

## ABSTRACT

There is a lack of systematic and scientific data on which to base reliable comparisons between mechanized and native systems of agriculture (Colonial Office 1960). There is a lack of systematic study of farm operations.

Under good working conditions, mechanized methods of loading and transporting manure compared favourably with traditional methods.

The rate of loading was about three and a half times faster in England and Wales than on the New Farm, but the rates of transportation were similar.

Suggestions were made for improvements in the efficiency of the methods.

The N.A.S.S. (a) and (b) has carried out a survey of the loading, transporting and spreading of farmyard manure on fifty-two farms in England and Wales. Costs and rates of work were found, and these serve as a useful comparison.

Costs play an important part in any industry. There is extensive literature on tractor costings for European and North American conditions. The methods recommended in a standard American text by Barger et al (1952) were used as a basis for assessing the costs of equipment. Gray (1953) costed a Fordson tractor working on the New Farm. This served as a guide. The Overseas Food Corporation (1954) costed tractors at Uremsa and Mankhona. While figures were given for costs under various headings, there was no specific information about how the figures were obtained, or the size and type of tractor to which the figures apply, but they do show that servicing and repairs form a large part of the cost of running a tractor under tropical conditions.

The aim of the work was to find the best method of loading and transporting manure with the existing equipment, and to test the best methods. The equipment available for the purpose was

hand tools, a motor and cart, a tractor, a tractor and hand mounted loader, a tractor and cart, a tractor and cart, a tractor and cart.

It was found that the tractor and cart was the best method of loading and transporting manure.