

BOOK OF ABSTRACTS



*XIV International Scientific Agriculture Symposium
"Agrosym 2023"
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EFFECT OF FEEDING WITH FRESH CARROTS ON REPRODUCTIVE PERFORMANCE OF SIMMENTAL COWS

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Abstract

The aim of this study was to evaluate the effect of fresh carrots nutritional supplementation on the reproductive performance of Simmental cows. The usage of fresh carrots, which may reach the β -carotene level of 200-1000 mg/kg, may positively affect reproductive performance in cows, as beta-carotene is essential for the normal function of the reproductive system. The experiment was carried out on twenty-four Simmental dairy cows, where 12 cows were supplementary fed with 5 kg carrots per cow/day from calving to the first artificial insemination up to 75 days. Non-supplemented 12 cows served as a control group. All observed cows were healthy. Reproductive performance was followed by estrus response, conception rate, pregnancy percentage, calving percentage, and rate of embryonic survival. All cows included in the survey were gynecologically ultrasound examined without reproductive disorders. The results of the current study showed that cows in the experiment group had higher estrus response and conception rates of 8.3% higher and embryonic survival rates of 16.6% higher than the control group. We conclude that the nutritional supplementation of fresh carrots in cows' diets is stimulating and therefore recommended for improved reproductive performance, which is attributed to higher β -carotene intake resulting in better reproductive performance and reduced embryonic death rate.

Keywords: *carrots, cows, conception rate, embryonic survival, reproductive performance.*

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