

THE DAIRY FARMER

SUMMER 2012

Springtime saw unprecedented levels of mastitis on many dairy farms, due mainly to the warm and wet weather conditions experienced during the early lactation period.

TEAT CARE & UDDER HEALTH



The wet, muddy conditions created an environment that allowed Strep uberis bacteria to flourish, creating a real headache for many dairy farmers throughout the country as they struggled to contain clinical infections.

The two most common forms of mastitis causing bacteria in New Zealand are Strep uberis (environmental), which is found in faeces, mud and dust, and Staph aureus (contagious), which is readily spread from cow to cow. Bacteria from an infected cow can contaminate the liners and milking cluster, remaining in that cluster for up to the next 5 cows milked by that same cluster.

Application of disinfectant onto the cows' teats after milking to kill the bacteria on the teat skin before they have a chance of entering the teat canal is well proven.

For teat sprays to be effective, it is essential manufacturers use rate recommendations are adhered to, and that the person applying the product pays special attention to ensure the teat spray covers the barrel of all four teats and a droplet forms over the teat orifice itself.

Teat spray should be used at a high concentration rate during early lactation, and at other times of the season when adverse weather conditions are experienced.

It has been proven that the use of teat sprays throughout the full lactation will assist in reducing clinical mastitis infections and lower the BSSC for the following season. So a very good reason to continue this practice.

There is a range of different teat disinfectants currently available on the market, namely Iodine, Chlorhexidine

and Chlorine based. Clearly, plenty of teat spray options exist. But it is important to remember that the active ingredient in teat sprays might not be effective if the teat spray is not properly manufactured.

The active ingredients discussed above hang in a delicate balance with complexing agents, surfactants, pH buffers and skin conditioners. Upsetting this balance could leave the active ingredient with little to no germicidal activity.

It is important to purchase your teat sprays from a reputable manufacturer, that is making product in an approved facility and that practices good manufacturing procedures (or GMPs).

All FIL teat sprays are fully tested and comply with the rigorous standards required to meet Protocol A standards.

THERE ARE A NUMBER OF FACTORS TO CONSIDER WHEN PURCHASING TEAT SPRAYS:

- Does the product have ACVM approval?
- Has the product passed protocol A?
- Is the level of disinfectant sufficient to prevent bacterial contamination?
- What level of emollients are used in the build of the product?
- Does the product have any unique features?

In New Zealand, iodine is by far the most popular choice with 67% of dairy farmers preferring this type of disinfectant.

Modern, advanced iodine complexing technologies use mild cosmetic grade surfactants and conditioners, which are skin friendly, and when used at manufacturers' recommendations will provide excellent control of mastitis and ensure superior teat health.

Cheaper, less effective teat sprays will require substantial quantities of additional emollient, especially during early lactation to ensure adequate teat condition, which is a significant extra cost.

When teat spraying with an inferior product, it's not until teat problems are noticed (this can be 3-4 weeks into the season) that action is taken. This is often too late to correct without costing a considerable amount of time, money and frustration. Not to mention the stress the cows have to endure.

If you are taking the time to teat spray, make sure it is with a quality product. Remember, it's all about Teat Care and Udder Health - no compromise.

WHAT'S INSIDE:

PAGE 2
Rangitaiki upgrade a tribute to teamwork

PAGE 4
Mid lactation management

PAGE 5
Orini Downs meets challenge of scale

PAGE 8
Big screen separator provides piece of mind

A WORD FROM GEA FT: CHANGE BRINGS OPPORTUNITY



This is an opportunity to introduce myself and inform you of the recent acquisition of Milfos and what this means for you, the New Zealand dairy farmer. I am Jamie Mikkelsen and was a co-shareholder and Managing Director of Milfos, now the Managing Director of GEA Farm Technologies which includes great brands such as Milfos, WestfaliaSurge, Houle and FIL.

GEA Farm Technologies (GEA FT) purchased Milfos to create a Centre-of-Excellence around pastoral dairy farming and rotary technologies for their global group. Over the last 25 years, Milfos has been growing a significant business based on New Zealand pastoral style

farming using knowledge gained from working closely with some of the world's most progressive dairy farmers.

This on-going investment by GEA in our community cements their vision to be No.1 or 2 in all markets globally delivering total dairy solutions to its customers. The combination of exciting new technologies through significant investment in R&D along with local production and support means you have access to the world's best innovations and technologies.

With successful and long standing products in the market like FIL hygiene and tail paint, Milfos and WestfaliaSurge

milking technologies along with Houle effluent systems, GEA FT is positioned to utilise its knowledgeable staff, channels to market, and quality products to deliver the most complete solution bar none. Customer satisfaction is my number one driver and this will be woven throughout the business, so regardless of the brand you are interacting with we expect you to be well looked after.

We will keep you up to date with future progress through this Dairy Farmer publication.

JAMIE MIKKELSON
MANAGING DIRECTOR

WHEN THE FEATHER FAMILY DECIDED TO UPGRADE THE WESTFALIASURGE DAIRY ON THEIR RANGITAIKI PROPERTY THE DECISION TO STICK WITH THE BRAND WAS HARDLY SURPRISING.

The family took over the 810ha property off the Napier-Taupo road back in 2008, and with it got the 10 year old 60 bail WestfaliaSurge rotary dairy that had more than proven its value. At its peak it had milked as many as 2800 cows twice a day, and was averaging 2200 under their ownership with almost 18 hours a day in operation.

“When the dairy was built, apparently it was known as The Palace, thanks to all the bells and whistles it included,” says Marc Feather.

Those bells and whistles even included a heated floor to help stave off the bite of frequent sub zero mornings on the farm that sits 700m above sea level.

Marc admits the decision to upgrade the dairy this season came late, only after catching up with GEA Farm Technologies (GEA FT) staff at Mystery Creek fielddays.

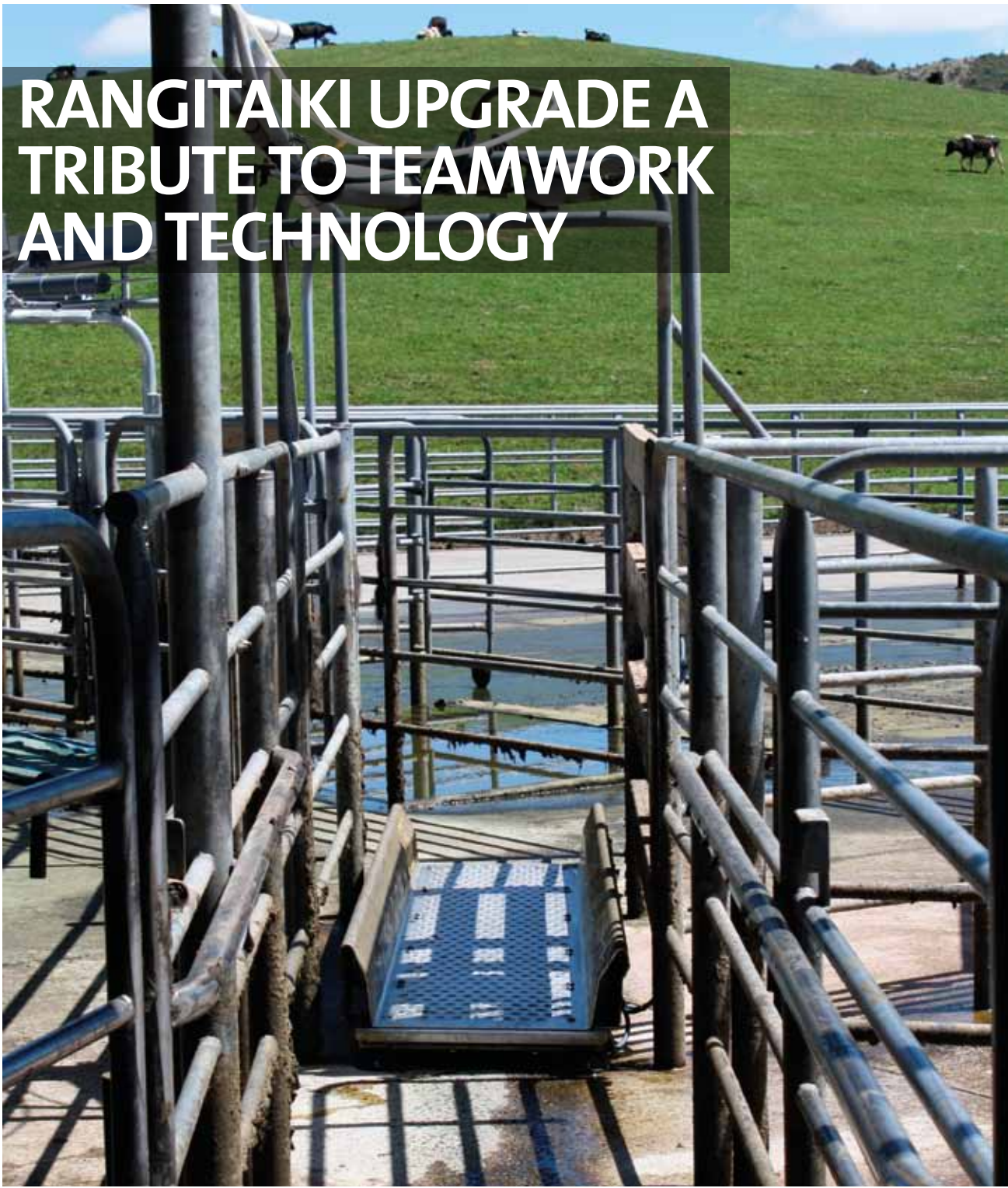
“We only started in early July, so there was a fair bit of pressure on the guys to have things ready for 2100 cows within the month, and it is a tribute to the team that they achieved that.”

Technical skills from GEA FT staff and Whakatane GEA FT dealer ESP Technologies meant that deadlines were met and it all works efficiently. It was a tribute to the future proof nature of the original WestfaliaSurge dairy that the platform, receiving can and milk line were retained.

Meantime key components including cup clusters, cup removers and pulsators were all changed out for the latest models, including the DMax 70 control units.

A key motivation for the family to upgrade was to gain greater insights into per cow performance within the big herd. Marc says he felt like he was farming blind when it came to key areas like mastitis management and cow condition, and the upgraded technology quickly addressed those areas, and plenty more.

“We now have conductivity monitoring in place, and after two elevated reports we get an alert at the bail.



We can keep on top of mastitis before it becomes clinical. Stripping out 2100 cows to identify those with mastitis problems you’ve detected through a bulk alert was no small job!”

The dairy technology also incorporates the WestfaliaSurge weigh system that can meter feed levels, and provide reports on cows showing signs of condition loss.

“It just means we are now able to know that before we see it, and if you have a cow losing weight, and losing milk volume which can also be measured, it’s pretty likely there is something wrong with her, and we can deal with it sooner rather than later.”

He says such alerts were a key motivator to upgrade and try to cut back on animal health costs, becoming

more proactive in stock health management.

All data is processed through WestfaliaSurge’s DairyPlan programme, and Marc likens it to driving an Audi over a Falcon, there are just that many more features there to use, and to learn.

With spring behind them he and the staff are able to take more time to master the many facets of information the new plant can deliver.

Meantime he describes the whole upgrade as an awesome example of team work from GEA FT staff and ESP Technologies. “We are conscious we are a bit more remote, but their efforts to get everything up and operating backs up some very impressive, and durable, equipment.”

GEA Farm Technologies NZ Ltd.
Call 0800 657 555 to speak to an expert in Effluent Management.

GEA Farm Technologies

TDF55112

Houle Effluent Slope Screen Separator

“The Agi-pompe goes hand in hand with our slope screen - agitating the pit as well as pumping to the separator. Together it’s more efficient, easier on machinery and a cleaner way of doing things”.
JO SINGH

“Due to the design and the total lack of moving parts, the minimal repairs and maintenance that is required gives me the time and money to spend elsewhere in my business”.
SIMON BELTON

FERTILITY

CALVING

FEEDING

HEALTH

MILKING

HYGIENE

EFFLUENT & ENVIRONMENT

FARM MANAGEMENT

SERVICE & SUPPORT

GEA FARM TECHNOLOGIES COWS CHARGE OFF ROAD

RHYS O'BRIEN'S 4WD TRIAL VEHICLE MAY BE CALLED CHEETAH, BUT IT IS A CHARGING HERD OF COWS THAT ADORN THE GRUNTY MACHINE'S BONNET.



As a technician and electrician for ESP Technologies in Whakatane, Rhys spends some of his working day servicing and installing WestfaliaSurge milking equipment.

At a dealer catch up he welcomed the offer from GEA Farm Technologies (GEA FT) NZ sales manager Trent Finlay to provide some sponsorship for Rhys' 4x4 trials passion. Now coming up to his third competitive season, Rhys brings a pedigree of success in the sport with him. His father Brett O'Brien was among the country's top competitors in a sport that relies more upon technique and tenacity than full on speed to win.

With its eye catching cows on the bonnet Rhys has managed to keep the herd at the front of the pack last season, winning both the northern and national series for his vehicle class.

His present machine will be vaguely familiar to many dairy farmers who have used the popular Suzuki Jimny 4x4s on their farms as run around machines.

Rhys' is the Suzuki SJ80, the model released just before the Jimny and is renown even in its unmodified form for its exceptional off road abilities, thanks to its traditional ladder chassis, high clearance and short wheelbase.

With a few modifications to Rhys' machine that ability has been lifted well beyond anything needed for running around picking up supplies and towing calf milk.

The machine has a SR20 turbo charged 2 litre engine out of a Nissan Avena, an automatic gearbox from a Primera and Toyota Prado diffs front and rear.

Despite the modifications, Rhys believes the sport is more accessible than the high speed, no margin business of rallying, with \$4000 getting someone on course with a suitable machine. Those courses involve navigating multiple hazards including almost bottomless mud holes, unforgiving hill climbs and sheer drops.

"The popularity is pretty steady as a sport. We would get 70-90 competitors entering each round, and they are held between Whangarei and Wellington."

He notes the interest farmers in particular have in the sport, with around half the entrants either farming or closely involved in farming.

"And the events we hold are often on farms, with farmers helping out with tractors and diggers to pull you out when need be."

A typical course consists of 28 hazards and two speed sections, and is more of a circuit than a time trial, with events being an all-day affair as competitors start at staggered points along the way.

Rhys has welcomed the support from GEA FT and appreciates the extra impetus the WestfaliaSurge brand has gained since GEA FT's purchase.

ESP Technologies covers installation and maintenance of WestfaliaSurge milking equipment and Houle effluent equipment throughout the Eastern Bay of Plenty.

"The technology of the WestfaliaSurge equipment has always been well ahead of the rest of the market, with most competitors only now catching up with what WestfaliaSurge has had for years."

The next step for Rhys is to build a custom made machine based off a space frame design, with specific

components selected to match. His hopes are to make that move next year.

"My wife may take a bit of convincing though, given the shed time that is going to be involved!"

EXTRA 5KG FREE



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GEA Farm Technologies

MID LACTATION MANAGEMENT

ONGOING CHALLENGES

While mastitis can be caused by bacteria that are either sourced from the environment or infected cows, it is the latter that predominates for herds in mid lactation. This so called contagious mastitis can see bacteria enter the teat canal both between and during milkings. Irregular vacuum fluctuations caused by liner slips, flooded lines etc, may cause a backflow of milk against the teat end. With sufficient force, bacteria can be propelled up into the teat canal and teat cistern. Properly functioning equipment is important to help prevent new infections.

Bacteriological surveys show that once calving is finished the predominant pathogen is Staph aureus. For instance a 30 herd study led by Scott McDougall from across NZ was used to gauge clinical mastitis pathogens. A total of 10,943 cows in 28 dairy herds in the Southland (n=4), Canterbury (n=2), Manawatu (n=8), Taranaki (n=12), and Waikato (n=2) regions of NZ were enrolled between 1 July 2004 and the end of lactation or 1 June 2005. After the first month where Strep uberis predominates, Staph aureus becomes the dominant pathogen for the remainder of the lactation. (See graph right)

Staphylococcus aureus (Latin aureus, golden) is a gram positive bacterial species. Also known as golden staph its large polysaccharide capsule protects the organism from recognition by the cow's immune defenses. Staph aureus will penetrate mammary gland tissues resulting in development of scar tissue. This makes it difficult for antibiotics to access as Staph aureus can hide inside neutrophils (white blood cells) and won't re-emerge until the neutrophils die usually 5 to 7 days later.

MAINTAINING CONTROL

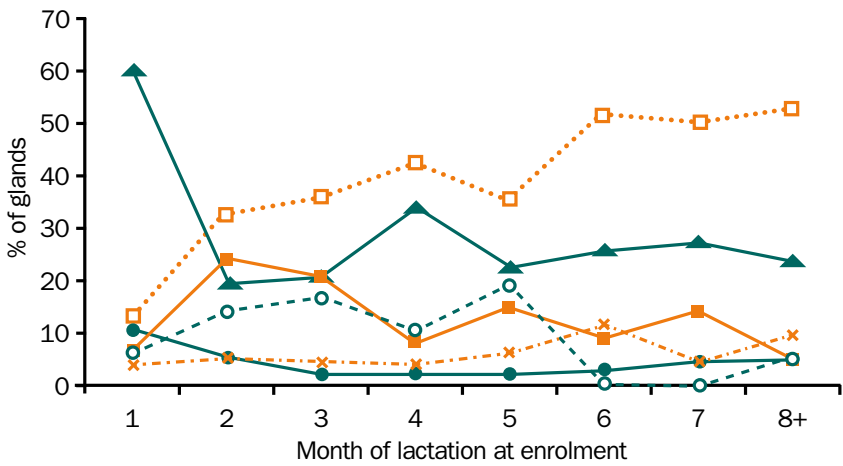
The rate of new udder infections is related to the number of mastitis-causing pathogens on teat ends. Disinfecting teats immediately after milking kills most of the pathogens on teats. This in turn reduces the chance of those pathogens getting into the udder. More than 50% of new udder infections can be prevented by disinfecting teats with an effective product immediately after every milking. Milkers should continue postmilking teat disinfecting as a routine part of milking procedures, even if somatic cell counts are low. Postmilking teat disinfection is especially effective against the contagious pathogens like Staph aureus.

Teat disinfection does not affect existing infections. Existing infections are best eliminated by dry cow treatment and culling chronically infected cows. Prevention of new infections by teat disinfection and elimination of existing mastitis cases reduces the level of mastitis in a dairy herd year by year. Improvements, such as decreased cases of clinical mastitis and/or lowered herd somatic cell counts, generally can be observed within a few months.

As with any stage of the lactation, effective teat spraying requires the correct concentration of a reputable approved teat spray to be used and that the teat spray covers the barrel of all four teats. While teatspray should be used at a high concentration rate during the high risk spring period and prior to drying off, it's important that the standard concentration is used throughout mid-lactation too. While better weather conditions and improved teat health may be of less concern, continuing teat spraying throughout the full lactation will reduce the incidence of clinical mastitis during that period and impact positively on the following season by helping to reduce mastitis and lowering the bulk somatic cell count.



PHIL RENNIE BVSc MACVS



(a) Number of glands
(b) percentage of bacterial species isolated from glands diagnosed with clinical mastitis by month of lactation from clinical mastitis across an entire lactation from 30 herds across New Zealand.
▲ *Strep. uberis*;
□ *Staph. aureus*;
● coagulase negative staphylococci;
○ *S. dysgalactiae*;
× other species;
■ two bacterial species isolated;
(McDougall et al 2007b)
(c) the distribution of bacterial species by age group from the same study.



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IODOSHIELD ACTIVE is part of FIL's range of animal health products, made in New Zealand. It has the highest concentration of iodine in the market, requiring no additional emollient to be effective. A key aid in mastitis control, **IODOSHIELD ACTIVE** has a unique manuka honey content, maintaining superior teat condition in all weather.

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GEA Farm Technologies

ORINI DOWNS MEETS CHALLENGE OF SCALE

LEFT TO RIGHT:
ETHAN BEAGGIE - 2IC,
HARRY RICH - MIDDLE
OPERATIONS MANAGER,
DAVID MOCHRIE -
FARM MANAGER.



WHEN LANDCORP SOLD THE 1000HA ORINI DOWNS STATION BACK IN THE LATE NINETIES AND IT WAS CONVERTED TO A DAIRY UNIT, IT WAS THE LARGEST DAIRY CONVERSION IN THE WAIKATO AT THE TIME.

This was well before the more extensive dairy units which, ironically, Landcorp was to play a hand in further south near Taupo.

Purchased by the Montgomerie family the property was always recognised for the challenges its heavy rolling clay country presented to dairying, drying off quickly over summer, and difficult to winter on in all but the driest winter periods.

However it was also a property balanced with almost half its area comprising deep underdeveloped peat country. That too was something of a benchmark for its sheer area, with few other tracts of that scale which still remain for development through the Waikato region.

The centre piece to the property, an 80 bail rotary dairy was also one of the first large scale rotaries to go into a conversion, and was milking around 2000 cows from day one.

When the opportunity arose for Waikato sharemilker Harry Rich and his wife Donna to buy an equity stake in the property in 2009, they decided it was an opportunity not to miss. Both were committed to staying in the Waikato, but also knew the difficulty there was in finding farms with scale in order to grow their business.

“We have always been keen to stay in the region, with family up here, and had been looking at what our options were when this opportunity presented itself,” says Harry.

Location appealed, but so did the potential Harry saw in the massive 400ha of peat that still needed work to reach its full potential. His approach has been to use the farm’s significant demand for maize silage as a means to develop the peat, turning over 50ha a year to help break down and mineralise the heavily organic peat.

Ploughing and power-harrowing are the main cultivation methods, and phosphate levels lifted using a little and often for application. A careful approach to controlling water levels on the block means trying to strike a balance between losing some water from the soil, but not over-draining and turning it to a powdery waste.

A leased Transpower block also milks 330 cows, and a neighbouring farm milks 415, so along with the 1400 cows through the central rotary the farm brings its own demands on Harry as equity partner managing staff and tasks.

He has made particular effort to bring a culture of excellence and pride to the big business since taking over, and believes he is seeing real progress. He has been employing with an eye on individual attitude, over ability, to get people who share the company’s values.

“We really want people who are looking for more than just a job, and who look out for their workmates, and don’t simply knock off because their job is done for the

day, but help out across the other farms so we all get the job done quicker.”

Harry says last season was a milestone one for the farm, with good systems, training and hard work from the staff seeing them achieve a grade free season.

Harry has been a committed FIL user for the past decade, and enjoys a positive working relationship with Farm Service area manager Mark Mohring. “He takes a lot of pressure off by monitoring our usage across the three dairies, and always has our interests at heart in getting the best deal, and helping if we have ever had grading issues.”

Mark says he enjoys a very open, communicative relationship with Harry, while the variety of staff from many different backgrounds provides plenty of challenge and enjoyment to the contact.

“Harry has set a very high standard for his managers and I aim to follow in his footsteps to help him achieve that.”



GEA Farm Technologies



Are you ready for Summer?

Summer is just around the corner and now is the time to start thinking about your next liner change as warmer weather greatly increases the thermoduric grading risk from old rubberware. Reduce the risk further and change your long milk tubing with your next liner change. Changing your liners for cow udder health and milk tubing in your shed will go a long way towards you being grade free this summer.

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MAINLAND VIEWS

NEW SOUTHLAND STAYS LOYAL TO BRAND

SOUTHLAND DAIRY
FARMER HARRY PEETERS,
HAPPY HE MADE THE
MOVE WHEN HE DID

**MANY OF THE RELATIONSHIPS
BETWEEN GEA FARM TECHNOLOGIES
(GEA FT) FARMER CLIENTS AND THE
COMPANY HAVE A LONG SENSE OF
HISTORY AND GOODWILL, SOME CAN
EVEN GO BACK A GENERATION.**

FIL's relationship with Harry Peeters of Riversdale in Gore is one such relationship that started over 20 years ago when GEA FT's national sales manager Trevor Gulliver hung up his milking cups and started selling FIL hygiene products to farmers in the Matamata area he used to dairy in.

One of those farmers was Harry Peeters who farmed in Wardville. Harry appreciated Trevor's service and the quality of the FIL products he bought up the drive with him, and stuck with FIL as he progressed through the industry with his wife Colette.

It is a progression that 23 years later sees the couple owning a 500 cow, 214ha farm at Riversdale in Southland, with three successful sports focused children. The Peeters are now starting to reap the benefits from years of hard work in dairying.

"We realised after sharemilking for 18 years that if we wanted to own land then we would have to head south where it was more affordable, and we have not regretted it, the area is a great place for farming and the kids have thrived here," says Harry. Four years ago the couple fulfilled their goal to own their own farm, and converted a sheep unit to dairy.

"For a while there I was not the most popular guy in the district, we knocked down a number of trees to set the farm up properly. I do get comments

now though about how good it is all looking. "They completed a 60 bail rotary shed and are using FIL hygiene products and tail paint. Harry still occasionally catches up with Trevor on his southern visits, while enjoying an excellent level of service from local farm service area manager Graham Beggs.

"Graham is very much on the job, I don't even have to ask when it comes to sorting out orders and replenishing stock, he's usually a step in front of us."

Thanks to Graham's attention to detail, quality products and good systems in a modern shed, grading problems have not been a headache, and Harry is looking forward to Graham providing some wash down training to his new staff member Chloe Gobles.

Harry has long admired FIL's ability to also offer products that anticipate farmer needs, and Trevor's development of the FIL Backpack Tailpainter is typical.

"The ability to talk to farmers and find out what they need, and what spins their wheels is a pretty rare thing, and FIL has always offered that innovation."

WESTFALIASURGE TECHNOLOGY FUTURE PROOFS CONVERSION

**MATTHEW WALKER OF RAKAIA BELIEVES HIS EQUITY
PARTNERSHIP'S 54 BAIL WESTFALIASURGE DAIRY IS PROBABLY
ONLY ONE STOP FROM BEING A ROBOTIC MILKING PLANT.**



Matthew conducted intensive field research and home work before opting for a GEA Farm Technologies (GEA FT) WestfaliaSurge plant on the dairy conversion property south of Rakaia. He wanted to future proof a design that would deliver greater per cow information and control than enjoyed in most dairies.

After checking out a number of WestfaliaSurge and competing brand dairies around Canterbury, he was reassured by GEA FT's high quality components, advanced technology and renewed commitment to service through Betaquip Dairy Solutions, handily located at Rakaia.

"And that is a major consideration when it comes to getting anything sorted in the plant, you don't want to have that service too far away."

The dairy design and build came with some tight timeframes and expectations. The dairy conversion land had only been taken on in February, but working closely with Betaquip Dairy Solutions, completion for spring was achieved. The dairy coped well with the demands of spring, and only a few minor aspects remain to sort out in operations.

"I was particularly impressed with the WestfaliaSurge cup removers we put in. From what I understand very little has changed in the design since they were first developed some years ago. They are very easy to maintain, and little can go wrong with them, while their removal action is extremely gentle."

The herd has minimal teat end damage, and Matthew puts that down to the cup remover's action.

He also specified a dairy with all equipment mounted within the platform, rather than on the outside.

Another specification was to have electric drive, rather than hydraulic drive for the platform, delivering a lower maintenance, quieter turning system.

The platform sits on nylon rollers, and power comes from two electric motors side by side driving onto an independent chequer plate drive beam reducing wear, noise, slippage and maintenance.

Cows entering the platform activate any necessary alerts earlier than usually found on dairies, with the ID scanner on the entry bridge, rather than the platform itself.

"The aim is the nylon rollers mean no maintenance, and less wear and tear on them." Cows entering the platform activate an alert if necessary earlier than usually found on dairies, with the scanner on the entry bridge, rather than the platform itself.

"It just means if that cow needs to be checked you get to her sooner."

The system includes individual animal feeding that is programmable to liveweight, lactation length, volume, cow age or any combination of variables. Average herd weight can be monitored to detect any changes.

Conductivity tests can be combined with cow production and weight to also help detect mastitis, and all analysis is conducted through WestfaliaSurge's DairyPlan software.

"The technology is all right there, and it just comes down to how you want to use it to your best advantage. We are still finding out more about it as the season progresses."

SEASONAL CLIMATE OUTLOOK

NOVEMBER 2012 - JANUARY 2013



EL NINO LIKELIHOOD FADES AS SUMMER ARRIVES

The equatorial Pacific Ocean remains warmer than normal, especially around the Dateline, but the tropical atmospheric conditions are close to neutral.

The Southern Oscillation Index, an indicator of whether El Nino or La Nina conditions are occurring, has returned to near zero (neutral) or slightly positive during September and October.

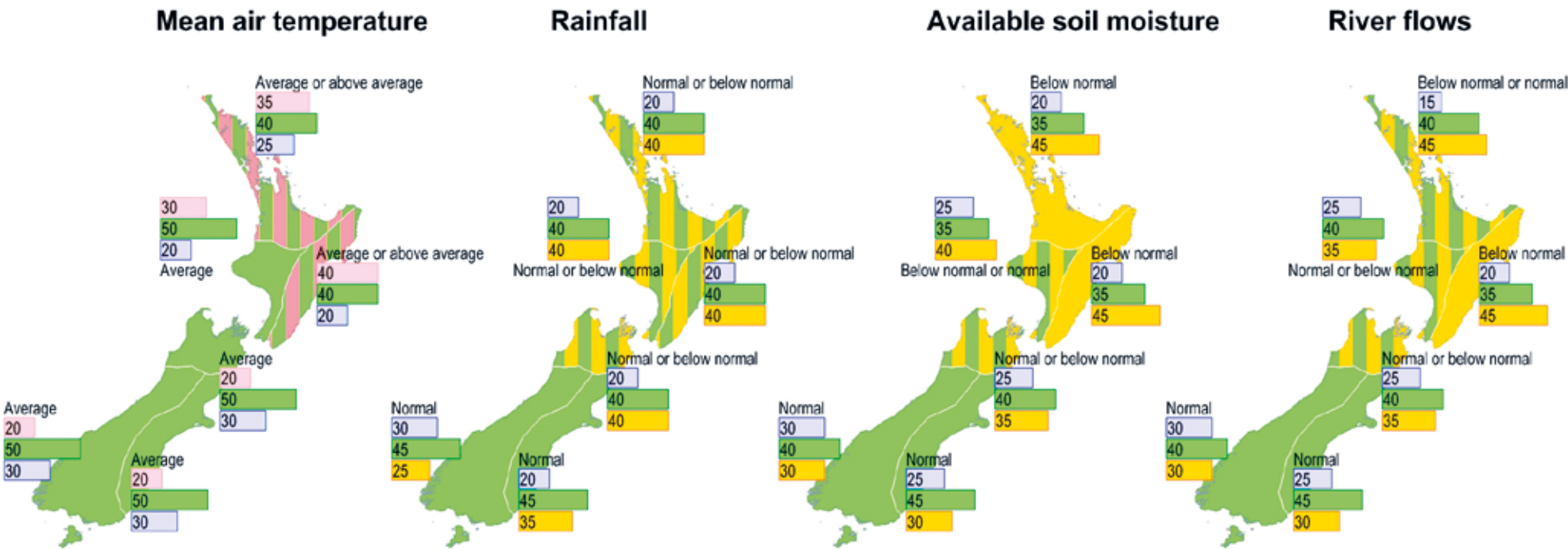
Values below -1 are expected with El Niño events. Indications are the tropical Pacific Ocean is likely to remain neutral over the next three months (November-January), although a transition to a weak El Niño could still occur.

Forecast models indicated the likelihood for an El Niño over the summer period is much weaker now than two months ago.

KEY TO MAPS (example interpretation)

UPPER TERCILE: 20% CHANCE OF ABOVE NORMAL 20
MIDDLE TERCILE: 30% CHANCE OF NORMAL 30
LOWER TERCILE: 50% CHANCE OF BELOW NORMAL 50

In this model the climate models suggest that below average conditions are likely (50% chance of occurrence), but, given the variable nature of the climate, the chance of normal or above normal conditions is also shown (30% and 20% respectively).



GEA Farm Technologies

Meet Our GEA Farm Technologies Sales Team

Farm Service Team

 BRIAN SALVIGNY Northland / Helensville P: 027 472 1501	 MARK MOHRING Nth Waikato / Hauraki / Morrinsville West P: 027 472 1502	 GREG DUNCAN Cambridge / Matamata / Morrinsville East / Te Aroha P: 027 472 1505	 ALLAN CLARKE Bay of Plenty / Paeroa P: 027 473 0572
 DAVE HEWSON Te Awamutu / Otorohanga P: 027 499 1674	 GAVIN DUNN Rotorua / Reporoa / Tokoroa / Putaruru P: 027 479 8470	 JOHN ATKIN North Taranaki / King Country P: 027 472 1506	 MARK WARD South Taranaki P: 027 482 8535
 CLINT HUMPHREY Manawatu / Wanganui P: 027 472 1507	 SCOTT PRICE Wairarapa / Hawkes Bay P: 027 704 5933	 IAN GROOBY Northern South Island P: 027 472 1503	 BRUCE SMITH North Canterbury P: 027 499 3783
 DEREK JONES South Canterbury / North Otago P: 027 491 2966	 PAUL BLONDELL Otago P: 027 549 8182	 GRAHAM BEGGS Mid / East Southland P: 027 472 1818	 RODNEY COOK South / West Southland P: 027 472 1504

Capital Equipment Team

 AUSTIN HEFFERNAN Capital Equipment Category Manager P: 021 194 2811	 TREVOR WARD Lower North Island P: 027 777 6613	 ANDREW UPSTON Upper / Central South Island P: 021 446 851	 MARTIN HEANUE Lower South Island / Southland P: 027 588 5961
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BIG SCREEN SEPARATOR PROVIDES PIECE OF MIND

FOR OPIKI FARMER KRISTIAN FUNNELL THE INSTALLATION OF A HOULE SLOPE SCREEN SEPARATOR IS PROVIDING PEACE OF MIND AROUND EFFLUENT COMPLIANCE, AND BENEFITS FOR NUTRIENT CAPTURE AND REUSE.

The intensive 1600 cow operation was challenging the farm's conventional effluent system, with high levels of fibre and vegetable matter often blocking pumps and effluent irrigation nozzles.

"We saw the 4' by 4' slope screen separator at Mystery Creek, and we were advised to couple a screen with an agi-pump, which is an impressive machine," says Kristian. He was looking for a simple solids separator that did not involve complex screw and press systems that incur high maintenance costs over the season. The farm now has the first 8' by 8' slope screen separator in New Zealand installed.

The agi-pump delivers effluent collected in a reception sump from the underpass, free stall barn, dairy and feed pad, up and over the big 8' by 8' slope screen separator. While not always required, Kristian had a simple roller press installed on the screen to remove surplus moisture quicker.

This has allowed him to collect the solids easily for transport through to the farm run off 6km away to

apply on maize cropping land. With the Horizons One Plan looking more definite, Kristian is confident the Houle slope screen system will enhance the farm's ability to meet the plan's demands on nutrient losses.

"Our cows are already highly efficient, but the screen system means we can distribute effluent further around the farm, and onto the run off very evenly, and still maintain a high feed input system under it."

Interest locally has been strong, and there have been a number of visits from other large scale farm operators keen to see the operation and Massey University staff.

Just south of Whangarei, Patrick O'Hagan has had a 4' by 4' slope screen in place since July. While still early days, he

is finding the liquid effluent from the system promises to be easier to distribute around the farm. Having the solids removed means he will no longer be as limited by effluent density and contour when distributing it, and aims to be able to pump it higher up the hillier country. He opted for the separator system as a means to future proof the farm's effluent system, with the existing two pond system almost at its limit.

"What we like about the screen system is there are no moving parts, we have only washed it once and probably won't have to again. The solids from it are easily stored and give us far more choice about where we distribute it than we had before, as well as pumping the liquid further."

He is also impressed with the components included alongside the screen separator, including the highly effective stone trap that is cutting back silt loss into the ponds, and the cutting ability of the Houle agi-pump delivering effluent to the separator. "It is a good, well thought out design that should serve us well."