

Study of ownership pattern of tractors at farm level in district Muzaffarnagar (U.P.)

A.K. Singh* and Indra Mani ¹

Department of Agricultural Engineering, C.C.R. (P. G.) College, MUZAFFARNAGAR (U.P.) INDIA

ABSTRACT

A study was conducted in district Muzaffarnagar to understand the ownership pattern of tractors at farm level. For this study, tractor owner farmers were divided in two categories. (i) Farmers owning tractors for use on own farm only and (ii) Farmers owning tractors for use mainly on custom hiring. A total of 35 samples from each category of tractor owner farmer were selected through multi-stage random sampling. Data was collected with the help of a pre-structured schedule for the year 2000-01 and 2001-02. It was concluded from the study that farmers of land holding below two hectare were unable to own tractors for use on own farms only. Farmers of small and semi medium land holding categories owned tractors for use on custom hiring. Farmers of higher land holdings did not own tractors for use on custom hiring due to socio-economic reasons. Average age of tractors used on own farms only and those used mainly on custom hiring were 14 and 9 years respectively and choice of new tractors was shifting towards higher tractor power size. In comparisons to tractors used on own farms only, new tractors were preferred for use on custom hiring.

Key words : Tractor ownership, Tractor age, Tractor power.

INTRODUCTION

Farm mechanization has been helpful to bring about a significant improvement in agricultural productivity. A sea change has occurred in Indian agriculture since independence. Progressive mechanization and other developments, such as establishment of agro-industries, agro service centre, rural credit facilities etc. have all contributed to these changes. The composition of Indian farms varies drastically. Single farm ownership and use of tractor machinery on all farms is not economically viable. But through custom hiring of agricultural machinery even small farms are able to get the benefits of agricultural mechanization (Sharma et al. 2003).

Rural family scenario is changing very fast in the country. Due to increase in population and division in the family, land holdings are divided. There is gradual reduction in the average size of land holding. It reduced from 2.58 ha in 1950 to 1.57 in 2000 (Singh , G. 2002). Reduced land holding has made it difficult to own tractors for own purpose. Though, land holdings are reducing, demand of tractor is continuously increasing in the country (Srivastava 2003). Now tractors are owned not only by the farmers of medium and large land holdings but also by the farmers of small land holdings for use on custom hiring In the context of increasing commercialization of agriculture, farm mechanization is very important. We can frame suitable policies, such as liberalizing land lease market, encouraging cooperative management, custom hiring of machinery, encouraging standard service inputs devising machinery problems from small farmers (Singh 2003).

Muzaffarnagar district of Uttar Pradesh is an agriculturally advance district. Cultivated land has reached to saturation and all most total cultivated area is under irrigation. Tractor density in this district is 99 per 1000 ha (Singh et al. 2006a, 2006b). This district was selected to

understand the ownership pattern of tractors in its territory. It will provide an insight to various aspects of tractor ownership pattern at farm level in the district.

MATERIALS AND METHODS

For this study primary data was collected. For this study tractor owner farmers were divided in two categories. (i) Farmers owning tractors and using it on own farm only (TOF) and (ii) Farmers owning tractors for use mainly on custom hiring (TCH). A total of 35 samples from each category of tractor owner farmer were selected through multi-stage random sampling. Data was collected with the help of a pre-structured schedule for the year 2000-01 and 2001-02. It was analyzed and collected for inference and knowing distribution pattern of tractors of different power size with farmers of different land holding category and in different age group.

RESULTS AND DISCUSSION

1. Land holding category wise distribution of tractors: **(a) Tractors used on own farms only (TOF):**

In this tractor category a maximum of 57 per cent tractors were owned by the farmers of medium land holdings followed by 26 per cent with the farmers of semi-medium land holdings and 17 per cent with large land holdings. Farmers of small and marginal land holding did not own the tractors for use on own farms only (Table-1). Thus, two hectare of land holding size coupled with other factors can be taken as threshold level for owning tractors for use on own farms only in the study area. Further in this tractor category, about half of the tractors were in < 25 hp power group and about one third tractors were in 25-35 hp group and rest were in above 35 hp group. Farmers of semi-medium and medium land holdings preferred tractors of < 25 hp and 25-35 hp tractors where as farmers of large land holdings preferred tractors of 25-35 hp and > 35 hp tractors.

* Author for correspondence.

¹Division of Agril. Engineering, I.A.R.I. New Delhi.