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The aim of the study was to determine the effectiveness of the use of ReSynch schemes for synchronization of estrus in Holstein cows. To synchronize estrus, GnRH preparations (Ovarelin) and PGF2 α (Enzaprost) were used based on the ReSynch protocol. The investigated Holstein cows reared at the Promin farm of the Mykolaiv region in Ukraine. Using the ReSynch scheme, the synchronization of estrus were performed in the two experimental groups: Holstein cow with normal ovaries and uterus (n = 15), Holstein cow with cysts and bilateral ovarian hypofunctions (n = 15), and the control group (n = 15). When using ReSynch estrus synchronization schemes in the first experimental group, the fertility rate was 88 %, which is 33 % (p<0.05) higher compared to the control, in the second – 70 %, which is 15 % higher relative to the control group. The service period for the first experimental group of cows was 97 $\pm$ 6.2 days, for the second experimental group was 110.4 $\pm$ 5.5 days, while in the control group it was 117.4 $\pm$ 6.4 days. The insemination index of the first experimental group was 2.2, in the second experimental group was 2.6, and in the control group was 2.9. The indicators of reproducible qualities of Holstein cows in the control group are significantly lower than those in both experimental groups when using ReSynch synchronization schemes.

Key words: cows, infertility, insemination, estrus synchronization, scheme ReSynch