Enhancing soil health in south-western Victoria

Location: Blohms Rd, Byaduk, Southern Grampians Victoria

Objectives:

- Assess the economic viability of a three-year compost spreading program.
- Compare how rate of application impacts soil and plant response.

Background:

This ongoing trial began in April 2023, with soil tests collected in April 2024. The compost drastically improved soil tests results and led to rapid plant growth in amended plots.

What was once a pasture and hay paddock has now been transformed into a ryegrass seed producing paddock. This grower has since bought more compost for other areas of the farm.

Further Information

For detailed results from the 2024 trial, refer to ByadukTrialReport-2024

Crop Type: Perennial l ryegrass

Soil Type: Silty Loam

Start date: 23/04/2023

End date: 17/12/2025

Treatments: AgriGro, a high-quality base compost designed for broad agricultural use, has been applied to each plot at the following rates (t/ha).

Plot	2023	2024	2025	Total
0	0	0	0	0
15+0	15	0	0	15
10+5	10	0	5	15
5+5	5	0	5	10
3+3	3	0	3	6

Trial Measurements:

- Biomass and phenology – Monitored 2-3 times during the growing season.
- Soil tests – Measured in Autumn before spreading each year.

Enhancing soil health in south-western Victoria

Notes:

- Compost was spread in 2023 and 2025 at different rates across the plots. These rates are listed in the table above.
- In 2025, 4front perennial ryegrass was sown. It was cut for silage in early October, then allowed to regrow for a seed harvest.
- Biomass was collected on September 10th.
- This report interprets the data collected in September of 2025, the third year of this trial.
- For trial results in 2024, see ByadukTrialReport-2024.

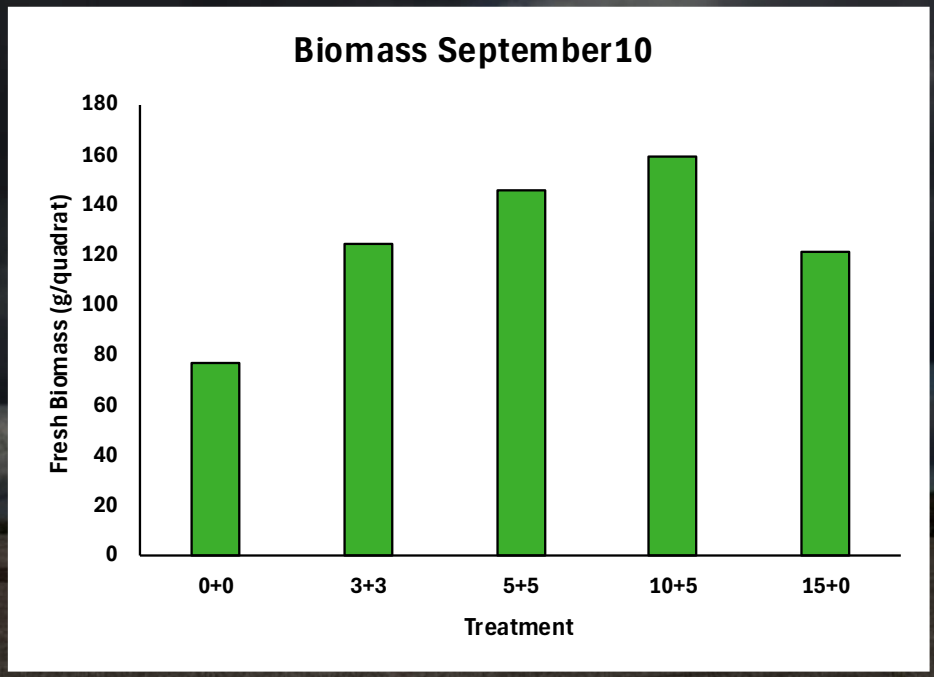
Conclusion:

- All treatment saw improved plant growth when compared to the control.
- Two smaller applications appear to perform better in third year, compared to one large application in year one.
- Without data from 2023 and 2024, it cannot be confirmed that the total return on investment is better with one large application, or separate smaller applications.
- More trials like this will help advisors and growers learn which management options best suit them and their production system.

Enhancing soil health in south-western Victoria

September Results:

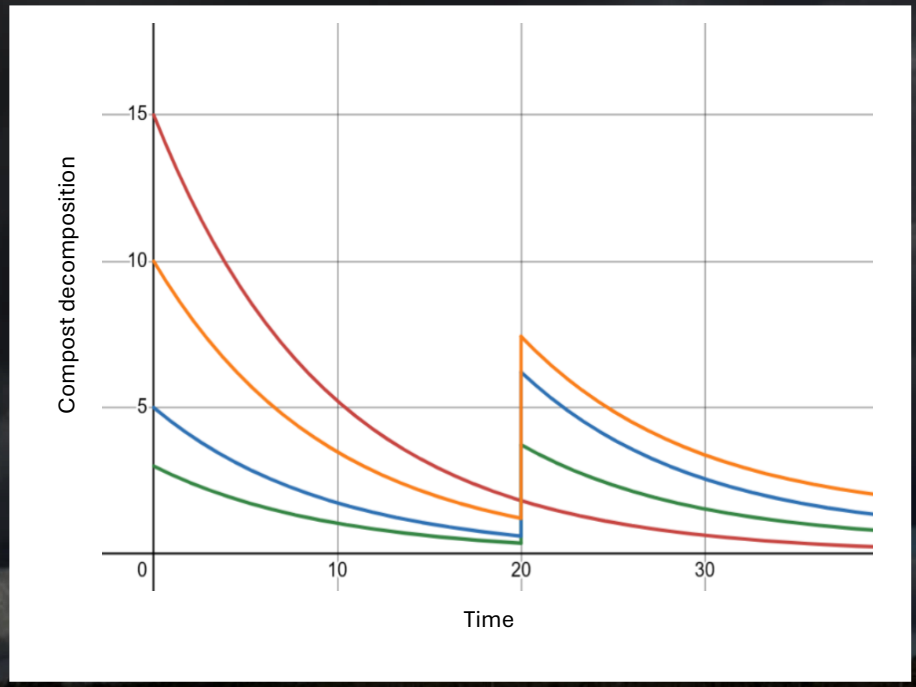
- All treatments increased pasture growth when compared to the control.
- Interestingly, the 15+0 treatment and the 3+3 treatments display similar growth despite the total compost applied being 15t and 6t respectively.
- In the third year, two separate applications tend to result in better growth than one large application in year one.



Enhancing soil health in south-western Victoria

Discussion:

- This graph is a prediction of how nutrients are released from the compost in each treatment. The sudden increase at time 20 is due to compost being reapplied in Autumn 2025.
- This graph has not been determined from any data collected in this trial, although other research supports this trend.
- The data collected in September 2025 lines up with approximately 25 on the time axis.



Red is 15+0

Yellow is 10+5

Blue is 5+5

Green is 3+3

Years 1, 2 and 3 since first application can be seen as 10, 20 and 30