Reproductive performance of Lacaune dairy sheep exposed to artificial long days followed by natural photoperiod without and with additional progestagen treatment during the non-breeding season

Summary / Zusammenfassung
This study compared the reproductive performance of Lacaune dairy ewes exposed to a light program and subsequent male introduction without (n=36) or with (n=36) an additional 6-day progestagen treatment during the non-breeding season. All ewes were exposed to extended day length (16 h light and 8 h darkness) for 77 days during winter (15th of December until 2nd of March) followed by increasing natural photoperiod. At the end of the photoperiodic treatment three blood samples were collected 6 days apart for progesterone analysis to determine cyclic activity. One half of the ewes were additionally subjected to a 6-day progestagen treatment in combination with PGF2α and eCG at insert withdrawal. Rams fitted with marking harnesses were introduced to females for 45 days and marked ewes recorded twice daily. Ewes exposed to the light program only were joined 40 days after the end of photoperiodic treatment, ewes additionally treated with progestagen/PGF2α/eCG were joined one day after insert removal (between 40 and 44 days after the end of photo stimulation). Lambing data were recorded and fertility (percentage of ewes that lambed, lambing rate and litter size) assessed to first service period and overall.

Keywords / Suchbegriffe
Ewe, estrus induction, photoperiod, progestagen, non-breeding season, fertility

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