

Development of a field method for assessment of degree of curing in grasslands

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Background

This project aims to develop improved methods to assess current and predict future levels of curing in grasslands (the proportion of cured/dead material).

Research is investigating the use of remote sensing imagery and pasture/grass growth models for curing assessment and prediction. Field data is being collected across Australia and New Zealand for development and validation of systems.

Field Data Collection

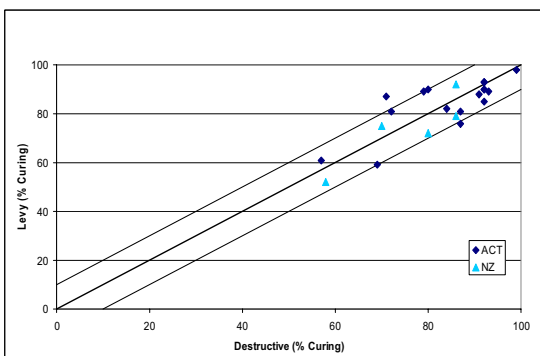
Visual assessment of curing is often inaccurate, and in remote areas is difficult and costly to obtain regular observations.

Destructive sampling of grasses is more reliable, but it is time-consuming to collect and process samples.

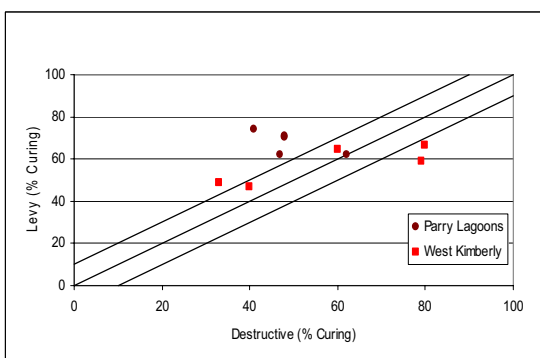
An alternative method has been developed based on a Levy Rod approach. This involves tallying live and dead touches on a vertical rod. It reduces subjectivity and is quick and easy to carry out.

Results

The method was trialed in the ACT, NSW and NZ and worked reasonably well. Sampling has been extended to northern Western Australia and Queensland, and the accuracy of the method is not as good in these areas. This is likely due to different grassland types. Grasslands of the SE and NZ were improved pasture grasses of uniform nature, whereas WA and Queensland sites consist of grasses with different structural characteristics.



Good results obtained with Levy Rod method in the ACT and NZ



Less satisfactory results with the Levy Rod in northern Western Australia



Lake Lyndon, NZ



Parry Lagoons, East Kimberly, WA



Tidbinbilla, ACT



Silent Grove, West Kimberly, WA

Conclusion

Whilst the method does appear promising in offering a quick and easy method for field assessment, it does not appear to be accurate across all grasslands of Australasia. Further data collection and possible modifications are required.

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