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THE INFLUENCE OF THE RABBIT FEMALES USE OVER THE REPRODUCTION RESULTS IN THE CASE OF NATURAL FECUNDATION

Iuliana Câmpeanu, P.Bunaci, Maria Bunaci, N.Drăgan

The Institute for Research & Technology of Poultry and Small Animals Balotești, 8113, ROMANIA

SUMMARY : The researches realised on 60 females evidenced the fact the way in which they are used could have an influence on the reproduction activity on the females.

The experiment lasted for eight months (from April to November) and we used six different variants of female presentation to the male (V1 in the second day post-partum; V2 in the third day; V3 in the seventh day; V4 in the tenth day; V5 in the fourteenth day; V6 in the twentieth day).

The obtained results demonstrate that in the case of natural fecundating, V1 (female presentation of the male in the second day post-partum) is preferable. Through the fecundity didn't outrun 41.17 % and the prolificacy 6.1 cub/female, female receptivity in this variant was the best 38.63 %.

We might believe that rhythm imposed by V1 can lead to female exhaustion. However there were no elimination through reform or death in this group during the entire experimental period.

Key words : rabbits; reproduction; natural mounting

RESUME : Les recherches effectuées sur une nombre de 60 lapines ont indiquées que le régime d'utilisation peut influencer l'activité de reproduction des femelles.

Cet expériment a duré 8 mois (avril - novembre), en étant utilisées six variants de présentation de la femelle au masculin.

Les résultats obtenus démontrent que en monte naturelle, V1 (la présentation de la femelle au masculin au 2^e jour post-partum) est préférable. Bien que la fécondité n'a pas dépassé 41.17 % et la prolificité 6.1 de petits lapins/femelle, la réceptivité des femelles de cette variante a été la meilleure (38.63 %).

On pourrait croire que le rythme imposé par V1 conduit, dans le temps, à l'épuisement de la femelle. Toutefois, sur toute la durée de l'expériment dans le cadre de ce lot on n'a pas fait des éliminations par reforme ou par morte.

Mots-clés : lapins, réproduction, monte naturelle

INTRODUCTION

Although the ovulation in the case of female rabbits takes place during the coital act, still there are some factors which can influence the acceptance of the mating act. These factors could be a part of the environment or they could be caused by different peculiarities of the female rabbits. The rabbit reproduction must be conducted so that it should take place in right time.

The research concerning the understanding and the conducting act of the factors that can intervene during the reproduction activity both at males and females were undertaken by Pizzi (1996), Theau-Clement (1995), P. Bunaci (1992), Bencheick (1995), Surdeau (1984).

The present work studied the effect of different female using rhythms in natural reproduction on the reproduction indexes.

MATERIAL AND METHOD

The researches took place at the farm for rabbit breeding of the Institution. The study took into consideration a number of 60 female rabbit divided into 6 experimental alternatives :

| Experimental alternatives | Alternative of female mounting use | Number of used females |
|---------------------------|------------------------------------|------------------------|
| V1 | 2 nd day post partum | 10 |
| V2 | 3 day post partum | 10 |
| V3 | 7 day post partum | 10 |
| V4 | 10 day post partum | 10 |
| V5 | 14 day post partum | 10 |
| V6 | 29 day post partum | 10 |

At the beginning of the experiment the females average weight was of 2.830 kilos.

The mounting took place from April to September.

The technology of maintenance and nourishing was the usual for the farm.

The effects on the reproduction activity were appreciated by : fertility, prolificacy, viability, average number of weaned products/birth.

The females were presented to the males on the planned day according to the experimental alternative. If the mount wasn't realised then the female rabbits were taken to the male's cage every day till they accepted the copulation. The female which were discovered to be negative were presented to the male rabbits every day, continuously starting with the following day after palpation.

RESULTS AND DISCUSSIONS

Analysing the reproduction results (table 1) we observed that not all the females accepted the male on the planned day. From the 6 experimental alternatives : V1 obtained the best percentage of receptivity - 38,63 % of mounts being realised according to the planned rhythm.

Table 1. Main indicators of reproduction according to the experimental alternative.

| Alter native | R % | F % | | P | | V % | | I | |
|--------------|------|--------------------------|----------------------------|--------------------------|----------------------------|--------------------------|----------------------------|--------------------------|----------------------------|
| | | According to alternative | Indifferent to alternative |
| | | | | | | | | | |
| V1 | 38.6 | 41.17 | 52.27 | 6.1 | 6.9 | 100 | 95 | 5.0 | 4.95 |
| V2 | 32.4 | 75.0 | 62.16 | 4.7 | 6.5 | 100 | 87.91 | 3.7 | 4.56 |
| V3 | 20.8 | 40.0 | 79.16 | 6.0 | 6.8 | 100 | 90 | 5.0 | 4.84 |
| V4 | 9.0 | 100.0 | 90.90 | 3.5 | 7.0 | 85.71 | 92.8 | 3.0 | 4.80 |
| V5 | 37.0 | 90.0 | 84.0 | 6.4 | 6.6 | 86.20 | 71.94 | 4.4 | 4.90 |
| V6 | 6.6 | 100.0 | 86.66 | 9.0 | 6.3 | 77.77 | 89.02 | 4.0 | 4.61 |

-according to the alternative = mount effectuated according to the experimental plan

-indifferent to alternative = mount accepted after the outrun of the planned day

-R % = percentage of females which accepted the mount on the planned day according to the experimental system;

-F % = percentage of positive mounts reported to the total number of mounts;

-P = number of obtained cubs/birth;

-V % = percentage of viable cubs reported to born cubs;

-I = average number of weaned cubs/birth.

The acceptance of the male outside the experimental plan took place at different time intervals, between 4 and 77 days post partum.

The fecundity percentage (fig.1) were different between 40 % (V3) and 100 % (V4 and V6).

The prolificacy was situated between 3.5 (V4) and 9.0 (V6) cubs/birth. The best percentage of viability were obtained in alternatives V1, V2, V3, the cubs being 100 % viable.

The average number of weaned cubs was situated between 3.0 (V4) and 5.0 (V1, V3).

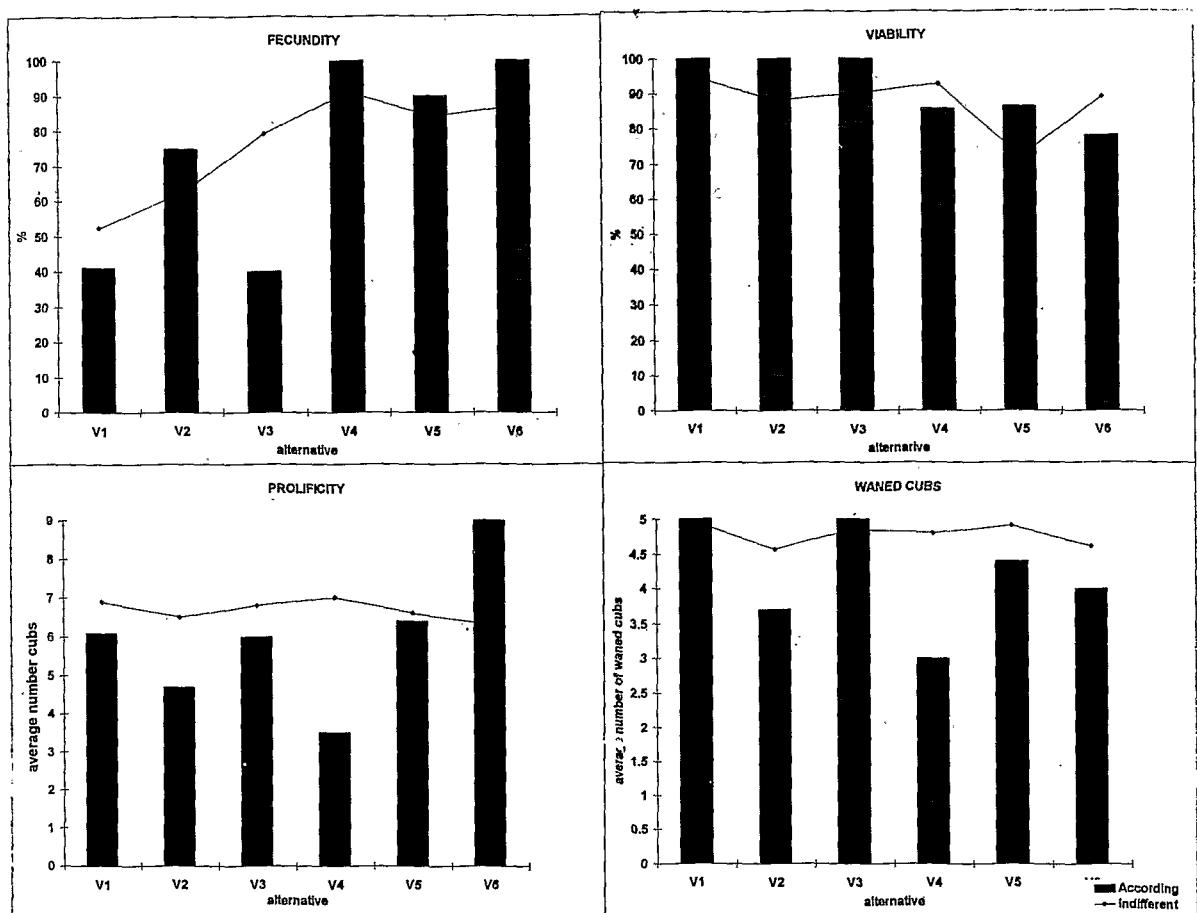


Figure 1. Dynamics of reproduction indexes according to the experimental alternative.

CONCLUSIONS

1. Of all 6 experimental alternatives, V1 (2nd after birth) responded the best to the planned reproduction system (38.6 % receptivity).
2. Although the fecundity percentage doesn't outrun 41.17 % V1 obtained good results in prolificacy, viability and average number of weaned cubs/birth.
3. V1 imposes an intensive rhythm of reproduction. However, during this experiment, the females wither were reformed or died.

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