FutureBeef CQ BEEF
Information for rural business in Central Queensland
13 25 23 futurebeef.com.au
NORTHERN TERRITORY GOVERNMENT · Department of Primary Industries and Regional Development, Government of Western Australia · mla Meat & Livestock Australia · Queensland Government

New research into pasture dieback

Monitor for pasture dieback

NOW is the time to monitor your property for pasture dieback.

Many grazing areas in central and southern Queensland received good rain over October 2020 and in areas that received more than 50 millimetres of rain, pastures are springing to life after the winter.

This is an ideal time to look closely at paddocks and assess if pasture dieback is present.

The main characteristics to look for are areas that are not responding to the rain (e.g. dead patches), where dieback occurred last summer, or fresh outbreaks where patches of pastures are exhibiting leaf yellowing or reddening.

Once identified, these areas should be closely monitored over the next few months to determine if they are affected by dieback and end up dying.

DAF staff undertaking sampling at a pasture dieback trial site November 2020.

Until pasture is dead, pasture dieback cannot be formally confirmed.

Over recent months new research into this condition has been initiated.

Field, glass house and laboratory research are underway to obtain information about the cause of dieback and identify potential control and management strategies.

The Department of Agriculture and Fisheries (DAF) has been very active with new research to better understand the microbiome within and around plants affected by dieback, including a range of potential causal agents (viruses, bacteria, insects).

DAF has also formed the Pasture Dieback Industry Network (PDIN), a group comprising graziers, agribusiness and researchers who come together to learn more about dieback.

The first meeting of the industry network was held in September with about 25 members coming together to share their experiences with dieback and hear about the latest DAF research.

New field trials into potential treatments were also identified.

DAF staff are currently setting up these new trial sites with a range of treatments, including burning, re-seeding to grass only or grass and legume pastures, forage crops, cultivation techniques, fertilising, insecticide application, and grazing management.

Field days will be held at these sites in 2021, once treatments are implemented and the results start coming in.

DAF will be extending the latest research outcomes through the PDIN, so anyone interested is encouraged to become a member regardless of where you are located across the state.

To register and become a member please go to the Futurebeef website (futurebeef.com.au) and search for 'pasture dieback'.

Alternatively contact Stuart Buck or Nicholas Brazier through the DAF customer service centre on 13 25 23.

- Stuart Buck, principal pasture agronomist, DAF Rockhampton, 0427 929 187.

Learn how to manage phosphorus nutrition

OVER the last three years, Department of Agriculture (DAF) staff have run phosphorus workshops in Central and Northern Queensland.

The most recent workshops were held at Gin Gin, Mt Larcom, Barmoya and St Lawrence in November 2020.

The resources used in the workshops and a range of other information on managing phosphorus nutrition are available at futurebeef.com.au/knowledge-centre/phosphorus.

The resources cover:

- How to diagnose phosphorus deficiency
- Effects of phosphorus deficiency on productivity
- Developing a phosphorus management plan
- Breeder management
- When to supplement with phosphorus
- Managing supplement intake
- Vaccination to prevent botulism
- Economics of phosphorus supplementation.

A good starting point for assessing the phosphorus status of your property is a landtype map. These can be obtained using the free FORAGE online tool (longpaddock.qld.gov.au/forage/). The Queensland landtype sheets provide an excellent overview with information on woody vegetation, pastures and soil properties including soil fertility (futurebeef.com.au/knowledge-centre/land-types-of-queensland/).

Blood testing for phosphorus status can be a valuable tool for assessing the phosphorus status of animals and paddocks. However, it needs to be undertaken at the end of the peak growing season i.e. March-April and not all classes of animals are suitable for testing. An information sheet covering classes of animals to be tested, testing procedure and accessing test kits can be downloaded.

- Kylie Hopkins, beef extension officer, DAF Rockhampton, 0467 726 349.

FutureBeef
CQ BEEF
Information for rural business in Central Queensland
13 25 23 futurebeef.com.au
NORTHERN TERRITORY GOVERNMENT
Department of Primary Industries and Regional Development
mla MEAT & LIVESTOCK AUSTRALIA
Queensland Government

Journey to regeneration

Sixty years of innovation in land management at Woodgreen Station in the Northern Territory.

FOR 60 years Bob Purvis has been developing and applying innovative approaches to improve land condition and the performance of his property.

Woodgreen Station is located about 250 kilometres north-east of Alice Springs in the Northern Territory.

The region has an extremely variable climate, characterised by low rainfall, long hot summers and short, sunny winters with frosty mornings.

This region is often referred to as the desert, but it doesn't have to be a barren desert.

Bob recalls that when he took over the management of Woodgreen 60 years ago it was like a "mini desert" - a legacy of the previous 30 years' management.

Since taking over the station, Bob has worked hard to restore the property's productivity, and now it lives up to the name Woodgreen.

Early in his agriculture journey, Bob sought the help of scientists, advisers, government representatives, and just about anyone he could find that could contribute knowledge, experience, or research to the giant land management puzzle he was trying to solve.

He took the time to understand the research and management techniques of the various advisers.

Not only did he observe, he got involved, asked questions, and posed alternative solutions to them.

He couldn't have done what he's done without interacting and adapting those solutions to his place and situation, because no one knows a pastoralist's place better than they do.

Bob's willingness to share his knowledge and experience has led to him educating and helping other graziers, researchers and extension officers to identify and implement new approaches to land management.

Bob's management is built on the recognition that the desert soils are fragile and prone to erosion from wind and water if not protected.

Keeping healthy grass tussocks in the paddock is key to having good land condition.

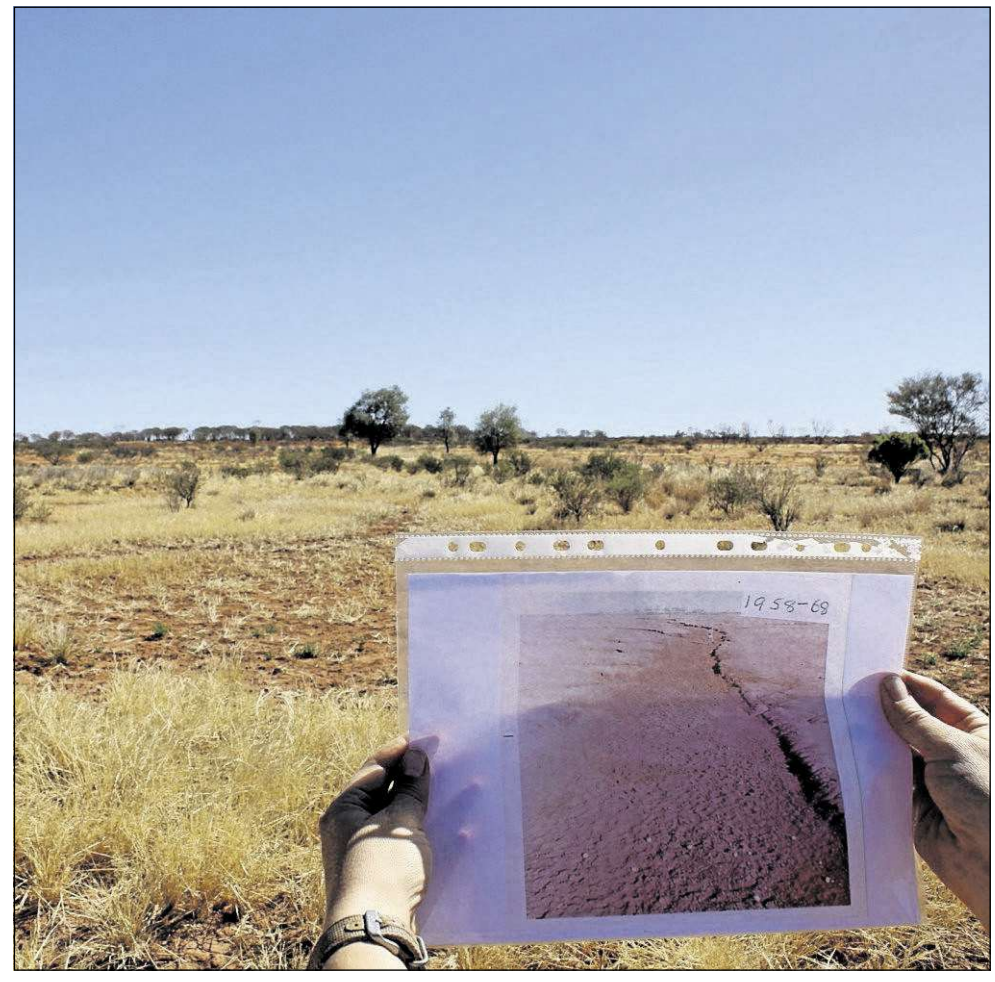
The grass butts hold the soil together, help water infiltrate rather than run off and give the landscape a better starting point to resume growth after rain, using stored energy in the butts to resprout.

For Bob, the most important thing above all else was to get the stocking rate right.

Too much grazing pressure hinders the maintenance and improvement of land condition and its ability to reach its maximum productivity.

The extra mouths to feed, in a highly variable climate, were also a great risk to him.

The right stocking rate maintains and builds productive capacity.



This area was very degraded in the late 1950s to early 1960s as shown in the old photo. Reducing stock numbers and building banks have helped perennial grasses return.

> Bob's willingness to share his knowledge and experience has led to him educating and helping other graziers, researchers and extension officers to identify and implement new approaches to land management.

Bob has built over 1200 banks over the past 60 years to slow rainfall runoff and manage overland flow.

He has used two different types of banks, modifying designs from elsewhere to discover what worked best on Woodgreen.

The first banks are what are referred to in most places as ponding banks.

Bob says they work by capturing the 'fines' (topsoil) - the ponding of water is just a bonus.

The second type of banks are used to prevent soil erosion associated with station roads and fence lines.

By using well placed 'whoa boys' he was able to manage the flow of water over and along his roads.

His fences are easy to maintain due to the space between the ground and the first wire being just high enough for a grader blade to run underneath and clear any vegetation that comes up without disturbing the soil. Bob uses fire a lot for land management.

Over the last 50 years, planned burning of thick mulga area has created a more biodiverse open ghost gum grassland.

Healthy pastures with a diverse range of grasses and forbs are much more nutritious for cattle.

Herd management has also been critical in the Woodgreen story. By turning off older, heavier bullocks Bob has a more drought resilient herd because breeders are a lower proportion of the herd.

This strategy combined with good herd management ensures a productive herd, low cattle losses and a reliable turnoff of quality animals each year.

Land, livestock and business management in a highly variable environment is extremely challenging, but Bob has shown that managing the whole system, observing, trialling, evaluating and tweaking are all part of finding what will deliver the desired outcomes.

Because money is generally a limitation it is important to be confident that actions taken will be of financial benefit to the business.

Pick your battles and identify where change will have the biggest impact.

It may not be possible to do it all, but you need to start somewhere.

Read more about the Woodgreen restoration journey at futurebeef.com.au.

Meg Humphrys, pastoral extension officer, Department of Industry, Tourism and Trade, Alice Springs, (08) 8951 8144.

FutureBeef
CQ BEEF
Information for rural business in Central Queensland
13 25 23 futurebeef.com.au
NORTHERN TERRITORY GOVERNMENT
Department of Primary Industries and Regional Development
mla MEAT & LIVESTOCK AUSTRALIA
Queensland Government

Giving the land a boost

Ametdale research helps beef producers

IAN and Penny MacGibbon of Ametdale Station, St Lawrence, joined the Northern Grazing Demonstration Project to help address land condition and productivity issues.

Ametdale is a breeding block with predominantly native pastures and moderately shallow soils on the flats that are mostly hard-setting and subject to gullying, resulting in pasture management and cattle nutrition being key business priorities.

The producer consultative group inspects an ironbark ridge in Top 9 paddock at Ametdale in June 2018.

The cattle are mostly high-content Brahman adapted for the region with molasses and urea supplementing the low diet quality during the winter months.

Ian and Penny manage for good ground cover to ensure that most rainfall events result in an effective growth response in the perennial grasses. Strategic burning is undertaken from November to December if the season permits.

Grazing land management issues

While most of the property has good land condition, there are areas of bare soil and erosion on the flats in the ironbark country.

Narrow-leaved ironbark is common with some tea tree and poplar gum.

These degraded areas were probably instigated in the mid to late 1800s when the area was first settled and are historical problems, caused by poor grazing distribution and unevenness of utilisation.

Most grazing land in Australia has been affected to some extent by poor initial waterpoint distribution as the only source of water was permanent holes in creeks and rivers.

Additionally, after the 1970s when Townsville stylo was killed out by the Anthracnose fungus, native pastures with a lower carrying capacity were left.

Patch grazing is a continuing challenge and has contributed to the change in pasture composition from a dominance of 3P (palatable, perennial and productive) pastures species to Indian couch.

KEY POINTS

- Maintaining and improving land condition requires a long-term approach.
- Lower grazing pressure and good summer rainfall helps paddocks regenerate.
- Pasture management and cattle nutrition are key business priorities at Ametdale.
- Project highlights benefits for pastures of wet season spelling.

Management changes and pasture monitoring

Ian and Penny want to improve pasture condition and diet quality by increasing the proportion of the better grasses (3P percentage) in the pasture yield.

To address these issues, Ian and Penny have focused on two 1200 hectare paddocks (Well and Top 9) with subdivision fencing to create five sub-paddocks allowing better control of grazing pressure and pasture spelling.

The fencing enables the ironbark flats to be managed separately from the ironbark ridges.

The subdivision fencing allows eight weeks rest and 20 days grazing over the wet season, with usually two grazes from May to December and two from December to April.

If there is an extended wet season, then the number of grazes may be increased.

Rainfall was well below average for 2017-18 and 2018-19. The 2019-20 summer generated a good pasture response and the start of an improvement in land condition.

In April 2018, cattle numbers were reduced in both paddocks to around half of the long-term carrying capacity (LTCC) in line with the low wet season pasture growth.

Cattle numbers in Top 9 paddock were kept low in 2019-20 and combined with better seasonal conditions resulted in high pasture yields, good groundcover and an improvement in the 3P percentage.

Well paddock had a higher starting 3P percentage and this was maintained.

Cattle numbers will be kept at around 70 per cent of LTCC across both paddocks until after the 2020-21 summer.

Managing land for the long term

Maintaining and improving land condition requires a long-term approach.

A realistic estimate would be a 10pc increase in LTCC over 10 years for the demonstration paddocks.

The time required to improve land condition and the cost of infrastructure are challenges, hence the importance of looking after land that is in good condition.

The project has involved local producers through the establishment of a consultative group of graziers addressing similar issues.

The group has met annually to inspect the trial paddocks and discuss the findings of the pasture measurements. The meetings and field days have provided an opportunity for presentations on the latest findings from the Wambiana grazing trial and other aspects of cattle production.

Conclusions

Despite drought conditions over most of this project, prompt action by Ian and Penny to reduce numbers has enabled a good pasture growth response despite below average summer rainfall.

Land condition in Top 9 paddock has started to improve due to lower grazing pressure and good summer rainfall in 2019-20.

The case study has highlighted the importance of stocking to LTCC, adjusting numbers to the amount of feed available and wet season spelling.

Paul Jones, senior scientist (pastures), DAF Emerald, 0428 103 923.

Are you storing wool?

Taking stock of your wool options

Though wool is one of the easiest products to store, a growing stockpile on-farm could pose significant risks to Australian woolgrowers.

IT HAS been a tumultuous 2020 for the global economy and therefore also Australia's wool industry.

Exacerbated by COVID-19, the dramatic fluctuation in market value for wool is reducing the urgency for some producers to send wool to the market.

When the market moves as much as it has this year, storing wool has become an option for producers, this is causing a growing amount of the 2020 wool clip to be stored on-farm and in brokers' warehouses.

Before storing wool on-farm, it's important that woolgrowers take stock of their wool, options and associated risks.

Bruce McLeish, Queensland wool manager for Elders, said given the current market conditions, storing or holding wool is something Australian producers are currently considering as an option.

"Before making a final decision on how to store your wool either on or off-farm, it's critical that producers know storage costs," Mr McLeish said.

"There's a big difference between brokers on free storage time and the daily cost of storing after this period."

According to Mr McLeish, it's important to consider deterioration of grab samples, when looking at the type of wool producers are storing.

"Generally, the wool from younger sheep and wool with colour, either scourable or unscourable, will deteriorate quicker and will need regrabbing to maximise competition at a considerable cost, especially small lot sizes," he said.

"Woolgrowers should consider what type of wool to store, low-value wool types against high-value wool.

"For example, a carding wool (wool shorter than 45 millimetres, typically locks and crutchings) increases by 10 per cent is approximately 30 cents per kilogram increase or $55 per bale, compared to a 10 per cent in a fine fleece resulting in a 150 cents per kilogram increase or $280 per bale.

"It's important to consider the potential monetary gain and the associated risk with storage.

"But if you decide to keep your wool on-farm, be sure to check with your wool broker on their insurance terms and if not covered contact your insurance company."

STORING WOOL

- The decision to store or hold your wool should not be made lightly.
- Discounts, additional cost and other risks can have a significant impact on the cents per kilo you receive.
- Examples of the impacts are not being able to react to market spikes, grab sample degradation, rodent damage, oxidation of wool grease leading to an increase in colour in bales.

Another key consideration is to look at the vegetable matter (VM) before deciding whether or not to store.

Mr McLeish said circumstances such as wet winters will dramatically increase amounts of VM and larger discounts at point-of-sale.

So, holding onto high VM wools in this circumstance would have less potential for a large increase in price.

When storing, Mr McLeish recommends holding larger lots over small lines to maximise competition.

Jed Sommerfield, extension officer with the Queensland Department of Agriculture and Fisheries said it's imperative that woolgrowers know their options and are vigilant if holding wool on-farm.

"For example, always set a target price you want to achieve and consider setting a reserve, especially when selling electronically on Wool Trade or WoolQ. This way you don't miss rallies and spikes in the market," Mr Sommerfield said.

"Though wool is one of the easiest products to store, a growing stockpile on-farm could pose significant risks to Australian woolgrowers, creating a greater need for security precautions to protect their stored clip.

"But insurance premiums for storing wool on-farm can be high, and often it's cheaper to store with brokers.

"Producers are often more inclined to send their wool straight to their wool broker and get it tested and then make a selling plan."

With a growing number of wool bales stored on-farm, producers must be aware of the increased risk of wool theft and adopt strategies to mitigate this risk.

Mr Sommerfield said woolsheds are often challenging to both secure and monitor, often positioned in more remote parts of the property.

"The longer your wool is stored on-farm, the greater the risk of theft. Producers may consider storing their bales in a locked shed and installing security cameras to monitor sheds with adequate signage on the property to deter thieves from entering," he said.

"Clearly brand your stored bales of wool and keep stock of what you have on-farm by formally recording and taking photos of your inventory.

"Do not leave tally books, wool books, and classers specifications in your shearing shed. Forward copies of these documents to your broker or insurer.

"Though this will not increase your on-farm security, it will increase the chances of identification later.

"Beyond this, producers should always be aware of the risks to farm security and implement measures towards mitigating risk, whether that just be something as simple as locking farm gates."

Leading Sheep is an important partnership between the Department of Agriculture and Fisheries (Queensland) and Australian Wool Innovation and is supported by AgForce.