

SHEEP RESPONSE TO SUPER PHOS

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Super Phos use in Western Australia has declined over the last 10 years in response to declining terms of trade for farmers.

The results of more than 40,000 farmer soil samples analysed by Wesfarmers CSBP each year show that phosphorus levels of many soils in WA have declined now to the point where Super Phos is highly profitable. While many trials have directly measured Super Phos response in pasture, few in WA have measured this response using the grazing animal.

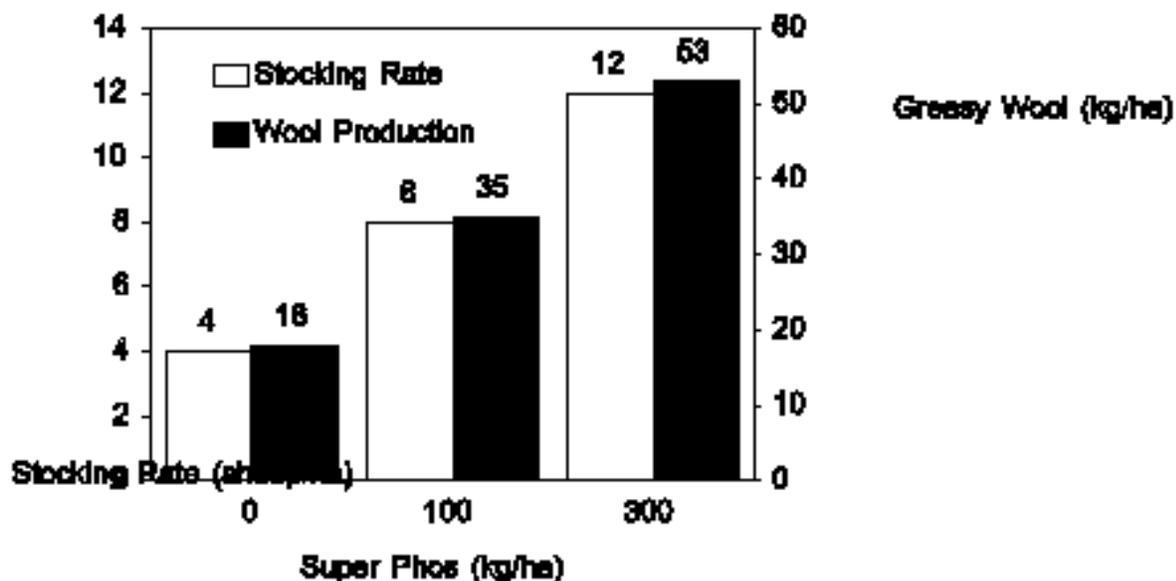
MATERIALS AND METHODS

Super Phos (9.1% P, 11.5% S) was applied at 0, 100 and 300 kg/ha in two replicates to 0.75 ha plots in May 1994 on gravelly loam at Jingalup, south-west of Kojonup. Weaner wethers (average weight 30 kg) were added to the plots in June. Stocking rate was adjusted by adding or subtracting sheep of similar weight to keep Food On Offer (FOO) at about 1200 kg/ha. FOO was allowed to rise in spring to mimic the usual spring flush. All plots were stocked at the same rate over summer and all sheep were fed the same amount of oats to reduce weight loss.

RESULTS AND DISCUSSION

Response was dramatic with average stocking rate and wool produced/ha on the Super Phos plots triple that on the nil plots (Fig. 1). Greasy wool/head (4.4 kg) and fibre diameter (19 micron) were the same between treatments reflecting similar grazing management. Liveweight changes were also similar between treatments except for the set stocking period on dry pasture (over summer) where sheep on the nil plots lost about 6 kg more than sheep on the 300 kg/ha Super Phos plots. Profit from Super Phos was estimated at \$60/ha from 100 kg/ha Super Phos and \$100/ha from 300 kg/ha Super Phos.

Figure 1. Average stocking rate and wool production at Jingalup, WA in 1994/95.



These results are applicable to at least the 25% of farms in the Kojonup shire estimated from Wesfarmers CSBP soil analysis in 1994/95 to have similar phosphorus status as the Jingalup site.