PHALARIS STAGGERS & SUDDEN DEATH RISK

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The season so far has brought many challenges across the Western District's agricultural sector. The drier conditions, below average rainfall and a later than average Autumn Break, have resulted in reduced pasture growth. These circumstances have raised many issues and concerns for producers; some having not encountered this before. Difficult and challenging decisions have been and continue to be made by producers to allow them to navigate this current situation.

Various forms of containment feeding have been widely adopted in order to produce some valuable winter feed in paddocks that have remained locked up for several weeks.

Although still marginal in many areas, recent rains have resulted in some pasture growth across the regions bringing some hope to producers. The importance for careful management particularly in regards to grazing Phalaris based pastures in the coming weeks needs to be emphasised.

Phalaris pastures have many advantages including deep root systems (making them very persistent and drought-tolerant) and great feed quality in Autumn and Spring. With them come the dangers of livestock disorders including Phalaris staggers and sudden death syndrome. Due to the current seasonal conditions, these disorders are predicted to be of greater risk, particularly as livestock move from containment to freshly growing Phalaris pastures.

Sudden death syndrome is an ammonia poisoning usually occurring during Autumn/early Winter as livestock are first introduced to a spelled or saved Phalaris pasture. Livestock deaths typically happen within 36 hours after commencement of grazing. Unfortunately, there are currently no preventive management solutions for sudden death syndrome, so close monitoring of livestock in those first few days of grazing Phalaris pastures is crucial.

Phalaris staggers occurs as an in-coordination syndrome caused by toxic alkaloids from the ingestion of Phalaris. In severe cases, livestock deaths may result. Sheep are more susceptible than cattle, but when cattle develop this syndrome, the adverse effects are greater. Clinical signs usually won't be seen for a minimum of 10 days and in some cases not seen until 1 to 2 months after commencement of grazing. Once clinical signs develop, symptoms may persist for months or even a lifetime if severe enough with euthanising affected animals becoming the only option.

Unlike sudden death syndrome, strategies can be implemented to reduce the risk of Phalaris staggers occurring. There are a number of management options available, the most affordable and efficient management strategy in reducing the risk of Phalaris staggers is the application of Cobalt Sulphate to Phalaris based pastures prior to initial grazing. The benefit of using Cobalt Sulphate as a foliar spray is it only needs to be applied to a third of the total paddock area via the boomspray typically at a rate of 100 grams per hectare. Plant uptake of Cobalt Sulphate is dependent on leaf area, not necessarily water rates, and full plant absorption takes 2 to 3 days. Therefore, it is important to not apply when rain is expected within 2 to 3 days of application. Although there is no grazing withholding period, ideally grazing should be avoided until full plant absorption has been achieved.

Cobalt Sulphate is also compatible with Gibberellic Acid, various insecticides and some herbicides. These can provide the added benefit of increasing pasture production and targeting pests and weeds when implementing this preventive option. If other chemicals are to be included within the same application, the Cobalt Sulphate rate per hectare can be reduced to 33 grams per hectare with 100 percent of the paddock being applied. Please note, when adding other chemicals into the mix, you need to consider other restraints, including but not limited to, changes in water rates, withholding and rain fast periods. It is therefore important when considering the use of other chemicals with Cobalt Sulphate, to firstly contact your Agronomist to check chemical compatibility.

Cobalt Sulphate Application – Cost Analysis

(Cost of $49.00 per kilogram as of 12.06.2024)

Per Hectare Application

INPUTS	*RATE*	*COST/HA*
Water Rate	100 L/ha	
Boomspray Application	1 ha/ha	$20.00
Cobalt Sulphate	100 g/ha	$4.90
Total		**$24.90**

Example

Total Area: 100 ha *Area Applied:* 33.33 ha

INPUTS	*RATE*	*TOTAL*	*COST/HA*	*COST*
Water Rate	100 L/ha	3,333 L		
Boomspray Application	1 ha/ha	33.33 ha	$20.00	$666.60
Cobalt Sulphate	100 g/ha	3.33 kg	$4.90	$163.32
Total			**$24.90**	**$829.92**