



EIPWALES

Cydweithio er ffyniant gwledig
Collaborating for rural success



menter a busnes

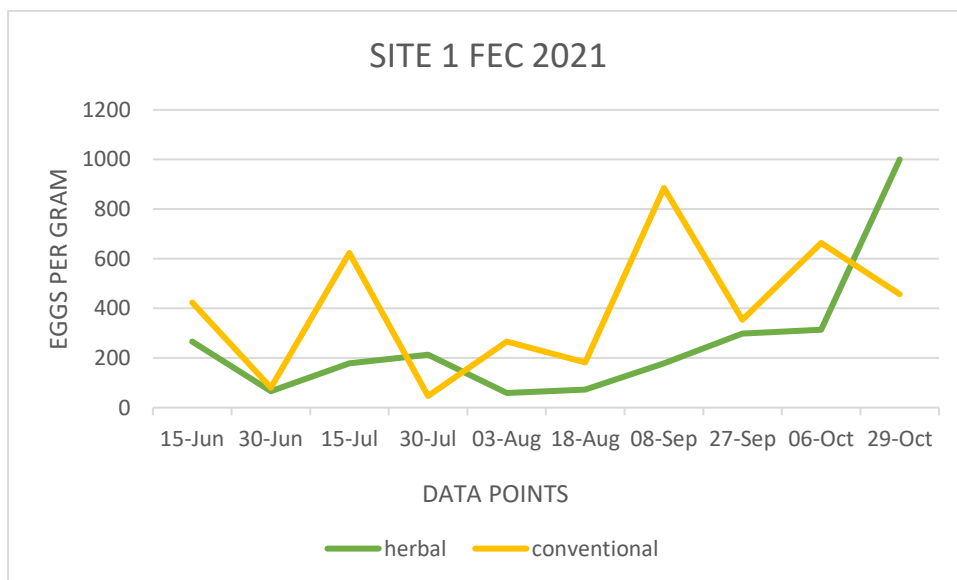
YEAR TWO OF HERBAL LEY PROJECT (2021)

We encountered a challenging weather year in 2021 where the situation has gone from surplus to deficit and back again on a whole farm grass growth basis and we have seen quite a difference on the 3 different sites involved in the project.

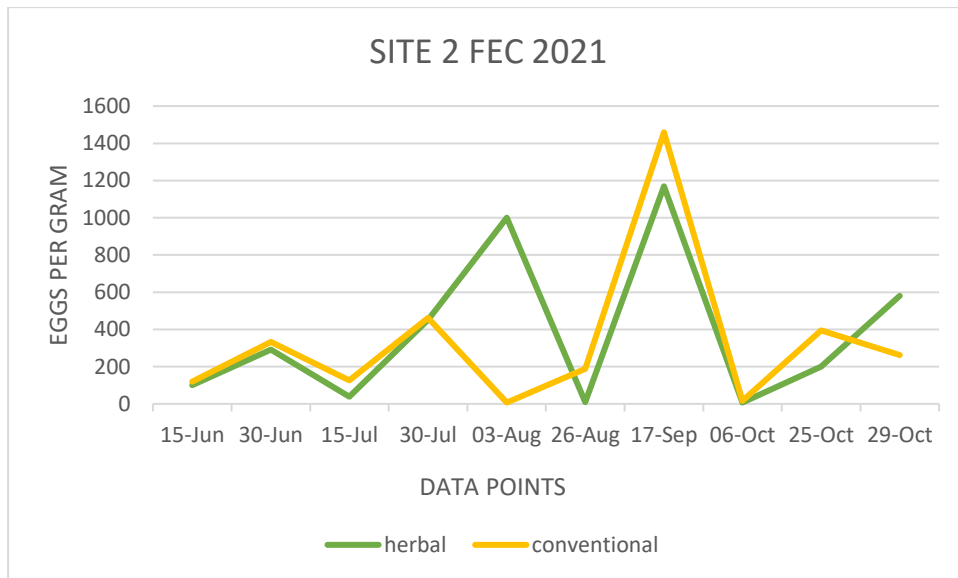
On the whole the stocking rate was at the upper end of the scale at 1500kg/lt/Ha for most of the post weaning grazing season, with a drop down to a stocking of half that towards the end, and just the 10 sentinel lambs on their own being grazed on the plots for the final 2-4 weeks during the last data collecting points.

On the whole, looking at Graphs 1-3, the FEC of the stock on the Herbal Ley plots were lower than the stock on the conventional plots. On graph 2 it can be seen that the lambs on the herbal plots spiked higher than the conventional plots on the 3rd August.

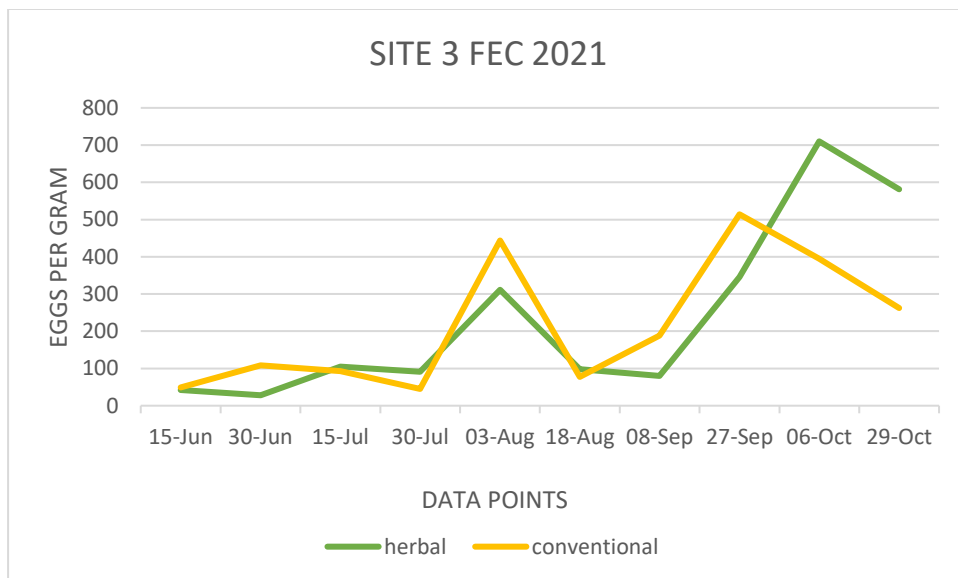
This was due to the conventional plots receiving a worm drench 2 weeks before the herbal plot received a worm drench, as the stock on the herbal plots had lower FEC at the point of drenching for the conventional lambs and did not warrant treatment as per protocol.



GRAPH 1: FEC results from Site 1

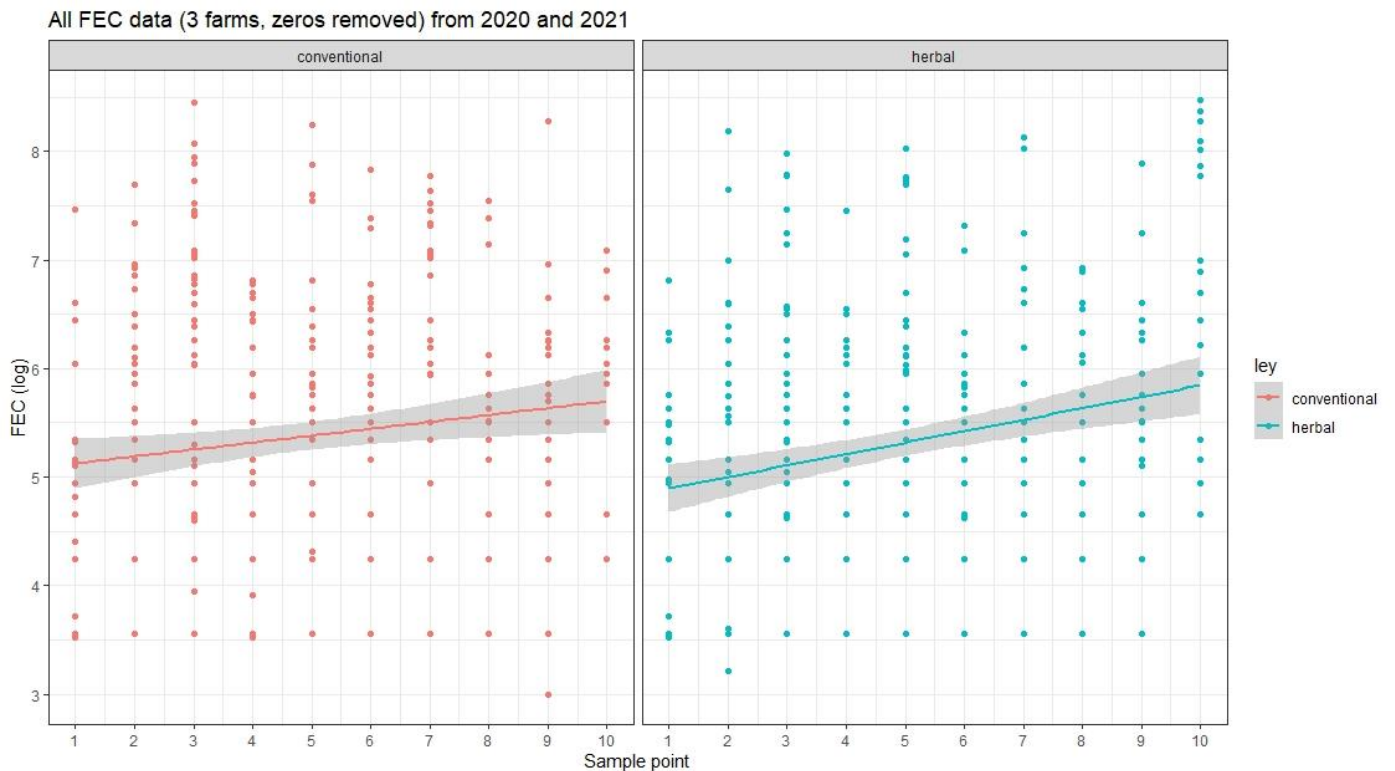


GRAPH 2: FEC results from Site 2



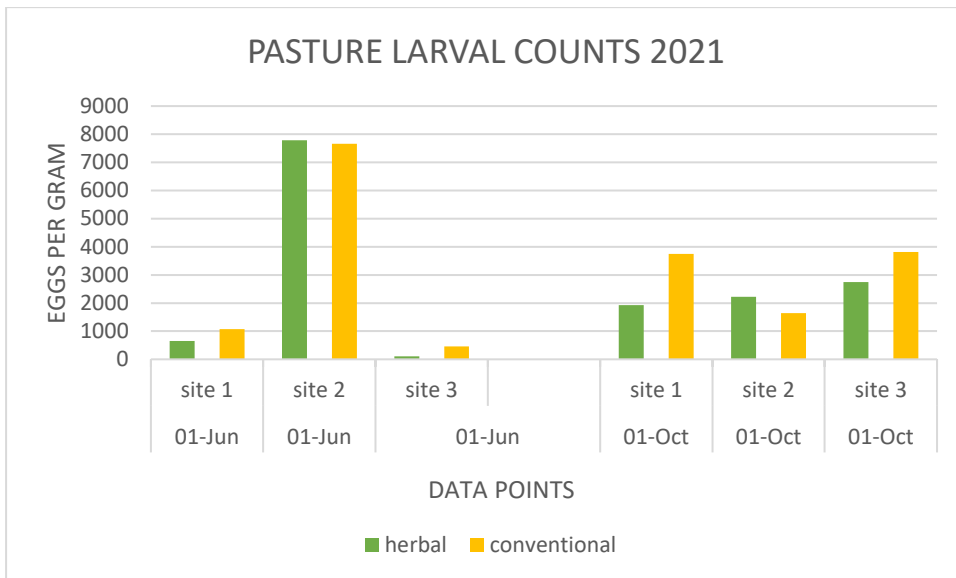
GRAPH 3: FEC results from Site 3

Graph 4, below, shows the data statistically presented over the first two years of the project. Each point is a FEC sample and shows the wide variation in the data from the two swards.

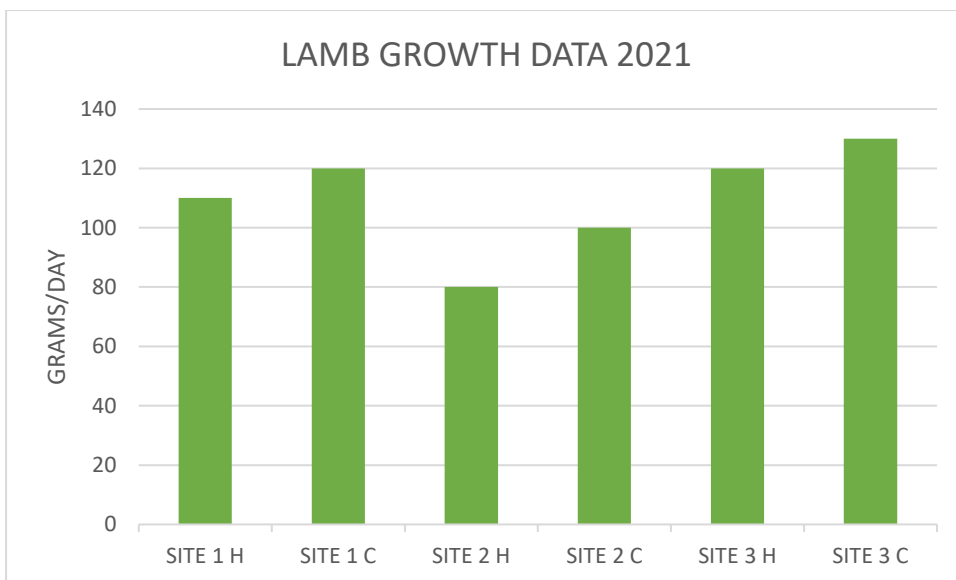


GRAPH 4: Data from all three sites plotted together

Looking at the Pasture Larval counts below (Graph 5), site 2 having a high residual level at the start of the data collecting point, also coincided with lower lamb growth rates compared to the other project sites. As we learn more about worm larvae activity within the sward, we now realise the importance of sampling on the same day and at similar time points in the day because time of day and weather conditions have a huge impact on where within the sward the larvae are positioned. If larvae are higher up the plant leaves, this may make the count higher on sampling days than if they are at the base of the plant or even within the soil on cooler days.



Graph 5: Pasture larval counts across the three sites

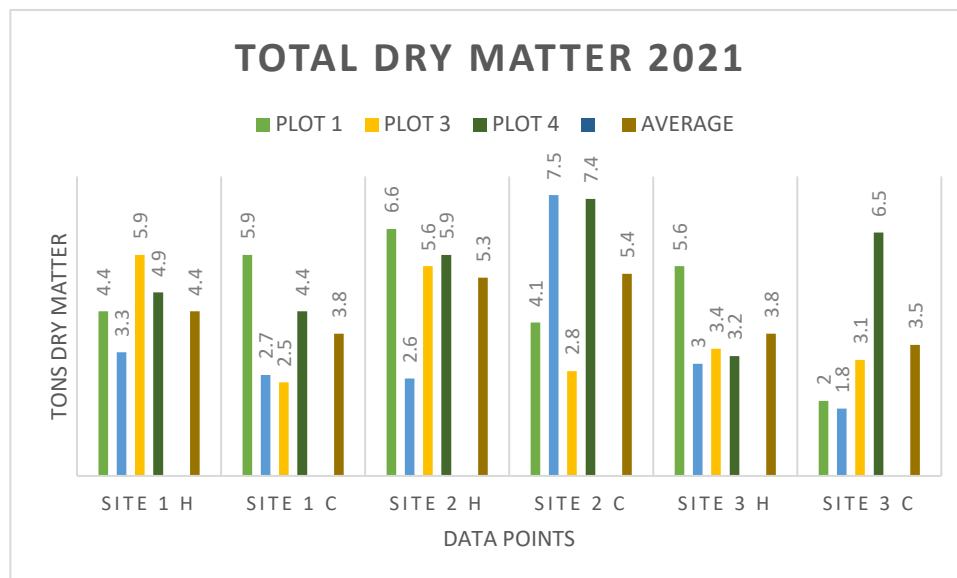


Graph 6: Average daily liveweight gains across the three sites

Looking at Graph 6, above, it can be seen there is a difference in average daily liveweight gains with sites 1 and 3 having a difference of 10gram/day of liveweight gain and site 2 having a difference of 20grams/day when comparing the herbal ley pastures with the conventional pastures.

The lambs on the herbal leys did have more of a check once introduced onto the herbal ley from a ryegrass sward, which saw an effect of about 3-4 weeks, with lower daily growth rates.

With site 2 having a considerably higher worm burden (Graph 5) after lambing on both plots, then this could go some way to explain the lower daily growth rates compared to the other sites over the data collection period on both types of pasture.



Graph 7: Total DM production from each plot and the average production for each site

As can be seen on Graph 7 the average total dry matter yield on the plots on each site were quite similar. Site 1 herbal +0.5tdm/ha. Site 2 con +0.1tdm/ha. Site 3 herbal +0.3tdm/ha.

The differences in actual plot dry matter yield were dependant on the season and management, and due to the weather occurrences and changes in grass growth some paddocks had a lot of pasture cover when grazed. Due to the 28 day rotation being used, some paddocks constantly had higher covers and grew more grass.

In the final year of data collection, monitoring faecal egg counts, daily liveweight gains and pasture larval counts will continue.

We will also look at calculating dry matter intake of the lambs to compare and contrast different plots, and the role that has in affecting DLWG.

Due to the effect of transitioning onto herbal leys on weaned lambs the aim will be to have the sentinels on the plots 4 weeks before weaning, to reduce the effect of transitioning.

The operational group of farmers are also keen to look at whether drench resistance is affecting the lamb growth rates, so the effects of drench efficacy within the data will be explored.