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ABSTRACT ONLY

The association between selenium status and milk production in dairy cattle

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The association between selenium and milk production was investigated on 98 farms in the Rangitaiki Plains and Galatea Basin during the 1981-82 dairy season. Ten blood samples per herd from randomly selected cows were tested for selenium on 4 occasions through the season. Animal, farm management and trace element supplementation data were also collected. Mean herd selenium levels varied considerably and there was a statistically significant association between herds with low blood selenium and low milk production in terms of kilograms of milkfat per hectare.

Selenium milk response trials were carried out in 7 dairy herds in the Rangitaiki Plains district in the 1982-83 dairy season. Half of each herd received injections of selenium each 2 months with the remaining animals acting as controls. In 1 herd additional copper and copper/selenium groups were included. Using Livestock Improvement Association production figures, positive milk volume and milkfat responses were shown to occur on 6 of the farms. On 2 farms volume responses were significant at the 5% level. It was considered that selenium deficiency has a small effect on milk and milkfat production on farms in this district, but that this effect is mediated by other factors.

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