



Conon Kynoch

549 Black Road

Ashley Clinton

Winter 2020

Case study Progress Report

22 May 2020

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The combination of adverse weather conditions and Covid-19 restrictions have caused major problems for some farmers. In response B+LNZ commissioned a series of case studies around New Zealand, to examine the issues, analysis and management options considered and implemented by farmers. MPI has subsequently funded the ongoing updates of these case studies.

Summary of Farm Details

The property is located in the Ashley Clinton district, 30 kilometres west of Waipukurau in Central Hawke's Bay. Nestled under the Ruahine mountains the farm ranges from 430- 530m above sea level with an average rainfall of 1540 mm pa. The property has a total land area of 794ha, of which there is an estimated 590 ha effective. The majority of the farm is either steep or very steep in contour.

Summary of Position 22nd May

The farm was visited on the 11th of May by AgFirst consultant Lochie MacGillivray, and together with Conon Kynoch the pasture covers were calibrated and recorded as well as the liveweight of the ewes reassessed.

Building covers prior to winter onset was one of the first objectives described in the management plan of early April.

Pasture covers at the time of the farm visit were estimated to be 1275 kg DM/ha and now have a predicted end of May cover of 1308 kg DM/ha. This compares favourably to the mitigated feasible Farmax model that had the end of May covers at 1280 kg/DM/ha and the initial base model depicting the situation if no mitigations were made had end of month covers of 1,118 kgDM/ha.

The calculated pasture growth (working backwards from actual changes in pasture covers) over April until the 11th of May is 11 kg DM/ha/day, compared to predicted pasture growth for that period of 12 kgDM/ha/day.

However, even under the new modified plan (with the slightly higher pasture covers at the 11th of May), the farm plan is marginally infeasible. This is due in part to a recalculation based on the observed ewe liveweight. In the original plan this was estimated to be an average of 55 kg liveweight for the mixed aged ewes. This has been reassessed to be 58 kgs for the MA ewes, 59 kgs for the 5 yr ewes and 54 kgs for the two tooth.

The critical period will still be from now until the end of July. Covers are expected to decline over this period to get as low as 1,150 kg DM/ha and then from this the supply barely matches demand until the end of September when pasture covers are expected to have lifted to 1400 kgDM/ha.

112 of the 136 cows that were away grazing returned on the 30th of April. The cows that were trucked home are now being supplemented with hay where possible. The farm has limited areas where this supplementary feeding can take place and it will likely cease once the rains arrive.

The 5yr and MA ewes are still being fed maize with rates up to 350 gm/head/day. This will continue until the end of May in an attempt to keep building pasture covers. The ram went to the MA ewes and two toothies on the 4th of May as per the April plan, and given the tight feed supply/demand equation the importance of this delayed lambing is becoming apparent. While the feeding of the ewes has been difficult it is regarded as a success in slowing the ewes entering fresh paddocks and allowing for the start of a feed wedge.

46 R2 Bulls still that were grazed in a neighbouring block have returned in a good condition and are estimated to be around the 430 kg lw/hd mark. This mob is a trading mob and could be sold if the modified plan in early June dictates.

Conon has secured some hogget grazing from middle May until the end of June and possibly beyond.

The back country is now getting cold and the front country is now regularly experiencing frosts. The application of nitrogen under this situation would have low response rate. Supplementary feeding becomes more difficult as the winter progresses so the number of options available to Conon decrease.

The model is tight in July but shows that it is slightly infeasible for limited periods in August. There are a number of variables that could still make the model feasible:

- A lift of 2 kgDM/ha/day growth (about 14%) on the August growth rates used in the model. As pastures have not been recorded on the property in recent years the August growth rates used could well be understating typical growth rates. The ongoing effect of this deficit could be helped by a mid-August application of Nitrogen.
- Conon may be able to extend the period where the hoggets are away grazing until the end of July instead of the budgeted mid-July.
- Scanning will take place in July. This will allow for a mob split and potentially less intake for some mobs than modelled.
- The later part of May and early June could be warm and with sufficient soil moisture to lift growth rates higher than used in model. Pasture levels will be again measured towards the end of May.
- Further purchases of hay are possible if the weather conditions allow for the continued feeding of hay to the cows.
- There remains still some cattle trading stock. A revised June plan may dictate their fate.

The Farmax model has been further broken in to four land units and fortnightly pasture covers and stock movements are now being monitored. This new high-level monitoring will enable a more accurate and timely decision-making process.

The situation although far more positive than that of early April is still running on a knife edge, but Conon and his team feel confident of a management solution and outcome.

Table 1: Model revised predicted cover profile

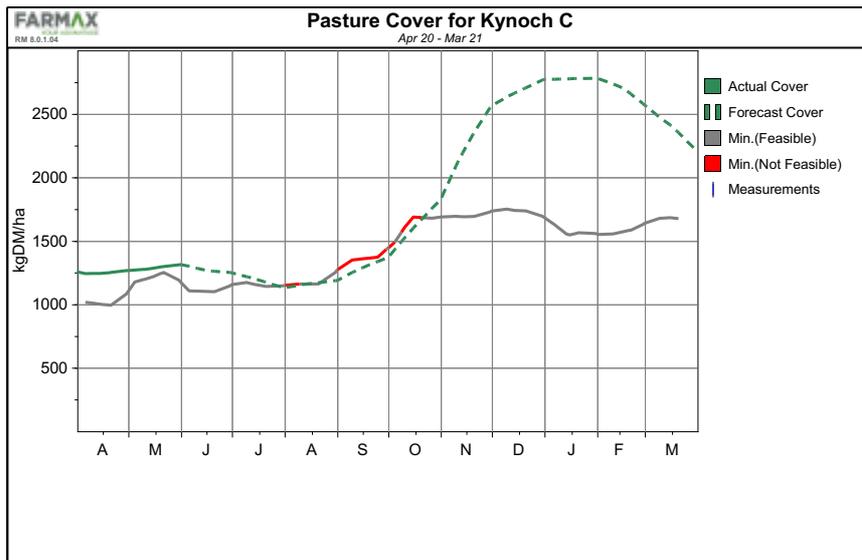


Table 2: Revised model (red line) vs initial (green line) cover profiles.

