

EFFECT OF FOREST FIRE ON LIVESTOCK PRODUCTION IN THE PELWATTE AREA OF MONERAGALA DISTRICT

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Sugar-cane cultivation has been a predominant agricultural activity in the district of Moneragala in addition to paddy and chena cultivation. Nevertheless, dairying has become a viable family industry for many farmers in this area. Mainly cattle and buffaloes are allowed to graze freely in adjacent forest lands but due to frequent forest fire occurring during certain period/s of the year, the level of milk production is badly affected. Therefore the objectives of this study were to gather baseline information to assess the type of forest fire, their frequency of occurring, the purpose of setting forest fire and the impact of forest fire on dairy industry.

Majority of farmers (>80%) were involved in the cultivation of sugar cane and other cash crops under rain-fed condition. Women and children play a major role (74%) in livestock rearing. Main genotypes of cattle and buffaloes found were local and non-descriptive types.

Animals are sent for grazing in nearby forestlands and feed shortages were observed during the dry period. It was observed at the same time of occurring forest fire, there was a drastic decline of forages and other available feed resources such as tree fodder, legumes etc.

90% of the forest fire that occur once a year during the period of June to August. Sometimes it occurs twice a year during the periods of June to August and February to March where the most of the forest fire are crown fire and creeping fire. Purposes of setting fire are to obtain tender shoots as an animal feed (90%) and also for chena cultivation, for hunting specially undergrowth is burnt to search for animals and at the time of harvesting the weedy sugarcane lands (under poor management) are being subjected to setting fire (10%). Feed shortages can be observed due to forest fire as well as the prevailing dry spell during the periods of June to end of September and February to March. As a result of this a drastic decline of average milk yield (from $1.52 \text{ l} \pm 0.326$ to $0.225 \pm 0.162 \text{ l}$) can be observed. Visual observations proved that the body conditions of the animals are also badly affected during forest fire occurring periods.

Gunia spp., Ipil Ipil, Acasia, Illuk and Gliricidia are the main herbage species that are used to feed animals. As they are susceptible to fire, a severe shortage of animal feed can be observed during these periods. On the other hand forest fire as well as buffaloes/cattle grazing in forests causes a significant competition among wild animals in finding feed recourses.

The main impact, which is reduction of milk yield during the periods of forest fire can be reduced by introducing low inputs and particularly by training the farmers to prepare animal feeds out of sugar cane by products such as molasses, bagasses and other waste materials which are available in this area.