

Scientific Paper

Supplementation of Merino ewes with Serradella does not increase ovulation or reproductive rate

Abstract

It is well documented that short-term supplementation of a feedstuff high in energy and protein prior to joining increases reproductive rate and ovulation rate of ewes. In this study, the effect of short-term supplementation with serradella pods on ovulation and reproductive rate was investigated and compared to supplementation with lupins. Nine hundred Merino ewes (4.5 years) sourced from two farms, Site 1 and Site 2 (n=450 per site), had oestrus synchronised with the use of Controlled Internal Drug Release (CIDR) devices. Ewes at each site were randomised based on liveweight and condition score into one of three treatment groups: control (no supplement), lupin and serradella pod. Ewes were fed either: no supplement (control), 700g/hd/day of lupins (ME=13 MJ/kg DM, CP=32%) or 700g/hd/day of serradella pod (ME=12 MJ/kg DM, CP= 24%) for six days prior to joining. In addition to being weighed and condition scored throughout the study, the ewes were scanned for ovulation rate and pregnancy status at nine days and forty days post joining, respectively. At joining there were site by treatment interactions evident for condition score ($P<0.001$). The condition score of ewes at Site 1 was higher for control than both lupins and serradella (3.50, 3.33 and 3.22 respectively) whilst at Site 2 the condition score of ewes fed serradella was highest compared to lupin and control (3.36, 3.16 and 3.04 respectively). Liveweight, ovulation rate and reproductive rate did not differ significantly between treatments ($P>0.05$) and there was no site by treatment interactions. It is concluded that short-term supplementation with serradella pods is not effective for increasing ovulation and reproductive rates.

Key words: Serradella, short-term supplementation, ovulation rate, reproductive rate, ewes