

THE LEVELS OF THYROID HORMONE IN BLOOD SERA OF HEALTHY AND SICK COWS

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Summary. The blood levels of thyroid hormone (triiodothyronine and thyroxine) was examined in 60 cows, which included healthy cows and cows with paresis. Levels of thyroid hormone were determined using the enzyme linked immunosorbent assay (ELISA).

The blood level of thyroxine ranged from 47.2 to 65.2 nmol/l, level of triiodothyronine ranged from 1.10 to 2.04 nmol/l. The level of thyroxine and triiodothyronine after parturition decreased to 1.18 ± 0.05 and 47.3 ± 1.67 nmol/l, and in cows with parturient paresis to 1.46 ± 0.23 nmol/l and 42.6 ± 1.95 nmol/l, respectively. The level of thyroid hormone in blood was significantly higher in heifers compared to the older cows. The highest levels of T4 and T3 were registered in-calf cows 62.5 ± 6.86 and 1.89 ± 0.28 nmol/l, respectively. Further, the levels of thyroid hormones were negatively related to the daily milk yield ($rT4 = -0.53$, $rT3 = -0.71$).

ELISA method evaluated in this study offers a precise and accurate measurement of the T4 and T3.

Key words: cows, blood sera, thyroid hormone.