

# A note on weeding demonstrations in northern Zambia

by

**Margaret K Lombe**

*Deputy Animal Draft Power Coordinator, Department of Agriculture (Northern Province)  
PO Box 410018, Kasama, Zambia*

## Abstract

*Although most small-scale farmers in Zambia use draft animals for primary tillage, weeding is done with hand-hoes. Demonstrations of ox-weeding techniques and implements were held at six locations in Northern Province. The Lenco ridger proved the most popular implement with participating farmers. It is hoped that these demonstrations will become the basis of a more practical approach to spreading the use of draft animals for weed control in the region.*

## Background

Northern Province of Zambia has an area of 157 727 km<sup>2</sup>, including 90 288 km<sup>2</sup> of arable land. The province has high rainfall. Soils are generally leached but are moderately suitable for agriculture. The population is estimated at just over 775 000 persons, 60% of whom live in rural areas and derive their livelihood from farming and fishing.

The farming community is dominated by peasant farmers. An agricultural survey identified 77 426 farmers actively engaged in farming: 76 commercial farmers, 3950 emergent farmers, 72 966 small-scale farmers and 434 farmers in institutions. The total cattle population was 90 659 of which 11 362 were oxen (Department of Agriculture, 1990).

## Field demonstrations

Most small-scale farmers use oxen for primary tillage (plowing). For weeding, however, they still use the hoe, mainly because they lack knowledge on the use of animal power for weed control, and do not have implements.

In an attempt to overcome these constraints, weeding demonstrations were held at six locations in 1993, in collaboration with the Palabana Animal Draft Power Programme.

## Mbala

A demonstration held at Senga Hill, Mbala, was attended by 31 men and 14 women (including staff from the provincial and district offices and the Palabana programme). The host was a contact farmer in the training-and-visit system of the Department of Agriculture's extension approach. The crop was maize planted on flat land.

The Lenco cultivator was unsatisfactory despite its light weight: Palabana staff agreed that it was a prototype which needed improvement before it could be recommended for widespread use. The farmers preferred the Lenco ridger, followed by the Zimplow cultivator. The least-favoured implement was the Zimplow ridger.

## Mwamba-Kasama

A demonstration held at Mwamba-Kasama was attended by 21 men and three women: most attendees were cattle owners. The farmers' first preference was the Lenco ridger, followed by the Zimbabwe ridger. The Lenco ridger body was considered economical because it is multipurpose and can be used with plowing attachments as well as the ridger.

## Conclusion

The animal-powered weeding demonstrations mark the beginning of a more practical extension approach. Farmers attending the demonstrations agreed that the use of animal power for weed control will help small-scale farmers to increase their farmed area and hence food production.

## Reference

Department of Agriculture, 1990. *Annual Report, 1989*.  
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