PROLIFICACY AND LOST OF PIGLETS FOR SOWS EXPLOITED ON PASTURE

PROLIFICITATEA ŞI PIERDERILE DE PURCEI ÎN CAZUL SUINELOR EXPLOATATE PE PĂŞUNE

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Abstract: *Prolificacy is influenced by the feeding and growth level and operating system. The most prolificacy are made to secundiparous female inseminated in autumn. On females weaned in January appearance of postpartum heats has manifested in a increasing proportion from 88.4% in the first cycle to the secundiparous to 85.3% on primiparous.*

Key words: *piglets, sow, exploaited, pasture, prolificacy*

INTRODUCTION

In operating system of pigs on pasture animal shelters are built and maintained relative easly. Where land and wooded areas are plentiful, portable huts are excellent shelters. Sandy areas with good drainage are best suited for siting huts. In sows with piglets case, huts must be constructed so that protect the piglets from the cold and rain, and has on the open sides (without walls), thresholds that would prevent the piglets to get out of the hut without being supervised by their mother. Huts for sows with piglets must be placed in the shade in hot weather to prevent overheating of sows and, thus, decreasing the amount of milk secreted, decreased food intake and the risk to crush piglets. Huts - with an area of 1.20 mx 2.4 m - can be made of wood (painted to prolong his life) or metal (aluminum or painted metal to reduce heat absorption power. Orientation of open must be to the south to prevent exposure to bright light inside the hut and high heat in hot weather.

Also, huts must be located so rainwater does not collect inside, forming puddles of mud. Huts must have a litter thick of 5 cm, to protect the piglets from the cold in winter, but may miss in the warm weather, when piglets were already 5-8 days.

Operated pigs on pasture feeding consists of *perennial and annual plants.*

Pasture systems combining with different types of feed is a way of reducing the consumption of cereals. The farmer can use either herbaceous plants or leguminous plants for fed the pigs. They are prefered legumes (alfalfa, clover) due to high content of nutrients, but at certain times of year herbaceous are more favorable.

For an appropriate nutritional in pigs on pasture operation is recommended rotation grazing system supplemented with concentrated feed. It is not recommended to reduce food portions when pasture is full of vegetation because, in this way, it is reduced food intake, and the quantity of nutrients, which can lead to vitamin or mineral deficiencies.

In pregnant sows case should be provided 750 g per day of protein diet 1% (0.6% lysine), without reducing the levels of minerals and vitamins. Moreover, levels of calcium, phosphorus, salt and vitamins should be increased 4 times in pregnant sows diet. Pregnant and lactating sows must have free access to a mixture of vitamins and minerals (calcium, phosphorus) placed in a container covered to prevent the strengthening mixture.

A proper management of pasture requires also respect some simple rules, but we consider extremely useful: it should be avoided grazing annual plants from winter season too early, should avoid overgrazing in winter, when plant growth is hampered by the cold, must be used efficiently the pasture during the vegetative explosion (spring); optimal pasture vegetation must be 10 to 12 cm, should be increased the livestock by adding more pigs, or pasture should be divided into smaller lots to increase density of animals, mowing pasture vegetation in excess maintain good quality of food, **pasture rotation is recommended for prevention of parasites (without rotation, animals are infected with the eggs of parasites that constantly remain on the ground after being eliminated from the body through infected feces). Should also mention that the operating on pasture system avoid increasing individual temperature of**

pigs due to the combination of individuals from different groups [1,2,5] and, therefore, a natural evolution of animals and pork carcass quality implications. Exploitation of the sows with piglets on pasture in areas with mild climate such as the Banat area, is considered by many experts to be one of the oldest and least profitable method. If, however, ensures optimal maintenance, grassland with good flora value, medium contributes to produced vigorous products, with harmonious development of body regions with a certain resistance to disease. [3,4] Although this practice was never abandoned in Romania, in Banat it was abandoned due to expansion of intensive exploitation, exploitation of pasture being made only for pigs for fattening, which is motivated by streamlining costs and by the trend of finding some disinfection methods of industrial units during the summer and in any case the application of modern technologies witch ensure optimal operating conditions, respecting the natural behavior of species.

MATERIALS AND METHODS

For the scientific approach we effectively make studies on 60 heads of primiparous and secundiparous sows, artificially inseminated and operated on pasture during the 4 months (September to December). With seven days before furrowing each batch was placed in shelter for parturition aiming: the number of piglets born alive at birth, number of viable piglets. After weaning sows on 42 days it was followed the first two cycle's heats expression when animals were maintained on pasture.

RESULTS AND DISCUSSION

Highest prolificacy was recorded on primiparous inseminated in October 11,20 piglets and 8,71 at those inseminated in December, a phenomenon that is found also at secundiparous.

The highest percentage of loss from total births 21.7% is found on primiparous inseminated in October and lowest on secundiparous inseminated in November.

Table 1. Practical results on some birth indices

Inseminated month		The number of birth live pigs		The number of furrowed death pigs		The number of viable piglets		Loss of total birth%
		Total	X female	Total	X female	Total	X female	
IX	Primiparous	51	10,20	6	1,20	42	8,40	17,7
	Secundiparous	87	12,30	3	0,43	73	10,43	16,1
X	Primiparous	56	11,20	5	1,00	44	8,80	21,4
	Secundiparous	104	11,56	2	0,22	96	10,67	7,7
XI	Primiparous	47	9,40	1	0,20	41	8,20	14,8
	Secundiparous	69	11,50	1	0,17	65	10,83	5,8
XII	Primiparous	61	8,71	2	0,29	57	8,14	6,6
	Secundiparous	45	11,25	2	0,50	42	10,50	6,7
Total		520	10,83	22	0,46	460	9,58	11,5

The number of viable piglets obtained on primiparous sows ranged from 8.14 to 8.80 and of secundiparous was of 10.43 to 10.83 animals per lactating female.

The failure percent during lactation period ranged from 5-10% at primiparous and 3-5% on secundiparous. (Table 2)

Table 2. Losses of piglets during lactation

Inseminated month		viable piglets		death pigs		weaned piglets	
		Total	X female	Total	X female	Total	X female
IX	Primiparous	42	8,40	3	7,1	39	7,80
	Secundiparous	73	10,43	3	4,1	70	10,0
X	Primiparous	44	8,80	4	9,1	40	8,00
	Secundiparous	96	10,67	5	5,2	91	10,11
XI	Primiparous	41	8,20	4	9,7	37	7,40
	Secundiparous	65	10,83	2	3,1	63	10,50
XII	Primiparous	57	8,14	3	5,3	54	7,40
	Secundiparous	42	10,50	1	2,4	41	10
Total		460	9,60	25	5,4	435	50

After weaning piglets, sows in heat were detected and than will be seeded and former on pasture maintenance. Emergence of post partum heats was manifested in the highest proportion 88.4% in the first cycle on premiparous and 85.3% on secundiparous. In the second heat cycle ratio was lower 3.7% at primiparous and 4.2% in secundiparous. (Table 3)

Table 3. Emergence of post partum heats on sows maintained on pasture

Birth period		I cycle	II cycle	Total
January	Primiparous	85,3%	4,2%	89,5%
	Secundiparous	88,4%	3,7%	92,1%

Highest prolificacy is recorded premiparous inseminated in October and operated on pasture, phenomenon found also on secundiparous. The number of viable piglets obtained from primiparous ranged from 8.14 to 8.80 and 10.43 to 10.83 heads on secundiparous depending on inseminated month, which determined large and small losses of piglets.

CONCLUSIONS

Inseminated females and operated on pasture with providing the necessary of food and water have made good performance indicators, fecundity of 77.7 to 100% on primiparous, 66.7 to 81.8% on secundiparous.

Percentage of non returns (NR) after the first heat cycle was lowest in primiparous inseminated in December, and highest in September and October. Secundiparous achieved the lowest percentage of non returns in December and the highest 88.9% in September.

To improve farm management in order to improve obtained pasture production we suggest: the improvement of the microclimate factors, improved feed rations, the design of new mining technologies, exploitation of pasture when fecundity, percentage of no returns, prolificacy and heats appearance record optimum values with lower cost than the operating intensive system.

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