AUTUMN DEFERMENT AND IRRIGATED PASTURE PRODUCTIVITY

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Deferment of grazing for six weeks after the opening autumn irrigation on subterranean clover based pastures is commonly practiced by Riverina district landholders but, the consequences of a shorter period of rest have not been assessed. Reducing the deferment interval to cover just the period of emergence of the annual pasture species could be of value to the landholder.

The effects of varying the length of the deferment interval were evaluated in an unreplicated exploratory trial and two replicated field experiments which were conducted on contrasting sites under irrigation at Deniliquin, N.S.W. Data were also collected from an eight-year comparison of set-stocked (no deferment) and partially deferred pastures.

In the first comparisons the period of deferment varied from 5 to 40 days. First-year and cumulative effects were assessed by measuring pasture productivity. Data were drawn from pastures on three contrasting sites but, essentially, they suggest a similar conclusion viz: the penalties associated with reducing the deferment period to 10 days (the emergence time for pasture species) are not great. The major effect of deferment was to increase the amount of forage on offer in the autumn-winter period. Winter forage yield was about five times higher on the 40-day treatment (2360±146 kg/ha) than on the 10-day treatment (491±84 kg/ha) in the second year but spring yields were similar on all treatments.

To allow six weeks deferment it is necessary to bear the cost of feeding the sheep and this may only be justified where there is access to an alternative pasture with a complementary growth rhythm or when cheap fodder and the associated handling facilities are available. Reduced stocking rate during the critical autumn establishment phase (partial deferment) as suggested by Myers (1967) has the advantage of reducing the number of stock to be supported on an alternative pasture or to be hand fed.

The implications for management of irrigated annual pastures are clear. Deferrment or autumn saving is not likely to have a place in the management strategies for irrigated annual pastures "especially if advantage is taken of the high potential growth rates associated with early autumn irrigation (Myers and Squires 1970)" but partial deferment in the first weeks after the opening irrigation could have considerable advantage. Though deferment is not likely to increase total forage production, winter nutrition on sites of low productivity may be improved.


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