عنوان مقاله:

Effectsof dietary polyunsaturated fatty acidsonovarian functionandprostaglandin secretion in lactating dairycows

محل انتشار:

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خلاصه مقاله:

As lactating cows in severe negative energy balance have poor reproductive performance, the effect of dietary fat supplementation (fish oil,soybean oil) on PGFM secretion, ovarian function and blood metabolites is investigated. In this experiment, the effects of dietary polyunsaturated fattyacids on plasma metabolites, ovarian function and prostaglandin secretion of 20 primiparous Holstein cows was studied.The cows were randomly allocatedto one of four groups that were fed either: 1) a control diet; 2) a diet with 3% (Feed dry matter basis) fish oil; 3) a diet with 3% soybean oil; or 4) a diet with1.5% fish oil and 1.5% soybean oil. Groups were synchronized using the heatsynch method andwere fed their respective diets for 35 days, allowing 14 daysfor dietary adaptation and 21 days for data collection. Concentration of plasma glucose, triglycerides and low density lipoprotein (LDL) cholesterol were notaffected by the treatments, but plasma total cholesterol and high density lipoprotein (HDL) cholesterol concentrations were significantly higher incows that consumed the oil-containing diets ($p < 0.05$).The number of follicles, corpus luteum size and plasma estradiol, progesterone andprostaglandin F metabolite (PGFM) concentrations were similar across all treatments. However, the size of the largest follicle was significantly greater incows that consumed a diet containing fish oil or soybean oil ($p < 0.05$). These results suggest that polyunsaturated fatty acids can influence both ovarian anduterine function in cows, but further studies are required to test their effects .on dairy cow reproduction

کلمات کلیدی:

Polyunsaturated fatty acids; ovarianfunction; prostaglandin; dairy cow

لینک ثابت مقاله در پایگاه سیویلیکا: