

Facial Eczema Spore Count Fortnightly Report Fortnight Ending 26 March 2021

Dr Stephanie Bullen
 Lead – Animal Health & Fertility (Dairy Australia)

Sentinel farm spore count summaries

Macalister Irrigation District

Week ending	# spore counts	# zero spore counts	% zero counts	# counts ≥20,000	% counts ≥20,000	Highest spore count
8-Jan	0	N/A*	N/A*	*N/A	*N/A	*N/A
15-Jan	8	6	75%	0	0%	5,000
22-Jan	2	1	50%	0	0%	5,000
29-Jan	9	7	78%	0	0%	10,000
5-Feb	4	1	25%	1	25%	60,000
12-Feb	0	N/A*	N/A*	*N/A	*N/A	*N/A
19-Feb	1	0	0%	0	0%	10,000
26-Feb	8	2	25%	4	50%	70,000
5-Mar	4	1	25%	2	50%	30,000
12-Mar	4	0	0%	4	100%	80,000
19-Mar	8	4	50%	3	38%	175,000
26-Mar	0	N/A*	N/A*	*N/A	*N/A	*N/A

*N/A = No samples submitted during that period.

West Gippsland

Week ending	# spore counts	# zero spore counts	% zero counts	# counts ≥20,000	% counts ≥20,000	Highest spore count
8-Jan	0	N/A*	N/A*	N/A*	N/A*	N/A*
15-Jan	6	4	67%	0	0%	10,000
22-Jan	0	N/A*	N/A*	N/A*	N/A*	N/A*
29-Jan	4	3	75%	0	0%	5,000
5-Feb	0	N/A*	N/A*	N/A*	N/A*	N/A*
12-Feb	8	3	38%	2	25%	90,000
19-Feb	0	N/A*	N/A*	N/A*	N/A*	N/A*
26-Feb	6	2	33%	2	25%	40,000
5-Mar	0	N/A*	N/A*	N/A*	N/A*	N/A*
12-Mar	2	0	0%	0	0%	10,000
19-Mar	2	0	0%	0	0%	15,000
26-Mar	2	1	50%	0	0%	10,000

*N/A = No samples submitted during that period.

South Gippsland

Week ending	# spore counts	# zero spore counts	% zero counts	# counts ≥20,000	% counts ≥20,000	Highest spore count
8-Jan	0	N/A*	N/A*	N/A*	N/A*	N/A*
15-Jan	0	N/A*	N/A*	N/A*	N/A*	N/A*
22-Jan	4	4	100%	0	0%	0
29-Jan	0	N/A*	N/A*	N/A*	N/A*	N/A*
5-Feb	4	3	75%	0	0%	10,000
12-Feb	0	N/A*	N/A*	N/A*	N/A*	N/A*
19-Feb	0	N/A*	N/A*	N/A*	N/A*	N/A*
26-Feb	2	0	0%	1	50%	30,000
5-Mar	2	1	50%	1	50%	25,000
12-Mar	0	N/A*	N/A*	N/A*	N/A*	N/A*
19-Mar	2	0	0%	2	100%	80,000
26-Mar	0	N/A*	N/A*	N/A*	N/A*	N/A*

*N/A = No samples submitted during that period.

Yarram

Week ending	# spore counts	# zero spore counts	% zero counts	# counts ≥20,000	% counts ≥20,000	Highest spore count
8-Jan	0	N/A*	N/A*	N/A*	N/A*	N/A*
15-Jan	2	2	100%	0	0%	0
22-Jan	4	2	50%	1	25%	20,000
29-Jan	4	3	75%	0	0	5,000
5-Feb	4	4	100%	0	0	0
12-Feb	6	4	67%	0	0	5,000
19-Feb	2	1	50%	0	0	10,000
26-Feb	6	1	17%	2	33%	30,000
5-Mar	6	2	33%	1	17%	25,000
12-Mar	0	N/A*	N/A*	N/A*	N/A*	N/A*
19-Mar	6	3	50%	0	0%	15,000
26-Mar	0	N/A*	N/A*	N/A*	N/A*	N/A*

*N/A = No samples submitted during that period.

Orbost

Week ending	# spore counts	# zero spore counts	% zero counts	# counts ≥20,000	% counts ≥20,000	Highest spore count
8-Jan	0	N/A*	N/A*	N/A*	N/A*	N/A*
15-Jan	0	N/A*	N/A*	N/A*	N/A*	N/A*
22-Jan	2	1	50%	0	0	5,000
29-Jan	0	N/A*	N/A*	N/A*	N/A*	N/A*
5-Feb	4	2	50%	1	25%	20,000
12-Feb	4	2	50%	0	0	10,000
19-Feb	2	0	0%	1	50%	130,000
26-Feb	4	3	75%	1	25%	30,000

5-Mar	2	0	0%	2	100%	145,000
12-Mar	2	1	50%	0	0%	5,000
19-Feb	2	0	0%	1	50%	75,000
26-Feb	0	N/A*	N/A*	N/A*	N/A*	N/A*

*N/A = No samples submitted during that period.

Bega

Week ending	# spore counts	# zero spore counts	% zero counts	# counts ≥20,000	% counts ≥20,000	Highest spore count
8-Jan	0	N/A*	N/A*	N/A*	N/A*	N/A*
15-Jan	0	N/A*	N/A*	N/A*	N/A*	N/A*
22-Jan	2	2	100%	0	0%	0
29-Jan	2	2	100%	0	0%	0
5-Feb	0	N/A*	N/A*	N/A*	N/A*	N/A*
12-Feb	4	4	100%	0	0	0
19-Feb	7	4	57%	2	29%	25,000
26-Feb	2	0	0%	2	100%	40,000
5-Mar	0	N/A*	N/A*	N/A*	N/A*	N/A*
12-Mar	0	N/A*	N/A*	N/A*	N/A*	N/A*
19-Mar	0	N/A*	N/A*	N/A*	N/A*	N/A*
26-Mar	0	N/A*	N/A*	N/A*	N/A*	N/A*

*N/A = No samples submitted during that period.

As there may be large differences between farms in the same area and between paddocks on the same farm, results from sentinel farms are of limited value on their own. Instead, they should be used to trigger spore counting on your own/clients' farms when pasture spore counts are trending upwards of 20,000 spores per gram and/or weather conditions are favourable for sporulation.

Daily weather observations

Click on the locations below to see latest daily weather observations.

- [Bega, New South Wales](#)
- [East Sale Airport, Victoria](#)
- [Nilma North, Victoria](#)
- [Orbost, Victoria](#)
- [Yanakie, Victoria](#)
- [Yarram Airport, Victoria](#)

Pastures tend to become toxic in late summer and autumn when periods of rain or high humidity occur in combination with high night-time minimum temperatures (typically $\geq 12^{\circ}\text{C}$ for 2-3 nights; DairyNZ). Despite recent advances in weather forecasting, use of weather data alone to accurately predict facial eczema danger periods has not been very successful in New Zealand or Australia.

Conducting your own spore counts

Instructions for sampling pasture for facial eczema spore counting can be found [here](#). Samples should be refrigerated if not being processed immediately. Spore counting costs between \$20-50

per sample and can be submitted to any of the following veterinary practices, either in person or by express post.

Location	Clinic	Phone
Macalister Irrigation District/Traralgon	Gippsland Veterinary Hospital (Maffra)	(03) 5147 1177
West Gippsland	West Gippsland Vet Care (Warragul)	(03) 5623 4822
South Gippsland	Gippsland Veterinary Group (Leongatha)	(03) 5662 2251 EXT 2
Orbost	Snowy River Vet Clinic	(03) 5154 2387
Yarram	Yarram Veterinary Centre	(03) 5182 5400
Bega/South Coast	Bega Cobargo Veterinary Hospitals	(02) 6492 1837

Zinc oxide supplementation

A dietary intake of elemental zinc of 20 mg/kg liveweight/day, fed as zinc oxide or administered as slow-release zinc oxide boluses, can be very effective for facial eczema prevention. Zinc oxide supplementation is most effective when introduced 2-3 weeks before pastures become toxic.

The concentration of elemental zinc and the level of impurities varies between different zinc oxide feed additives; therefore, ensure you have a certificate of analysis is provided by the supplier, that it is suitable for use in animal feeds, and the amount of zinc oxide included in each tonne of grain/concentrate or dose is carefully calculated.

If animals are underdosed (e.g. incorrect dose rate, settling out of the supplement, competition between cows) there may be inadequate protection from facial eczema. Overdosing has also resulted in cases of zinc toxicity. If using long-acting zinc boluses, animals should be weighed prior to administration and the correct bolus size used. It is recommended that farmers consider blood testing 10 cows in their herd 30 to 40 days after supplementation starts to check zinc levels are within the required range (blood serum zinc 20-35 µmol/L) and adjust their program if required.

Experience in New Zealand indicates that accurate zinc supplementation at preventative levels is likely to be safe for up to 100 days. After this point, farmers should have blood testing repeated to manage the risk of toxicity.

For more information speak to your nutrition advisor or vet or see [Preventing facial eczema in milking cows using zinc oxide in feed.pdf](#).

Important update

A permit to allow supply and emergency use (Permit number – PER90370) of The Time Capsule® slow-release zinc oxide boluses was granted by the APVMA in February 2021. These boluses, when used correctly, are reported to provide four weeks of protection against facial eczema. It was anticipated that this product would be available for Gippsland/Bega Valley farmers for use in the 2021 Facial Eczema season; however, the manufacturer has been in contact with Dairy Australia to advise that this has been held up due to trademark regulations. This is very disappointing but work by the manufacturer is ongoing in the hope of the product being available in Australia next season.

Further information

This pasture spore monitoring program is conducted annually and was developed in response to recommendations of the Facial Eczema Working Group. The program is funded by Dairy Australia, supported by GippsDairy and DairyNSW, and administered by supporting veterinary practices and Local Land Services (Bega/South Coast). The program is designed to provide Gippsland and Bega/South Coast dairy farmers with early warning of high-risk periods for facial eczema in late summer/autumn (January to May).

Dairy Australia gratefully acknowledges the following farmers for their voluntary contribution to the 2021 spore monitoring program. J Harvey, D & M Berryman, S & N McRae, S Jefford & W Droppert, J Lee, N & V Joiner, A & C Balfour, D & R Ford, Ellinbank SmartFarm, Jelbart Dairy P/L, R & G Moss, C Nixon, D & N Macalister, A Shipton, R Russell, K & B Game and T Cole.

For more information on facial eczema, please visit the [Facial Eczema page](#) of the Dairy Australia website or contact Dr Stephanie Bullen, Lead – Animal Health & Fertility, on 0417 123 387 or by e-mailing stephanie.bullen@dairyaustralia.com.au.

The key technical resource underpinning Dairy Australia's facial eczema program is [A Review of Facial Eczema \(Pithomycototoxicosis\).pdf](#) and is available to download from the Dairy Australia website.