Frequently Asked Questions:
Mother and Baby Trials

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Choice of plots and installation of trials

Can I determine the plot size for Mother and Baby trials?
Yes, you can determine the plot size. However, note that the bigger the size the better unless you are limited by the amount of available seed.

Should I select only better-off farmers with good soils and enough inputs to ensure that the trial is successful?
No. You should ensure that farmers in different socio-economic groups are involved. Participatory research that involves all categories of farmers is regarded as one of the prerequisites to adoption. If you only involve better-off farmers, the results of PVS may not be equally applicable to poor farmers whom we also seek to target within CIP and in the CGIAR Program, Roots Tubers and Bananas. It is also good to make sure that women are also involved as host farmers, since they sometimes own land that is qualitatively different from that which is owned and controlled by male farmers.

What if farmers give the worst plots on their land for Baby Trials but performance of the variety is high? Is this bad?
This is good, because the farmers will have experienced a positive impact with the variety under poor conditions. This may also even encourage acceptability of the variety by other farmers if it can perform well even under poor conditions.

Process of evaluation

How often will farmers evaluate the fields during the vegetative stage?
Just once.

During the ranking exercise, if we are using participatory ranking methods such as giving farmers seed or pebbles to vote, is it possible that a farmer can put all the seed/pebbles under one variety?
It depends on the method that is being used. In the current method used by CIP, it is not possible that a farmer can use all his/her seeds/pebbles to vote for one variety. As the researcher and or extension officer, you need to explain to farmers how the ranking criteria work: each farmer is strictly given six grains only and has to choose the first three important varieties to him/her: 3 grains are used to select the most important variety chosen, 2 a less important variety and 1 grain the least important variety.

When farmers select varieties, they often do not know or understand about the nutritional quality of the varieties that they are selecting from because these qualities are often not visible or easily known by the farmer. When conducting M&B trials, should I discuss with farmers about the varieties on the basis of their nutritional value before they start selecting the clones?
If the objective is to expose farmers to nutritious varieties, they are asked to give their opinion on the different varieties based on their selection criteria. Whatever variety they choose as their best clone is analyzed for the nutritional value. If the nutritional value of the best option for them is high, then it is wonderful match. If it is not, then the researcher should look for the 2nd and 3rd best choice that combine farmers preference with high nutritional value.
During evaluation, does the researcher use the yield figures from the farmers field or does he/she use the yield figures recorded in researchers’ managed on-station experimental fields)?

A comparison between the on-farm yields in target set of environments and on-station yields is carried out to draw concrete conclusions on yield levels achieved at different conditions.

Are the selection criteria set for each variety?

When farmers are invited to participate, the researcher asks them for the criteria/characteristics they look for at each evaluation stage (vegetative, harvest and post-harvest). The criteria are not set per variety, but rather they are the general criteria farmers look for when evaluating varieties or even selecting varieties to plant. Farmers then perform free listing of criteria and rank the listed criteria according to its importance in defining varietal property. The next step is to assess the clones for the most important criteria identified for making selection decision or varietal choice. Note: The weight of selection criteria often varies between men and women and the difference also arise when they select the clones.

What is the importance of voting by the researchers if their choices are not going to be included in the clones that farmers select?

Researchers may wish to compare their preferences to farmer preferences. If these preferences are different, they may need to investigate further why this is so.

How do we take into consideration the inputs of researchers during the development of the list of selection criteria?

We have two different criteria: one that is generated by farmers and another that is researcher-generated. You may wish to merge the two lists and let the farmers vote for what they prefer the most.

When farmers are evaluating clones, should I use the actual names to identify the clones that are being evaluated?

When a researcher prepares for a ranking exercise he/she should avoid using the actual names of the clones to avoid biased selection of clones. If farmers know the actual name of the clone, they may select for or against it based on what they already know about particular named clones. To avoid this, the researcher should use codes.

Setting breeding priorities

How can one handle multiple priorities when farmers decide to come up with different varieties of their best choice for their given context?

PVS is about offering a basket of choices to farmers, so it is agreeable to have a number of varieties with different qualities and characteristics that might be selected by different farmers in certain locality/area; for example, one variety that is high yielding and another that has characteristics for home consumption, such as good taste and fast cooking qualities etc. In such case researcher has to look for those clones preferred or selected by majority (most common selections) for release and subsequent wider dissemination.
What if farmers select varied clones?

It is very difficult to breed or release a variety for every individual farmer, hence it is important to cluster the farmers’ responses into groups (differential user groups) and see the most preferred/suitable clone for the user groups. Try and target those clones/varieties preferred or selected by majority farmers, to be able to meet their needs in the group. Being specific to each farmer may prove costly in provision and maintenance of seed of varieties to meet individual tastes, so one has to be careful not to commit to this option. Variety release procedure in most countries may not allow a release of variety to individual farmer rather releasing variety/ies addressing the needs and preferences of majorities in the community.

What if there are very different preferences between sites in the same area, which variety will be selected for release?

This could happen when each farmer select their own variety by themselves. In such a case it is wise to pool all the varieties that have been individually selected by farmers, and then plant these selections at representative sites in target environments and organize farmers to do group selection. By having group selection, we can come up with few genotypes that will have traits that are preferred traits by a majority of people in the community.

Does the final decision depend on the overall score of what all farmers select?

No, it is important to look at the gender-disaggregated selections/choices of men and women to see if differences exist in preferences. Do not rush to have average scores before looking at whether there are any significant differences in what men and women look for. It is also important to check your data to see if there are differences in preferences between different socio-economic groups.

Involvement of men and women farmers in Mother and Baby trials

What happens when a woman and a man from a Male-Headed Household have conflicts in selection of varieties?

One of the goals of PVS is to provide farmers with a basket of choices. To be able to draw conclusions regarding the trend and what type of varieties should be recommended for particular community, it is necessary to involve more women and men from other households too. You should not make conclusions on the basis of just one household. Care must be taken to be clear that it is not possible to provide each and every man and woman their own choices. The aim is to select varieties that are more commonly preferred in the community. If there is clear preference variation for men and women for particular variety in a community then we should look for options making available the preferred variety by both parties in a community. In such way PVS can contribute to restore or increase on-farm diversity of germplasms in a particular community.
Why is it necessary to invite men and women from different socio-economic groups to visit researcher-managed and farmer-managed trials and be part of the PVS?
They get an opportunity to choose a variety of potato that suits their socio-economic group. It also helps to achieve gender balance in selecting varieties that cater for different households under varying socio-economic conditions.

How do you encourage women to participate in group discussions if the group is mixed sex?
It is important to make eye contact with women more and more, talk to them in a friendly and convincing way that would encourage them to contribute to the discussion on issues that they know best about. Sometimes, if necessary probe them in a way that complements who they are and this helps them to open up. However, the best approach will be to have men and women in separate groups for free listing and then bring the groups together to merge the lists so that both men’s and women’s preferences are represented. When voting, make sure that the women are not influenced by the men. Let the women vote first to avoid selecting what the men select. Also try to understand why some traits are preferred by women more than by men and vice-versa.

If there is only one woman in the group, is it possible to interview her separately when free listing or ranking preferred traits?
Since we have just been trained, we are not anticipating a situation where we will have only one woman in the group because we now have a target of 30% to 50% women. However, in general it is advisable to separate the women from the men, get separate free listing criteria, then combine them into one list.
Depending on the community, you may need to have separate groups of men and women for free listing and then merge the lists together so that women’s needs are considered. If you have a mixed group (not desirable, but it may be beyond your control) then use methods and facilitation techniques that will give opportunity for different voices to be heard.

How about if a village leader who is also a farmer is present in the group?
It is most likely that when a village leader is present farmers will not talk. If you think that their presence in the group may bias the results try to make sure that local leaders attend in separate event: give equal chance for all representatives to express their needs in a fair and freely manner without any interference from leaders or researchers. If the leaders have to attend the selection event with other member of communities at the same time, then you need to explain to people that there will be secret voting and that they should vote for what they prefer, not what they think others prefer. A lot will depend on how you manage the group and also the instructions that you give regarding what needs to be done, as well as the objectives of the exercise.

Is it OK to work only with Female-headed households and Male-headed households? Female heads of households make all the decisions whereas women in MHH are more likely not to be involved in the decision-making process. Then why should we use scarce resources to have women from MHH when they cannot make any decisions?
Women in MHH have negotiating powers so it is important to include them. For examples, studies in Uganda have showed that women sabotaged coffee because they were not consulted and also felt
that they did not benefit from the selling of coffee since their husbands controlled all the income. Some varieties may also increase labor demands on women, hence the need to also consult them when clones are being selected.

**What if there are no female heads of households in the area: does that mean it will be acceptable not to have women participating in M&B trials?**

No, it is not advisable. You need to work with both men and women from the male-headed households. Even when there are Female Households Heads in the community, participants should also include women from male-headed households because they may also have different preferences to their husbands, depending on the roles they play in their families.

**Is it good to involve more men than women during the vegetative stage?**

The assumption made here is that men have more knowledge of the vegetative stage while women know less. However, in many communities women are involved in weeding of potatoes; hence they must have knowledge of the vegetative stage, so aim to have 50% men and 50% women. We also have to learn to challenge the stereotypes that we have regarding what we think men and women know.

**Data Analysis**

**How does one handle analysis of baby trials in different locations?**

There are different options to analyze data from baby trials. We can use both quantitative and qualitative methods. If data recorded from baby trials are quantitative, then we can consider each baby as incomplete block and perform analysis as per the procedure for incomplete block statistical design. If the data recorded are qualitative, then we can still use non-parametric statistics. So a number of options are available, and CIP PVS protocol addresses data analysis of baby trials.

**If you collect the quantitative data from the M&B trials and selection process, what’s next?**

For example, if you have farmer information regarding preferred traits or even preferred clones, you may need to follow up with individual interviews or Focus Group Discussions because it is not only the figures that are important, but the justification behind the selection of a particular clone. The information one collect in such way will inform variety release decision and also breeding next generation of varieties.
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