



**Trial for Kangaroo & Wallaby deterrent
Meridian Energy – Laurie Forestry - Hook Bush, Waimate**

General information –
Test in crops –
Data collection –



b_Kangaroo-Wallaby- Hook Bush trial June 2024 (Master)_.docx

General information:

General rules for trials

- If machinery (e.g., sprayer, tanks etc.) is used for the trial, use this equipment first for the control field and then do the penergetic field. After the application, clean the machinery. It takes up to several weeks before the effect of the penergetic information disappears from the machinery.
- Penergetic recommends a trial size of 1 hectare.
- For the control field choose the field beside.
- In the case of sloping sites, place the penergetic plot at the bottom of the area, otherwise rain, for example, flushes the penergetic products down on to the control plot.

Setting up and documenting a measurement

- A photo documentation from the start until the end of the trial period (high quality images) is mandatory with each trial.
- Description of the initial situation and the objective.
- Use the data collection form below.

Data collection:

Penergetic b Kangaroo & Wallaby deterrent

General data

Penergetic consultant	Paul Newton	
Customer	Meridian Energy – Laurie Forestry	Date: 26/06/2024
Farm location: country, city	Hook Bush, Hunter, Waimate Canterbury New Zealand's South Island	
Using penergetic products for the first time?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No, for _____ years
Total farmland in ha	150 Ha Ex grazing land now in Forestry	
Objective of the trial	To understand the Penergetic Wallaby and Kangaroo deterrent product dosage requirements of the effective prevention of wallabies entering an area.	

Trial data

Crop type / variety	Redwood plantation	
	Area (ha)	Planting/seeding date
Control		
penergetic test	15 Ha	August 2023
Animal species	<input type="checkbox"/> kangaroo <input checked="" type="checkbox"/> Bennetts wallaby <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Special weather conditions	Application By R44 helicopter, 50Ltr water rate	
<ul style="list-style-type: none"> ● Rain (quantity, when) ● Temperature variation ● Frost / hail / snow ● Others 		
North west	2Kg/Ha @ 60m wide perimeter application over 3Ha	
West	1.75Kg/Ha @ 60m Wide perimeter application over 2.4Ha	
Central	1Kg/Ha, 3.85Ha Broadacre application	
Southern	1.5Kg/Ha @ 60m wide perimeter application over 2.8Ha	
South East	1.25Kg/Ha @ 60m wide perimeter application over 3Ha	



1st Application Products dates and rates

Penergetic product	Art. no.	Dosage / ha	Date of application (dd/mm/yy)
<i>penergetic b</i>	3158	2Kg/Ha	9th July 2024
<i>penergetic b</i>	3158	1.75Kg/Ha	9th July 2024
<i>penergetic b</i>	3158	1Kg/Ha	9th July 2024
<i>penergetic b</i>	3158	1.5Kg/Ha	9th July 2024
<i>penergetic b</i>	3158	1.25Kg/Ha	9th July 2024

Photos from site visit 14/05/2024



Panoramic view of the trial area



A well-used single track made by the wallaby



Damage on trees, the top has been stripped.

Observations

Observation 1: Pre application assessment	8/07/2024	1 day before application
<p>Notes, Counts and Timings Arrived on site 35 minutes before sunset 4:45pm, saw nothing until 3 fallow derr came into view and stayed around the South Eastern side in the ridge. 5:49 saw the first siting of Wallaby outside the trial areamaking thier way to the plantaion. 5:55 had sitings of another 12 Wallably walking past the truck only 5m from away. They followed a path from under the gateway through into the plantation. I then walked another 20m over a ridge a sat down to asses the area to the south of the tanks, there was an additional 18 wallabies which came under a deer fence and into the plantation from the north eastern side.whilst viewing through the thermal I counted an additional 30 wallabies in total come into view from the water tanks in 5 groups, 4-8 per group and spread over about 300m. As I made my way out from the viewing location i spooked another 7 walabbies which where only 10m away from me unable to get footage, too quick. I watched 3 wallaby move from the woolshed gateway straight down the track to the left of the water tanks. Even with the torchlight on them were not scared enough to go back, they carried on their route.</p>		

Photos



Application 09/07/2014 South Canterbury helicopters.



You will see from the Photo above how the operator is making sure any breeze is not affecting the equal distribution of the product.



This photo shows how close the ground the application was <3m from the ground.

Observation 2: 31/07/2024	22 Days after 1st application
<p>With Snow on the cards Newton Agri planned a visit in the morning after the snowfall. It was clear to see the wallaby tracks, however only made by 3-5 in the first photo showing them entering the area under the gate as they had prior to the application, the wallaby had always kept going in a straight line into the plantation. The immediate reaction of the wallaby was a sharp left turn once they had entered the property and followed hard up against the inside of the fence, shown in the second photo.</p> <p>Walking around the steep areas was difficult with the snow so I stayed on the track heading south and saw wallaby footprints in the snow, however this was over 70m from the boundary and didn't have the deterrent applied. There was some fresh sign on the Southern boundary where the B KW was applied at 1-1.5Kg/Ha and therefore a rate of 2Kg seems to be the effective dosage.</p>	

Photos



The Picture below show at the woolshed gate the wallabies following the fence line once entered the property.



The map below shows the locations visited in the morning of the snow with the visible footprints in the snow being outside of the application area.



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Next Visit Planned 8/9/2024 early am depending on other contractors. The aim is to walk the entire boundary to asses activity that will be evident over the last month.

Trails to this time from first application have been successful.

2nd Application Products dates and rates

Penergetic product	Art. no.	Dosage / ha	Date of application (dd/mm/yy)
<i>penergetic b</i>	3158	2Kg/Ha	9 th Oct 2024
<i>penergetic b</i>	3158	1.75Kg/Ha	9 th Oct 2024
<i>penergetic b</i>	3158	1Kg/Ha	9 th Oct 2024
<i>penergetic b</i>	3158	1.5Kg/Ha	9 th Oct 2024
<i>penergetic b</i>	3158	1.25Kg/Ha	9 th Oct 2024