

Productivity of Polypay, Dorset and Polypay × Dorset Ewes under Two Accelerated Breeding Systems

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ABSTRACT

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Forty-one Dorset and 113 Polypay ewes were subjected to a system of three lambings in 2 years (3/2) followed by five lambings in 3 years (5/3), in which 22 Polypay × Dorset crossbred ewes were also involved. The objective was to evaluate yearly ewe productivity. Fertility of Polypay ewes averaged 85% compared to 94% for Dorsets and 100% for the cross. Numbers of lambs born for the three groups were 1.76, 1.40 and 1.47; and those weaned were 1.52, 1.09 and 0.88, respectively. Fertility of ewes under the 3/2 system was 98% compared to 79% for the 5/3 system. Numbers of lambings per year for Polypay and Dorset ewes were 1.55 and 1.50 under the 3/2 system; 1.54 and 1.57 under the 5/3 system, respectively. Numbers of lambs weaned per ewe per year was 2.53 and 1.79 for Polypay ewes under the 3/2 and 5/3 systems. The corresponding estimates for Dorsets were 1.61 and 1.60, respectively. At 100 days, Polypay ewes produced 86 and 61 kg of lambs, while Dorset ewes produced 54.6 and 54.2 kg under the 3/2 and 5/3 systems, respectively. It was concluded that unless fertility in the 5/3 system is improved, the 5/3 system may not be anymore advantageous than the 3/2 system.

INTRODUCTION

With 5 months of gestation and close to a month for uterine involution, a system to breed ewes to achieve two lambings in one calendar year is the biological limit of the ewe. This level of production is seldom attained in practice and is very stressful for ewes which can achieve it. The situation is also complicated by the natural anestrous period which in some breeds can extend for 8 months, thus requiring synchronization and ovulation induction with hormones or the control of light (Vesely and Swierstra, 1985; Rawlings et al., 1987). Studies on lambing twice a year have generally met with limited success