

Impact of time control grazing on native pastures

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East Hills is situated on the Namoi River 20 kilometres north east of Manilla NSW. Altitude ranges from 400 m on river flats to 600 m in steeper country. Long term average rainfall is 640 mm but over the last 3 years has only averaged 435 mm, falling mainly in summer.

Soils are red brown earth - red solodic with a surface pH 5.0 to 6.0 (KCl). Phosphate levels are medium but sulphur is low. Only small applications of fertiliser have been used in the past. The property is 1450 ha and similar to others in this area, of Manilla shire, in that it had minimal paddock subdivision.

The main enterprise is a commercial cattle breeding herd of Poll Hereford and Santa cross cows, joined to Poll Hereford bulls, calving July/August. Self replacing heifers and feedlot steers are also produced. Previous owners predominantly ran Merinos and historically cropped, with approximately 480 ha under cultivation.

Time control grazing

After attending a grazing for profit school, time control grazing (TCG) was implemented, August 1991, as a sustainable method of improving native pastures on 'East Hills' without costly inputs. The property was divided into 3 "flexible cells" with 69 paddocks averaging 21 ha. Most subdivision was achieved using a single wire electric fence, 80 cm above ground at a cost of \$218/km.

When only dry feed is available the cattle are given a 15 - 20% loose urea supplement, costing

\$0.04/cow/day. During the last three years of drought the cows were given a "production only ration" of by-pass-protein three months prior to joining costing \$0.16/cow/day.

Outcomes

While TCG has not increased stocking rates, 5 DSE's/ha have been averaged during the last 3 years of drought. The breeding herd has not been reduced and costly drought feeding has not been needed. Weaning weights have been affected by drought, but under better conditions it is reasonable to expect 220 kg (liveweight) at 6-7 months and 400 kg (liveweight) at sale (~ 18 months old). Data have been collected from permanent transects (1000 points) in 4 paddocks each November. There has been little change in the native perennial grasses and paddocks remain dominated by summer growing perennials.

Benefits to date

Breeding stock have been maintained during the drought. Using a single wire electric fence (low cost and maintenance) has allowed greater stock control and pasture utilisation. Feed availability can be more accurately assessed and stocking rates adjusted. Under extreme drought conditions there has been no appreciable change in botanical composition or further degradation of pasture. There has also been considerable savings in overhead costs with the majority of work handled by one person.