

# Mineral supplements spices up sheep feeding options

May 25 2015, by Geoff Vivian

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Mineral supplement licks placed in the wheat crop. Credit: Benita Moir

Sheep can be taught to graze their paddocks more evenly via the use of mineral supplement licks which also entice them to eat the wheat nearby.

UWA science graduate Benita Moir, who grew up near Narrikup in the Great Southern, recently won a Young Professionals in Agriculture award for the project which is aimed at protecting more intensely grazed

areas of [paddocks](#).

She says farmers in recent decades have successfully grazed [sheep](#) in their wheat crops in early winter, allowing dedicated pasture crops to grow freely in other paddocks for grazing later in the season.

While this is easily achieved in high-rainfall areas, she says sheep in more arid parts of the Wheatbelt tended to graze certain parts of paddocks more intensely, damaging the wheat plants.

She set up her experiment at two paddocks near Tammin in the dry northern Wheatbelt.

Placing GPS trackers on seven sheep in each paddock, she plotted their movements for two weeks.

She used this data to identify and mark several 60 x 60m ground plots which were identified as high, medium and low grazing intensity.

She took "ground truthing" biomass cuts from three small areas within each plot, and also gave each of these areas a visual grazing score.

Her team then placed the [nutritional supplements](#) in half of the low grazing intensity plots, leaving the other half as a control.



Sheep fitted with GPS devices. Credit: Benita Moir

"At the end of the experiment the aim was to compare the activity in our plots without the supplements and in our plots with the supplements," she says.

"After the initial two weeks of grazing we went through the paddock and installed our supplementary feeders in our pre-determined plots with the supplement.

"Then we released the sheep back onto the same paddocks and again monitored their GPS activity and produced the same map from the new GPS data from the last two weeks of grazing."

The second GPS dataset returned the results she had hoped for, showing grazing distribution was more even after introducing supplementary

feed.

It also showed monitoring sheep movements with GPS to be a suitable method to determine different areas of grazing intensity.

However, Ms Moir says results from the ground truthing measurements were less conclusive.

She recommends improving this by introducing a hand-held NDVI (Normalise Difference Vegetation Index) to measure biomass; and increasing the size of areas sampled for visual [grazing](#).

Ms Moir also recommends repeating the experiment in several locations over several years to replicate results.

Provided by Science Network WA

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