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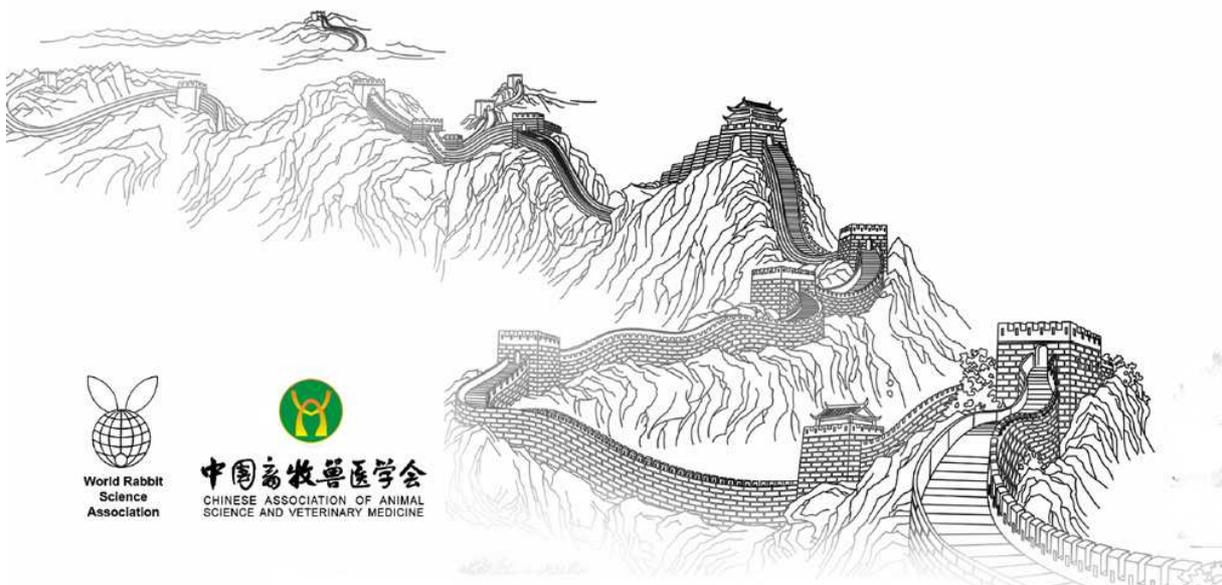
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CHARACTERIZATION OF RABBITS PRODUCTIONS IN THE DISTRICT OF ABIDJAN, CÔTE D'IVOIRE

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ABSTRACT

The present study aimed to identify and characterize Rabbit's (*Oryctolagus cuniculus*) breeding systems in the district of Abidjan. An investigation based on a sampling of 198 rabbit's husbandries, has shown an activity in progress. However, it remains a secondary activity in 95% of cases and managed by the male gender at 94.76 %. Less than 20 heads of breeders are counted in 54.8 % of breeding considered. Some breeding (27.1%) have an effective of 20 to 50 rabbits , 12.3 % between 50 to 100 rabbits and more than 100 rabbits in 5.9 % of cases. The most practiced mode of reproduction is the extensive one.

Keyword: Rabbit, Abidjan District, Beading system, characterization, reproduction

INTRODUCTION

In Côte d'Ivoire, more than 60% of animal proteins consumption are imported (Achi et al., 2003). One of the solutions to reduce this deficit confer to Bocar (2011), is the development of prolific species that are well appreciated by populations. Although rabbit is reared around big cities of the country, few data are available about performances in some localities (Kimsé et al., 2013). This study contributes to a better knowledge of rabbit breeding in Abidjan. The main objective is to estimate the various systems of reproduction, then to accentuate the perspectives of improvement.

MATERIAL AND METHODS

The study has been realized in the district of Abidjan which covers 2.120 km² within a population of 5.878.609 inhabitants in 2009 (Abraham, 2010). It includes an urban area and outlying suburbs. Data were collected following a preliminary inquiry from September to December 2011. This has been made according to the snowball technical investigation. Then we were able to collect information about the management of 198 rabbit *Oryctolagus cuniculus* breeding units.

A preliminary investigation was conducted before the actual study. Thus, an accent was placed on that information which can be verified and measured. Questionnaires focused on doe reproduction and young rabbit growth parameters. The number of breeding were recorded to describe the livestock size, along with the number of young rabbits, weaning age and number of birthing per year. Data were obtained through breeding records and the interviews carried in the farm. Some information has been independently verified counting animals or by weighing. These parameters were used to characterize the different farming systems. A descriptive analysis of data was made up within Excel 2010 software.

RESULTS AND DISCUSSION

Number of breeders and performances of reproduction

Husbandries with a number of breeding does lower than 20 heads was 54.78 % of total investigations. This result is commonly observed in some African and America countries such as Nigeria (Abu O.A. et al., 2008), Tunisia (Benlarbi M. et al., 2008) or in Mexico (Colin, 1995a; b). On the other hand, 27.1% possess a number of breeders between 20-50 females when 12.2 % represents 51 to 100 does. A few number of breeding investigated (5.9 %) possess more than 100 does (**Figure 1**). We have noticed an average of six (6) young rabbits per birth in 60.9 % and more than 6 in 22 % (**Figure 2**). A proportion of 13.7 % breeding does had four (4) and five (5) young rabbits per litter. These performances are similar to those observed by Zerrouki et al (2007) in Algeria and Akpo et al (2008) in Bénin, but less important than those obtained in Europe. These performances could be related to the genotypes of rabbit used, the environment or the thermal stress. Indeed, the local genotypes of rabbits came from uncontrolled crossings that give low performances because of consanguinity (Kimsé et al., 2013; Kimsé et al., 2014). High temperature caused the reduction in the rate of ovulation and increases the embryonic mortality. According to Lebas (2004), rabbits raised up under 23°C or 30°C as it is the case in Côte d'Ivoire, the number of ovules per ovulation is respectively 9.21 and 7.43.

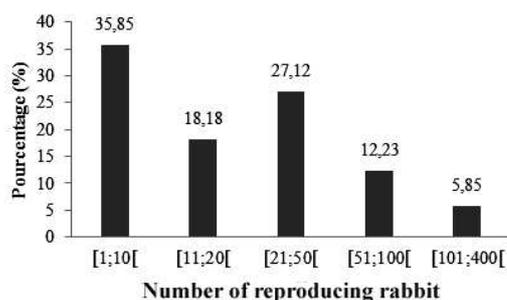


Figure 1: Distribution of breeding systems according to the number of reproductive rabbit

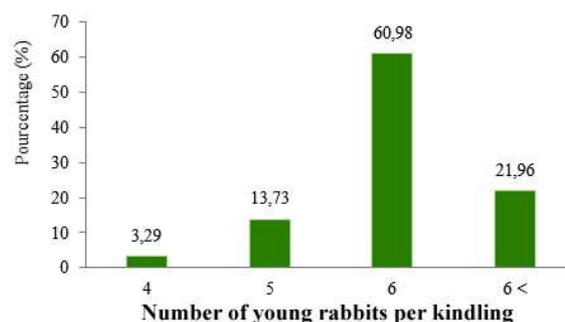


Figure 2: Distribution of breeding systems according to the number of rabbits per kindling

Duration of lactation and cycle of reproduction

Natural mating is practiced at 100 % in the district of Abidjan and artificial insemination has not been yet done. Rabbit sexual reproduction activity is appreciated by the number of birth (litters) given annually (**Figure 3**). An extensive mode of reproduction with four (4) births is commonly met. It is practiced at the range of 51.6 %. The semi-intensive mode with five (5) litters is practiced in 27.5 % of the breeding units. The intensive mode of reproduction with 6 or more than six (6) births is observed in 20.9 % of the cases. The reproduction system practiced in Côte d'Ivoire is like those encountered in Senegal (Bocar, 2011) and in Benin (Kpodekon and Coudert, 1993). Weaning of young rabbits is made at 96.7 % according to the age and at 3.3 %, when weight are considered. Most of the time, weight of weaning is around 500 g. When young animals are weaned by the age, three (3) different stages are obtained on **figure 4**. Then the first part at 2.8 % is under 30 days of age, between 30-35 days of age in 64.7 % and 35-45 days in 29.3 % of investigations. The way breeding are managed in those cases, showed a lack of training of breeders. Also time between litter birth and new mating of a doe is too long reducing the number of birth to four (4) a year although the number of young rabbits is an average 6 per litter (Bergaoui and Kriaa, 2001).

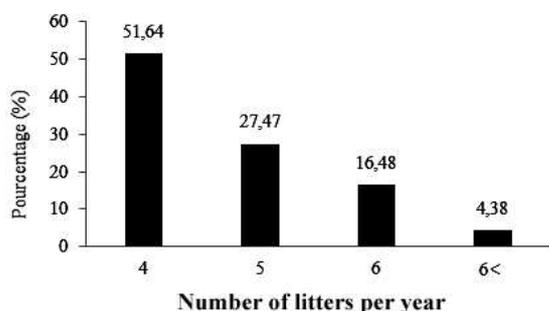


Figure 3: Characterization of reproduction systems according to cycles of reproduction / year

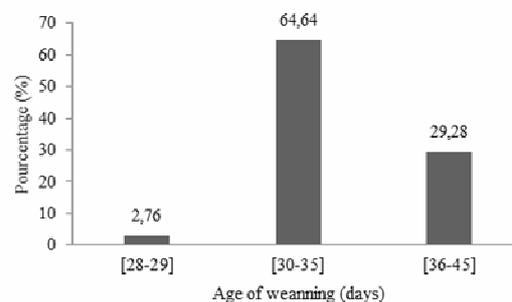


Figure 4: Characterization of breeding units according to age at weaning of young rabbits

CONCLUSION

Rabbit breeding in the area of Abidjan is extensive mode. It is a secondary activity that brings an additional income to the population as observed in Senegal or in Bénin. Breeders possessed a small number of females (less than 50) in 80 % of cases. The duration of lactation is between 30 and 35 days. The number of young rabbits per kindling was six (6) in the majority of the rabbitries. The improvement of the performances of reproduction of these does requires the use of more successful genotypes and a better management. These data provide a basis for the characterization of farming systems in other regions of Côte d'Ivoire.

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