“Now we are on the same page”, CIAT scientist José Polanía talks about the genesis of the protocol

CIAT initiated the development of this protocol two years ago, with the aim of providing visiting students and researchers with a consultation document they could draw on to answer questions about our in-house methodologies. Each laboratory is expected to generate their own respective protocols.

In the beginning, the protocol was just a descriptive text but as trials were undertaken, it was complemented with images. Making the protocol a reality did not happen overnight, it took time – actually a full year – to gather all the elements from the trials and document them with photos. Our team took the pictures and wrote up the descriptions of the methodologies; and I myself described in detail the section on soil cylinder root evaluation. Our work involved collecting data from publications and annual reports. Jonathan Lynch (http://roots.psu.edu/LynchCV) from Pennsylvania State University has produced a similar work on maize and bean roots.

The result is a unique protocol. It has been tested with masters and PhD students, partners visiting CIAT’s Bean Program for capacity training, and has been used in workshops. It has been shared as well with students from Colombia’s National University, and researchers from the Brazilian Agricultural Research Corporation (Embrapa), USA, and Africa. It was received very well; they are now clear on the methodologies used in determining the parameters, which means that now we are on the same page.

But the document raises the issue of funding support in order for us to be able to afford the appropriate equipment and follow the protocol properly. In some cases, there are less costly options, for instance, determining biomass rather than using some equipment-generated parameters. Some of these options are addressed in the protocol, while others are still being validated. The Pan-Africa Bean Research Alliance (PABRA) enables interaction with diverse partners and while some of them might not have the available funds, others could purchase the required equipment through interinstitutional agreements.

Other ideas of themes for protocols include: flood, toxicity due to high levels of aluminum, and low fertility. These documents would be very similar, but different in the way the trials are set up. High-temperature evaluation is another theme, but its methodology is still in the pipeline.