FECUNDITY AND THE PERCENTAGE OF NON RETURNS ON SOWS OPERATED IN SUMMER CAMPS

FECUNDITATEA ŞI PROCENTUL DE NEÎNTOARCERI LA SCROAFELE EXPLOATATE ÎN TABERE DE VARĂ

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Abstract: *Introducing and breeding sows operated on pasture and protection with electric fencing practice, have opened new perspectives in pigs growth on pasture technique in private family farms from Banat area, especially after vanish of intensively operating units of this species. Sows are, undoubtedly, category of pigs witch best capitalize the pasture witch be parceled and fenced with electric fence or pens. Fecundity and the percentage of the non returns in operating system on pasture varies according to the season, the percentage of non returns recorded the lower value on primiparous females inseminated in December and highest in those inseminated in September and October.*

Key words: *sows, pasture operating, fertility, percentage rate of non returns*

INTRODUCTION

Grazing systems ranges between **continuous grazing** (one land on the flock on the season), passing through **rotational grazing system** to **grazing on the strip land** (the finest type of rotational grazing, in witch animals are provided by a strip of land every half hour).

To draw a conclusion about the best type of pigs on pasture management operation must first see what are the advantages and disadvantages of the two main types of grazing - *continuous grazing and rotation grazing.*

In **continuous grazing**, animals are taken in the field in beginning the season and remain there throughout the grazing period. Livestock may vary during the grazing season.

Continuous grazing benefits are: the least stress for animals of all grazing systems; the lowest cost of fences and water points; the low input grazing management of all systems; easy to keep records; good animal production in case of actual exploited small animals on pasture.

Continuous grazing disadvantages are as follows:

- Must be known the "exact" number of pigs operated on pasture;
- Seasonal fluctuations in production are difficult to control;
- Herbaceous plants can not be rationalized in times of drought;
- Selection of pasture areas leads to inefficient pasture growth rates and inefficient use of pasture;
- Application of fertilizer, especially nitrogen fertilizers, can cause poisoning because of the high nitrate content of herbaceous plants after fertilization and also because of crowding or leakage of fertilizers during application;
- Continuous grazing tends to lead to self-satisfaction;
- Monitoring of watering points is often neglected.

Because each pig farm has its individuality, farmer or manager is the person who decides, taking into account all the problems, witch grazing system to adopt. Thus, to facilitate the choice of the type of grazing system should be considered also the following:

- In the small herds of pigs case operated on pasture (with high performance per animal), continuous grazing can lead to better performance the of animals than rotation grazing, but species as *Acroceras macrum*, *Cynodon dactylon, Lolium perenne and Pennisetum clandestinum* are ineffective used, and, therefore, they should be well trimmed at least once per growing season to maintain vegetation cover, to reduce the selection effect of the area and to remove not grassing material that reduces pasture quality;

- In large herds of pigs effectives, grazing thorugh rotation is necessary to rationalize available herbaceous plants;

- Grasslands in temperate or cold areas, with species as *Avena sativa, Dactylis glomerata, Festuca arundinacea, Lolium multiflorum and Lolium*

perenne are, usually, limited in size and/or irrigation and should be grazed in rotation to achieve maximum utilization level;

- Use of the leader and follower system, which allows a better performance of animals and requires better use of pasture through rotation grazing;
- There where soil known small distance variations, rotation grazing is recommended;
- In irrigated pastures case (pastures with high costs), it is necessary to maximize production and use of the pasture fence with rotational grazing;
- There where rate of pasture growth vary considerably throughout the growing season is recommended rotational grazing to allow recovery of slow-growing pasture during slow and rapid restoration of pasture during periods of rapid growth.

MATERIALS AND METHODS

Our studies were conducted on a herd of 60 sows primiparous and secundiparous who were artificially inseminated, during the four months (September to December) and placed in pens on pasture representing those groups, who were fed on physiological stages and water ad discretion. To avoid degradation of pasture, in each pig snout were introduced two nose rings, because the area allocated per head of animal was 250 square meters, the pastures being used before for other species. It was intended fecundity and the percentage of not returns on first two heat cycles.

RESULTS AND DISCUSSION

We note that the best results on fecundity were recorded in breeding sows and gilts sown in October and the lowest in the December regardless of category (Table 1).

Table 1. Fecundity of sows exploited on grassland

Month of sowing	**Sows**		**Fecundity %**	
	Primiparous	Secundiparous	Primiparous	Secundiparous
September	6	9	83,3	77,8
Octomber	5	11	100,0	81,8
November	6	8	83,3	75,0
December	9	6	77,7	66,7
Total	26	34	86,0	75,3

On primiparous mounted in October and exploited on pasture operated from the total of five heads all remained pregnant, registering 100% fertility. Not the same results were obtained from primiparous fitted in December, which was the coldest, fecundity registering only value of 77.7%. Although that the exploited sows on grassland did not have green mass in the last month than a period of 9 days, after which the pasture was covered with snow, the animals still had access to green mass through rooting, sometimes processed depreciation of pasture. For all four groups were arranged protected sheds with bales of straw for shelter from inclement weather, locations that were used in good condition by the animals.

Although animals to form groups (primiparous and secundiparous) have tended through aggression by spraying disinfectants and odor uniformity, the number of clashes was minimized.

Secundiparous achieved the lowest fertility rates, in December 66.7%, and because these females did not show heat for a longer period of time, a female was removed from the actual livestock (dead), observing that is not pregnant, which was an additional element for achieving a better index of fecundity.

Percentage not returns to primiparous has varied seasonally, actually found on secundiparous where the females mounted in December, one died, observing that it was non pregnant. (Table 2)

Table 2. Percent of not returns on the first two cycles of heat

Month of mating	Cycle I			Cycle II		
	Insemina ted	Pregna nt	NR. %	Insemina ted	Pregna nt	NR. %

		females	females		females	females	
September	Primiparous	6	6	100,0	6	5	83,3
	Secundiparous	9	8	88,9	9	7	77,8
Octomber	Primiparous	5	5	100,0	5	5	100,0
	Secundiparous	11	9	81,8	11	9	81,8
Noiember	Primiparous	6	5	83,3	6	5	83,3
	Secundiparous	8	7	87,5	8	6	75,0
December	Primiparous	9	7	77,7	9	7	77,7
	Secundiparous	6	4	66,6	6	4	66,6
Total		60	51	85,0	60	48	80,0

Percentage of non returns (NR) recorded after the first heat cycle was lowest in primiparous inseminated in December 77.7%, noting the fact that two of the females did not become pregnant and showed heat, and the greater 100% to those inseminated in September and October.

For secundiparous the lowest percentage of non returns 66.6% is achieved for females inseminated in December in the first cycle and the highest 88.9% in those inseminated n in September. Percentage of non returns both primiparous and secundiparous is reduced reaching values of 77.7% to primiparous and 66.6% to secundiparous by repeating the heat to some females.

CONCLUSIONS

In animals inseminated in December is found that fecundity was 86% to primiparous and 75.3% in secundiparous. The highest fertility was recorded in primiparous inseminated in October and to secundiparous inseminated in the same month. The worst results was recorded in December in both categories, when fecundity does not exceed 77%.

The largest percentage of non returns is found to female inseminated in December after the first two cycles of heat. The lowest percentage of non returns is found to females inseminated December and highest in those inseminated in September.

Whatever the results of breeding indicators we recommend operating on pasture due the reduced costs with feeding and maintenance and benefic

effects on reproductive function and quality of piglets obtained at birth, witch is characterized by high weight and increased vigorosity.

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