

Productive and Reproductive Performance of Indigenous Dairy

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Abstract

Evaluations of the productive and reproductive performances of indigenous dairy cows were carried out in Alfa and Quadra districts under smallholder farmer's management system. To collect data from 376 households, a cross sectional study were employed via structured questionnaires. To assess the reproductive performance of the dairy cows, age at first services (AFS), age at first calving (AFC), calving interval (CI), days open (DO) and number of service per conception (NSPC) were utilized as an indicator traits. In addition, milk yield per day (MY/D), lactation milk yield (LMY) and lactation length (LL) were considered as an indicator of the performance productive traits. To study the variation on the measured traits the collected data were analysed using SPSS Version 20.

Introduction

In Ethiopia dairy production mainly depends on indigenous livestock genetic resources; more specifically on cattle that covers the largest contribution (81 %) of the total national annual milk yield. Cattle are very vital livestock species within the mixed crop livestock production systems of the country by supplying chiefly draught power, a little quantity of milk, meat usually when they retire and manure.

The average lactation milk yield of the indigenous cows ranges from 494 to 850 kg under optimum management practice and cows usually don't produce their first calves before 35-53 months of age and calving interval is about two years. Cattle, small ruminant, poultry and equines are the major livestock species kept in the district.

It is endeavoured to fill this existing information gap. Hence, the objective of this study was to investigate productive and reproductive performance of dairy cows under farmer's management condition in the above districts.

To know the socioeconomic situation, major sources of income and type of livestock reared by the communities, questionnaires were designed, translated to local language, pre-tested and administered to

collect primary data. Regarding the data on reproductive and productive traits age at first service, age at first calving, calving interval, number of services per conception, daily milk yield, and lactation milk yield and lactation length were considered as an indicator trait and accordingly primary data were collected from the sampled respondents.

Conclusion

The smallholder dairy productions are vital, where they help to maintain the large variation between milk and milk product demand and supply in Ethiopia. From the results of this study, it are often generalized that inferior reproductive and productive performances were reported by the sampled respondents namely, AFS, AFC, CI, DO, LL and LMY were below the standard when compare to the various earlier research findings. The presence of variation within the local cows in the two districts indicates the presence of higher scope for improvement through selection of local breed. In order to improve the relatively the poor milk yield, the extended AFC and CI, as well as the short LL, improving the feeding system, providing better health management, genetic improvement of local bred through crossbreeding are necessary so on further exploit the optimum level of reproductive and productive performance of indigenous.

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