

GROWTH, PRODUCTION AND REPRODUCTION CHARACTERISTICS OF THE CANADIAN BREED OF CATTLE AND ITS FIRST CROSS AND BACKCROSS WITH BROWN SWISS. II. PRODUCTION AND REPRODUCTION

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Milk and fat production, number of inseminations per conception, age and weight at calving and kilograms of calf born were studied on 21 Canadian (C); 25, 3/4C 1/4 Brown Swiss (3/4C) and 22, 1/2C 1/2 Brown Swiss (1/2C) cows raised at the Deschambault station and 20 cows each of C and 1/2 C raised at the La Pocatiere Station. The cows were born between 1973 and 1977 and produced from 1975 to 1981 inclusive. Average 305-day milk production for the first two lactations was 4746 kg for 1/2C, 18% higher than 3/4C and 29% higher than C cows at Deschambault and 26% higher than C cows at La Pocatiere ($P < 0.01$). At Deschambault, fat percentage was 4.8% in C cows, 8 and 4% higher ($P > 0.05$) than in 1/2C and 3/4C cows, respectively. However, at La Pocatiere, fat percentage was similar in the C and 1/2C groups. In the 3/4C and 1/2C crosses at Deschambault, milk production increased 14.5 and 16.4% in second and a further 7.8 and 12.3% in third lactations. For C cows, the increase was 11.6 and 7.6% at Deschambault and 16.7 and 14.6% at La Pocatiere, respectively. C cows needed 0.23 and 0.34 less inseminations than 1/2C at Deschambault and La Pocatiere, respectively ($P > 0.05$). Twinning rate was 2.6, 2.8 and 6.2% for C, 3/4C and 1/2C cows, respectively. The higher twinning rate of 1/2C cows and a 1.6 kg heavier calves they produced resulted in an average of 2.3 kg more calves born than from C cows. The 1/2C cows were 23 and 31 days younger ($P > 0.05$) and 10 and 12% heavier ($P < 0.01$) at calving than C cows at Deschambault and La Pocatiere, respectively. The 3/4C cows were intermediate. There were significant differences between Deschambault and La Pocatiere stations, the performance at the former station being better. Lactation number and season of calving had significant effects on milk production.

Key words: Canadian cattle, crossing with Brown Swiss, milk and fat production, reproduction

[Croissance, production et reproduction de bovins de race Canadienne et des sujets issus de leur premier croisement et de leur rétrocroisement avec la Suisse-Brunne: Production et reproduction

Titre abrégé: La Race Canadienne de bovins

La production de lait et de gras, le nombre de saillies par conception, l'âge et le poids au vêlage et les kilogrammes de veaux nés ont été évalués au cours de cette étude effectuée avec 21 vaches de race canadienne (C); 25, 3/4C × 1/4 Suisse-

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