

In the cows of *Charolais* breed, the plasma level of total oestrogens (conjugated plus unconjugated) at the 220th day of pregnancy was higher for cows bearing twins than for cows with one foetus (6.3 ± 0.7 vs 4.7 ± 0.4 ng/ml).

We observed positive correlations between plasma oestrogen levels (at 220 days) and :

- the birth weight of calves ($r = + 0.84$; $P < 0.001$),
- the gain of weight from 1-180 days after birth ($r = + 0.87$; $P < 0.001$).

Similar correlations were obtained in sheep. These results suggest that total oestrogens in the plasma may be a useful criterion to estimate foetoplacental activity and the growth of future new born.

INFLUENCE OF THE SUPPRESSION OF THE *PRE PARTUM* SURGE OF PROLACTIN BY ERGOCRYPTIN ON THE MILK YIELD AND ON THE *POST PARTUM* ANOESTRUS OF THE NURSING EWE. — G. KANN. *I. N. R. A.*, 78350 Jouy en Josas (France).

Prolactin is known to be part of the ovine lactogenic complex necessary to induce a subnormal lactation in hypophysectomized ewes. Moreover, the role of Prolactin in lactogenesis has been demonstrated by *in vitro* work on the mammary tissue of pregnant ewe. Ergocryptin (CB 154 Sandoz Lab.) has been administered to pregnant ewes at various periods during the ten days preceding parturition time. Prolactin, Oestradiol, Cortisol and Ovine Placental lactogen have been measured during the treatment : Administration of 2×1 mg of CB 154 by day is sufficient to nearly completely depress every high levels of Prolactin. Prolactin is the only hormonal component affected by this treatment and the levels recorded before the injection of Ergocryptin are recovered 12 to 24 hours after cessation of administration. Suppression of the very high Prolactin values observed in the immediate prepartum period is followed by a very poor milk yield in the subsequent first days of lactation. In preliminary experiments it has been shown that this treatment shortens the anoestrus period observed *post partum* in the nursing ewe (oestrus behavior observed about 40 days after lambing in these treated animals instead of 60 days in normal nursing ewes). Further experiments are under way to investigate the possible antigonadotrophic potency of prolactin, using CB 154 and an antiprolactin antiserum administered *pre* or *post partum* to the ewe.

THE INFLUENCE OF PRE-CALVING FEEDING LEVEL ON REPRODUCTION IN DAIRY COWS. — B. H. LANGLEY. *Fermoy (G. B.)*.

The intake of silage of 11 cows was restricted to 50 lb (approx. 23 kg) per day for 6 weeks before calving, while control cows received 85 lb (approx. 39 kg) silage and 4 lb (approx. 1.8 kg) dried beet pulp. After calving, all cows received *ad libitum* silage and 6.5 lb (approx. 3 kg) meal until they were put onto grass.

The calves from the restricted group were lighter and the interval from calving to service and conception was longer than in the control group. The level of non esterified fatty acid in blood appeared to give a more sensitive indication of nutritional status than blood glucose.

INFLUENCE DU MODE D'ALLAITEMENT SUR LA DURÉE DE L'ANOESTRUS *POST PARTUM* CHEZ LA FEMELLE ZÉBU. — R. BRITO-CAPALLEJAS. *Université de La Havane (Cuba)*.

Dans la zone tropicale et dans les conditions naturelles d'élevage, la vache zébu allaite son produit pendant 6 mois au moins.

Si le sevrage est pratiqué 6 mois après le part, 34,6 p. 100 et 27,2 p. 100 des animaux respec-