



FIL

THE DAIRY FARMER

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FARM INNOVATION / HYGIENE/ ANIMAL HEALTH / MARKERS / NUTRITION

MAKING YOUR JOB EASIER

WINTER 2011

A combination of global scale and pastoral smarts is proving the combination of two great companies can be made even better, following GEA Farm Technologies (GEA FT) acquisition of Tauranga based FIL in September 2010.

DAIRY GAINS FROM ACQUISITION



MEETING AT THE FIL HEAD OFFICE (FROM LEFT) GREG MILLS MANAGING DIRECTOR, TREVOR GULLIVER NATIONAL SALES MANAGER, DAVID ERU OPERATIONS MANAGER

Nine months into the union both companies are enjoying the benefits of sharing a broad range of skills and knowledge that promises to improve the services and products they offer farmers, both here and abroad.

Managing Director Greg Mills, says the assessment of FIL's 'fit' into the GEA FT business with its agribusiness portfolio has proven to be very accurate, with all aspects of its products, people and potential proving true.

Greg says GEA FT enjoys a strong Northern Hemisphere presence in dairying where the emphasis in those markets is on confinement management of dairy cows. Investment in FIL represents a stake in the southern side of the dairying equator where by far the majority of cows are run in a pastoral system, requiring significantly different technologies and approaches.

"FIL enjoys strong ties with those other pastoral dairying focused countries, including those in South America. This is thanks in part to the role Kiwis have played in bringing pastoral dairying skills and technologies to that continent in particular," he says.

Here in New Zealand FIL has developed strong links within the industry, including working closely with QCONZ to advance the knowledge and training in dairy hygiene among farm staff.

Greg believes GEA FT's reputation for extensive R & D investment will add further horsepower to FIL's own efforts in product development.

"While not so well known here, GEA FT has already established a strong global reputation for its dairy detergent and teat care products."

"There are some smart products we can see transferring here to New Zealand that will really establish new benchmarks for hygiene and animal health."

FIL is a company that has taken a very customer focused approach to developing new products, often basing its new product development brief directly from an idea expressed by a farmer client. A typical example of that is FIL's ground breaking tail paint applicator bottle that completely revolutionised how farmers applied tail paint over spring time.

GEA FT is best known in New Zealand for the WestfaliaSurge milking equipment products. The cutting edge technology and quality engineering behind WestfaliaSurge products have been part of the dairying landscape here for almost 20 years.

Greg says investing in FIL is already delivering benefits to GEA FT from the company's skills, expertise and innovative history and also represents a vote of confidence in the New Zealand dairy industry.

"New Zealand is one of the few countries in the world where dairying has expanded year on year, and we expect to see that growth continue, and our investment into the market along with it."

Greg brings a very hands on perspective as MD, with himself and wife Kathy owning and living on a 190 cow dairy farm at Tahuna, north-eastern Waikato.

He spent almost a decade as a Consulting Officer for the old Dairy Board before working as a business development manager for National Bank Rural Banking. Greg is ably supported by some 'old hands' from FIL, including ex farmer Trevor Gulliver who has been with the company for 20 years and presently fills the role of National Sales Manager. Meantime, David Eru keeps the products rolling out of FIL's factory, overseeing production and planning and is highly experienced with a strong background in dairy processing.

"There is a great combination of skills and with such a new production plant with plenty of potential to ramp up our product line, making the most of the talent we already have here," says Greg.

WHAT'S INSIDE:

Farming futures inspired by insights to success

Final days for FIL CASH PRIZE DRAW!

Fund starts southern buy up

Effluent business promises robust technology



Farming to Succeed



FARMING FUTURES INSPIRED BY INSIGHTS TO SUCCESS

SOME OF AGRICULTURE’S UP AND COMING YOUNG RURAL WORKERS HAD THE OPPORTUNITY TO FIND OUT HOW TO EMULATE THE SUCCESS OF THOSE WHO HAD TAKEN RISKS, PUT IN THE HARD WORK AND SET FIRM GOALS ON THIS YEAR’S FARMING TO SUCCEED (FTS) COURSE.

FIL is the key sponsor for the Agriculture ITO (AgITO) initiative. The second year of the five day course again delivered an enlightening and motivating insight to those selected on agricultural success stories.

Two groups from the North and South Islands spent five days on the road visiting leaders within the agri-business industry headed by Waikato farmer, businessman and motivator Grant Taylor.

The North Island group spent their five days visiting both processors and producers around the central North Island.

The trip included a visit to a dairy goat operation owned by equity partners John Fransen and Stanley Wilson near Morrinsville. A Bay of Plenty visit to motivated dairy operators Andrew and Jenny Natusch who also have interests in kiwifruit highlighted how different land uses can come under single ownership.

They were also given an insight to some of the far sighted design technology behind WestfaliaSurge milking plant while visiting the property of Gary Reymer near Cambridge. Gary was the first New Zealand farmer to install a computerised WestfaliaSurge plant 18 years ago. Today he continues to milk 300 cows with the same plant. In-shed monitors give milk flow, duration, volumes and conductivity readings, with the real analysis value coming through WestfaliaSurge’s DairyPlan programme.

The young farmers also had the opportunity to better understand the skills and investment involved in adding value to their produce. This included a visit to AFFCO’s Horotiu plant and down the road to Fonterra’s Te Rapa factory.

The group visited FIL’s head office and factory at Mount Maunganui. Here company co-founder Arthur Jordan gave some insights on building a successful business from scratch.

The equivalent group in the South Island also visited FIL’s base at Timaru. Being in the heart of large scale dairying country also meant they got to visit the massive Rakaia Island operation owned by the Turner Brothers, along with Aaron and Frances Cole’s dairy operation in South Canterbury.

Grant Taylor says the inclusion of a mentoring night in the North Island will be included next year down south.

For Cambridge farm assistant Alexis Hargreaves who is relatively new to the dairy industry the FTS week provided a valuable insight to the other industries within the industry. “It opened my eyes to just how much more there is to agriculture, and every person we spoke to had some information or perspective you can’t get from sitting in a classroom, reading a book or staying on the farm,” she says.

Alexis believes the FTS exposure meant she learned the value of setting goals, and appreciated the results enjoyed by those in their own businesses and personal lives.

For Bulls contract milker Scott Harris the week spent on FTS saw him head home re-motivated and keener than ever to expand on his already well established business.

Taking time out from his 450 cow job to mix with similarly motivated rural people, and see first hand some established success stories was a refreshing take on the industry.

“We realised we had our job here pretty sorted and we should be taking the skills we have and look at taking on another farming job, either with a manager or taking it over ourselves in addition to this job,” says Scott.

“We have gone out and re-done our CVs, printed business cards and are looking harder at all the broader opportunities that lie within our region here,” he says.



FARMING TO SUCCEED ATTENDEES GET UP CLOSE WITH ONE OF FIL’S SUCCESSFUL PRODUCTS, THE BOOSTER BLOCK “BIG BOY” FEED BLOCK AT THE COMPANY’S BAY OF PLENTY FACTORY.



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IMPACT RED SACHETS are part of FIL’s range of hygiene products, made in New Zealand. A REFORMULATED non-DG acidic detergent sanitiser designed to give you peace of mind when it comes to dosage, safety and efficiency in the farm dairy. **IMPACT RED** easy-tear pre-measured sachets reduce wastage and improve cost savings for you.

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TDF-IMR0611

FIL PUTS SPRING INTO EQUINE ENERGY

WHILE COWS ARE THE USUAL BENEFICIARIES OF FIL'S INNOVATIVE FEED PRODUCTS LIKE BOOSTER BLOCK MAGNUM, HORSES HAD THEIR CHANCE TO FIND OUT WHAT ALL THE FUSS WAS ABOUT AT THIS YEAR'S WORLD CUP FINAL FOR NEW ZEALAND SHOW JUMPING.

The stunning Mills Reef winery estate at Bethlehem, Tauranga was the setting for an event that provided an ideal opportunity for FIL to test another innovative feed product, aimed this time at horses.

When the improved formulation of Booster Block Magnum was re-launched in August 2009 it set a new bench mark for quality supplement feed blocks. With its high grade molasses base, and multiple nutrient additives it soon found favour with cattle, particularly when offered in high stress, low energy situations.



KATIE McVEAN WITH DUNSTAN DAFFODIL, WINNER OF THE TAURANGA SHOWJUMPING WORLD CUP FINAL 2011

The super sized 500kg version (affectionately referred to as the “Big Boy”) is established as a first choice for energy supplement especially among South Island dairy and beef farmers with many being used during the big storm of 2010.

With over 400 equestrians competing at the Tauranga event, it was an ideal opportunity for FIL to take on the role of a sponsor, and to test sample a scaled down version of the Booster Block in a horse friendly size of 1.5kg. The usual Booster Block retails as a 15kg block that sits in the paddock, complete with edible packaging.

“The response we had from horse owners during and since the event was that this is an ideal product to help boost energy levels, and be offered not only as a treat but as a valuable source of essential nutrients in a highly palatable form,” says FIL’s Marketing Manager Rosanne Obitz. She says horse owners appreciated the re-sized block and that FIL were analysing their customers’ feedback and listening to their practical advice.

The feedback has been reinforced by the first hand experience of Sally Steiner, event organiser and owner of local equestrian business Steiner Sport Horses. Both Sally and her husband Philip are renowned equestrians, and have represented New Zealand in past show jumping events. Philip came runner up in the Tauranga World Cup event. Sally was also well placed in the tournament, only being deterred by some faults along the way.

“The samples were brilliant, they were a great offering for owners to give to their horses, something to also act as a boredom buster but also offering good feed value too,” she says.

Sally and Philip train over 30 horses through the year and she can see a place for the blocks in both commercial and private stable situations. She and Phil appreciate the value of high energy supplements for dairy cattle, with Phil’s parents dairying in Edgecumbe, and sisters in Taumarunui and Mamaku.

Sally says having FIL sponsor one of the jumps made for a very mutual sponsorship deal.

“The event organisers appreciate having a strong local company taking an interest and sponsoring, but it is also great to be able to reciprocate that by FIL being able to get feedback on a new innovative product like Booster Block Magnum at a high profile event like the World Cup,” she says.

The winner of the World Cup was Katie McVean, who went on to represent New Zealand in the world final held in Germany.



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BOOSTER BLOCK MAGNUM is our multimineral block for peak herd health, made in New Zealand. Molasses bound, with Diamond V XP™ yeast to assist digestibility, **BOOSTER BLOCK MAGNUM** contains high quality Australian Magnesium, Calcium and trace elements of Selenium, Cobalt and Copper. Available in a convenient 15kg edible box, or a 500kg block delivered on pallet for easy use.

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TDF-B-BLOCK-11



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DYSTOCIA A CAUSE OF REPRODUCTIVE LOSS IN DAIRY CATTLE

DYSTOCIA IS DEFINED AS A DIFFICULT OR DELAYED BIRTH AT ANY STAGE OF LABOUR. IT IS THE MAJOR CAUSE OF CALF DEATH AT OR SHORTLY AFTER BIRTH AND IMPACTS ON THE COW'S ABILITY TO GET BACK IN CALF DUE TO RETAINED PLACENTA, UTERINE INFECTIONS (ENDOMETRITIS) AND CYCLING.

DAVID McDONNELL
BVSc MACVS



A normal birth is one that begins with the front feet presented first followed by the head, shoulders, hips then the hind legs, all the while with the back of the calf presented upwards. A clue that something is not right is usually an extended calving period greater than 6-8 hours and observation that the calf is not oriented properly or the right extremities are seen. See Table 1 for average calving period below.

Table 1: Average Calving Period

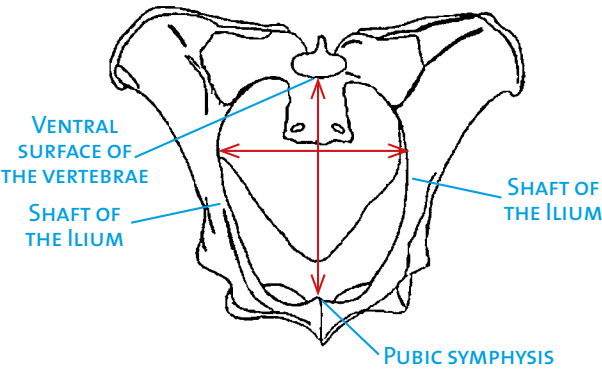
AGE	LABOUR(HRS)	DELIVERY (HRS)
Heifer	2-4	1-2
Cow	1-3	½-1

Interestingly half of the calf losses from birth to weaning occur in the first day of life. This represents a lost opportunity. An observation on many farms is that 85 to 90% of calves are either reared and/or sold.

A study(1) on risk factors for calving-assistance and dystocia in pasture-based Holstein-Friesian heifers and cows in Ireland showed that heifers approximately had a 1.5 to 1.6 times greater incidence of being assisted and having dystocia compared to cows at 9.3% and 5.8% for heifers and cows respectively.

The reason this may be the case is the differences between the two.

The heifer is still growing until three years of age and often it is the proportion of the size of the pelvic canal to the foetus. See below diagram.



Genetic selection can influence this, either as a dam or sire. Jersey dams (heifers) have greater area in the pelvis relative to body size. The sire or bull used across the heifers can influence foetal size/birthweight. Beef breeds with continental genetics are best avoided in heifers and Jersey bulls are recommended. Beef breeds generally that have good finishing weights have a heavier birth weight.

Nutrition - the biggest influence upon the growth and development of the heifer. Reaching well published goals in terms of bodyweight at the milestones of weaning, mating and calving are critical. In cattle, published data shows that nutrition during pregnancy can influence foetal development, but the variability in the incidence of dystocia in response to feeding level in the third trimester of pregnancy makes it difficult to make recommendations. More research is needed into the effects of nutrition in early gestation on foetal and placental development in cattle (2).

Genetics - Cows that had a previous history of dystocia were more likely to have calving problems. The relationship to sire difficulty of calving score was a factor in dystocia. It is believed that although the heritability of dystocia is low (around 5 to 15%) some genetic progress is possible in this area.

Record the data of difficult calvings eg. MINDAPro® to assist breeding companies here.

Nutrition - Metabolic disease is also interrelated to calving difficulty - the pathway being suggested is muscle contractility. Management of milk fever through Magnesium supplementation, transition diet/anionic salts and age/parity distribution of cows in your herd will control the incidence of dystocia.

Early intervention and education of staff can help prevent the more difficult dystocias and calf deaths.

Even though a number of factors result in a dystocia, some can be prevented, whilst on other occasions it is an individual event. Awareness and a herd strategy will minimise some loss and certainly remove some of the stress around calving.

1. Vet J. 2011 Feb;187(2):189-94. Epub 2009 Dec 21. Risk factors for calving assistance and dystocia in pasture-based Holstein-Friesian heifers and cows in Ireland. Mee JF, Berry DP, Cromie AR

2. N Z Vet J. 2006 Dec;54(6):256-64. Dystocia in beef heifers: a review of genetic and nutritional influences. Hickson RE, Morris ST, Kenyon PR, Lopez-Villalobos N



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ACID		✓			ALKALINE		✓	TEAT CARE		✓
QUANTUM BLUE	100L		JETSET	100L	QUANTUM PWD	20KG		IODOSHIELD ACTIVE	100L	
QUANTUM BLUE	200L		JETSET	200L	QUANTUM XL	20L		IODOSHIELD ACTIVE	200L	
QUANTUM GOLD	100L		IODOCLENE	200L	QUANTUM XL	100L		ULTRACARE TEATSHIELD	100L	
QUANTUM GOLD	200L				IMPACT BLUE	20KG		ULTRACARE TEATSHIELD	200L	
IMPACT RED	20KG				SPECIALTY			NUTRITION		
					GRADERITE	20L		NUTRIMAG	20KG	

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Entries close 29 July, drawn 31 October 2011. Terms & Conditions apply.

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MAINLAND VIEWS



FUND STARTS SOUTHERN BUY UP

THE SOUTH ISLAND HAS BECOME THE LAUNCH PAD FOR SIGNIFICANT DOMESTIC INVESTMENT INTO FARMLAND THROUGH THE NEW ZEALAND SUPERANNUATION FUND. OVER A YEAR AGO THE FUND, WHICH INCLUDES INVESTMENT IN FORESTRY THROUGHOUT THE CENTRAL NORTH ISLAND, HAD EXPRESSED ITS INTENTION TO TARGET PASTORAL PROPERTIES.

That announcement came as the country was embroiled in a national debate around the rights and wrongs of foreign land ownership, or more particularly Chinese investment in dairy land. The Fund's rural land strategy has been confirmed between \$300-\$500 million and will be invested over five years, but not all of this will be in New Zealand.

Fund head Adrian Orr has remained tight lipped on just how much land the Fund was interested in here or overseas. The move was hailed as a positive one by commentators, including respected Massey academic and agriculture director Jacqueline Rowarth. The Fund has appointed South Island based company Farmright to assess potential properties and manage them on its behalf.

The first purchase was a 250ha dairy unit at Dunrobin, 110km west of Dunedin, producing 210,000kgMS. While not a prime dairying region, the West Otago district has seen solid growth in dairy numbers in recent years, and the operation is known for its low cost profile.

Exact figures on how much the Fund is spending on properties has been hard to get, but Farmright director Jim Lee has given some indication on what it is prepared to pay, by stating the Fund expects a net operating return north of 6.5% on its investment.

This would put a property like the Dunrobin one in the range of \$6.0-\$6.1 million without stock, a figure local real estate agents confirm as accurate. The Fund has also since purchased another property on the boundary of the Invercargill Airport. The purchase includes the 255ha dairy unit, and a 130ha run off located at Waimatuku Bush. A third property is also believed to be under contract in the Otautau district.

The Invercargill purchases were close to the advertised prices in the sale documents, which were advertised at \$5.5 million for the dairy unit and \$2.0 million for the runoff. The values confirm the Fund's strategy of seeking out properties that are offering lower capital cost for purchase, offer potential to improve production, and have a lower cost operating profile.

The Invercargill property shows considerable potential for infrastructure improvements and has been milking 850 cows, generating 304,000kgMS which puts its cost at the lower end of land values at around \$21,000/ha. While focused more upon properties offering opportunity for growth than having any regional preference, Jim Lee of Farmright has said the South Island offers the greatest potential for acquisition of larger properties that fit the Fund's criteria.

Meantime land prices appear to have bottomed out or even be improving, with the South Island no exception. The average price for farms sold in Canterbury over the traditionally busy sales period of December - February averaged \$1.8 million, this was up from \$1.4 million for the same period a year ago, from 31 farms, similar to last year's 28.

"There is certainly buyer interest in farm properties across the country with plenty of evidence of rising farm returns. However, buyers are also being cautious, and securing finance to complete transactions has remained a constraint for the past three months," says REINZ Rural Market Spokesman Peter McDonald.

QUAKE FAILS TO PUT BRAKE ON CANTERBURY DAIRYING

A QUICK GLANCE AT MID-CANTERBURY'S MILK SOLIDS PRODUCTION FIGURES FOR THE SEASON IS AN ACCURATE INDICATOR OF HOW THE REGION SHRUGGED OFF THE EFFECTS OF TWO EARTHQUAKES, AND FARMED ON TO HAVE ONE OF THE BEST YEARS EVER.

Despite suffering an appalling winter-spring period, September's quake and then a deadly aftershock, the region has still managed to finish the dairy season 5% up on last year.

Allan Baird is the man responsible for co-ordinating the rural recovery after the September 4 earthquake. He says the most remarkable thing about the first quake was how unremarkable things have been since.

"I know there is always a risk when we say it is business as usual, in that there were people farming who were adversely affected. On the whole the rural community picked itself up remarkably well."

While mainstream media tended to focus on the visual impact of massive cracks and damaged farm dairies, the real story was more about neighbours helping neighbours and getting on with the business of farming.

"Over the first 24 hours, there was not a herd of cows that did not get milked at least once, thanks to farmers helping each other out."

A typical scenario was a dairy designed to handle 400 cows milking 2,000 within 24 hours of the quake. For its part Fonterra's actions highlighted the co-operative spirit underscoring the dairy industry.

Close co-ordination between Fonterra's logistics staff and farmers milking two or three extra herds through their dairies helped avoid silo overflows. Additional supplies of potable water were bought in for farmers needing water for stock, along with the truckloads that supplied residents in Christchurch.

Allan Baird says the real concern for farmers on the Plains was the effect of the first quake on the area's many deep well bores, or even the aquifers that they draw from.

"There was thought that deep well pumps may be lost for good, or even that the aquifers themselves had shifted after the shake."

However those concerns proved unfounded. Only a few pumps needed to be pulled up and have the well screens cleaned.

"And this was something that may well have needed to be done as part of maintenance anyway," he says.

Perhaps the most surprising damage from the quake was the effect on water lines above the surface, with alkathene water lines literally getting stretched across fissures. The result was split lines when the water pressure kicked in again, but again something easily replaced. The structures most widely damaged were farm feed silos, with many far from quake proof and having to be written off after the event.

Allan believes the first earthquake had a more intense impact on small block holders around Taitapu area in particular.

It was not widely reported, but as in town many had liquefaction meaning their blocks could no longer support stock. They may also have relied upon silage and hay crops to sell to dairy farms and could no longer do so.

"The effect of the next quake on Christchurch itself was far greater. It was good to see the Farmy Army able to go in and help out - it was a sort of payback for the times town people have helped out after vicious snowstorms have affected farmers here," says Allan.



SEASONAL CLIMATE OUTLOOK

MAY - JULY 2011



A MILD EARLY WINTER SHAPING UP FOR MANY REGIONS; LA NIÑA BOWING OUT

The La Niña event in the tropical Pacific continues to weaken and should be gone by the end of June, says the NIWA National Climate Centre.

The Centre's latest outlook, for early winter (May to July), indicates that temperatures are likely to be above average across all the North Island and in Buller/Nelson/Marlborough, and average or above average over the rest of the South Island. Despite the overall pattern of above average temperatures, cold snaps typical of winter will still occur from time to time through the period.

Seasonal rainfall is likely to be normal or above normal in the north and east of the North Island, near normal in the southwest North Island and northern South Island, and normal or below normal over the rest of the South Island. Soil moisture levels are likely to be normal or above normal in the North Island and near normal in the South Island. River flows are likely to be above normal in the northern North Island, normal or below normal in the western South Island, and near normal elsewhere.

The outlook also states that mean sea level pressures are likely to be below normal to the north of New Zealand and above normal to the east and south of the country, with more frequent than normal northerly or northeasterly winds over the country.

OVERALL PICTURE

TEMPERATURE:

For the May-June-July period as a whole, temperatures are likely to be above average across all the North Island and in Buller/Nelson/Marlborough, and average or above average over the rest of the South Island. Sea surface temperatures near New Zealand are expected to be average or above average, with above normal conditions more likely around the northern North Island.

RAINFALL, SOIL MOISTURE, AND RIVER FLOWS:

The National Climate Centre says that seasonal rainfall is likely to be normal or above normal in the north and east of the North Island, near normal in the southwest North Island and northern South Island, and normal or below normal over the rest of the South Island. Soil moisture levels are likely to be normal or above normal in the North Island and near normal in the South Island. River flows are likely to be above normal in the northern North Island, normal or below normal in the western South Island, and near normal elsewhere.

REGIONAL PREDICTIONS FOR THE NEXT THREE MONTHS:

NORTHLAND, AUCKLAND, WAIKATO, BAY OF PLENTY:

Temperatures are likely to be above average for the time of year. Early winter rainfall totals are equally likely to be in the normal or above normal range. Soil moisture levels and river flows are likely to be above normal. *Probabilities are assigned in three categories; above average, near average, and below average. The full probability breakdown is:*

	TEMPERATURE	RAINFALL	SOIL MOISTURE	RIVER FLOWS
ABOVE AVERAGE	50%	40%	45%	45%
NEAR AVERAGE	30%	40%	40%	40%
BELOW AVERAGE	20%	20%	15%	15%

CENTRAL NORTH ISLAND, TARANAKI, WANGANUI, MANAWATU AND WELLINGTON:

Temperatures are likely to be above average. Seasonal rainfall totals and river flows are likely to be near normal during May-July, while soil moisture levels are equally likely to be near normal or above normal. *Probabilities are assigned in three categories; above average, near average, and below average. The full probability breakdown is:*

	TEMPERATURE	RAINFALL	SOIL MOISTURE	RIVER FLOWS
ABOVE AVERAGE	50%	30%	40%	35%
NEAR AVERAGE	30%	50%	40%	45%
BELOW AVERAGE	20%	20%	20%	20%

GISBORNE, HAWKE'S BAY, WAIRARAPA:

Temperatures are likely to be above average. Seasonal rainfall totals and soil moisture levels are equally likely to be in the near normal or above normal range. River flows are likely to be near normal. *Probabilities are assigned in three categories; above normal, near normal, and below normal. The full probability breakdown is:*

	TEMPERATURE	RAINFALL	SOIL MOISTURE	RIVER FLOWS
ABOVE AVERAGE	50%	40%	40%	35%
NEAR AVERAGE	30%	40%	40%	45%
BELOW AVERAGE	20%	20%	20%	20%

NELSON, MARLBOROUGH, BULLER:

Temperatures are likely to be in the above average range. Seasonal rainfall, soil moisture levels and river flows are likely to be in the near normal range. *Probabilities are assigned in three categories; above average, near average, and below average. The full probability breakdown is:*

	TEMPERATURE	RAINFALL	SOIL MOISTURE	RIVER FLOWS
ABOVE AVERAGE	50%	30%	35%	30%
NEAR AVERAGE	30%	50%	45%	45%
BELOW AVERAGE	20%	20%	20%	25%

WEST COAST, ALPS AND FOOTHILLS, INLAND OTAGO, SOUTHLAND:

Temperatures are equally likely to be near average or above average, for the three months as a whole. Seasonal rainfall and river flows are both equally likely to be in the near normal or below normal range. Soil moisture levels are likely to be near normal. *Probabilities are assigned in three categories; above average, near average, and below average. The full probability breakdown is:*

	TEMPERATURE	RAINFALL	SOIL MOISTURE	RIVER FLOWS
ABOVE AVERAGE	40%	20%	20%	20%
NEAR AVERAGE	40%	40%	45%	40%
BELOW AVERAGE	20%	40%	35%	40%

COASTAL CANTERBURY, EAST OTAGO:

Temperatures are equally likely to be in the near average or above average range. Seasonal rainfall is likely to be in the normal or below normal range, for the 3-month period as a whole. Soil moisture levels and river flows are likely to be in the normal range. *Probabilities are assigned in three categories; above average, near average, and below average. The full probability breakdown is:*

	TEMPERATURE	RAINFALL	SOIL MOISTURE	RIVER FLOWS
ABOVE AVERAGE	40%	20%	20%	20%
NEAR AVERAGE	40%	40%	50%	50%
BELOW AVERAGE	20%	40%	30%	30%

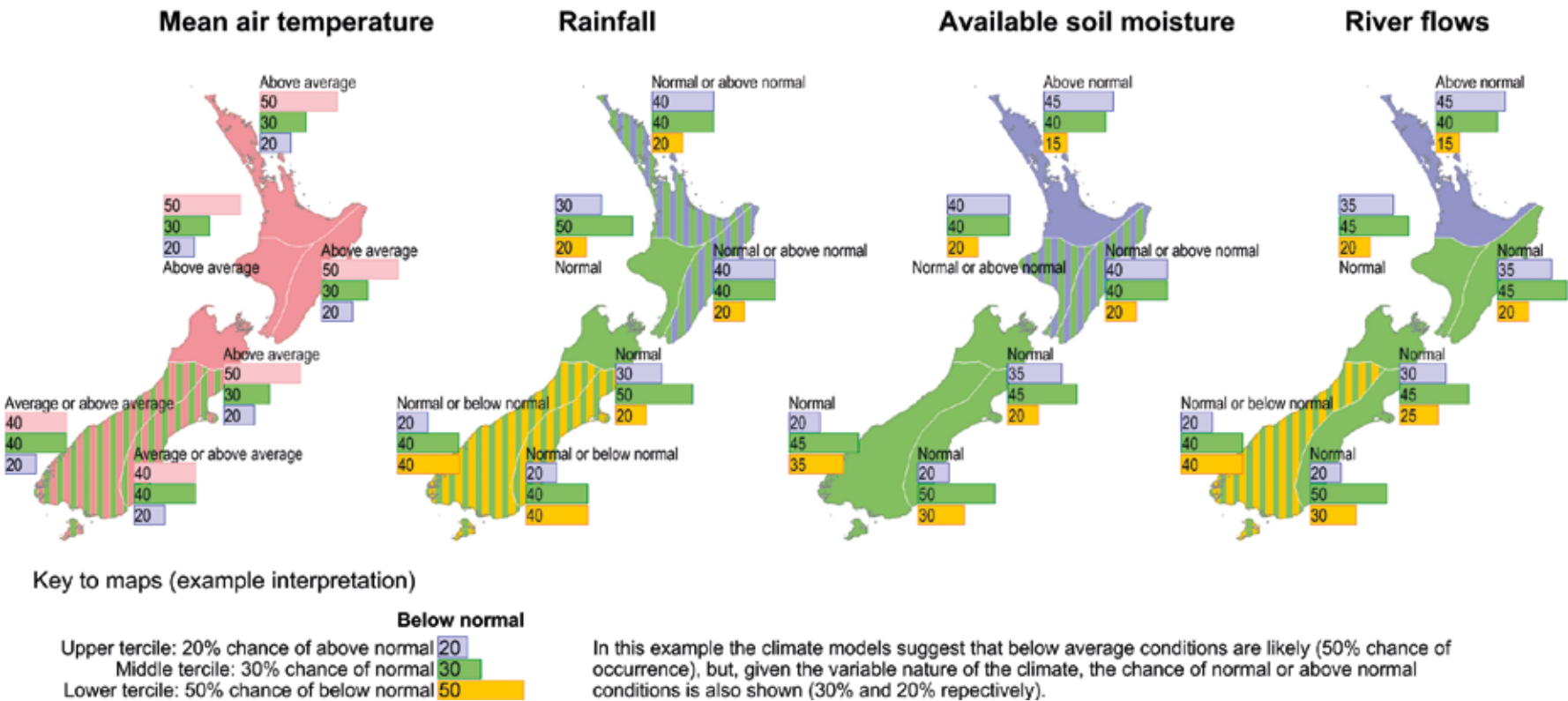
BACKGROUND

The tropical Pacific is in a weakening La Niña state, which is expected to have dissipated by the middle of the three-month outlook period. In the longer-term beyond July, the majority of the international forecast models maintain neutral conditions in the Pacific, although a few models suggest the development of an El Niño event late in 2011.

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OUTLOOK FOR MAY 2011 - JULY 2011:





EFFLUENT BUSINESS PROMISES ROBUST TECHNOLOGY

IT IS ONE THING TO ADAPT A WATER PUMP TO TRANSPORT DAIRY EFFLUENT
ANY DISTANCE, QUITE ANOTHER TO DESIGN AND MANUFACTURE
EQUIPMENT DEVELOPED SPECIFICALLY FOR THE CHALLENGING TASK.

3 POINT HITCH AGI-PUMP

Modern effluent management is an area GEA Farm Technologies (GEA FT) does better than any other company, thanks to its investment in the established Canadian effluent treatment company Houle. With larger herds, more concentrated dairy diets and ever increasing pressure from local authorities to manage effluent better, GEA FT's effluent expert Murray McEwan can see the potential that comes with offering fit for purpose effluent equipment. He wryly notes that it is one thing to make effluent move for five minutes, quite another to move it constantly day in day out.

In only the last year GEA FT has begun importing Houle equipment into New Zealand which covers the

spectrum of effluent handling, from solids separators, pond pumps and agitation systems. To match this move the company has employed Murray as its effluent systems specialist. Murray brings extensive experience in the area, having been involved with design, installation and modifying effluent systems coupled with extensive experience in the fertiliser industry.

"While there I could see the impact land based use of effluent was likely to have on traditional fertiliser use, and decided to go further with the effluent side of fertility," he says. "The main focus for most manufacturers of effluent equipment in New Zealand has been to adapt water pumps to do a job they

simply were not designed to do - pump muck." Problems arise in trying to make such pumps deal with a liquid/slurry that varies in consistency, flow rates and contaminants (rubbish), all which will inevitably lead to undue wear on components, hydraulic failure and load demands on the electric motors tasked with driving those pumps.

In contrast GEA FT's Houle equipment has been developed in Canada in response to that country's need for large scale effluent handling systems in confinement pork and dairy operations.

"There is essentially 30 years of trial and error underpinning this technology, dealing with thick effluent on a really large scale, in ponds that often measure 200m by 300m, on operations milking tens of thousands of cows," says Murray.

Tapping into such an established reserve of knowledge has enabled GEA FT to provide equipment that has been modified for pastoral systems found in New Zealand. Murray points to the Houle X-Pulse twin piston pump just launched in New Zealand where modifications have increased its energy output to provide 80m of head, and run at an impressive 110psi.

"This would be as good as any pump you could get in New Zealand and is driven by a 5.5kw motor, it is hugely efficient, both in terms of what it can move, and the energy required to run it."

"New Zealand and Australia face similar situations where farmers have to store effluent for land application when conditions are conducive to keeping the nutrients within the root zone of the pasture."

The northern hemisphere effluent is stored for 9 or 10 months as effluent can only be applied at pre-determined rates and at specific times of the year. Murray is particularly impressed with a new Agi-Pump three point linkage pump he recently trialled in mid Canterbury.

"It cleaned a 32m by 38m pond that looked like an overgrown potato patch in three hours, the farmer was expecting to be there for a couple of days, it proved exceptional in dealing with the thick consistency of the pond and the volume of it." With local authorities requiring more accountable disposal of effluent there comes a need for equipment capable of processing ever greater volumes of effluent at specific times of the year.

GEA FT's effluent technology includes a slope screen separator that can be used to filter effluent before being applied through an irrigator. While used extensively overseas, separators are a relatively new concept for New Zealand dairy farms. The dry organic matter produced after the process retains two thirds of the original nitrogen and provides a valuable organic input when spread back onto pastures or cropping land.

"GEA FT solid separation systems are different to, but an integral part of storage and shifting technology. They are quite passive and the machinery involved does not require the same level of maintenance as current high pressure separation systems."

Murray is excited by the robustness and established reputation of the Houle equipment GEA Farm Technologies is bringing in for New Zealand dairy farmers. Increasingly research is proving the economic value of an efficient system is such they can often pay for themselves in less than two years, with the right equipment, management and maintenance programmes in place.

Houle



GEA

**Need an effluent system that can
separate and pump the heaviest loads?**

Houle

do all the dirty work.



Horizontal Roller Press



Hydraulic Twin Piston Pump



Slope Screen Separator

Houle effluent systems are built to deal with the toughest loads – solid effluent. And after 50 years of heavy work in North America, you can be sure they'll handle the lighter effluent loads we pump.

With everything from quality pumps and separators, to spreaders and agitators, Houle systems are built tough to work for you – no blocking, no time wasted, job done – every time.

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