

## CAPEWEED (*ARCTOTHECA CALENDULA*), A COMPONENT OF PASTURE

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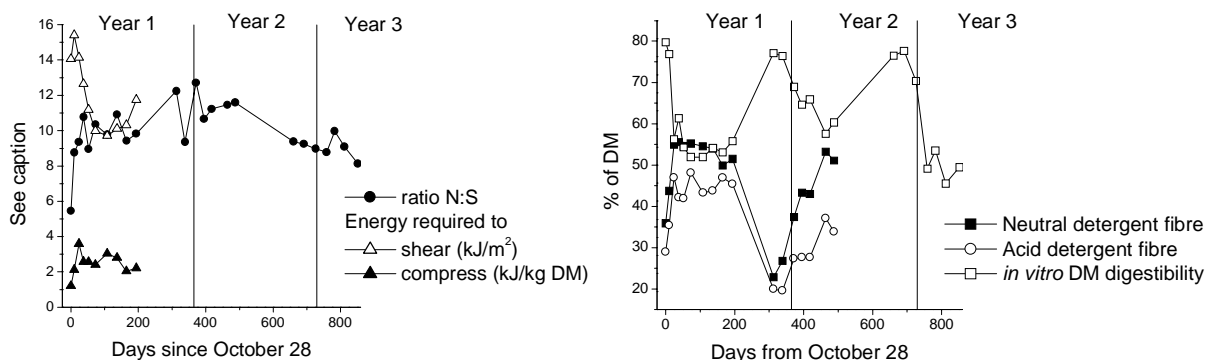
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Capeweed is a common component of pastures in south-western Australia and can become a dominant component in some years during autumn and subsequently in winter and spring. Capeweed is selected by sheep grazing these pastures, based on data from analyses long-chain alkanes in faeces of sheep grazing these pastures (unpublished data). Characters that can contribute to the nutritive value of capeweed harvested from an ungrazed pasture at Bakers Hill, WA, over three years are presented here.

*In vitro* digestibility of dry matter (DM) was estimated for all samples according to Klein and Baker (1993). Energies required to compress and shear the material were determined on oven-dried (90°C) material collected in one year using the techniques described by Baker *et al.* (1993). Neutral detergent fibre content (NDF, % of DM) and ash-free acid detergent fibre content (ADF, % of DM) were determined, for material collected over two years, using the methods described by Fannesbeck (1976). Kjeldahl nitrogen content (N, % of DM) and sulphur content (S, % of DM) were determined according to Faichney and White (1983).

*In vitro* digestibility of DM appears to follow the NDF and ADF contents of capeweed inversely (Figure 1), falling sharply from ca. 75% to ca. 55% with the close of the pasture-growing season each year, most likely due to lack of precipitation. Associated with these changes were only slight increases in the ratio of N:S (due mostly to a strong retention of S) in contrast to what is found usually in pasture components in this environment (for example, see Revell *et al.* 1994), and a decrease in the energy required to shear the material (Figure). There was no apparent effect of close of the pasture growing season on energy required to compress the material (Figure).

Despite the poor digestibility *in vitro*, the low energy required to shear the material and a reasonable ratio of N:S indicate that capeweed may have reasonable nutritive value at a time of the year when pasture components are of poor nutritive value.



**Figure 1.** Characters of capeweed (*Arctotheca calendula*) that may contribute to its nutritive value as a component of pastures in south-western Australia.

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