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Seasonal variability of reproductive function of cows **The purpose.** To study physiological state of cows of dairy breeds in the course of the year and to compare methods of correction of contractibility of an uterus.

Methods. Physiological state of cows was determined by rectal researches. They applied medicamentous means at atonia of uterus at cows. **Results.** For the first time the complex comparison of efficiency of application of preparations-uterotonics of several pharmacological groups for treatment of atonia of uterus at cows is made. It is fixed that the share of pregnant cows increases from 28-32 % in the winter, in the spring and in the summer up to 63% in the autumn. The percentage of cows with atonia of uterus is simultaneously decreases (from 16% in the winter to 4% in the autumn). After their treatment with Oxytocinum and Docitolum 53 – 57% of cows have recovered within a month. More efficient was application of Neostigmine methylsulfate, Oestoforum and Galapanum. **Conclusions.** The gained results should be considered at mapping out treatment-and-prophylactic provisions, holding stimulation and synchronization of a hunt.

Key words: physiological state of cows, season, correction of contractibility functions of an uterus, uterotonics.

The ability of animals to reproduce to a large extent depend on factors paratypes O, in particular calving season. The physiological condition of cows studied a number of authors H. Laptev, A. Gavrikov [1] investigated the performance of reproduction of black-motley cows, we came to the conclusion that the winter-spring period is the most unproductive for playback fuktsii these cows.

Clinical and gynecological examination 1090 cows in farms of the Kiev region held Pasichnyk V. et al [2] have shown that hypovaria hit 30%, persistent lutea 25-27%, uterine atony - 9% of cows and up to 12% of ovarian cysts . Endometritis was found in 9% of the cows. The authors believe that it is advisable to prevent endometritis administered at 24 and 27 h. After

calving 2 ml estrofanu and its trade counterparts (bioestrofan, vetestrofan, broestrofan, metestrofan et al.).

Other authors [3,4] argue that a lack of vitamins and macro- and micronutrient elements in cows before and after calving, which is typical for winter calving, resulting in an increase of involutinal processes, atony uterus and other genital diseases.

A. Cheremisinov and GN Azizyan [5] believe that one of the common diseases genital organs of cows - it subinvolution of uterus. Having examined 5.5 thousand. Cows it was found in 827 animals, representing 15% of the total number surveyed cows. The other 53.2% of infertile cows were found hypoactivity of ovaries, the corpus luteum - in 37.7% of ovarian luteal cysts - 9.1%.

Omeljanenko MM [6] investigated the state of the genitals after the slaughter of 272 cows. The 148 animals were fruitless: chronic inflammation of the uterus - 18 goals, an inflammation of the fallopian tubes - 12 in ovarian - 17 persistent corpus luteum -to 28 ovarian cysts - in 13 goals.

Cattle reproductive performance analysis in one of the farms Lugansk region revealed that tive was 49.5%, 44.8% had a hidden endometritis [7]. A large number of atony uterus in cows (49.4%) saw I.A. Porfiriev [8].

Cholinergic agents successfully used to improve the trophic function of the nervous system A. Chomaev uterine pathology, M. Varennikov, V. Liepa [9], and Mikhalev [10] to enhance the contractile function of the uterus megestrofan used in combination with oxytocin and glucose.

Analyzing the literature data it can be concluded that the authors have conducted studies of cows in different farms do not always take into account the seasons of the year when the survey was conducted. They used a combined administration of drugs that made it impossible to assess the effect of certain medications.

Materials and methods of research. The study was conducted in the STOV "Progress" and PP "Horizon" Kyiv regions to cows Ukrainian black

and red-Ryabykh dairy breeds with a capacity of 5 - 7.5 thousand. kg of milk per lactation.

Experiments with correction of uterine anatomic its state-performed by application of dotsytolu, prozerina estrofanu, halapanu and metylerhometrynu. Control animals were injected oxytocin. Drugs were administered an average of 14 - 16 days after calving in the following doses: Oxytocin - 60 IU subcutaneous; dotsytol - 10 ml subcutaneously; Neostigmine - 2-3 ml of 0.5% solution subcutaneously at a dose of 0.01 metylerhometryn mg of active fault-recho kg live weight subcutaneously. These drugs were injected three times at intervals of 48- 72 hours. Estrofan halapan and injected twice in 2 ml with an interval of 11 days. State controlled the uterus through the rectum.

Results. To determine the features of the physiological state of dairy cows was investigated during the year the state of their state of their genitals. The data on the physiological condition of cows STOV "Progress" at different times of the year are shown in Table 1.

1. The physiological condition of cows STOV "Progress", in different seasons

The physiological condition of cows	Seasons							
	winter		spring		summer		autumn	
	heads	%	heads	%	heads	%	heads	%
Pregnant and doubtful pregnant	40	32,0	67	28,6	64	28,3	224	63,5
Not pregnant without pathological changes in the genital organs	9	7,2	37	15,8	71	31,4	22	6,2

Salpingitis and oophoritis	18	14,4	19	8,2	16	7,1	25	7,1
Hypovaria	11	8,8	13	5,6	22	9,7	19	5,4
Ovarian cysts	10	8,0	48	20,5	22	9,7	35	9,9
Yellow ovarian body	8	6,4	9	3,8	10	4,5	4	1,1
Endometritis	9	7,2	11	4,7	6	2,6	10	2,8
Uterine atony	20	16,0	30	12,8	15	6,7	14	4,0
Total	125	100,0	234	100,0	226	100,0	353	100,0

They show significant changes tional share of cows in the herd during the year (from 28-30% in winter, spring and summer to 63% in autumn). This improved reproductive status of the herd is against the background of increasing the number of cows had no gynecological diseases. In the summer of more than 2 - 4 times than winter and spring. This indicates a significant improvement in overall health of cows during the summer due to consumption of green fodder grasses, etc. insolation.

The forerunner of many disorders of the reproductive function of cows is atonic uterine condition. They may be either primary diseases, or other feature of diseases such as inflammation of the uterus and subinvolution of uterus. Treatment of uterine atony prevents dangerous complications such as salpingitis and productive Oophoritis irreversible anatomical changes oviducts and ovarian adhesions. Bilateral lesions of these organs is intractable, and often causes of culling cows because of infertility.

We have compared the effectiveness of different treatment of uterine atony Far makolohichnymy means. Specifically used dotsytol, Neostigmine, Oestrich-fan, halapan and oxytocin for your in "Material and Methods of Research" schemes.

The results of experimental studies are presented in Table 2.

2 Action uterotonikiv on the uterus of cows atony

Product name	n	Recovered within a month		Of those expressed oestrus		Fertilize after insemination						Remained barren	
		heads	%	heads	%	1		2		3 and more		heads	%
						heads	%	heads	%	heads	%		
Oxytocin (control)	58	31	53,4	28	90,3	13	46,4	10	35,7	3	10,7	2	7,2
Dotsitol	36	19	52,8	17	89,5	10	58,8	4	23,5	2	11,8	1	5,9
Estrofan	42	38	90,5	36	94,7	15	41,7	14	38,9	4	11,1	3	8,3
Neostigmine methylsulfate	27	24	88,9	24	100	13	54,2	10	41,6	1	4,2	-	-
Galapan	62	57	91,9	57	100	28	49,1	21	36,8	7	12,3	1	1,8
Metilergometrina	19	17	89,5	17	100	9	52,9	7	41,2	1	5,9	-	-

They show that after administration of oxytocin and uterine atony dotsytolu were healed within a month on average in 53% of cows. The best results were re-obtained after the application metylerhometrynu, prozerin, estrofanu and halapanu. The effectiveness of their actions amounted to 89-92%, which is higher than the control group at 36-39%. This obviously can

be explained by their action as uterotonikiv and lyuteolitykiv and neurotropic influence prozerin.

Conclusions

1. Considerable changes in the proportion of pregnant cows in the herd during the year (from 28-32% in winter, spring and summer, up to 63% in autumn). The number of non-pregnant cows without pathological changes in the genital organs increases from spring to summer, which indicates an improvement in the general state of health of animals. As a result, there is a tendency to a decrease in the proportion of gynecological patients cows from winter to spring, summer and autumn.
2. This should be considered when planning treatment and prevention, using stimulation hunting synchronization schemes. It was found that uterine atony occupy a significant place among the causes of infertility and the cows have a pronounced seasonality. The proportion of cows is 16% in the winter and decrease in spring, summer and especially the fall. To correct the contractile function of the uterus with its atony appropriate to apply Neostigmine, estrofan and galapan.

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