

Winter grazing without the mud



Winter grazing of livestock in various parts of New Zealand is currently a contentious issue, due to concerns around sediment loss and animal welfare. Various regional councils are tightening up on current methods, but sediment loss is still assumed to be part of the process and there have been few suggestions of any alternative methods. The assumption is that winter inevitably means water logging and mud.

Strategic winter feeding techniques such as bale grazing, where 25 – 35 bales/ha are placed about 15 – 20 metres apart, have been shown to develop resilient soil systems with improved soil structure. The results from bale grazing, illustrate how the issues associated with winter grazing are related to management practices, not wet winters.

Mark Anderson of Westridge Farm in Otago has been trialling bale grazing and as a result winter grazing is being achieved with minimal mud and success on several levels. Bale grazing tends to stocks nutritional needs, feeds underground livestock while improving soil condition. Westridge Farm also provides diverse species pastures for winter grazing.

In June 2020, Mark grazed 15 bales per break/3 days/100 cows. Stock ate most of the hay, they trampled about 20% into the ground and were then moved to the next break, before they cut up the soil surface. Hay trampled does not go to waste, adding carbon, N, P, K and other minerals. Beneficial organisms such as protozoa are stimulated by the organic matter and increase the nutrient cycling process. Soil health is improved, resulting in decreased compaction, increased water infiltration, reducing run off, increased worm numbers and improved soil structure.

Increasing soil organic matter by 1 % (30 cm depth) increases water holding capacity by 144,000 litres/ha and approximately \$650/ha of nutrient is accumulated. Increasing soil carbon and building a resilient healthy soil biome is an ecological and financial investment.

Last December during a field day at Westridge farm we carried out field tests comparing a bale grazed site with standard pasture. We tested water infiltration, compaction, soil colour, soil structure and worm numbers. The bale grazed site was clearly superior in all of these factors. The water infiltration was 10 times higher, soil colour was blacker, structure was more friable, there was no compaction layer and worms were more numerous. All of this was achieved in just 6 months.

Management considerations include back fencing, to reduce compaction and mud in areas already grazed. If a large amount of hay is left behind, this can create dead zones of growth for the following season, however these areas will be more productive than surrounding areas in the future.

Bale grazing can lead to a build up of nutrients, so these areas need to be rotated every year, typically not coming back to the same areas for four years. Bale grazing ticks all the boxes for regenerative practices – no till, and no bare soil, maintains roots in the ground at all times and encourages diversity above and below ground. Depending on where hay is sourced it can introduce other diversity of seed. It's low impact, easy to set up, no contractors required, chemical and cultivation free and reduces tractor time and diesel.

Try something different and trial an area on your farm this winter.

By Michael Cashmore.

Michael is available for coaching to help you achieve your landscape regeneration goals and can be contacted by phoning 0272751112 or emailing cashmore@activesoils.co.nz