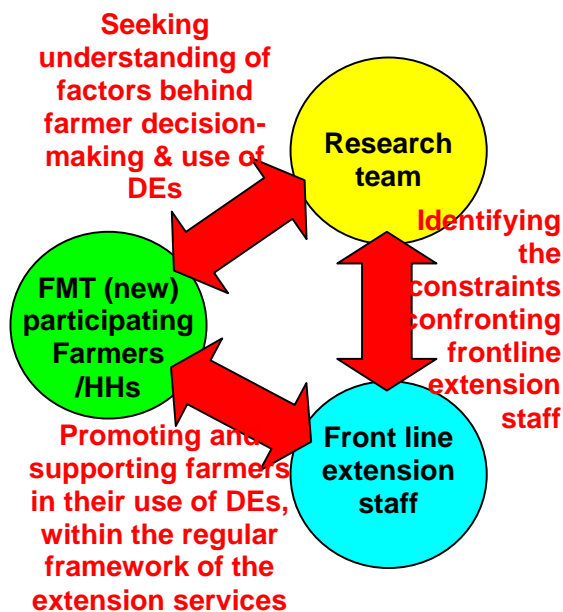


## Rationale and training protocol for Bwanashambas (Dr1)

### Output 3 objective and revised FMTs

Output 3 was originally conceived in terms of farmers running similar trials at their own homes to those managed by researchers - 'farmer managed trials' or FMTs - and indeed the first year of FMTs (2003-04) was based on this model. It was agreed however that while the FMTs as conceived might well be a useful tool to confirm - validate - the research findings, their findings could not be used to predict future farmer use and/or uptake of the DE technology. A revised output objective was thus drafted, which would hopefully add value to the project findings irrespective of the time-span involved in promoting the uptake of DEs: 'to develop a focused understanding of the factors which influence farmer decision-making with respect to grain storage technologies to better facilitate the uptake of DEs'. The FMTs would remain in the logframe but be demoted to the activities level.

After the first FMT storage season however, it was felt that while most farmers were happy to undertake such experiments, the imposed time span exposed some of the participants - notably those whose own chosen 'protectants' had proven ineffective against infestation - to unnecessary risk in keeping the maize beyond the point at which they would typically have disposed of it. Moreover the supervision of the setting-up and running conditions of the trial introduced palpably artificial conditions: the DEs were introduced in precisely measured proportions, the admixing was on polythene sheets, using project shovels and a precise mixing regimen, and the trial bags were typically kept in a different place from the main stores. Furthermore the practice of pre-purchasing all the grain from the farmers in advance appeared to act as a strong incentive for more canny farmers to sign up to the FMTs, introducing an additional bias in the selection of participating farmers - those without any surplus (after a poor harvest) were already effectively excluded.



To embed future farmers' experimentation with DEs in 'their' reality, and not an artificial or externally imposed one, and to minimise any drop-out rate from the 'enquiry' process, a new FMT model is proposed. Farmers identified for inclusion in the 'enquiry' study, who will have been selected to reflect 'least' and 'middle' wealth ranked HHs, will be offered a 250g. packet of Protect-It® in return for their participation. They will also receive instruction in the use of the Protect-It® sample from their local bwanashambas. No other incentives will be offered and the farmers will be left alone to follow (or not) the bwanashambas' instructions. The bwanashambas will also be invited to carry out monitoring visits to the participating farmers in mid-late August and mid-late November - either side of the second team enquiry visit (September-October). The bwanashambas in turn will be interviewed by and report - their monitoring - to the research team. This will not only provide a two pronged assessment of the farmers' use of the DEs, but will also provide an opportunity to identify many of the constraints that confront frontline extension staff in extending technologies to a range of farmers.

### Training protocol for Bwanashambas in extending the use of DEs

The participating Bwanashambas should be fully briefed on their role in the research. They should be assured that they will not be held responsible in any way for the resulting outcomes associated with the use of the DEs by the participating farmers. But equally they should know that we are interested in developing a realistic understanding of the multiple constraints (e.g. limited transport, serving two 'masters' [PHS & RALG - local government], poor farmer attendance at meetings/demonstrations, different levels of understanding

and interest amongst farmers) facing front line extension staff. The successful use of any technology will be dependent both on levels of farmer understanding and on additional inputs provided by service providers (e.g. extension personnel) and other information networks (e.g. other farmers, traders, stockists, and the media).

Colleagues can doubtless considerably improve the following suggestions, which take me beyond my sphere of competence; I would stress however the need to develop a comprehensive written protocol as soon as possible. This might include:

- The instruction of the VEOs at the different locations should as far as possible be identical, ideally offered by the same individual, and certainly following the same written protocol.
- VEOs should be fully briefed on the 'enquiry' procedures; they should have a good appreciation of why we seek to include (6-8) poorer HHs amongst the 18 participating HHs; and they should be capable (time & resources allowing) of facilitating the selection process.
- VEOs should be reminded of general good storage management protocols (e.g. on facility hygiene, suitably dried grain etc.) ideally using existing MAFS materials, so that they are all starting from the same platform; and so that the participating farmers' use of DEs is less likely to be jeopardised by initial 'boundary' conditions. Poorer HHs are not necessarily excluded from practising basic storage hygiene, unlike the purchase of synthetic chemicals which might clash with other uses of scarce resources (or be irrelevant due to short-term consumption needs).
- The VEOs will be expected to provide training to the participating farmers in the 'usual' manner. I would guess this would probably mean demonstrations to groups of farmers, and the VEOs should be explicitly instructed not to help participating farmers in the direct treatment of their grain i.e. all farmers should be in the same boat. If the latter means for example that distant, preoccupied or sick farmers fail to attend group meetings, then so be it - this would constitute a valid research finding.
- VEOs should be versed in the best conditions (e.g. clean mixing surfaces), tools and equipment needed to admix the DEs, in the specific quantities and proportions to be used, the mixing regimen, and in any other '**dos**' and '**don'ts**'. This should be in writing and available for them to take away.
- The VEOs should be instructed to visit the participating farmers in mid-late August and again in mid-late November, when they should note (in writing) **as best they see fit** individual farmers use of the DEs and the progress of the treated grain. They are again free to respond as best they see fit, but within their normal work approach, to any requests that individual farmers might make, but should note down requests and responses.
- They will also be expected to assist the team during the second enquiry in September-October, when they will also be asked to report on their first round of monitoring.
- VEOs should be encouraged to help develop this protocol and contribute to the research work; they should be given a copy of the (updated) protocol and feel free to ask any questions.

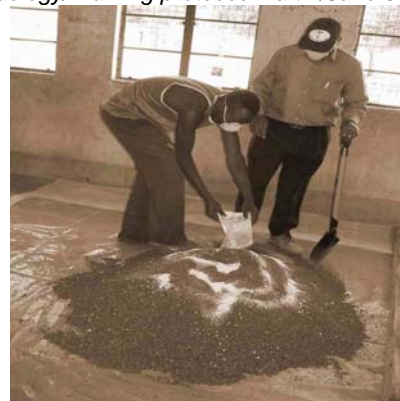
There are doubtless many holes in the above, which you will be able to put right. Please circulate copies of all additions when you have time. See also 'training protocol pictures', a second document with some illustrations that you might make use of. How and who could we get to upgrade existing ASD extension materials, say, for use as initial DE extension material?



Winnow grain



Place grain on clean surface



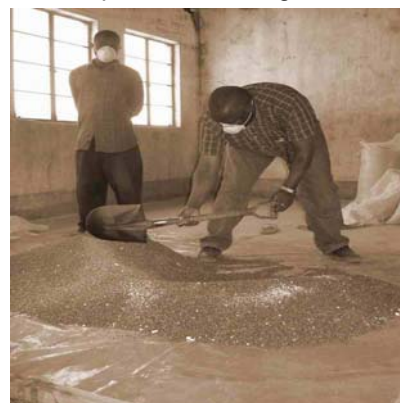
Sprinkle DEs on grain



Mix DEs in by creating a new pile



Mix DEs again into a second pile



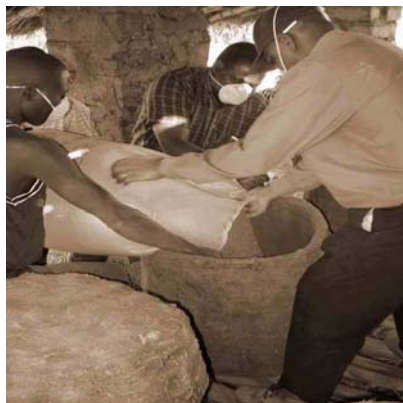
Mix again a third time



Return to bag



And, sew up and store



Or place in kihenge

