

Draught Power Performance and Production Management

(Optimising DAP for Cropping)

Project R7352

Best Practice Guidelines: -

Views of Agricultural Extension Workers in Masvingo District



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(Optimising DAP for Cropping)

Views expressed by Agricultural Extension Workers from
Masvingo District on Best Practice Guidelines

Authors

Tiri Koza¹, Jairos Magumise¹, Jim Ellis-Jones² and Dave H. O'Neill²

*¹AGRITEX, Institute of Agricultural Engineering, P O Box BW 330, Harare, Zimbabwe.
Tel: +00263 4 860019 atnesa@iae.icon.co.zw*

*²Silsoe Research Institute, Silsoe, Bedford MK 45 4HS, UK
Tel: +44 (0)1525 860000 ; jim.ellis-jones@bbsrc.ac.uk*

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Silsoe Research Institute, UK
&
Institute of Agricultural Engineering, Zimbabwe

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Views expressed by Agricultural Extension Workers on Best Practice Guidelines (BPGs) through focus groups discussions in Masvingo District

Background and purpose

One of the activities in the DAPZIM Project is to produce Best Practice Guidelines for the various stakeholders associated with the use of draught animal power (DAP) for crop production in the smallholder sector. The general aim of the activity reported here was to obtain views from Agricultural Extension Workers (AEWs) regarding the development of BPGs on DAP utilisation, specifically for land preparation with mouldboard ploughs.

The main purpose was to discuss with, and gather views from, extension staff on how to document and present best practice(s) to help AEWs help farmers solve their problems relating to the use of DAP technology.

Objectives

The two main and interrelated objectives were:

- To explain to Agricultural Extension Workers/Field Officers the intention of the project to produce literature/documents to help them help farmers through any technical problems they may be facing, particularly with animal-drawn implements.
- To find out from extension staff which topics related to draught animal power, they have the most difficulty explaining to farmers.

Methodology

A focus group discussion was held at the Agritex district office in Masvingo with 8 AEWs from Mushagashe and Zimuto areas, as shown in Table 1. AEWs had been asked and were expected to bring, as examples, copies of extension literature or documents to which they refer for their information. A handout giving a brief background to the project and the purpose of the meeting was distributed to AEWs present at the meeting (see Annex). AEWs were also shown examples of already available documents (e.g. leaflets, factsheets, manuals, instructions, posters etc from local sources such as Agritex and ZFU).

Table 1: AEWs attending the BPGs meeting

Name	Working area	Years of experience	Dates of previous DAP training
1. Bakuri DT	Zimuto	35	1966
2. Muzozviona	Zimuto	16	1987 (Animal Power 1 & 2)
3. Runyowa M	Zimuto	16	1987 (Animal Power 1 & 2)
4. Dhliwayo M	Zimuto	10	Nil
5. Mashingaidze PA	Mushagashe	23	1985 (Animal Power 1 & 2)
6. Mapepeta P	Mushagashe	23	1980
7. Ziyenge IM	Mushagashe	29	1987
8. Mukono AT	Mushagashe	29	Nil

The exercise was conducted in Masvingo district on 23 July, 2001

Findings and discussion

1. Explanation to AEWs on the intention of the project to help them help farmers

The handout (see Annex) was distributed. This was then elaborated by oral presentation and discussion.

2. Topics related to DAP that extension staff have the most difficulty explaining to farmers.

Extension staff outlined farm machinery topics that are covered during Master Farmer training sessions. Farm implements that are covered during farmer training include ploughs, cultivators, planters and harrows. General DAP topics in Master Farmer training included plough types, implement parts and functions, implement setting and maintenance. Technical problems that AEWs frequently encounter during farmer training were identified as follows:

- ◆ Functions and importance of different parts of implements
- ◆ Maintenance and storage of implements
- ◆ Setting and adjustments on implements (mainly ploughs and cultivators)
- ◆ Harnessing systems and specifications (yoke specifications for different operations - ploughing, cultivating, carting)
- ◆ Correct donkey harnessing especially when mixed spans (donkeys and cattle) work together
- ◆ Replacement of parts (e.g. rates of wear of soil engaging plough parts)
- ◆ Proper setting and adjustment procedures on ploughs and cultivators

AEWs gave reasons for removal of some plough parts by farmers as follows:

Lack of proper skills and knowledge, as some AEWs had not received formal DAP training.
Some farmers are generally negligent.
There is a problem with the set-screw on the adjustable bar holder either breaking or not fastening properly.

3. Dissemination material or style of document that farmers find most useful and usable

The following points were suggested for use by AEWs:

- ◆ Factsheets and posters
- ◆ Simplified and condensed manuals
- ◆ Guidelines should have illustrations for better understanding.

AEWs suggested that there was need for an implement, e.g. a plough, to be bought and kept at either Zimuto or Mushagashe for demonstration and training purposes.

4. Documentation (training materials) given to farmers that they and the reasons why

AEWs expressed the view that farmers did not keep training materials on DAP and farmers would need documents in the form of posters and factsheets with simplified text and illustrations (see above). Guidelines would have to be in local languages (vernacular) for some farmers to understand.

5. Dissemination and training materials (those already produced in large quantities) that remain in agency offices (i.e. not distributed)

AEWs were not aware of such documents.

6. Other organisations that are currently preparing training material for farmers

AEWs were not aware of other organisations who had prepared training materials on DAP use within Masvingo district or elsewhere.

Available documents that were shown to AEWs as samples of training materials

The following booklets were shown to farmers by way of giving examples of similar work already produced:

ZFU/Agritex-A guide for farmers on good land husbandry: Tillage Implements

ZFU/Agritex-A guide for farmers on good land husbandry: Draught Animal Harnessing

Other comments made by AEWs

Removal of implement parts is a common practice among farmers.
Some farmers seem not to have problems with implements that have missing parts because of the sandy soil conditions in Zimuto.

Training might be effective if farmers were to be encouraged to form farm machinery learning groups.

There is need to revive ploughing competitions that are adequately funded.

Conclusions

The following conclusions are drawn.

- ❑ Extension staff have some skills and knowledge for addressing technical problems that farmers have with the use of DAP technology. However some of AEWs require basic Animal Power training or refresher courses for them to enable them to adequately train farmers.
- ❑ Best Practice Guidelines for AEWs need to be designed so as to provide information to assist in addressing the constraints that are summarised as follows:
 - Lack of knowledge in the importance and functions of the different parts on implements
 - Lack of knowledge and skills in setting, operation, maintenance and repair of implements
 - Lack of knowledge in harnessing systems
 - Specifications of donkey harnessing
 - Specifications of yokes for field and transport operations
- ❑ Guidelines for AEWs are to be in the form of a condensed manual and factsheets that have clear illustrations.
- ❑ Farmers require guidelines that are:
 - Written in vernacular, clear, easy to read and follow
 - Well illustrated
- ❑ In addition to having documented guidelines, AEWs need practical training in:
 - Donkey harness and yoke making
 - Correct use of donkey harnesses
 - Operation, repair and maintenance of implements
 - Implement setting and adjustment techniques and procedures

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BPGs Handout for Agricultural Extension Workers

Project title: Draught Power Performance and Management (Optimising Draught Animal Power for Cropping)

Development of Best Practice Guidelines

Introduction

The project is funded by the UK Department for International Development (DFID). It is being implemented by Agritex-Institute of Agricultural Engineering and the University of Zimbabwe (Soil Science and Agricultural Engineering). This is the second cropping season since the project started in September 1999. Farmers have been involved in focus group discussions, spring and winter ploughing trials, trial evaluation discussions, cluster analysis and a workshop held in September 2000. On-farm trials have been established in six project areas namely, Gari, Mutangi, Nyimai, Chedenje Mushandike and Mushagashe in Chivi and Masvingo districts.

Purpose of the project

The purpose of the project is to increase productivity through participatory development of improved utilisation of draught animal power systems by smallholder farmers.

Developing Best Practice Guidelines

Objectives of the meeting/discussions

1. To explain to Agricultural Extension Workers/Field Officers the intention of the project to produce literature/documents to help them help farmers through any technical problems they may be facing, particularly with animal-drawn implements.

To find out from extension staff which topics related to draught animal power, they have the most difficulty explaining to farmers.
 3. To elicit from extension information on what types of dissemination material or documents and format that farmers find most useful.
 4. To find out if farmers keep and refer to any documentation (training materials) they are given, particularly by extension staff. If so, which designs/types/formats seem most helpful to farmers and why?
 5. To identify which dissemination and training materials (those already produced in large quantities) remain in agency offices (i.e. not distributed) and why. Is there any effect caused by the location of the office in the organisation's hierarchy?
 6. To find out if any other organisations or projects are currently preparing training materials or documents for use by farmers.
- ◆ Examples of already available documents (e.g. leaflets, factsheets, manuals, instructions, posters etc from local sources such as Agritex, Care, Farnesa, ZFU etc.) will be shown.
 - ◆ Various examples of documents may have good characteristics that may be helpful if combined.