Optimising nutrition in veldt pastures

NATIONAL LANDCARE PROGRAM SMART FARMS SMALL GRANTS - AN AUSTRALIAN GOVERNMENT INITIATIVE

BACKGROUND

For a grass species that dominates the landscape in the Coorong and Tatiara regions, not a lot is known about the nutritional requirements of Veldt Grass and the impact on varying soil fertility levels on production.

The demonstration at Jacobs Well is exploring this over a 2 year period to see if the production response curve of Veldt is similar to that of other temperate perennial grasses.

SOIL FERTILITY SNAPSHOT

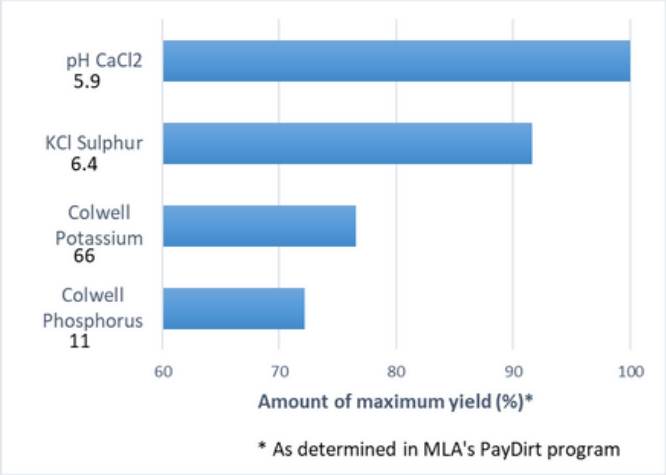

Figure 1. Average soil survey results (0-10cm)

SITE ACTIVITIES

The site was soil tested on a grid basis to determine nutrient variability across the site. Figures 2a-b shows the variability of key soil properties across the site.

Nutrient applications were then targeted to aim for 70%, 80% and 95% production levels as determined by MLA's PayDirt Program.

Phosporous and Potassium were then applied to target levels separately through a variable rate spreader.

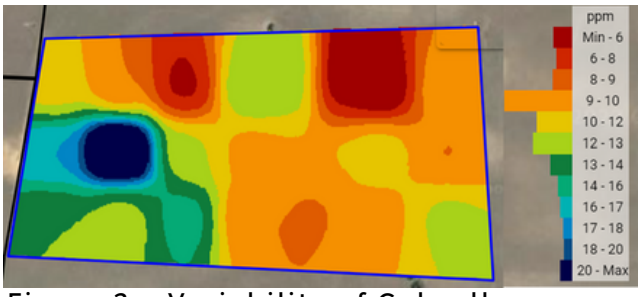

Figure 2a. Variability of Colwell phosphorous (P) (0-10cms)

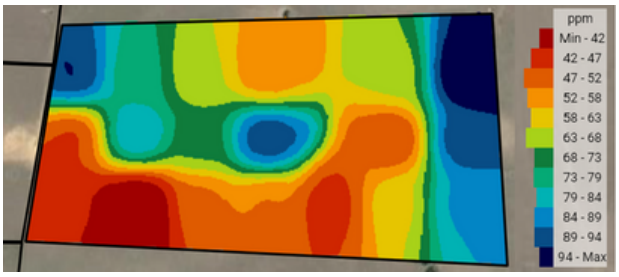

Figure 2b. Variability of Colwell potassium (K) (0-10cms)

RESULTS

The site was grazed over the winter and spring period and visual observations made with a noticeable change in pasture composition observed where the higher nutrient levels were applied (higher clover content).

In 2023, the spring growth 4 weeks post-grazing was measured (22/9/23) with the results shown below in Figure 3. This suggests that veldt grass may be nutrient responsive and that there is the capacity to increase production through fertiliser applications.

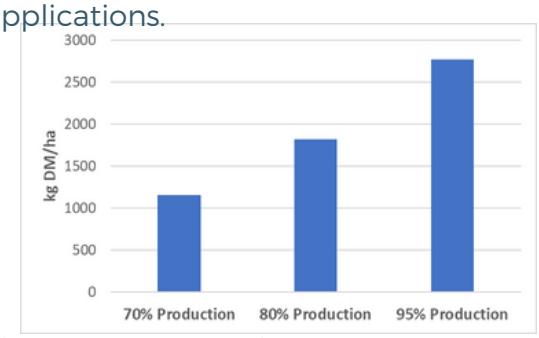

Figure 3. 2023 Spring Dry Matter results across fertiliser target production levels

Thanks to Mark Turner for hosting this demonstration