

An analysis of knowledge and adoption pattern of dry land farmers for sustainable dry farming in Tamil Nadu

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ABSTRACT

A study was carried out in 10 villages of Aruppukottai block in Virudhunagar district of Tamil Nadu to analyse the knowledge and adoption of dryland farmers in recommended dry farming, dairying and goat rearing practices. With respect to recommended dry farming practices the knowledge of the respondents was more for the practices namely, vegetative hedges, summer ploughing, premonsoon sowing, biofertilisers, agri-sylviculture and agri-horticulture. The adoption was more for the technologies namely summer ploughing, pre-monsoon sowing and agri-sylviculture. The knowledge and adoption were poor for improved implements, enriched FYM and seed hardening. The dairy practices about which majority of the respondents possessed knowledge were improved breeds, artificial insemination, cholustrum feeding, weaning, commercial cattle feeds, vaccination schedule and value addition of milk. The respondents possessed poor knowledge and adoption for practices namely enrichment of fodder, hygienic milking and housing of animals. A fair percentage of respondents possessed knowledge about goat rearing practices namely recommended tree loppings and deworming and adopted the same. Poor knowledge and adoption were found for the practices namely improved breeds, rearing methods, ratio of buck and doe maintenance, ratio of roughages and concentrates and disinfection of sheds.

INTRODUCTION

Tamil Nadu has a total geographical area of 13 m.ha, of which 7 m.ha are cultivable area. From the total cultivable area, around 3.1 m.ha are occupied by dryland agriculture. This supports more than 50 % of Tamil Nadu population and contributes 40 % of the state's food production. Dry regions are characterised by a highly fragile natural resource base. As such, these areas are extremely susceptible to wind and water erosion. So, the dangers are inherent in the system itself. To achieve economic sustainability, we have to look into whole production/farming system for synergy among its components *i.e.*, arable cropping, livestock management, alternate land use system and management of village commune/degraded lands (Singh, 1997).

Shafi and Raza (1987) and many other researchers have indicated that crop should be complimented with animal husbandry for sustainable livelihood. They found that additional employment of 100-150 mandays will be created if a farmer engages in animal husbandry along with cropping. They also found that an additional income of Rs. 2000-4000 will be obtained by a farmer if he diversifies his farm. The aforesaid findings about 'diversification' will be the way to come

out of this crisis. A thorough perusal of secondary data on dry farming areas revealed that dairying and goat rearing were the more profitable ventures along with farming. The most important features of keeping dairy animals are that they provide subsidiary occupation, offer gainful employment at the location itself and make better utilisation of female labour. Goat rearing has many advantages as documented by Abraham (2002), Selvaraj (2002) and Paul *et al.* (2003). These researchers were of the view that goats yield more profit with less investment, more weight gain, disease resistant, drought resistant, ready market and its suitability to any class of farmers.

The cognition of dry land farmers about important recommended practices in crop as well as animal husbandry assumes lot of importance since it manifests its own effect on farmers adopting those practices in their field. An analysis of the knowledge and adoption of recommended dry farming, dairying and goat rearing practices would give a clear idea of status quo of dryland farmers in terms of knowledge and adoption and more so the diversification. This would help the scientists to reorient their research in the right direction. Further, it would advocate the extension machinery to reorganise their efforts according

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