

ABSTRACT

The high cost and scarcity of labour has been identified as a constraint to agricultural production. The mechanization of the small vegetable plots traditionally cultivated under a labour intensive system appeared to be the obvious solution to the farm labour problem. Tillage operations are contracted out to large tractors. The timing of operations in vegetable production is critical especially under the rainfed conditions that operate in County St. George. Ownership of a hand tractor would give farmers more control over the scheduling of their operations, allow them to take full advantage of short periods of favourable weather and reduce their level of dependence on scarce and expensive labour. When compared with the capital outlay for a large tractor, ownership of a hand tractor is within closer reach of the small farmer.

Hand tractors have been introduced to farmers in Aranguez since 1966 and have been available commercially throughout the country. There has not been widespread adoption of these machines. This study sets out to identify some of the factors which are related to adoption of the hand tractor in County St. George.

A list of purchasers of hand tractors in County St. George was compiled using information obtained from the firms which marketed the hand tractors. Each purchaser was then matched with a non purchaser on the basis of location of farm, ethnic background and age, resulting in a sample size of thirty five purchasers and thirty five non purchasers.

Hypotheses were formulated based on the study's theoretical framework and objectives. A thirty-four item interview schedule was used to collect information. The chi-square was used to test the hypotheses and the following factors were found to affect the adoption of hand tractors by vegetable farmers; agricultural training, farm size, security of tenure, the relative advantage of a saving of time and effort, lower perceived risk and degree of economic profitability of using the hand tractor.