

meatup FORUM

For the latest in red meat R&D

Pasture dieback: diagnosis & management in NSW

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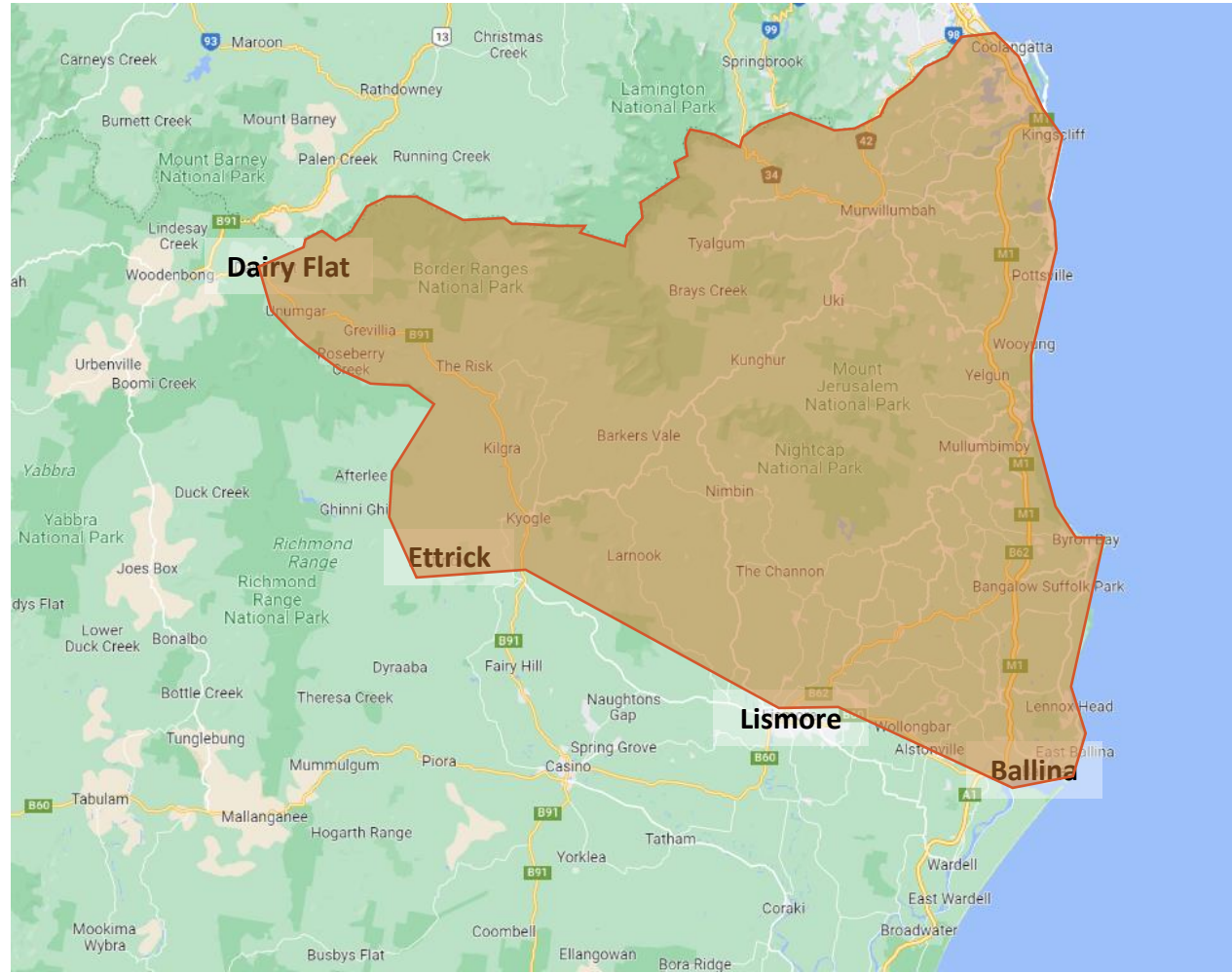
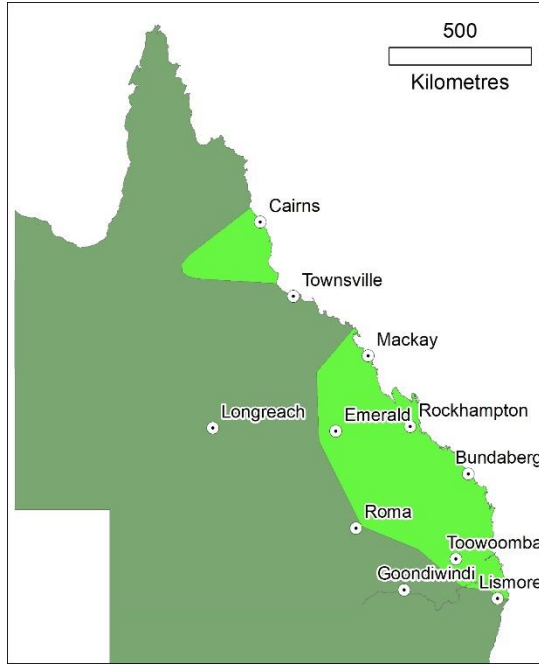


Symptoms

- Yellow, red or purple leaves on grasses
- Plants become unthrifty
- Affected area increases
- Grass dies
- Broadleaf weeds invade



Where is it?



What's responsible?



Australian Government
**Department of Agriculture,
Fisheries and Forestry**



**THE UNIVERSITY
OF QUEENSLAND**
AUSTRALIA

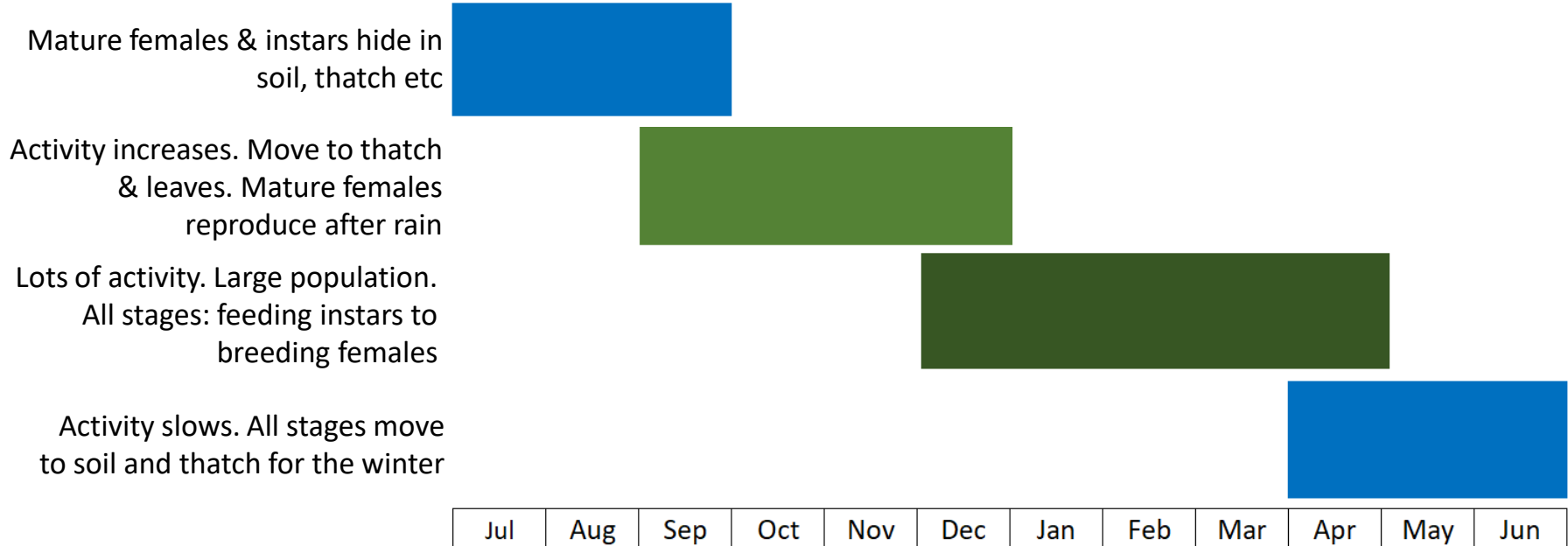


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Seasonal activity



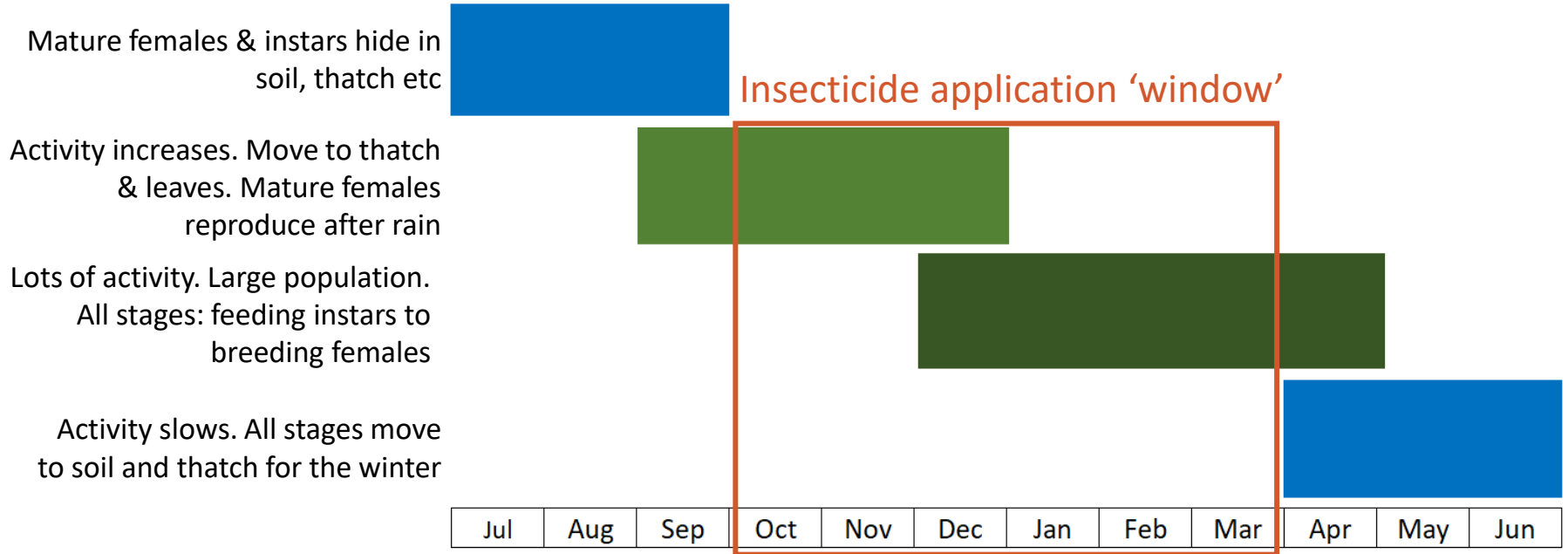


Insecticide options

- Suitable for early incursions/small areas only – expensive, not good for beneficials
- Withholding period = 6 months
- Systemic
- Apply spring and summer to target actively feeding instars

Permit no.	Description	Expiry
PER87423	Confidor 200 SC (imidacloprid)	Feb 2024
PER90263	Various soap-based insecticides (Potassium salts of fatty acids)	Aug 2023
PER88482	Movento 240 SC (spirotetramat)	Sep 2022

Seasonal activity



Beneficials



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Photos: M. Miles,

Demonstration 1: Forage Options

Features

- typical property
- established Spring 2020
- grazed
- low fertility site
- heavily affected
- minimal fertiliser

Two sections to the demonstration

1. direct drilled
2. Broadcast

Grasses

1. Teff
2. Kikuyu
3. Signal grass
4. Creeping bluegrass
5. Digit grass
6. Bambatsi panic
7. Green panic
8. Gatton panic
9. Katambora Rhodes
10. Callide Rhodes

Legumes & herbs

1. Burgundy Bean
2. Chicory
3. Cowpea
4. Wynn cassia
5. Creeping Vigna
6. Siratro
7. Glycine
8. Greenleaf Desmodium
9. Wynn cassia/Vigna/Siratro combination

What's working



Demonstration 1: Forage options

- Signal thriving
- Green and Gatton panics performing well, given soil fertility limitations
- Both Rhodes going okay, some signs of symptoms Feb 22
- Teff ok during growing season
- All other grasses poor – combo of soil fertility, dieback, and undetermined ill-thrift
- Cowpea thrived in it's growing season
- All other legumes struggling to out-compete broadleaf weeds
- Drilling performed better – but broadcasting was an ok result for vigorous species

Demonstration 2: Fertilisers & microbials

Features

- early 2021
- separate plot each
- heavily affected site
- lightly grazed
- low fertility

Treatments

- Single super
- Sulphate of potash
- Crop King 88
- Di-Ammonium Phosphate (DAP)
- Urea
- Mycoforce + liquid hummus
- Mycoforce + Multiplex
- Mycoforce + liquid hummus + trichoshield

What's working



Demonstration 2: Fertilisers and microbials

- Fertilising grew healthier and more abundant plants initially but without grazing pressure quickly succumbed
- 100% mortality of C4 grasses – Broadleaf Paspalum, setaria, kikuyu, Rhodes & bahia
- Legume (Vigna) vs broadleaf weeds
- **Key observation biomass of grass must be utilised**

Demonstration 3: Fertiliser & biomass management

Features

- early 2021
- fertiliser based on soil test & pasture requirements (Lime, DAP + Green Top K)
- entire paddock
- heavily affected site
- low fertility
- heavily grazed & slashed to manage biomass & maintain pasture quality

What's working

Demonstration 3: Fertiliser + biomass management

- C4 persistence, but still some minor signs of infection
- Legume vs weeds on bare patches – effect lessened due to more grasses persisting
- **Key observation utilisation of biomass certainly slowed rate of progression**



What's working on farm?

Active management!

- Alternative species (e.g. Signal/Green panic)
- Keeping up grazing pressure, slashing/mulching and managing weeds = improved stocking rates and reduced grass mortality.

Key management actions

- Biomass management via heavy grazing + slashing/mulching where practical
- Alternative species retains forage and productivity
- Broadleaf weed control requires spraying + slashing or no legumes.

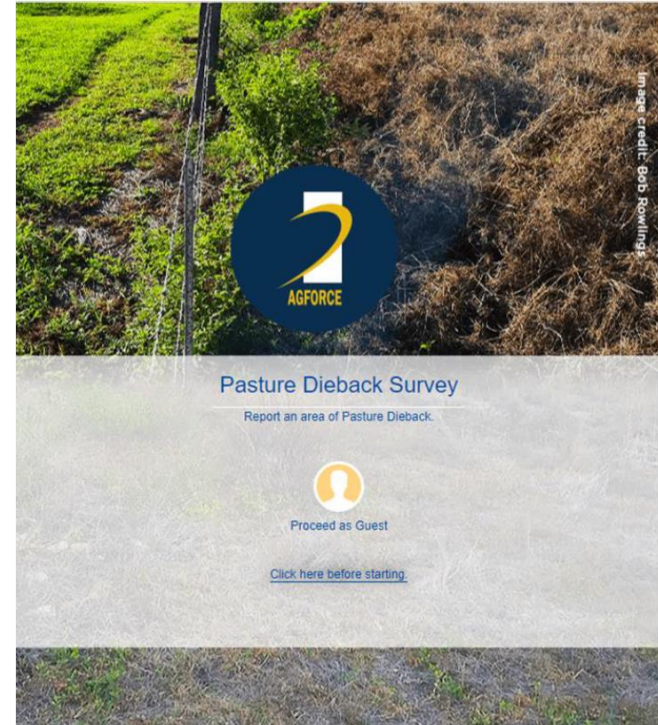
Where is dieback? Help map it

- MLA/QDAF Pasture Dieback Survey app
- Agforce Pasture Dieback Survey crowd source webmap

Pasture Dieback Survey



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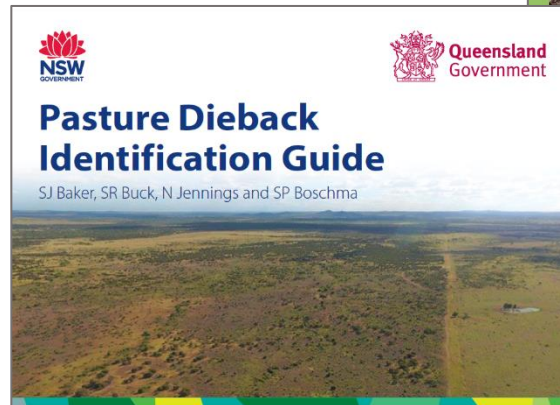
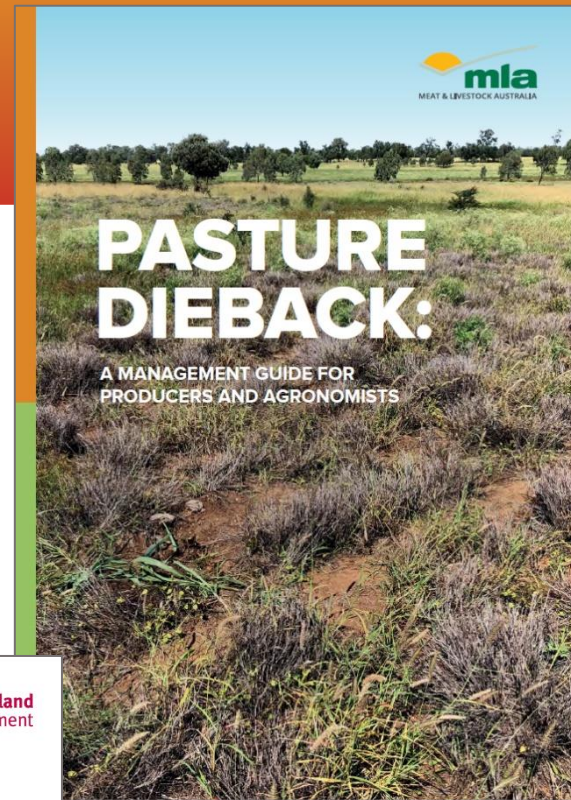
Take home messages

- Monitor your pastures for changes
Report suspected dieback to your Local Land Services or ring the Exotic Plant Pest Hotline 1800 084 881
- Pasture dieback can have devastating impacts on productivity, but it can be managed:
 - treat it as an opportunity to improve your feedbase & tweak your enterprise
 - attempting to wait it out has significant environmental challenges.



Tools and resources

1. MLA pasture dieback management guide and website - [Pasture Dieback | Meat & Livestock Australia \(mla.com.au\)](https://www.mla.com.au/pasture-dieback)
2. NSW DPI pasture dieback website - [Pasture dieback \(nsw.gov.au\)](https://www.nsw.gov.au/pasture-dieback)
3. Queensland DAF pasture dieback website - [Pasture Dieback - FutureBeef](https://www.futurebeef.com.au/pasture-dieback)



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