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IN THE MIX

#63
AUTUMN 2024

SILAGE PROVES TO BE A GOOD INVESTMENT

Pictured: Sarah Packer, Ballaroo district mixed farmer



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NEW PET AND EQUINE RANGE

LALPROBIOME

We are thrilled to announce the launch of our website dedicated to pet and equine nutrition:

<https://lalprobiome.lallemandanimalnutrition.com/>

The new website is a comprehensive resource for petfood and horse feed industry professionals, veterinarians and nutritionists. It provides technical content on pet and equine health and nutrition, including articles, white papers and webinar recordings.



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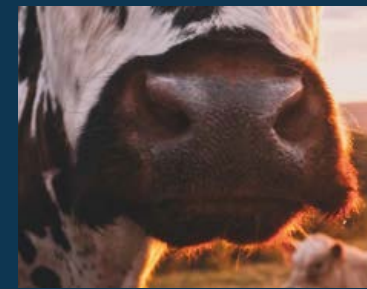
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DID YOU KNOW?

Cows have a very strong sense of smell?



Did you know that cattle, like many animals, have a much stronger sense of smell than humans? In comparison to humans, cattle can detect much smaller differences in odour concentration.

Cattle select their food based on smell, that's why sometimes you can see them sorting through the feed ration. If some of the feed smells bad, they will leave it! It is estimated that they can sense a smell up to six miles away, and cattle know when their meals are being served well before they can hear the tractor. Cows dislike the smells of dung and saliva. That's why producers should make sure their feeding areas are kept clean. When selecting forage and feed, it is crucial to make sure it smells fresh and appetising to ensure suitable intake.

Want to see how cows select silage by smell?



Safety tip:

If you want to smell silage for yourself, be careful. Don't sniff it directly your hands because silage might include harmful spores and volatiles. Spread your silage sample over a flat surface and use your hand to fan the odor up to your nose.

EXPERT INTERVIEW

Selenium-enriched yeast

Monika Leukert, Product Manager, Antioxidative Solutions and Yeast Derivatives



Selenium contributes to several important functions in the body, such as prevention of oxidative stress, proper thyroid function, immunity and reproduction. Selenium is beneficial for all animal species — from farm animals to companion animals or aquatic species. It is also essential for humans!

Monika Leukert

1. What is selenium-enriched yeast?

Selenium-enriched yeast (also called selenised yeast) was the first organic selenium (Se) source used in animal nutrition. It is an inactivated yeast enriched in selenium. Specifically selected yeast strains can utilise inorganic selenium and incorporate it into the yeast biomass in the form of organic selenium compounds such as selenomethionine and selenocysteine. Producing high-quality, concentrated, Se-enriched yeast is the result of proper yeast strain selection and specific process development.

2. Are all selenised yeast the same?

All selenised yeast available in the market are produced with a specific yeast strain. Due to the difference in DNA, each selenised yeast will bring its own profile, which lead to differences in the exact composition of organic selenium compounds.

Additionally, the mastering of the production process is what makes the difference.

Fermentation conditions, proper washing of the yeast biomass and a gentle drying process can optimize bioavailability in the animal.

Finally, quality control of each batch produced is crucial to ensure a safe and consistent feed additive.

3. What are the benefits of Se-enriched yeast for animals?

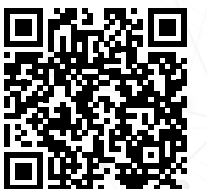
Selenium contributes to several important functions in the body, such as prevention of oxidative stress, proper thyroid function, immunity and reproduction. Selenium is beneficial for all animal species — from farm animals to companion animals or aquatic species. It is also essential for humans!

Additionally, organic selenium brings benefits that are unique compared to inorganic selenium. Selenomethionine is incorporated into proteins in place of methionine. The selenised proteins will then be found in muscles, milk or eggs.

Having selenomethionine stored in the muscles also helps during stressful conditions when catabolism is happening, as this selenium can be released and used to produce functional seleno-enzymes for antioxidant support and more!

Another benefit is selenium transfer to the young animals through eggs or colostrum.

Watch the full interview





Step into the world of silage at Lallemand Animal Nutrition's Beef Australia 2024 Stand!



Calling all beef enthusiasts, forage aficionados, and silage seekers! If you're ready to dive deep into the heart of beef production, look no further than the Lallemand Animal Nutrition forage centre of excellence display.

Lallemand Animal Nutrition is delighted to announce that it will be a major partner of Beef Australia 2024, the country's premier beef exhibition. Held in Rockhampton every three years, this year's event is scheduled for 5–11 May 2024.

Country Director, Alex Turney, says the decision to participate in Beef Australia is a no brainer.

"We think this is the perfect time to spark new conversations about nutrition. Silage is already a really big part of the intensive livestock industries, like dairy and grainfed beef – and now it's time to make it a mainstay practice in the extensive beef industry.

"Silage has never really taken off in the extensive grazing sector, which is really strange when you consider Australia is the driest continent on earth (apart from Antarctica). The grassfed livestock industry goes from boom to dust. Often we have more feed than we can use and then no feed when we need it most.

"Silage allows you to future proof your beef enterprise by preserving and storing processed crops and pastures for future use. You can then access that feed when you need it, allowing you to breed, grow and finish livestock, regardless of the season.

"Growing your own fodder – whether you do it on your own property or have it contract-grown down the road – allows you to take control of your future fodder requirements instead of being reliant on the season.

"Attempting to source feed when it's dry is never the best strategy because everyone is facing the same problem. Demand quickly outstrips supply, prices go through the roof and the quality of the remaining resource becomes variable and often geographically unfeasible to transport.

"The beauty of silage is that, produced and stored correctly, it can last indefinitely until you need it. Most silage is consumed within 12 months, but don't forget that silage can be successfully stored for 10, 20 or even 30 years."

The Lallemand display will showcase modern silage technology to extensive beef producers. "We're going to show beef producers the modern silage roadmap – how to grow it, how to harvest it, how to store it and most importantly, how to feed it," Alex says.

"We'll have representatives from Pacific Seeds, Fodderlink, Eagle Direct, Rotomix and CLAAS. Plus, we've got half a dozen silage contractors who are going to be on hand to share their expertise directly with visitors.

If you plan to attend Beef Australia, be sure to visit the Lallemand stand and say g'day.

Learn about optimal feeding strategies, nutritional balance, and how to keep those rumens humming. Our team is as passionate about animals as you are. Ask them anything—from inoculants to bunk management—and watch their eyes light up.

So, whether you're a seasoned silage player or a curious newbie, join us at the Lallemand Forage Centre of Excellence from 4pm each for silage talks and refreshments.



Silage proves to be a good investment

Three years ago, Ballaroo district mixed farmer, Sarah Packer, took advantage of the opportunity to purchase 1000 tonnes of sorghum silage from a neighbour even though she had an abundance of green feed at the time.

Fast forward to the recent dry conditions gripping parts of the Maranoa region, she is feeding a source of quality forage, allowing her to keep her breeding nucleus intact.

Sarah runs 450 Santa x Charolais cows and replacement heifers, 1200 Dorper ewes and 1000 rangeland goats on 'Hartwood', a 8000 ha property located about 80 km south of Roma.

Cattle are sold as 230 to 260 kg weaners or if the season allows, grown out to 360 to 400 kg for the domestic or feedlot markets.

In 2021, Sarah made the brave decision to pour \$100,000 of hard-earned cash into silage.

"At the time, we had green feed up to our knees but we also know there are times when we have no alternative to supplementary feeding," she says.

"A neighbour contacted me and asked if I wanted to buy some forage sorghum.

"I had absolutely no experience in silage but I thought this was too good an opportunity to pass up.

"Initially, the plan was to bury it but then we decided to make a stack instead because it would be easier to handle and cleaner.

"We prepared a pad, fenced it off and put a levee bank around it to avoid water entering the site."

Initially the stack was covered and sealed with conventional black and white silage film however upon consultation with Lallemand Technical Service Manager, Nathan Lister, it was decided that the initial sealing system was not going to be sufficient enough for

the long-term storage that was desired.

So the original stack was bolstered with Silostop Max and SilageKeeper UV Covers which provided a protective barrier from wildlife and the environment. A two-step system which will ensure an optimum feeding outcome.

Sarah opened the stack in spring 2023 and is impressed by the quality.

"My intention was to put it away for 5–10 years but here we are just three years later," she says.

"We've had barely 100 mm of rain in the past 12 months instead of the 600 mm average."

Sarah is now busy feeding the silage to early-weaned lambs in the yards and first and second-calf cows in the paddocks.

The lamb ration also contains barley grain and a protein supplement including vitamins and minerals.

"We just want to keep our livestock and get them sold.

"The real benefit for me will be being able to early wean our calves if the season doesn't improve and supplementary feed them to keep them going.

"We will grow them out to 220 kg and make the call of whether to sell them, keep feeding them or put them back in the mulga."

Sarah says her investment in silage has more than paid for itself.

"At approximately \$100/tonne, this is cheap insurance," she says.

"It's a quality feed and it's way cheaper than hay.

"If you have to feed out in a dry time, the benefit of having silage is you're not trying to purchase feed at the same time as everyone else.

"It's been an absolute game changer – 200%!

"If I hadn't purchased this silage three years

ago, I wouldn't have any livestock now.

"I will definitely do this again, possibly growing our own sorghum."

Sarah has also invested about \$50,000 in a Celikel Brassus H8 horizontal mixer wagon and a \$75,000 for a late model CASE IH Farmall 110JX tractor.

"Buying a wagon and a tractor has been a good investment in quality and time," she says.

"Before we were just bucketing the silage out in the paddock, which is a bit of a waste of both time and money."

Sarah started buying 'Hartwood' one paddock at a time from her parents in 2016.

"I had the opportunity to come home but I still needed an off-farm job to provide cash flow," she says.

"An opportunity came up to work with a livestock agency and I grabbed it."

Sarah became the first woman to compete in the Queensland Young Auctioneers Competition and then the first female auctioneer in Australia to sell stud stock.

She has since returned to work full-time on 'Hartwood', with a bit of work as a rebate livestock agent in Roma and surrounding areas.

'Hartwood' has a range of red mulga country for breeding and alluvial flats and black soils for cropping.

Up to 800 ha is arable, but Sarah is letting much of it revert to buffel pastures, along with deep ripping to control regrowth and improve water retention.

"This is a very diverse block," she says.

"Mum and Dad ran mostly cattle but I could see the opportunity to utilise the country to its full advantage by introducing sheep and goats."

Project helps fill the feed gap



Pictured left to right: Justin Boshammer, JK Cattle Co and Nathan Lister, Lallemand Technical Services Manager.

The construction of a 500-head drought feeding facility is set to offer continuity in times of need for a dynamic beef enterprise in Queensland's Western Downs region.

Justin and Kate Boshammer run about 500 registered Angus, Brangus, Ultrablack and Wagyu cows and 200 commercial cows across 6,330 ha of owned and leased land in the Condamine and Dulacca districts.

These include 'Elgin' and 'Camilaroi West' in the Condamine district and 'Aberfeldy' and 'Warrema' in the Dulacca district.

Located on 'Aberfeldy', the feedlot will be used, if needed, to grow out commercial weaners through to feedlot weights, thereby freeing up valuable pastures for growing bulls and the breeding herd.

"This project is 100% about filling the feed

gap for our growing cattle and leaving the pasture for the bulls to grow out in the way our customers want them," Justin says.

"In the paddock, the animals are walking to graze.

"In the feedpad, they are consuming feed purely to gain weight."

The drought feeding facility comprises of four 45 x 50 metre pens, each capable of holding 125 head, and a 180-metre concrete feed trough.

The feedlot's first 'customers' will be 200 Angus x Wagyu weaners returning from agistment.

"We'll get them home and feed them for 60 days," Justin says.

"They have the frame – we just need to fill them out in a way that aligns with our customer's feeding program, to ensure ideal induction weights and capacity to reach their

potential for marbling and carcase weight."

"At the end of this feeding program, we'll cover up the pit until we need it again next."

The nutrition program will be based on silage contract grown in the Condamine region.

The forage sorghum crop was harvested and transported 70 km to 'Aberfeldy' by Wayne Galley Silage Contracting.

More than 1300 tonnes was packed into two 50 x 12 metre pits dug into a ridge.

"We knew Lallemand Animal Nutrition Technical Services Manager, Jordan Minniecon, through local Teys Feedlot Manager Phil Lambert, and he offered to come out and help us," Justin says.

"We're more than happy to work with Jordan," he says.

"You can't be across every detail and this is his area of expertise, so it reduces our risk.

The harvested crop was treated with MAGNIVA Platinum forage inoculant, a unique combination of bacteria that promotes rapid 'front end' fermentation and 'back end' aerobic stability.

The pits were sealed with Silostop Max oxygen barrier film to limit the growth of spoilage-causing yeasts and moulds.

A second layer of Silacover black and white extra heavy duty film was placed over the top of the Silostop Max oxygen barrier film as an extra level of protection. This practice is recommended for when the silage will be stored for greater than two years.

The films were covered with SilageKeeper UV covers, which provides additional protection against sunlight and potential damage caused by animals and the environment.

Finally, the three layers were sealed with SealKeeper gravel bags, which provide a re-useable and environmentally friendly alternative to car tyres.

The silage will be balanced with processed

grain purchased from a neighbour (the Hughes family of Banchory Grazing and Rangeland Quality Meats) with nutritional advice from Jim Wade of Wade Agricultural Consultants.

Justin indicated the silage cost about \$130/t, including transport and sealing, equivalent to approximately \$400/t on a dry matter basis.

"At the moment, we'd be paying about \$570/t DM for hay or \$770/t DM for cottonseed meal, so this is cheap by any standard," he says.

"The silage and feeding facility is a long-term investment in our business."

"We want the feedpad to be a turn-key operation," he says.

JK Cattle Co sells about 150 Angus, Brangus, Ultrablack and Wagyu bulls a year to beef producers, a number Justin and Kate are continuing to grow.

"We want to supply quality black genetics that produce quality meat for a range of markets and under a range of environmental conditions," he says.

"Our customers tend to be working with premium supply chains and are trying to value-add to their cattle via genetics, nutrition and management."

All cattle are run under commercial conditions.

"We use tools like breeding values and genetic estimates to identify the high performers with equal emphasis on natural selection – they have to perform on this place and for our customers," Justin says.

"The fundamental drivers of profitability in any breeding enterprise is a calf every year, and as few inputs as necessary.

"Cows consume about 70% of your available nutrition, so it's important they give you a calf each year for the amount they are eating."

Weaned heifers are grown to a joining weight of 300–320 kg, are mated for 60 days and calve down at 400–450 kg, equivalent to 75% of

their mature weight.

"If we manage our pastures well, the heifers should be able to reach these targets on grass alone," Justin says.

"We use tools to determine pasture capacity and our rotation.

"We make the call early in the season whether we can carry our stock over winter or put them on agistment.

"We generally wean at six to seven months and ideally, we want to see a cow weaning efficiency (i.e. calf weight expressed as a percentage of cow weight) of about 45-50%."

Cows are provided supplementary feed in the paddock as necessary, but rarely, as we like to have plenty of diversity of grasses, legumes, browse and other tap rooted species to minimise or negate dry lick costs.

Silage was introduced to the mix in 2023.

"The drought was starting to bite and we had more cattle than available carrying capacity," Justin says.

"We were familiar with silage from my dad's place and my experience overseas, but I guess we were reluctant to incorporate it into our program.

"Like most producers, we'd rather take our cattle to feed than take feed to them.

"But we realised that it was necessary for our operation.

"We are hoping that feeding silage in the feedlot will replace the need for supplementary feeding in the paddock all together."

Weaner bulls are grown out on pasture, winter forage crops and then leucaena paddocks from late spring through to winter.

"Our goal is to make sure our bulls are well-grown but not over-fed," Justin says.

"We want to set them up for success, but they have to have resilience as well.

"Ideally, we want to present our two-year-old bulls at 750 kg liveweight and the yearlings at

500 kg.

"We are seeing increased demand for yearling bulls because they are great over yearling heifers, integrate well with older bulls, and for others gives the bulls six months to adapt to their new home before mating."

Justin and Kate have built this thriving enterprise from scratch over the past 15 years.

"People said there was no money in agriculture but we saw a lot of people who seemed to be doing OK and we were determined to give it a go," Justin says.

A turning point was when Justin and Kate, together with Justin's father, Roger, attended a five-day RCS 'Grazing for Profit' program in 2009.

The program delivers a holistic and practical approach to pasture, livestock, ecological, financial and team management.

"It was an absolute game-changer for us, particularly learning about what's really driving the profitability of our business and making sure we invest our money in the things that count," Justin says.

"It empowered us to make the right choices and be confident about borrowing money."

The couple later went on to complete the three-year RCS ExecutiveLink program. They graduated in 2016, and purchased the first of their properties in 2018. Continual learning and taking opportunities for personal and professional growth has always been a theme in their journey.

Justin and Kate both work full-time in JK Cattle Company, with the assistance of three full-time team members.

"Kate's not here today but she's in this business, 100%," Justin says.

"There's no JK without the K."

Flying high!

The construction of a silage-based paddock assisted feeding system five years ago has enabled Southern Downs beef producers, Karl and Alexis Doré, to turn a 50-cow breeding enterprise into a 800-head backgrounding operation.

Their cell paddocks comprises seven yards ranging from 5 to 40 ha, with the larger pens sown to improved pastures, including Rhodes grass, bisset bluegrass and purple pigeon.

About 250 cattle are on feed at any one time.

British Breed steers weighing about 250 kg are fed for 90 to 120 days before being sold to a local feedlot at 400 kg liveweight.

"We're targeting an average growth rate of 1.2 kg/day but our steers are regularly achieving 1.5 kg/day or even 1.7 kg/day due to the quality of the silage," Karl says.

"Once they get going, they just take off!

"Plus, we are going a much better job with animal health, including a 5:1 vaccine, B12 injection and a long-acting parasiticide at induction.

"We have tracked everything from the onset.

"Our ration costs \$210/t as fed, which equates to a feed cost of \$2.70/day.

"This can be very profitable although the past few months have been a bit of a challenge."

The Dorés grow a range of crops during winter and sorghum during summer.

About 900 tonnes of sorghum and 600 tonnes of barley are cut for silage each year, while 300 tonnes of barley is harvested for use in the feeding program.

"Our goal is to have 2200 tonnes of sorghum and barley silage on hand at any time," Karl says.

"We made our first barley silage in 2022 and it's rocket fuel."

The silage is harvested and packed by Bony Mountain-based silage contractors, Maxheath Silage.

Harvested crop is treated with MAGNIVA Platinum forage inoculant and sealed using standard black-and-white film, SilageKeeper UV covers and a mix of gravel bags and tyre walls.

MAGNIVA Platinum contains a patented bacterium strain, *Lentilactobacillus hilgardii* CNCM I-4785, and the industry benchmark, *Lentilactobacillus buchneri* NCIMB 40788.

This unique combination provides fast-acting 'front end' fermentation with proven 'back end' aerobic stability, allowing silage to be opened earlier and last longer after opening.

A nutritional analysis is conducted on all ingredients before being formulated for Brisbane-based nutritionist, Vincent Posada, of Animal Nutrition Consulting Services.

The ration, which is fed out once a day, contains about 65% silage, along with milled cereal, straw/hay, molasses and a high concentration premix pellet.

All told, the Dorés have invested more than \$300,000 in troughs, machinery, silos and grain mill.

"It's been a bit of a chicken-and-egg approach," Karl says.

"The original idea was to produce silage to feed to our cows using home-made troughs when it got dry.

"We quickly realised that we were going to need a lot more cattle so that we could utilise the silage face more efficiently – and if we had more cattle, we were going to need better troughs to reduce wastage.

"The pre-cast concrete bunks were only economical if we bought them as a truckload, so we ended up with six, which gave us enough capacity to feed 330 head."

"Ironically, we put in our first sorghum crop four years ago just as the drought broke."

The Dorés have recently set up their own brand – Greenhill Beef – in an attempt to buffer themselves against future market fluctuations.

"We are getting better and better at feeding cattle, ironically just as the market has crashed and our input costs have soared," Karl says.

"We fed 22 steers through to 600 kg and they achieved MSA grade in the mid 60s.

"We thought, we can do this!

"At the moment, we are growing the steers out to background weights but they are only another 30 or 60 days from slaughter, so why not just carry them through and sell direct to a processor or have them contract slaughtered?

"We might have put the cart before the horse, but we think there's a market for people who want to buy high quality, locally-produced beef that has been ethically and sustainably produced, straight from the producer.

"Toowoomba has a population of 135,000 people and it's only 40 km away.

"We think we can grow this to about 1000 head per year.

"Without silage, we simply could not do this."

Karl and Alexis' story is all the more remarkable given they had limited agricultural experience before they purchased 'Ravensdale', a 320 ha property in the Pilton district between Warwick and Toowoomba, in 2015.

Karl was a commercial pilot with more than 9500 flying hours in his logbook before the COVID-19 pandemic brought his 22-year aviation career to an unceremonious end in 2020.

"I had my last flight in early March and two weeks later I was laid off," he says.

"That wasn't in my career plans but at least we had the farm to concentrate on.

"Alexis and I both wanted to get out of the city and we were always looking at properties.

"We started off looking at 20, 50 and then 500 acres.

"We must have looked at dozens of properties until we came across this one.

"The owners were keen to sell and we could see its long-term potential.

"It was a bit rough but it had a good house, which was important because we wanted to start a family.

The Dorés initially ran 50 Angus and Wagyu crossbred cows.

"The onset of the drought in 2018 was a wake-up call," Karl says.

"We started supplementary feeding and my neighbours said we should think about silage.

"They put us in touch with a silage contractor, who in turn, put us in touch with Lallemand Animal Nutrition.

"Their Technical Services Manager, Nathan Lister, is now my 'go-to' man when it comes to silage."



Pictured left to right: Karl, Oliver & Alexis Doré.



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How can postbiotics support lower gut health in calves?

Calf health management is crucial and will influence the performance of the adult cow. In pre-ruminants, particular attention should be drawn to the establishment of the digestive system and its inhabitants, the microbiota. This is the time when the digestive tract undergoes significant and extensive changes, evolving from its initial monogastric function towards a ruminant function with microbiota in the rumen and the lower gut. Feeding and balancing the microbiota with pre and probiotics during this delicate time can help ensure future health and performance.

■ Weaning: A stressful event for the calf and its digestive tract

During early life, while immunity is still weak (Figure 1), calves experience a lot of external stressors: transportation, transition from liquid to solid feed, dehorning, etc.

All these stressors increase the risk of morbidity and mortality by making the

immune system more vulnerable. This can lead to visible signs of poor immune defenses such as digestive and respiratory diseases.

■ The power of postbiotics

In this context, there are two types of solutions that can be applied: post and prebiotics (such as yeast derivatives) and live microorganisms such as a specific live yeast dedicated to gut health to focus its action on the calf gut.

The yeast derivative YANG — which includes specifically selected yeast fractions (postbiotics) — has been proven to help maintain the health of calves and other young ruminants.

YANG is a multi-strain yeast derivative formulated to strengthen animals' natural defenses with a patented, synergistic effect on the immune response.

Observations and samples from calves made through endoscopy shows that (Figure 2) calves fed YANG during the pre-weaning period show a higher anti-inflammatory ratio compared to a control group.

■ Conclusion

In calves, the first months of life are critical for future production. Nutrition management is key to limiting the impact of early stresses on the digestive system and ensuring optimal rumen development. In addition to good management practices, producers can include beneficial nutritional tools such as innovative yeast fraction, YANG, to help maintain calf health, support starter intake and reinforce rumen papillae development for optimal adult performance.



How to ensure liquid feed hygiene?

Watch the video!



REFERENCES

Jacobs C., Hupé J.F., Péliissié L., Demey V., Saornil D., Bravo de Laguna F., Castex M. 2023 Potential of liquid feed hygienization by *Pediococcus acidilactici* CNCM I-4622 (MA 18/5M) to improve milk production. Pig Research Summit 2023, Copenhagen, Denmark.

In Europe, liquid feed is particularly popular for swine in northern and western countries — including Denmark, the Netherlands, Ireland, Belgium, France, Germany, Italy and Sweden — where a huge proportion of finishers and sows are fed liquid feed. Liquid feed can be associated with lower costs, improved feed intake, increased palatability and better animal growth. However, liquid feed provides the perfect environment for microorganisms to grow, and the liquid feed system harbours a complex and dynamic microbial ecosystem. Hygiene is key in liquid feed systems to maintain good pig health.

■ Ensure good quality raw materials

Little is known about the microbiological quality of cereals. The composition of the microbiota present on the cereals helps determine the liquid feed quality and its evolution in time. Depending on the balance between positive and undesired microbes, the nutritional and sanitary qualities of liquid feed can be degraded. Performing regular analysis on raw materials will help decrease the risk of contamination of the liquid feed.

A study conducted in 2017 gathering 66 samples of cereals across Europe demonstrated the ability of the specific microbial inoculant *Pediococcus*

acidilactici CNCM I-4622 (BACTOCELL) to positively affect the microbial profile of different types of cereals when mixed with water.

■ Adopt proper cleaning procedures

The surface of the tank and pipes are usually coated with biofilms. When biofilms contain pathogenic bacteria, they can be detrimental to liquid feed quality and animal health. Adapted cleaning protocols can help manage biofilms inside the liquid feed system. A complementary strategy consists of using a specific microbial inoculant able to support the establishment of a positive biofilm.

■ Using a specific microbial inoculant

A recent study, presented at the Pig Research Summit, monitored the acidification and hygiene enhancing properties of *Pediococcus acidilactici* CNCM I-4622 in pig liquid feed.

After 10 hours incubation at 30°C, the feeds containing *P. acidilactici* CNCM I-4622 were better and faster acidified than control feed. Feed pH was significantly lower (Figure 1). Similarly, the concentration of L-lactic acid in the feed was significantly higher with the lactic acid bacteria.

This enhanced lactic acid production ensured better feed hygiene as indicated by the significantly lower total coliform counts (Figure 2).

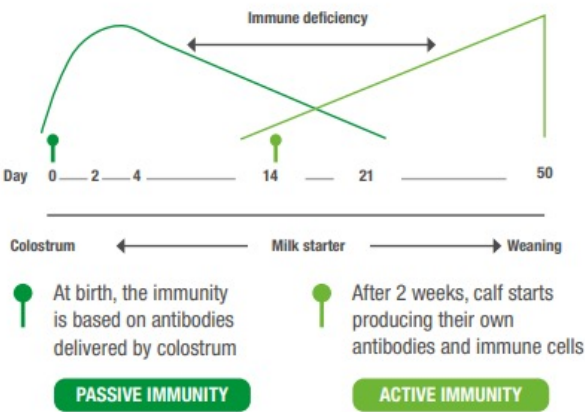


Figure 1: The immunity gap in calves from birth to weaning

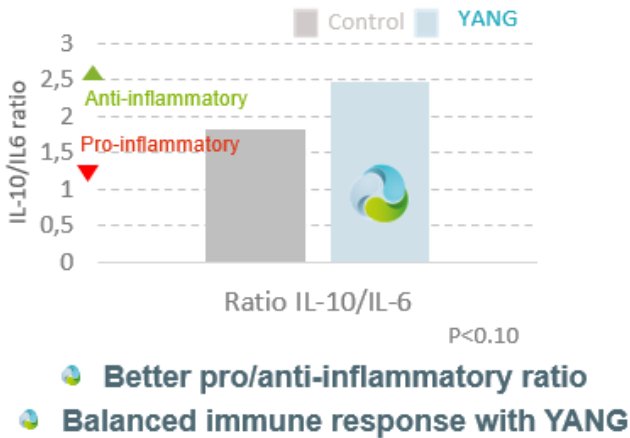


Figure 2: Interleukins gene expressions coming from gut samples of preweaned calves

EFFECT OF *P. ACIDILACTICI* CNCM I-4622 ON LIQUID FEED PH AT 18 HOURS (N=3 FEEDS).

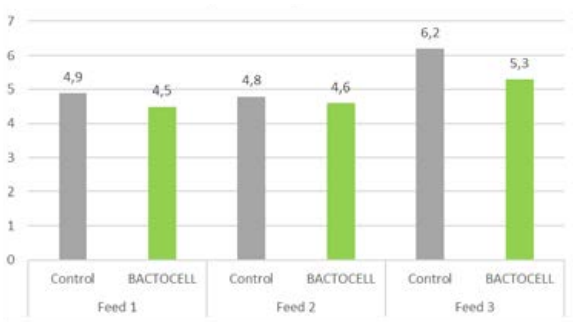


Figure 1

EFFECT OF *P. ACIDILACTICI* CNCM I-4622 ON LIQUID FEED TOTAL COLIFORMS COUNT AT 24 HOURS (N=3 FEEDS).

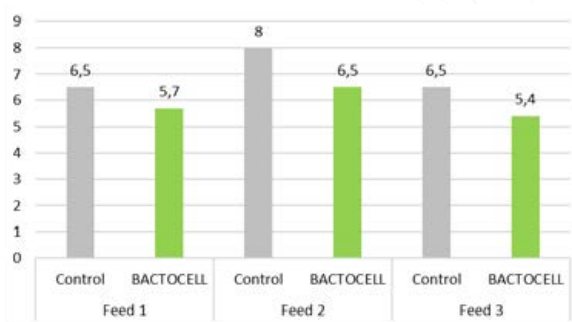


Figure 2



Lallemand announces Mathieu Castex to succeed Yannig Le Treut as Lallemand Animal Nutrition President, General Manager

On February 1, 2024, Mathieu Castex, Ph.D., succeeded Yannig Le Treut, DVM, as President and General Manager of Lallemand Animal Nutrition. Dr. Castex comes to the position after serving as our Director of Research and Development since 2014.

Dr. Le Treut successfully led Lallemand Animal Nutrition since 2012. To ensure a seamless transition, he has taken on the role of Senior Vice President & Special Advisor at the Lallemand Group level, while supporting Lallemand Animal Nutrition's management team and leadership transition over the next several years.

"I am extremely pleased that, in Mathieu, we have a leader with a strong scientific background, aligned with the product offerings we have for our customers around the world. In addition, his product management and commercial experience make him an excellent choice to build

on the success Yannig achieved over the past decade leading the lallemand animal nutrition team. I'm looking forward to continuing to work closely with Yannig in his new capacity", said Bill Nankervis, Executive VP and COO of the Lallemand Group.

Dr. Castex added:

"I am delighted to be able to continue to channel my fervor for microbiology, animals, and animal breeding in the service of the animal nutrition business unit. I am honored to be entrusted with succeeding Yannig in leading this remarkable team and business, which he played an integral role in establishing and strengthening. I am confident that our specialised teams — when coupled with science-based products, innovation, and our dedication to customer satisfaction — represent a winning formula for success for us, our partners, and our industry."

Dr. Castex joined Lallemand Animal Nutrition in 2009 as the product manager leading the yeast derivatives and aquaculture portfolio. He graduated from AgroParisTech in Paris, France, now part of the University Paris-Saclay, and holds a doctoral degree in microbiology and physiology of nutrition.

Dr. Castex's experience includes research and development, product management, and business development within animal nutrition and health.



DISCOVER PETWAG: THE PET WELFARE ASSESSMENT GUIDE

Earlier this year our pet team launch PetWAG, a unique tool to help veterinarians and pet owners assess dog well-being. PetWAG is a four-step guide to measure and monitor dog welfare based on personality and mood state. It provides practical tips and nutritional solutions that will help support and improve pet emotional well-being.

Discover PetWAG:

<https://petwag.lallemandanimalnutrition.com>

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