

FACEY CONNECT

LEADING, INSPIRING, SUPPORTING AND CHALLENGING
OUR LOCAL FARMING COMMUNITY



September/October 2021



**Spring Field Day
Recap**

**The Science Behind
Daggy Sheep**

**Trial Update:
Barley Grass
Control**



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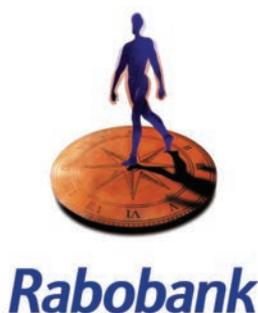
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Major Sponsors



The Facey Group would like to acknowledge and thank our valued sponsors Agrimaster, Australian Grain Technologies, CSBP, Elders Insurance, Elders Wickepin, Ewen Rural Supplies, Farm Weekly, Grain Growers, Planfarm, and Tincurrin Rural Services.

A Note from the EO

What a very busy month it has been in the Facey Group Office. We had our successful Spring Field Day on the 8th Sept. Thank you to Amy and the Facey Team, Geoff Poultney and family and all of our speakers for hosting the SFD this year. Helen Duncan has written an excellent recap- please check it out as its full of important findings from our day.

The Facey Group AGM was held at the SFD, where we welcomed Skye Moxham and Tim Shepherd to the committee. We also thank Kyle Angwin for his imperative contribution to the committee and entire Group, and wish him well for his adventures ahead.

Facey has also been all over the state running the GRDC Harvester Forums with Primary Sales, Planfarm and Seed Terminator. Facey Group are the state coordinators for this project and we've run forums in Goomalling, Morawa, Darkan, Kondinin and Ongerup. We ticked over 70 attendees for all events and 3/5 we hosted over 100 people. These in-demand workshops will be run again next year and we will include a forum in the Facey area. Thank you to the speakers and caterers for making the events this year fantastic.

We have been successful with funding applications this month. One project with Southern Cross University will focus on sowing cover crops in early spring before the busy harvest time. As moisture is still available for the plants to establish, we expect our host growers will be able to establish a valuable cover crop. It is hoped that this project will demonstrate the benefits of sowing cover crops into a pasture (or worst case a failed crop) at this time will have on winter grain yield. A replicated plot trial, hosted by Daniel Bird and Family, will evaluate the biomass potential of spring sown cover crops and subsequent grain yield. The trial will include single and multi-species summer cover crops compared to a typical chemical fallow. The varieties we will test include monocultures of Millet, Cowpea, Sudan Grass and compared to mixed rations. Facey Group will also establish three on-farm demonstration sites, again at Daniel Bird's, and also Caen Taylor and Clinton Hemley's properties. It is expected that there will be benefits of sowing mixed cover crop species on soil health and we anticipate this will provide grain yield advantages. Thanks to Ballard's of Narrogin for their help on seed selection with this project.



Dr Kelly Pearce, Facey Group Executive Officer

An additional project we have received confirmation of will look at the impact of stubble height and harvest method on soil moisture, soil health and subsequent yield. This collaborative project with the Liebe Group will compare the impact of a draper front vs a stripper front and 2 different stubble heights vs no stubble (removed with a Kelly chain or similar). This project will start this harvest.

Sadly, our Communications and Engagement Coordinator, Eliza, will be leaving us in a few months to pursue an amazing opportunity. We will begin the process of finding a replacement for her position in the coming month. Eliza has done an amazing job revamping our newsletters and social media. Since starting, our engagement on Twitter and Facebook has skyrocketed and our newsletter also experienced an increase in viewings, along with 2-4 extra emails reaching our readership per month to extend information. Keeping our members and the wider community informed on what Facey Group is up to is at the core of this great increase in engagement.

Wishing those of you cutting hay a well-timed season and that our grain crops receive a last drink or two to get good grain fill.

Facey Findings

Spring Field Day 2021 Summary

By Helen Wyatt - Elders Agronomist & Facey Group Secretary

A great day out with a good variety of topics covered and some great discussion around issues on farm. Key messages were:

Elders Tech Site – in very high ryegrass pressure situations pre-emergent Propyzamide, Sakura, Mateno Complete and an upcoming Sipcam chemical were standouts depending on crop choice. A good knockdown is important, 44Y27 canola is looking great and good post-em control was achieved in the second application with glyphosate + clethodim mix. Be prepared for chemical supply issues and price rises in the coming year due mostly to shipping and global production issues.

NVT's – I hear you roll your eyes, but everyone wants the quick run through of what varieties are up & coming...

Barley

- MaximusCL will basically replace SpartacusCL, 5% + yield, and slightly better STNB resistance
- 'Imi Planet' - 2 lines are under production still yet to decide which (IGT20125 or IGT20126) – decision will be made and the winner ready for 2023
- Minatour (AGT213) a bit longer season, competitor to Planet with Commander background but better grain size in tight finish. Grower to grower trading allowed.
- CommodusCL – a low lying competitive 'Scope replacement' but has a Compass breeding background. If you want something even more 'Scope' (without the head loss) then wait for 1922 still to come in the next few years.
- Cyclops – (AGT200) a Hindmarsh type, erect, short season, non-imi feed barley with good grain package - Rosalind competitor + 4% yield.
- Beast – prostrate with good weed competition and good all round Compass type, under malt accreditation but even without will still perform for yield. Potential for grazing/hay with smooth awns
- Laperouse – a longer Bass type malt competitor you may have heard of, but finding it a hard fit with so many varieties on offer

Wheat

- Denison - the longest season spring which acts almost like a winter - potential for early sowing for frost mitigation. The next longest are Catapult & Rockstar. Catapult can be sown

earlier, Rockstar will hurry up if sown later to avoid dry finish.

- ValiantCL – new longer season 'Imi' AH will replace SheriffCL
- Sting – a short season Vixen type all rounder
- Calibre (AGT271) – new 'Scepter' replacement + 4.5% yield. Yellow spot not great but slightly better powdery, and longer coleoptile for chasing moisture at seeding!!
- Upcoming
 - > IGT5157 - Very short 'Imi' Emu Rock length AH
 - > 4863 - mid season all rounder
 - > AGT663 - good powdery resistance 'Scepter'



Alana Hartley from AGTBreeding and Allan Rattey from Intergrain presenting on current NVT trials

Facey Findings

Spring Field Day 2021 Summary

Summit Fertiliser

Phosphorus Site – benefits clearly visible in increasing P rates, especially as N & K rates are pushed higher, the question is how much can the budget handle this year?

Manganese Site – a hard one as some soil types are very responsive and others not so much, adding Manganese to fertiliser is most economical when comparing units vs cost, but on farm logistics and your own soil types may dictate how you manage this issue.

Fertiliser samples with trace element coatings were supplied to have a look at and the granules were not degrading so they have confidence in retaining good handling with this method.

Origo – Spoke about their all in one weather station, soil moisture probes and tank monitors which don't require additional internet as they have a built in network. They also touched on the importance of data and calibrating data as weather station measurements change slightly over time with instrument age. Keep an eye out as interested Facey Members may soon be involved in a district project to get better weather data across our region.

Planfarm – Grain Marketing, with Decile 8/9 prices life is good, consider looking to next years forward contracts also. If you play with Swaps chances are with high prices you might lose a bit on those – overall though you should be up net gain with cash prices, so it's still a win.

Primary Sales – hopefully you made one of the recent Facey Group Harvester Set-Up forums and learned about Weed Seed Control Set-Ups and are ready for harvest.

Terraland Soil Amelioration Pit

Dr. Gauz Azim, from the DPIRD, spoke about the soil type – a 60cm sand over clay. The main constraint being pH and that clay layer which is essentially creating an anaerobic bottom to the profile and resulting in a smaller 'bucket' for moisture & nutrients. The Terraland was ripping to 35cm and some mixing in the topsoil was evident with improvement in pH, however, it wasn't reaching/bringing up the clay as it is too deep. Geoff Edwards has been doing a lot of Terralanding on similar soil types with great success but said using EM and getting a good understanding of how deep and what type of clay is important. He initially thought the Plozza Plough would give better results but in most of his soil types will stick with the Terraland.



Dr. Azim from the DPIRD explaining soil amelioration.

Facey Findings

Spring Field Day 2021 Summary

Overwatch

Brian Staines spoke about the in-crop bleaching and off-target bleaching. The in-crop bleaching is being mostly attributed to depth, as stated on the label it needs 3cm – where Geoff Poultney had Terralanded seeding depth was variable post amelioration, as expected, and bleaching was high early on. It looked a lot better on the day having mostly recovered visually with the header yet to tell results.

Off target drift is a combination of drift and inversions, with nearby crops already emerged unlike the past few years, and lupins being especially susceptible, the bleaching adrift was fairly evident. The other issues seem to be localised drift after rain/inversions – the label does have a buffer claim, so something to be aware of. Overwatch will be available for purchase for 2022 season.

When asked if FMC were worried about the class action; he said they had been dealing with all grower complaints directly and didn't think a class action was likely to be a good pathway for growers to try and claim. If you have had any issues, go through your reseller and to FMC direct, they will pick up the phone. Grower discussion was positive around learning how to use this product better going forward, along with other new chemistry and the need to keep chemical rotation options available. Ironically, some of the drift affected lupins are tipped to yield better than the 'untreated' but that is not a recommendation.

Canola NVT – we didn't even discuss varieties as most are sold out for next year other than the OP lines (Bonito/Stingray/Mako), all hybrids are popular and with good reason – they are performing well. Hugh Trenorden from Bayer spoke about hybrid canola breeding and how it essentially requires 3 parent lines and 2 years of breeding to produce the hybrid seed – hence they are starting now for 2023 seed. He also spoke about how retaining hybrid seed will see the next generation lose hybrid vigour as seed genetics partially revert to parent lines, it breaks your legal purchase agreement and it will reduce Blackleg resistance as it reverts to parent line blackleg genetics. With so much canola around and high prices, looking to keep canola hectares up will only increase the blackleg pressure.

A big thanks to Amy & all our Facey Group team for a great day.

We are now taking suggestion/ideas/feedback for what you want in next years field day, and hope to see you there.



Hugh Trenorden from Bayer explaining how breeding hybrids works.

AgREC Update

Amy Bowden

With fantastic weather and an interesting and engaging line up of speakers, the Annual Facey Group Spring Field Day was a feature of the month. Highlights of the day included local producer Alan Manton winning 1T of Cyclops Barley seed, donated by AGT, plus fantastic engagement and conversation surrounding soil amelioration and health at a soil pit on Geoff Poultney's property.

Producers and industry attendees visited multiple sites, where a variety of interesting topics were covered including:

- Canola and wheat herbicide options
- Wheat, barley and canola variety comparisons
- Wheat and barley variety launch
- Crop nutrition
- Grain marketing update
- Integrating IoT devices into farm businesses
- Reducing harvest losses
- Soil amelioration/health
- Bednar Terraland
- Overwatch Q&A
- Hybrid canola retention and yield



Congratulations to local producer Alan Manton for winning 1tn of Cyclops Barley

Facey Group would like to extend a huge thank you to all of the presenters and attendees of the Spring Field Day. Thank you to our major sponsors - Shire of Wickepin, Rabobank, CBH and Summit, and all of our valued sponsors, who provide a vital contribution to the running of the Field Day and the Facey Group as a whole. A massive thank you to the Facey Group committee, a group of dedicated volunteers who underpin the success of the Group, and whose time and ideas were imperative to the success of the field day. Thank you to Geoff Poultney for hosting the Field Day at his property, and to Elders for providing morning tea.

Planning for Facey Group's 2022 Spring Field Day is now underway, we hope to see you there next year.



Attendees inspecting NVT trials.



Dr. Azim explaining the process of soil amelioration.

AgREC Update

Trial Update: Pre-emergent herbicides and high-density crop for barley grass control

Amy Bowden

Key messages:

- Increasing seeding rate of barley increased crop density and decreased barley grass burden.
- Trifluralin provided excellent barley grass control at both 2L/ha and 3L/ha
- Barley crop was not affected by trifluralin application

Barley grass at high density is known to reduce crop yield. A GRDC project, seed bank ecology of emerging weeds (UA00156), has highlighted that barley grass ecotypes in Western Australia are often short and are likely to be highly sensitive to crop competition. Initial control with pre-emergent herbicides combined with high seeding rates in cereal crops may be sufficient to control this species.

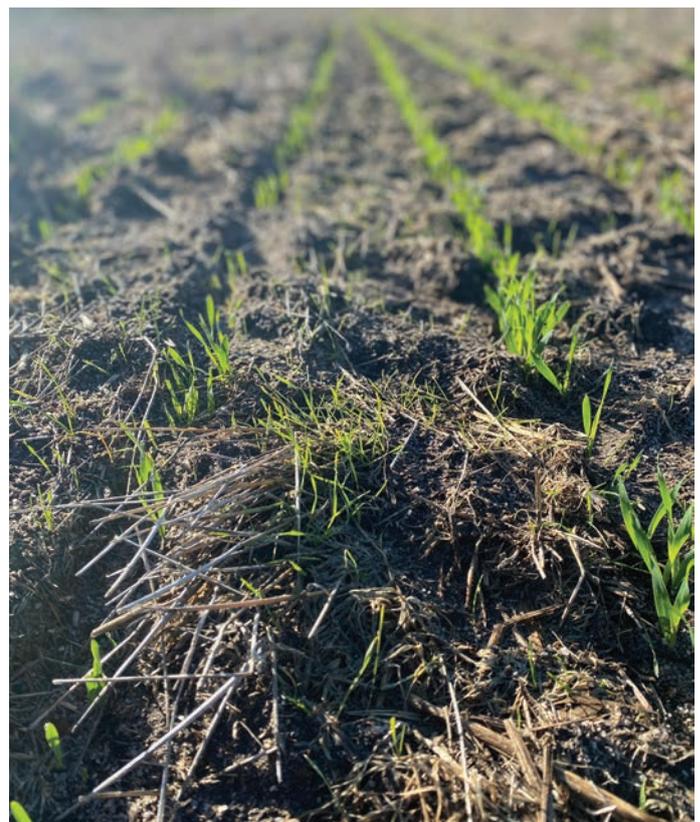
Facey Group's experiment, located on Gary Lang's property near Wickpin, is testing localised integrated weed management strategies against barley grass using a large plot scale demonstration replicated trial. A pre seeding knockdown of 2.6L/ha Glyphosate 450 was applied on the 2/6/21. Three seeding rates of 40, 80 and 120kg/ha of Maximus barley and two pre-emergent applications of 2L & 3L/ha Trifluralin was incorporated by sowing on the 3/6/21. A post-emergent herbicide application of Intervix® was to be applied to half the treatments, however due to significant in-season rainfall the trial paddock was inaccessible and Intervix® has not been able to be applied.

Project Aim: Demonstrating and validating the implementation of integrated weed management strategies to control barley grass in low rainfall zone farming systems.

As expected, crop density increased with seeding rate (94, 159 and 200 plants m² at seeding rates of

40, 80 and 120kg/ha, $P < 0.001$, LSD: 24.2). Increasing crop density also reduced barley grass density (6.8, 2.3 and 2.5 barley grass/m², $P: 0.014$, LSD: 2.01). Trifluralin gave excellent initial barley grass control in all treatments, and the crop was not affected by pre-emergent herbicide. Intervix® has not yet been applied due to waterlogging making the field inaccessible. As a result, there is not yet any significant impact of herbicide on weed density. The 2020 trial, also hosted on Gary Lang's property, indicated that Intervix® provided excellent in-season control of barley grass weeds.

Harvest data is still to be collected at the site. We would like to thank Gary Lang for providing the trial site and maintaining the trial, GRDC and WANTFA for providing funding and support and to Dr Catherine Borger, DPIRD, for her assistance and support in evaluating and interpreting the results of this trial.



Members NEWS

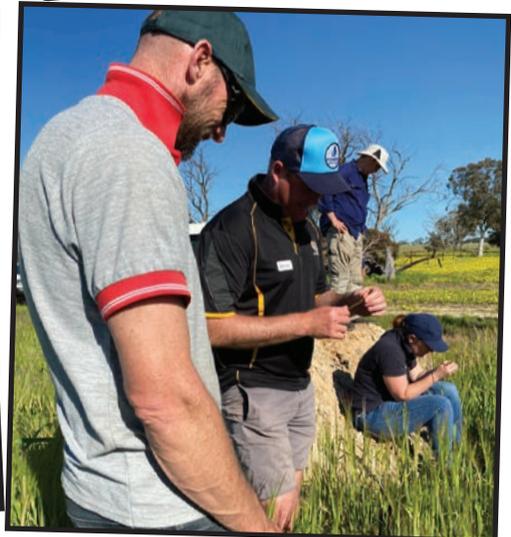
Facey Group Spring Field Day 2021

Fantastic to see so many members and industry professionals out at the Spring Field Day, to keep up to date, network and catch up on such a beautiful sunny day.



Members NEWS

Facey Group Spring Field Day 2021



Members NEWS

Bridging the autumn feed gap and improving lamb survival: Bird's Deferred Grazing and Improved Pasture System

Amy Bowden; Facey Group

Farm Snapshot

Grower: Audrey & Peter,

Daniel & Danelle Bird

Farm: Windorah Farms

Location: Wickepin, WA

Livestock: 1700 Merino Ewes

Lambing dates: July

Joining Length: 35 days

Rainfall zone: Medium

With increased seasonal variability, the Bird's have implemented a robust system on their Wickepin property to tackle the Autumn feed gap, while also optimising the condition and health of their livestock. 'Windorah Farms' is managed by Daniel Bird, with mother Audrey managing the sheep enterprise within the farm business. The Bird's join around 1700 Merino ewes annually, half as a self-replacing Merino flock, and half to White Suffolk terminal rams.

Through the introduction of confinement feeding and deferred grazing of improved pastures, Audrey and Daniel have successfully increased the gross margin of their livestock enterprise, reduced lamb mortalities due to mismothering, and increased carrying capacity.

The motivation for change

Originally undertaking a split lambing in April and May, the significant supplementary feed bill, lack of pasture feed availability and lamb mortalities due to mis-

mothering motivated Audrey and Daniel to seek an alternative management system. In 2019, the Bird's transitioned to an entirely June lambing. The following year, lambing dates were pushed back further still, to the last week of June-July. In order to accommodate this change, the shearing and crutching dates were also changed, from a late September shear to late March.

The new system – confinement feeding

In early May, Audrey shifts ewes into confinement for 4-5 weeks. Ewes are split according to foetal number, and receive a macrocyclic lactone drench and clostridial vaccination prior to confinement.



The Bird's confinement infrastructure includes a transitioned feedlot with four pens. The stocking rate during confinement is approximately 475 ewes per ha. Water supply had to be increased to the pens due to the high water demand, with scheme and transportable cup and saucer troughs utilised.

Members NEWS

Feed rations are calculated based off Lifetime Ewe Management, with the allocated weight of feed supplements distributed into trough feeders. The ration includes Milne's EasyOne pellets, then retained export quality oaten hay (approx 10MJ ME/kg) on subsequent days. Calcium Sulphur Mix loose lick is also provided for a nutrient top-up. Ewes are fed in a laneway immediately adjacent to their pen, where they are provided two hours per day to consume their allocated ration. Following this two hour window, ewes are shifted back into their confinement pens.

Prior to confinement, Audrey drafts any ewes <2.5CS, and these ewes are preferentially fed and lamb in a smaller mob. There was only two ewe mortalities in the entire duration of the confinement feeding process this year.

Towards the end of confinement, Audrey transitions the ewes back onto green feed over 2/3 days. Following their daily supplementary feed, each pen of ewes are allowed onto pasture for 2-3 hours per day before being placed back into confinement to allow adaption of the rumen. When ewes are shifted onto pasture following confinement, they do not receive any further supplementary feed. This period of confinement feeding provides the opportunity for pastures to establish undisturbed. The target feed-on-offer (FOO) level for ewes to commence grazing is 1500-2000kg DM/ha.

Despite appearing labour intensive, Audrey stated that she has found it no more difficult to supplement with confinement feeding compared to feeding mobs located in multiple paddocks across the farm. Additionally, it is convenient to have the ewes all in one location, close to the sheds. The high levels of feed-on-offer due to the deferred grazing also reduces the requirement for supplementary feeding overall.

Lambing onto improved pasture

The improved pasture base is comprised of oats, canola, cereal rye, persian clover and subcover.



During selection of this mixture, Daniel had a keen focus on plant diversity. The pasture is seeded in early April prior to the crop seeding program, and is sown with a disc seeder with a fertiliser application. Two weeks prior to grazing, pasture paddocks receive a top up of Flexi-N.

Deferring grazing until FOO is 1500-2000kg DM/ha allows the Bird's to lamb at high stocking rates. One paddock this year of 40ha accommodated almost 300 twin bearing ewes during the lambing period.

A drone is used to check lambing paddocks without causing disturbance to the ewes and lambs. The tall pasture provides shelter from the elements for the newborn lambs. There is a well-researched correlation between FOO and the time a ewe will spend at the birth site (ideally 6+ hours), which impacts on the ewe-lamb bond and subsequent lamb survival. Audrey has noticed less mismothering following the integration of deferred grazing onto improved pastures with high feed availability.

Members NEWS

Ewes and lambs remain on the pastures until lamb marking. Pastures are spray-topped to prevent weed seed set, and most pasture paddocks will return to the crop rotation the following year.

Although many producers value clover in their pastures for nitrogen fixation, Audrey and Daniel do not rely heavily on the clover component for N, and are happy to utilise artificial sources of nitrogen. The increased plant biomass due to the oats, canola and cereal rye has subsequently increased the root biomass, thereby improving soil health and overall nitrogen fixing capabilities of the clover in the pasture base, Audrey has noticed. A further benefit of the pasture system is that ground cover over the summer months is maintained, protecting the valuable topsoil from wind erosion.



The Bird's currently run 7DSE on their enterprise, however with the implementation of deferred grazing they have the ability to significantly increase their carrying capacity. Their immediate target is to increase by 1-2 DSE.

Audrey and Daniel were initially sceptical of shifting lambing dates back, with the concern that weaners will be lighter heading into summer. However, the deferred grazing and subsequently high pasture availability has allowed lambs to achieve the same

weight heading into summer as the previous earlier lambing system.

Overall, introducing confinement feeding and deferred grazing into the operation has paid off for the Bird family. The condition score of ewes has improved, weaner weight has remained constant despite a later lambing date, and the potential carrying capacity and profitability has also increased.

Important to note

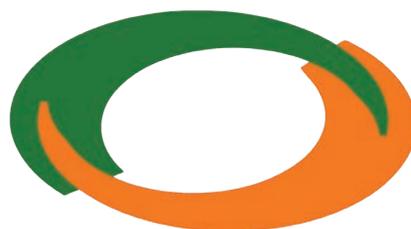
- It is essential to drench and vaccinate ewes prior to confinement feeding
- Confinement feeding increases the risk of campylobacteriosis infections, especially amongst maiden ewes. Therefore, Campyvax vaccination is recommended.

To contact Audrey Bird

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FACEY GROUP



Shaping the Future

Animal Health Update

University of Western Australia Professor Graeme Martin, equipped with a doctorate in reproductive endocrinology, for 40 years has studied the way the brain controls reproduction in farm animals. In this month's newsletter, Graeme explores the topical issue of daggy sheep.

Combating the helminth-diarrhoea-flystrike complex

Emeritus Professor Graeme Martin
UWA Institute of Agriculture

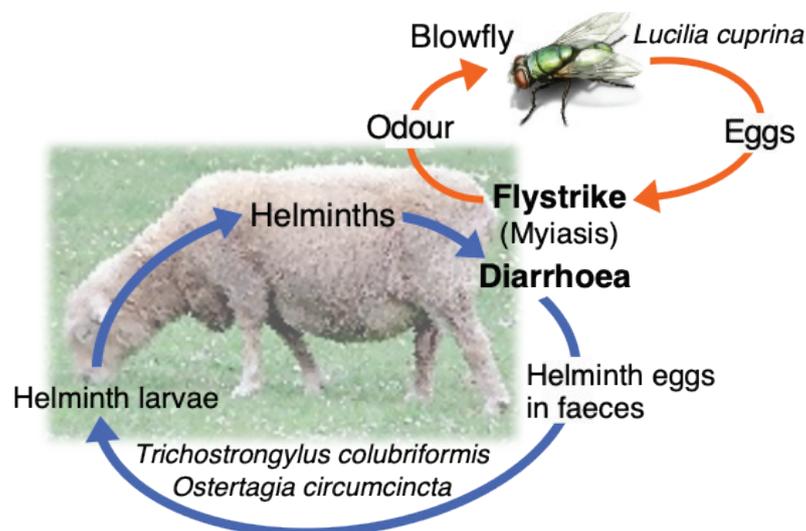
Readers running Merino sheep will, unfortunately, be familiar with worms and flystrike, particularly as we come out of winter scours and head into flystrike season. What might not be so familiar is the biology behind the two problems – biology that offers clues to solutions.

1) Gastrointestinal 'worms'

Gastrointestinal worms are known scientifically as helminths, a term I will use because it is correct, it is one word, and we know we are not talking about earthworms. Helminths are a problem for all livestock worldwide and, dear reader, you and I probably have them too ... we just hope not to have too many! In the sheep of the south-west, helminth infection is most common in during winter and early spring. To make matters worse, the anthelmintic drenches that we have relied upon for the past 60-odd years are becoming increasingly ineffective because the helminths develop resistance to them – 'evolution in action'. Here is a thought: the drenches effectively covered up the helminth problem because they allowed sheep with low natural resistance to survive and breed. We are now being forced to recover lost ground.

2) Flystrike (myiasis) around the breech

Helminth infection reduces productivity and also causes diarrhoea ('scours', 'dags') that attracts the blowfly, leading to breech flystrike. To make matters worse, the practice of 'mulesing' that we have relied upon for decades for prevention of flystrike is socially unacceptable. As a producer, you might feel outraged by such impositions. The trouble is that, no matter how logically and loudly you argue, the consumer has power of veto.



The helminth-diarrhoea-flystrike complex that plagues Merino sheep

Note that we have interactions among 3 genomes (sheep, fly, helminth), complicating the genetics. Moreover, we are now convinced that there are interactions among the genotypes of the helminths, the sheep and the bacterial populations all the way along the sheep gut, and that these interactions help trigger the diarrhoea.

Animal Health Update

How big is the problem?

The helminth-diarrhoea-flystrike complex costs the Australian sheep industry more than \$600 m every year – \$370 m for helminth infection plus \$147 m for breech flystrike plus \$80-160 m in penalties for faeces-contaminated wool. Moreover, when sheep leave the farm, diarrhoea continues to be a critical issue because there is zero tolerance at the abattoir due to the risks for human health. Those pesky consumers, again!

So, what are the boffins doing?

1) Can we breed sheep that are resistant to helminth infection?

Yes. Globally, there is a big effort to breed for low faecal egg count (FEC) so we can restore natural resistance to helminth infection. WA's contribution has been led by Johan Greeff at DPIRD since 1988 and he has produced the most helminth-resistant Merino flock in Australia. The heritability is 0.6 so breeding is easy and effective but, unfortunately, some of the resistant sheep still suffer from diarrhoea. New research (see below) is trying to find out why that is so.

2) Can we breed sheep that are resistant to flystrike?

Yes. This research has also been led by Johan Greeff. He has shown us that susceptibility to breech strike is repeatable – individual sheep struck when they are 16 months old are more likely to be struck as adults, even with annual crutching. It is also heritable – only 3% of the progeny of the most resistant sire are struck, compared to 103% of the progeny of the most susceptible sire (some of these progeny were struck more than once). However, in addition to genes, environmental factors are responsible for 80% of the susceptibility to breech strike, complicating any breeding plan. New research (see below) is trying to find out why that is so.

3) Can we simply abandon mulesing?

Yes. In pursuit of its vision for 'clean, green and ethical' livestock management, the UWA Future Farm project stopped mulesing more than 10 years ago. This long experience of managing non-mulesed Merinos led to a partnership with Georgia Reid and Ed Riggall of AgPro Management. With funding from Meat and Livestock Australia, the team is demonstrating the value of abandoning mulesing to producers nationwide. The team is also documenting the social impact and the management changes required for success. They have won the RSPCA WA 2021 Bronze Award in Agriculture for this work. A good animal welfare story!

4) Can we find a replacement for synthetic drenches?

Yes. UWA's Phil Vercoe and his team are investigating molecules produced by plants that block helminth development in the gut. The story actually began with the Australian native shrubs that he was investigating as summer-autumn feed and for reducing methane emissions. Some of these novel forages were found to be anthelmintic, including *Acacia saligna*, *Enchylaena tomentosa*, *Eremophila glabra*, *Rhagodia parabolica* and *Rhagodia preissii*. They seem to produce mixtures of helminth-killing molecules – this is good because the development of resistance is less likely.

5) Why do low-FEC sheep still get diarrhoea?

Complicated! When John Larsson was at DPIRD, he theorized that some low-FEC sheep over-react to the few worms they have in their gut. This 'hypersensitivity', a sort of allergic reaction that leads to diarrhoea, has led us into the bewildering world of the immune system, working in collaboration with Nobel laureate,

Animal Health Update

Barry Marshall and his team. Gut health, as you would know, is a hot topic in human health and, no surprise, it is the same story for sheep.

6) *Why do blowflies attack sheep?*

Evolution. Blowflies developed a lifecycle that involves them laying their eggs on a dead animal so their maggots have a ready-made food source. Flies find carrion by sniffing out molecules produced by bacteria in decaying flesh. Sheep blowflies (*Lucilia cuprina*) also follow their sense of smell but, unfortunately, prefer to lay their eggs on live sheep. The importance of odour in sheep flystrike was reinforced when Johan Greeff and his team discovered that ‘sniffer’ dogs can tell the difference between wool from flystrike-resistant and flystrike-susceptible sheep. So, do bacteria living on the skin around the breech produce an odour that is attractive to flies? Is more odour produced when diarrhoea was present? Unfortunately, it’s not so simple. The bacteria living on the skin are largely the same in flystrike-resistant and flystrike-susceptible sheep. However, rather being a dead-end, the result is very fortunate because it tells us that differences in odour are down to the sheep, not the bugs around the breech. In other words, we can now focus on the genetics of odour. So, watch this space.

Next idea – can we ask blowflies to tell us what they like? Yes, we can. Greeff’s team recruited Guanjie Yan, a keen young scientist from China. Obviously, insects do not have a nose ... they smell with their antennae, so Guanjie worked out how to take the antenna off a fly, place it between two electrodes, and measure the electrical current it produces when it encounters a molecule of interest. He could then blow a small stream of gas containing possible odour molecules across the antenna, note the electrical signal, and direct the gas into a machine that could identify the chemical that the antenna loved. By comparing odours from wool that was attractive or unattractive to flies, he found two molecules – octanal and nonanal – then proved that flies love them. Are these molecules responsible for flystrike? Can we breed sheep that do not produce them? Watch this space.

Bringing it all together

We are on the cusp of several breakthroughs in our fight against the helminth-diarrhoea-flystrike complex. We have had to go back to basic science to try and figure out what is happening. Why? Well, if we don’t understand the basics, we will not be able to find a solution. In the same way, you need to understand how an engine works before you can fix a broken one, or even tune one up.

If you are a Merino producer: you need to be using genetics for resistance and non-mulesing management so you can make advances while the boffins make the discoveries that you need for the next big leap forward.

RAMPING UP REPRO

GETTING THE BEST PERFORMANCE FROM YOUR RAMS



WORKSHOP INVITATION – Wickepin

WHERE: Corke's Property, 451 Yealering-Pingelly Road, East Pingelly WA 6308

WHEN: Friday, 15th October, 2021 from 8:30 am (9pm Start) to 2:30 pm

PRESENTER: Dr Michylla Seal, GENSTOCK

COST: \$75 per person – including morning tea, lunch, refreshments and materials.

RSVP: ESSENTIAL (by 12th Oct) – online at <https://sheepsback.com.au/events/1000/>

Note: Places limited to 20

WHAT WILL BE COVERED

- Importance of pre-joining ram preparation
- Ram anatomy and physiology
- Animal health – must do's
- Ram inspections – 4 T's (practical activity)
- Best practice ram management
- Timing of preparation
- Ram joining %
- Economics of ram purchases (why best practice pays off)

A practical, hands on and interactive workshop that will provide you with the most up to date information from experienced sheep veterinarians on how to optimise ram performance.

We hope to see you there – all welcome!

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ANIMAL BREEDING SERVICES



CORRIGIN
Farm Improvement Group

NEWS from Our Partners

Freight challenges for Australia's upcoming grain export program

As commodity prices have risen steeply over the past year, so too has the cost of global freight. High prices, slow and delayed shipping and difficulty getting containers has been a challenging dynamic for all Australian exporters, including ag, according to Rabobank senior analyst Cheryl Kalisch Gordon.

“With a great outlook for commodity prices, positive outlook for winter crop production and a world in need of Australian grains, could freight be ‘the fly in the ointment’ for a strong export program in 2021/22?” she asks.

“Container freight costs have increased ten-fold from pre-Covid-19 levels and dry bulk shipping costs are up close to five-fold.

“For containers, this is primarily due to an imbalance in the location of containers and vessels between import and export regions, created by successive shocks to demand followed by faster recovery in some regions – especially China – than others.”

For dry bulk shipping, Dr Kalisch Gordon says the price rise has been mostly due to very strong global demand for commodities, but also a lift in demand due to some shippers moving their cargo to smaller dry bulk vessels to avoid high container freight pricing.

“For both container and bulk freight, shipping fleet efficiency has been impacted by Covid-19 restrictions,” she says.

These tight freight markets, she says, have also been impacted by out-of-the ordinary events.

“The blockage of the Suez Canal in March this year by container ship the Ever Given was one such example.

“More recently, constraints on capacity at some Chinese ports, but most notably Ningbo (the world’s third busiest cargo port), due to COVID detections, required diversion of ships to ports such as Shanghai, Xiamen and Shenzhen, causing vessel congestion in those locations.

“This is exaggerating the already stretched global freight complex.”



Rabobank senior analyst Cheryl Kalisch Gordon

NEWS from Our Partners

While Ningbo is expected to fully open again soon, Dr Kalisch Gordon says delays and additional demurrage (penalty) costs will result at both Ningbo and other Chinese ports in the short-term.

“The cost of ocean freight is set to remain high over the next 12 months,” she says.

“For container freight, this is due to an expected ongoing imbalance in economic recovery in different regions – which stymies the efficient movement of containers – while growth in demand for container vessels is also forecast to outpace growth in capacity.

“For bulk freight, costs are also set to remain high, given strong global demand and trade in commodities and low new shipping capacity coming to market.

“With a path to the normalisation of costs is not forecast to begin before Q2 2022.”

Dr Kalisch Gordon says all regions of the world are experiencing shipping challenges. However, shipping lines have been prioritising high-volume routes, such as from Asia to the EU and US, where two-way trade options are greater and allow more efficient use of ships and containers.

“Some ports, including some in Australia, are not being serviced or not serviced with the same regularity,” she says. “With this dynamic, containerised grain exports can expect continuing challenges, especially for smaller exporters who cannot charter their own vessels or command a sufficient portion of ship space to secure a service.”

For dry bulk shipping – the majority of Australian grain exports – higher-priced shipping should underscore Australia’s competitive advantage of being near to South East Asia, she says.

“With strong global demand and high prices cushioning the impact of freight challenges on export demand and margins – plus our close proximity to important grain markets – freight will hopefully not be ‘the fly in the ointment’ for a strong export program in 2021/22.”

To find out more about other Rabobank research, contact Rabobank Narrogin on 08 9890 0600 or subscribe to RaboResearch Food & Agribusiness Australia & New Zealand on your podcast app.



Rabobank

NEWS from Our Partners

CBH Mental Health Program marks milestone with launch of Regional Crisis Information Resource

The CBH Group, in partnership with Lifeline WA, has today launched the Regional Crisis Information Resource, a booklet containing mental health information specifically for WA grain growing communities. The launch marks the first anniversary of CBH's three-year partnership with four leading mental health service organisations.



Lifeline WA, Youth Focus, Mental Illness Fellowship WA (MIFWA) and Black Dog Institute joined CBH's 'Regional Mental Health Program', which seeks to increase access to mental health services throughout our grain growing communities.

As part of the program, Lifeline WA led the development of the Regional Crisis Information Resource, a 36-page A5 booklet that includes local contact information for someone in a crisis or for anyone supporting a person in crisis. The booklet was produced in conjunction with CBH and supported by Youth Focus, MIFWA and Black Dog Institute.

The Regional Crisis Information Resource will be available for the first time at the Newdegate Field Days and can be picked up for free from the CBH shed. CBH Chair Simon Stead said he hopes the booklet will be an easy go-to resource for those who need it most.

"The launch of the Regional Crisis Information Resource at Newdegate is a wonderful achievement within the first year of the program," Mr Stead said.

"We hope those who live in WA's grain growing regions and who need support will find this resource helpful and easy to refer to, either for themselves or for someone they care for."

Lifeline WA, CEO Lorna MacGregor said "Lifeline WA is very proud to have worked closely with CBH and the other Mental Health providers to produce this important resource. We want everyone in regional WA to know that they are not alone. Help is always available".

Over the past year, the four partners in CBH's 'Regional Mental Health Program' have reached several key achievements in their first year.

MIFWA has delivered 20 workshops to 249 people across the grain growing regions, 65 per cent of which were aged between 12 and 18 years. Several workshops were delivered to schools through a whole school approach enabling both students and staff to obtain training they previously had not been able to access. MIFWA Communications and Engagement Manager Janine Ripper said there was a much larger than expected demand for the training.

NEWS from Our Partners

“MIFWA has been able to work with local Community Resources Centres, schools, residential colleges and through offering online formats to provide access to training for anyone in grain growing regions wanting to become a Mental Health First Aider, to learn how to look after their own mental health or assist someone they care about,” said Ms Ripper.

In its first year of the program, Youth Focus supported 29 young people through 217 web service sessions. Youth Focus delivers frontline services and education programs which aim to reduce symptoms associated with suicide, depression, anxiety and self-harm, and build long-term mental wellbeing to help young people reach their full potential.

Mr Stead said the CBH mental health partners have enabled the co-operative’s program to deliver new and expand current services, programs and campaigns for regional Western Australians in the areas of prevention, intervention and continuing care.

“Together, we’re aiming to make help easier to access for growers and their communities so that they can look after themselves and their loved one’s mental health,” Mr Stead said.

If you, or someone you know, are feeling overwhelmed, we encourage you to call Lifeline on 13 11 14 (24 hours/7 days).

Partner	Overview	CBH-supported activities
Lifeline WA	Provides all Western Australians experiencing a personal crisis or thinking about suicide with access to 24-hour crisis support and suicide prevention services.	Support of the 13 11 14 Crisis Line. Video and telephone counselling for grain growing communities with a focus on suicide bereavement counselling. Development of a Crisis Response Pack for communities to use in times of need.
MIFWA	Supports people who have experienced mental illness, and their families and carers, to find a way to reconnect with their life and community.	Provide grain growing communities with access to a variety of training and workshops to support local people and their families and carers.
Black Dog Institute	Aims to reduce the severity and incidence of mental illness, actively reduce suicide rates, remove the stigma around mental illness, and empower everyone to look after their mental health.	Provide regional GPs and health professions with training and education in the areas of anxiety, depression and suicide.
Youth Focus	Provides free mental health services to young people aged 12-25 years with the aim of reducing symptoms associated with anxiety, depression, self-harm and suicide, and build long term mental wellbeing.	Expand one-to-one face-to-face counselling via existing network of regional locations. Introduce web counselling services across grain growing regions to new clients.

Budget Roadshow Webinar



Join us at the free Budget Roadshow to learn how budgeting helps you manage risk & optimise your financial return.

Throughout September our team hit the road and delivered a budget workshop across 9 locations. Now, due to demand, we've condensed the workshop into a 3 part webinar series.

You will learn:

- How to account for market forces & production variations.
- Budgeting, forecasting & budget control best practice.
- How & why to setup healthy budgeting rhythms.

Who is this event for:

- Both Agrimaster & non-Agrimaster customers.
- Non-customers can sign up for a 30-day trial with no locked-in obligations.

Prerequisites

- Laptop and charger
- We recommend completing the [Full Budget Webinar Training](#).

Dates:

- Session 1: 8/10 2021
- Session 2: 15/10/2021
- Session 3: 22/10/2021

Time:

- 10 am - 11:30 am

Register [here](#).

For more information, click [here](#).

Voting for WoolPoll 2021 is open!

Time to cast your vote for wool's future

WoolPoll is open to ALL woolgrowers ... Merino producers, mixed farmers or those who only run sheep as seasons allow. If you've paid at least \$100 in wool levies over the last three years, you're eligible to vote in WoolPoll 2021.

Held every three years, WoolPoll is a voluntary vote of all wool levy payers through which the industry decides on its levy rate for investment in the research, development and marketing activities conducted on behalf of woolgrowers by Australian Wool Innovation (AWI).

Growers are being given up to five options of levy rate to support, and can vote for one or more levy rates in order of preference through the independent poll. The options growers can vote on as their preferred levy rate are 0 per cent, 1 per cent, 1.5 per cent, 2 per cent and 2.5 per cent.

This year's WoolPoll will feature a supplementary question which will ask woolgrowers whether they want a five-year WoolPoll cycle, or if they want to remain with the current three-year voting cycle.

Voting can be conducted either online at www.woolpoll.com.au or via email, fax or post. For more information, call the voter helpline on 1800 990 365.

Voting is open for WoolPoll 2021!

Have your say from
now until Friday 5 November
www.woolpoll.com.au

WoolPoll
 **2021**

Upcoming Opportunities

Regional Investment Network Expressions of Interest are being sought for a planned Regional Investment Network throughout WA. Access to appropriate capital to support business establishment, growth, sustainment and transition has been an issue for regional WA. The Regional Investment Network aims to connect and support investors across regional WA, while providing localised opportunities for investing in regional businesses. Show interest [here](#).

Applications remain open for the 2022 AgriFutures Rural Women's Award and the new AgriFutures Rural Women's Acceleration Grant. The [Rural Women's Award](#) has seen close to 300 exceptional women develop innovative projects that are contributing to a prosperous future for rural Australia. The award has a revised criteria for 2022, which requires applicants to have an existing project, business or program which falls into a Community, Collaboration or Commercial category. The AgriFutures [Rural Women's Acceleration Grant](#) program provides a leadership and development opportunity to seven women who are not quite ready to apply for the Award, offering a \$7000 bursary for professional development. Applications close 8 October.

Enterprise Support Program Projects that support the scale-up of the State's food and beverage manufacturing industry are the focus of The Enterprise Support Program, a \$3.8M competitive grant open to WA agri-businesses, enterprises and entrepreneurs. A partnership between the Shire of Murray, Development WA and the DPIRD, the program offers up to \$200,000 in dollar for dollar co-funding for agri-businesses seeking to pursue business de-

velopment and innovation opportunities. Find out more [here](#).

The **Mt Burdett Rural and Regional Advancement Foundation** aims to give back to the rural and regional community by investing in vibrant people and projects. Applications can be made all year round for the three streams of funding: Individuals, groups and scholarships. Everything from skills development to network building opportunities are supported, and applicants need not be from the farming sector. Early to mid-career people with a passion and vision for the local community are the target. Apply [here](#).

Redlegged earth mite research seeks WA input No Western Australians have yet responded to Cesar Australia's national survey on the redlegged earth mite. Your answers will help to increase understanding of current control strategies, and improve how the redlegged earth mite is managed across Australia. The survey takes about 10 minutes, and can be found [here](#). It's open until October.

Farmers2Founders has launched two new programs, Hatch and Harvest. [Hatch](#) is a six-week program that helps producers work out whether their innovative agrifood, fibre, fisheries or aquaculture idea 'has legs'. It offers tools, resources and coaching to support the development of a three-month plan to progress your idea. The [Harvest](#) program helps agritech and food businesses take the next step towards growth. The program provides funding, business coach matching, resources and strategic connections.



Industry NEWS

Smart Energy Management

The [National Farmers Federation](#) has teamed up with the [Energy Efficiency Council \(EEC\)](#) the peak body for experts in smart energy management – to launch a new guide for farms that are looking to slash their energy costs through smart energy management. The new ‘sector spotlight’ on farms is the latest in the EEC’s Navigating a dynamic energy landscape series and shows how farms can cut costs, improve productivity and reduce emissions with energy efficiency, renewables and demand management. Tony Mahar, CEO of NFF, said the guide was timely: “Aussie farmers have seen their energy costs more than double in the last decade. The great news is we’ve seen leading farms avoid a big chunk of those extra costs by getting smarter with how they use energy.” The complimentary report can be downloaded [here](#).

Kulin farmer Brendan Savage embraces Australian Sustainable Produce certification. Rather than being given the label of regenerative, Kulin farmer Brendon Savage prefers to be called a sustainable hybrid farmer. He is the first and only Western Australian farmer who currently has Australian Sustainable Produce (ASP) certification for his cropping and sheep farm, Tolga, situated about 30 kilometres south of Kulin. Mr Savage said his farming operations combined the best of conventional and sustainable farming practices to promote healthy soils so he doesn’t have to rely on large rates of synthetic fertilisers. “We still use NPK, but we load it up with other products that are made here in WA to get the

best efficiencies from our money and to promote soil health,” Mr Savage said. Read whole article [here](#).

COVID-19 Workforce Guide receives 2021 update, highlights importance of vaccines. Advice on vaccinations in the workplace is at the center of the NFF’s updated COVID-19 Workforce Guide. The Guide, first released in April 2020, collates practical information outlining ways farmers and farm workers can operate in a COVID safe way. The document has been updated to include information on how employers can encourage vaccine uptake among their workforce. A copy of the guide can be downloaded [here](#).

GIWA Crop Report – September 2021 The Kwinana South zone is on track for an above average year for total grain production, as there is less frost damage than further north and east, and subsoil moisture reserves are generally higher. The eastern fringes of the zone, bordering with the Kwinana North zone, have been very badly impacted from the frosts and growers here will have well below average tonnages. However, as an overall outlook, the badly affected areas are a small proportion of the total area in the zone.

The waterlogged areas are now showing up more in the western areas, although the very poor areas are small. The later start in the central regions of the zone and the lower than average total rainfall will keep the grain yields to only about average. In the western areas that are not waterlogged, yields will be well above average. [Read the whole report here](#).

2021 Season GIWA September Western Australia Crop Production Estimates (tonnes)

Port zone	Wheat	Barley	Canola	Oats	Lupins	Pulses	State total
Kwinana	5,800,000	1,800,000	800,000	350,000	200,000	10,000	8,960,000
Albany	1,200,000	1,750,000	600,000	300,000	80,000	30,000	3,960,000
Esperance	1,400,000	1,150,000	610,000	20,000	50,000	50,000	3,280,000
Geraldton	2,200,000	300,000	400,000	5,000	200,000	2,000	3,107,000
Totals	10,600,00	5,000,000	2,410,000	675,000	530,000	92,000	19,307,000

Note: the grain totals reported are for whole farm production. This includes on-farm seed and feed requirements as well as trade outside of the CBH network. Oat tonnage for grain only.

Podcasts of the Month



AgPro Management

Episode: Carbon Credits or Crypto Currency with Richard Brake

Wrapping up from workshops on all things carbon, Richard and Mark summarise what was covered and what it means to producers.

If you're interested in doing a calculation of your own net emissions Richard recommends the Melbourne University calculator <https://www.piccc.org.au/resources/Tools> Richards email is richard@richardbrakeconsulting.com.au



Your Farm Business Podcast

Episode 2: Impact of Interest Rates

Darryl Gobbet is currently a Visiting Fellow at the SA Centre for Economic Studies at the University of Adelaide. Darryl is an eminent economist and has had many roles in his successful business career. Darryl and Mike's path first crossed in the late 1980's at The State Bank, the predecessor the BankSA. Notably in those times interest rates reached the giddy heights of 22%. Darryl shares his thoughts on current interest rates and where he thinks they are heading, and the impact of this on the farm business and rural land values.

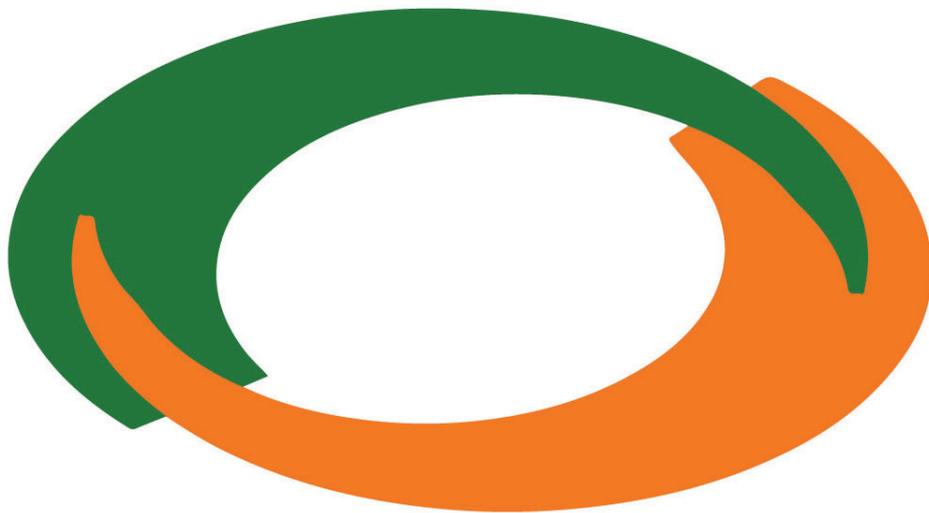


Agthentic

Episode: Designing crops to change the plant-based food system

Benson Hill is designing crops and ingredients for some of the world's most popular plant-based food brands. But the company has no intention of becoming a brand itself. Instead, it's focused on revolutionizing the entire food system, from how plants are grown, to what they taste like, to the range of crop varieties on offer. Founder and CEO, Matt Crisp, started Benson Hill nearly a decade ago as a plant biology company, using analytics and machine learning to increase yields. Now it has grown to become a technology platform as well as a vertically integrated food and ingredients business, designing high protein soybeans and yellow peas to fuel the growing plant-based protein industry.

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Shaping the Future