the following equation:

NET SALES VALUE

-

COST OF GOOD SOLD



ORGANIC MILK CHARGE

=

FONTERRA ORGANIC MILK PRICE

Net Sales Value

Net Sales Value is made up of Customer Sales Revenue less Shipping and In-Market Distribution Costs. It is converted to NZD at the Fonterra hedged exchange rate and covers both Global Ingredients Sales and Consumer Sales.

- Exchange Rate: Global sales are predominately contracted in USD. As such, the USD:NZD exchange rate has a direct impact on our NZD revenue and the milk price. Fonterra operates it's very own hedging program to minimise the impact of exchange rate fluctuations on our revenue and milk price. Our organic programme uses the same hedging program as conventional.
- Shipping, Distribution and Tax: Distribution costs
 vary year to year but are generally higher for organic
 products because of the higher proportion of consumer
 products (e.g. Anchor and Mainland), which typically
 have smaller volumes and longer supply chains.
 Fortunately, Fonterra's partnership with SilverFern
 Farms (Kotahi) helps to improve the efficiency of our
 supply chain and reduce our shipping costs.

Import taxes also impact our ability to compete with local producers in certain markets. For example, in the USA, we pay a 12% duty on cheddar imports.



Cost of Goods Sold

Cost of Goods Sold is made up of the costs associated with milk collection/processing and utilisation

 Milk Collection/Processing: Organic farms are more spread out and typically smaller than conventional operations. As such, tankers must visit more farms to fill up. This, along with the fact that almost all organic milk gets transported to the Waikato for processing, means that milk collection costs are generally higher for organic milk. Manufacturing/processing costs are also higher for organic milk due to the smaller volumes, shorter production runs and therefore more frequent washes and plan downtime. Additionally, there are higher

production costs for consumer products (e.g. Anchor and Mainland) compared to bulk ingredients.

• Utilisation: This is a measure of how much organic milk is processed as organic vs being combined with and processed as conventional milk. When milk volumes are too small to fill out plants (as is commonly the case in late May to early August), any milk that can't be used in local liquid milk sales or UHT is combined with and processed as conventional milk.

Organic Milk Charge

After deducting shipping, distribution and tax, 20% of the revenue is returned to the Co-operative as the Organic Milk Charge. This '20%' is essentially a gross margin which covers multiple purposes:

- Contributes to cost of centralised resources and organic shares: Sharing our Cooperative's centralised resources is significantly more efficient and cost effective than creating dedicated organic sales, marketing, finance, Food Safety and Quality, regulatory and operations, IT, HR, Farm Source teams etc. The costs associated with these activities are not included in our direct product costing and are therefore funded through the Organic Milk Charge (similar elements exist in the conventional Farmgate Milk Price as well).
- Enables dedicated sales and marketing teams to drive high value organic demand: Given the complex nature and specialised knowledge required to market and sell our organic products, we maintain a small team specifically focused on building demand for our organic range.
- Funds on farm support, regulations, R&D, etc.
- **Provides a return on investment for shared assets and resources utilised:** Once again, a similar element exists in the conventional Farm gate Milk Price model.

With any payment structure there are rewards and risks. The table below shares some insight into these areas that were assessed at the time of implementing the Organic Milk Price.

REWARDS	RISKS		
FARM	FARM		
Long term commitment to programme.Market-Linked payment.Uncapped growth in your own supply.	 Non-certified milk entering the supply chain. 		
PROCESSING	PROCESSING		
Leverage of scale and capability.Product mix optimisation.	Utilisation.Food safety and quality.		
MARKET	MARKET		
New product development.Fonterra brand.Global reach.	 Price volatility. Exchange rate volatility. Regulatory changes. Demand fluctuations. 		



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