### Article Information / Abstract

**Original Research, D15**

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**ABSTRACT:** The incidence of camel trypanosomosis (Guffar) caused by *Trypanosoma evansi* (T.evansi) in Omdurman west plain, western Sudan was surveyed using direct smear, Micro Hematocrit Centrifugation Technique (MHCT) and Card Agglutination Test for T.evansi (CATT/T.evansi). In a total of 220 blood and serum samples, 115 (52.2%) were positive by CATT, 72 (32.7%) were positive by the MHCT and 31 (14.1%) were positive by the wet smear preparation. Contingency tables and parcel Chi2 – test revealed that CATT/T.evansi was statistically the most sensitive technique for T.evansi followed by the MHCT and lastly the wet smear technique. The percentage packed cell volume (PCV %) differed significantly between the diagnostic techniques used. Thus wet smear technique detected positive camels with the lowest PCV %. Camels infection rate with *T.evansi* did not differ significantly with sex. Treatment of rats infected with *T.evansi* isolates from Omdurman west area with quinapyramine pro-salt made by three different manufacturers revealed that Tryquine (Wockharde, India) was the most effective in clearance of parasitaemia within two weeks. Biquin (Star, Pakistan) and quinapyramine (Nicholas primal, India) did not clear the parasitaemia in rats.
Genetic and non-genetic parameter estimates of dairy cattle in Ethiopia: A review

Review Article, D16

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**ABSTRACT:** Ethiopia is endowed with diverse ecosystems inhabited by an abundant diversity of animal, plant and microbial genetic resources due to the availability of diverse agro-ecology. The productivity of any species depends largely on their reproductive performance. Reproduction is an indicator of reproductive efficiency and the rate of genetic progress in both selection and crossbreeding programs. Reproductive performance does not usually refer to a single trait, but to a combination of many traits and is an indicator of reproductive efficiency and the rate of genetic progress. The main indicators of reproductive performance those are reported by many authors are age at first service, age at first calving, calving interval, days open and number of services per conception. The non-genetic factors like sex of calf, season, year, and parity had significant effect on reproductive performance traits. Knowledge on these factors and their influence on cattle performance are important in management and selection decisions. Development of breeding objectives and effective genetic improvement programs require knowledge of the genetic variation among economically important traits and accurate estimates of heritability, repeatability and genetic correlations of these traits. The estimates of genetic parameters are helpful in determining the method of...
selection to predict direct and correlated response to selection, choosing a breeding system to be adopted for future improvement as well as genetic gains. The reproductive performance of Ethiopian indigenous and exotic breeds producing in the country is low due to various environmental factors and absence of integrated record on the sector that leads a biased result and recommendations of the genetic parameter estimates. Selection and designing of breeding programs for improving the production and productivity of indigenous breed through keeping their native potentials should be based on the results obtained from accurate genetic parameter estimates like heritability, repeatability and correlation between traits.

Keywords: Genetic Parameters, Non-Genetic Parameters And Reproductive Performance

**Synergistic effects of hatchery by-products and cassava peel meal mixtures on the performance of crossbred growing rabbits**

**Abstract:** In an attempt to broaden the scope in the use of non-conventional feed resource for rabbit production, the synergistic effects of combined hatchery waste and cassava peel meal (HWCPM) (3:2) on the performance characteristics of growing rabbits were investigated using twenty eight (28) crossbred growing rabbits of between 6 to 8 weeks of age. The hatchery wastes (candled but egg and dead in embryo) were cooked for one hour at 100°C, sun dried and combined with sun dried cassava peels in ratio 3:2. Four experimental diets were formulated with the control having no HWCPM. Other three diets had HWCPM included in them at 5, 10, and
Four groups of seven rabbits were randomly assigned to the four diets in a completely randomized design with each rabbit serving as a replicate. Results show that rabbits on the control diet had lower (P<0.05) final weight (1207.5 ± 104.66g) than those fed 5% (1452.25 ± 57.42g), 10% (1596.25 ± 46.21g) and 15% (1350.25 ± 107.21g) HWCPM containing diets. Feed intake increased linearly (P<0.05) with increasing levels of HWCPM in the diets while feed cost per kg as well as feed cost per kg weight gain decreased linearly (P<0.05). Production costs were lower in the diets fed HWCPM diets than in the control reaching the lowest at 10% inclusion level. Digestibility of nutrients was not affected by dietary treatments. Results indicated that the relative organ weights were not (P>0.05) affected by dietary treatments. It was concluded that HWCPM can be included in growing rabbits diets up to 15% however the highest return in terms of lower production cost is in favour of 10% inclusion.

Keywords: Non-Conventional Feed, Hatchery Waste, Cassava Peel, Performance Characteristics, Feed Cost
Interviews is that the only livestock activity is not sufficient for economic development of this rural area; in fact most of the farms perform multi-functional, practicing agritourism activities. In terms of remuneration of the factors of production used in animal husbandry it seems that especially farms with few animals require the integration of agricultural income with other business activities.

**Keywords:** Cattle Breeding, Marketing, Production Costs

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**ABSTRACT:** A questionnaire survey and group discussions were conducted to characterize the reproductive performances of camels at their natural pastoralist management systems in El Oued region, southern east of Algeria. A total of 60 breeders were included in the study. The results about the level of education among camel herders in El Oued region revealed that the majority of older herders were illiterate (80%) while 15% had primary school education. The camel management dominating in the study areas is traditional nomadic. Mature female camels were dominant (64.68%) in the camel herd. The ratio of male to female camel was 1:60.7. Mean age at first calving and calving interval were 4.66±0.07 years and 22.9±0.25 months, respectively. The mean lactation length was 11.4±0.08 months. Mean age at first mating of male and female was 4.82±0.12 years and 3.43±0.16, respectively. Reproductive performances of camels in the study area is low which could be attributed to the late age of puberty, long...
gestation period, poor management system, environmental factors and pathological reasons. Therefore, improvement of management systems and the use of controlled breeding techniques contribute to improve of camel.

**Keywords:** Camel, Breeding, Reproductive Performance, El Oued, Algeria.