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KINDLING EVOLUTION AT *CHINCHILLA* DURING A YEAR IN A MIDDLE SIZE BREEDING FARM

EVOLUȚIA FĂTĂRILOR LA *CHINCHILLA* PE PARCURSUL UNUI AN CALENDARISTIC ÎNTR-O FERMĂ DE DIMENSIUNE MEDIE

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The aim of this paper is to analyze the reproductive performances (fecundity, kindling) of the chinchilla's female. This time our research are focused to follow and interpreting the chinchillas kindling evolution during a year in a middle size farm, and to see the natural grouping of giving birth versus other data's from the literature. After processing the recorded data's we obtained a grouping kindling in March-May 57 cases representing 38% from total parturitions/year and in July-September with 46 births representing 31,08 % from the total parturition /year. Some same results had obtained LANSZKI (1999).
Key words: *Chinchilla*, kindling evolution, *Chinchilla* breeding.

Introduction

The present paper present data's that is a part of an PhD thesis experiment, which propose to evaluate the fecundity of chinchilla females during a year, respectively in function of seasons in strict interdependence with the microclimate of the shelter. After a year of monitoring this factors and reproduction performances, we propose to fix all the microclimate parameters in function of the maximum performances to see if we can exteriorize the maximum genetic potential regarding the female utilization index. Theoretical we could maximize this index from 2-2.5 (SIMON, 2006), how is in present in the Romanian farms and not only, to 3. That would be an important performance, because of the low prolificacy, an average 1.8-2.0/female/birth (LANSZKY, 1999) and long gestation duration of the species, which is 111 days (BUD, 2006; BURA 2003; LANSZKY, 1999).

Therefore farmers could increase their yearly production and incomes.

Materials and Methods

The experiment takes place in a middle size farm in Reghin, Mureş county, Romania. The animals belong to *Chinchilla lanigera* type, standard variety; they are kept in harem, in bedded cages, arranged in four levels.

The harem system means a 1:5 sex ratio (1 male + 5 female).We choose random 20 families, in total 120 animals (20 males + 100 females) and place them together in a room where we monitoring so far the temperature and the humidity with a digital hygrometer, printing the parameter values in every 180 minutes.

The cages material is a zinc-coated wire net, soldered in dots, with 2 mm diameter and with 1.5 x 6 cm stitches. Cages are provided with peletted feed trough and with tunnel for rough forage. On the door, that is placed on the front part of the cage, is hanged the sand dust bath tray. The cage is provided with nipple type waterier.

The individual cage has 40 x 50 x 40 cm dimensions, the visiting passage for male have 17 x 17 cm.

It's a one time/day feeding system, practiced in the morning hours. The mixed pellet forage administrated has a pelleted form, with a 15 mm length with 3 mm diameter, with yellow-green color, the nutritive characteristics, showed below.

Table 1.

Nutritive characteristics of mixed pellet forage for Chinchilla (BUD, 2006)

Crt. nr.	Specification	M.U.	Quantity
1.	Maximum moisture	%	14.400
2.	Crude protein	%	18.510
3.	Maximum D.E.	MJ/kg	10.550
4.	Maximum cellulose	%	9.200
5.	Maximum fat	%	3.100
6.	Crude ash	%	4.800
7.	Minimum Ca	%	1.050
8.	Minimum P	%	0.910
9.	Minimum Na	%	0.220
10.	Vitamin A	U.I./kg	9990.000
11.	Vitamin D_3	U.I./kg	2025.000
12.	Vitamin E	mg/kg	80.000
13.	Minimum Lysine	%	0.810
14.	Minimum Methionine	%	0.328

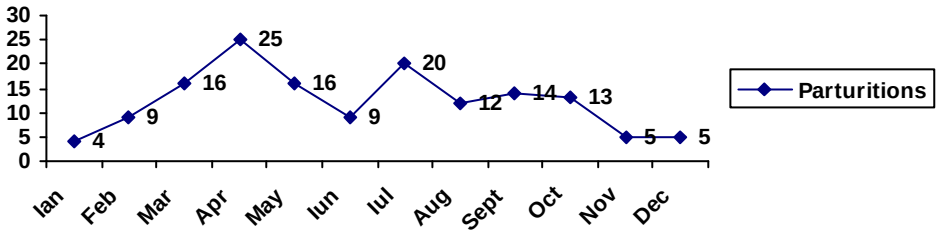
The roughage as a grass-clover hay is administrated in quantity of 280 g/tronson once at two days. A tronson mean 5 cages, belong to one family.

Results and Discussions

After processing the recorded data's we obtained a grouping kindling in March-May 57 cases representing 38% from total parturitions/year and in July-September with 46 births representing 31,08 % from the total parturition/year. Some same results had obtained LANSZKI (1999).

As Graph. 1. shows, during a year, from 100 females we obtained 148 birth, with a maximum of 25 births in April, and with almost the same performances in July with 20 giving birth.

The lowest rates of kindling were recorded in a winter months (January, February, November and December).



Graph. 1. Chinchillas kindling evolution during a year

Regarding the kindling evolution LANSZKI (1999), obtained a same kindling grouping without artificial synchronization, in a spring months and in a second part of the summer and autumn.

Conclusions

The presented date's shows that in production we can expect a major kindling of chinchillas from the middle of March till the end of October, with a ragged in June.

Like in a case of other farm animals, the increase of daylight duration have a significant influence on reproduction process, because the most (maximum) of giving birt in the spring months.

The kindling evolution offer a posibility to a farmer to calculate the valorification period and the incomes date, helping any breeder to make an economical balance sheet.

Confronting our results with other's, it seems that the giving birth follow a natural corse, and till the moment nobody tried to sinchronize them, for a uniform kindling and valorification during a year.

Bibliography

1. **Botha, M., I., Bud** (2008)- *Microclimate factors evolution in a middle size Chinchilla breeding farm*,Buletin USAMV Iaşi, ISSN 1454-736.
2. **Botha, M., I., Bud** (2008)- *Interdependence between ambient factors and kindling evolution at Chinchilla lanigera in the spring and summer months,* Buletin USAMV Iaşi, ISSN 1454-736.
3. **Bud, I., Ştefan Réka** (2006)- *Animale de blană, creştere, reproducere, valorificare*, Editura Risoprint, Cluj-Napoca.
4. **Bura, M**. (2003)- *Chinchilla: biologie, întreținere, nutriția, reproducere, ameliorare, valorificare, patologie*, Editura Agroprint, Timişoara.
5. **Lanszki, J.** (1999)- A korszerű prémesállat-tenyésztés gyakorlata, Mezőgazdasági Szaktudás Kiadó, Budapest.