

Chapter 13

Presentation of research results

Computers and related electronic means of communication are revolutionizing the way research data are collected, analyzed, presented and transmitted. Boundaries between scientists and countries are no longer a constraint and it is now much easier to build up critical masses of scientists working in a given subject area. It will facilitate much-needed inter-disciplinary work as the few scientists who have responded to this approach now communicate much more easily.

These technologies are becoming increasingly more accessible to researchers in developing countries but there are still countries and regions within countries where the necessary infrastructure is not in place. Donor agencies and national and international policy makers should put correction of these deficiencies very high on their agenda.

INTRODUCTION

Research which does not get presented or published, but remains in the mind or the desk of the researcher, is better never to have been started in the first place. Plans should be made at the beginning concerning the how and the where of dissemination of the data. As indicated in Chapter 10, the first recipient of the information should be the farmer, in the case of trials on farms; while for on-station work the researcher's immediate colleagues should be kept informed at all stages.

It has never been easier to obtain the tools needed for rapid dissemination of results either as presentations at seminars or workshops, or as a scientific article. The possibilities offered by the present generation of 486 notebook computers (less than US\$2,000) and appropriate programs are exciting. As Andrew Speedy has said, "With the new information technologies, researchers in developing countries can leap-frog into the future, even by-passing their colleagues in the more-developed countries who are still tied by copyright restrictions and the power of the large publishing houses who are reluctant to relinquish their

control of the means of communication".

A researcher can travel to a workshop with a "notebook" computer and portable printer and a box of acetates (usually specially-coated ones for ink jet printers), and prepare her/his entire presentation the night before the event.

There are at present four computerized journals dealing with tropical animal production (Livestock Research for Rural Development, first published by CIPAV in 1989; Revista Latinoamericana de Investigación en Pequeños Herbívoros No-rumiantes, first published in December 1993; Índice Venezolano de Investigaciones en Producción Animal, first published in January 1994; Revista Computadorizado de Producción Porcina, first published by Instituto de Investigación Porcina, Cuba in September 1994).

Livestock Research for Rural Development will publish a paper in less than three weeks of receipt if it is prepared in the correct format (as an ASCII file) and refereed by two established scientists in the author's own country. The editorial board will also help researchers in the analysis and presentation of their data. The distribution of the journal, originally only on diskette, is now increasing because it is available by electronic mail. It is held as a conference on several bulletin board services (BBS) (e.g., on GreenNet in the UK, which services much of Africa, and on CIPAV in Colombia). It can also be accessed on the Internet by World Wide Web. So the barriers which faced researchers in tropical animal production in developing countries in having their work published are fast being swept away.

In any event, it is becoming increasingly less relevant to seek publication in main-line journals, perhaps mainly for prestige purposes. The costs of acquiring conventional journals (often in excess of US\$700/volume) put them out of reach (and out of consultation) of the majority of researchers in developing countries. Many of these journals have page charges (in hard currency!) which workers in many developing countries have no chance of paying. The research that many of these journals publish is increasingly less relevant to the objectives of a world where resources must be used sustainably.

THE ROLE OF COMPUTERS

As stated in Chapter 10, computers - especially the portable notebooks - are an essential tool of today's researchers. Starting from the experimental plan and a review of the relevant literature, all information should be entered into the computer in an appropriate software package. This manual in no way endorses any one particular product or company, but experience in developing countries shows quite clearly that communication on a wide basis is facilitated when use is made of IBM-compatible machines. It is also a great help in the presentation and dissemination of information to aim for compatibility (with your advisers, with the computerized journals and with the relevant Bulletin Boards) in the use of programs. The required software is for: word processing, graphics and presentations, a spreadsheet and statistical analysis. The important point is to work with a group of programs that interface well together, and not to waste time venturing off into new and exotic (but less well tried) programs that promise to do more than the standard packages.

E-MAIL

Every researcher should find a way to join an e-mail network. Packages are available now which facilitate setting up a network communicating over standard telephone lines. The CIPAV network in Cali, Colombia transmits and receives messages nationally and internationally at over 600 cps (characters per second) which is the equivalent of about one page in 4-5 seconds. It runs on a 386 notebook computer and a 14,400 Baud modem. Total cost of the unit is less than US\$2,500. Connection to an email network is the door through which contact is made with computerized journals, tele-conferences and messages from colleagues. It is a means of access to sympathetic advisers ready to help with ideas and information, and to friendly sources of data such as "Tropical Feeds" (most data bases are highly unfriendly, especially when you have to consult them on-line at in a country where telephone charges are high).

It is the modern means of communicating your ideas and results. It has become the special medium of the NGOs (witness the highly appropriate objectives and activities of the Association for Progress in Communications, APC) and those individuals and groups concerned with the sustainable use of natural renewable resources.

It need not be expensive (it is almost always cheaper than sending

messages by fax) and it will rapidly become more accessible and more efficient. It is relevant to point out that e-mail links have been widely used in the preparation and editing of this manual. In fact, without e-mail the publication would have been delayed at least by several months.

PRESENTATIONS

This topic deserves a slightly higher priority than publications as probably it will be the first medium in which the researcher will present their data. Today and in almost any country in the world there is no excuse for a bad presentation. Top quality presentations can be made using as tools a notebook computer, an ink-jet printer and some plotter acetates, backed up with an appropriate graphics package, Colour printers are still a luxury for most researchers and offer only minor advantages over black and white printing, judiciously touched up with coloured marker pens. In general, acetates for overhead projection are more appropriate and reliable than 5 cm slides which need a darkened room, a good photo-laboratory and time. Good slides cannot be produced 2 hours before your presentation; but an acetate can be done half an hour before and still be of excellent quality. The instructions and the tools on most graphics packages are so comprehensive now that the rules of:

- only 5-6 lines per page, and
- letters at least 5 mm in height,

are rarely necessary any more. Bad overheads are still made even with the help of computers, but the frequency of such occurrences is decreasing.

What is not allowable is to take printed text output from a computer or a typewriter (or a table or a graph from a book) and copy it on to an acetate. The results will almost always be bad because you will have broken the rules set out above.

Overhead transparencies are not just for the results. They also substitute for your hand-held notes. Reading from a prepared script is absolute taboo!! This is the resort of politicians who are frightened of being misinterpreted and/or mis-quoted or who hire others to think for them.

Provided you limit the amount of information on your overheads and they are mainly self-explanatory, you can expect to use efficiently one overhead per minute of your presentation.

PUBLICATIONS

Reference has already been made to the advent of computerized journals and the advantages they offer. Coming soon to join computerized publications such as Tropical Feeds is the electronic library which in developing countries will be dedicated initially to making available the more relevant information such as the reports and proceedings of conferences and workshops. Increasingly what has been considered to be "grey" literature will enter into the mainstream through the electronic "highway".

All these new services will use electronic means of communication. Researchers must rapidly become familiar with the medium if they intend to be at the forefront of their profession.

TELE-CONFERENCES

Just as computerized journals are replacing the conventional printed ones, so "tele-conferences" are predicted as the alternative to the conventional "face-to-face" conferences. So far the promises have not fulfilled the high expectations. The two most recent tele-conferences in the area of livestock production on "The Role of Livestock in Development" and "Sustainability Indicators" (Inforum, 1993, 1994), have suffered from dominance by participants from developed countries, and from Official Development Agencies. This has been due mainly to the ease of access to electronic networks and their use by resource persons in North America especially, since that is where electronic mail is most widely used, and - by default - the inadequate participation of resource persons from the less-developed countries. This is no reflection on the organizers - simply the reality of the means of communication being most developed where the power lies. However, as stated earlier, the situation is changing rapidly. The next move must be to organize such conferences from less-developed countries, on themes of immediate concern to resource persons in those countries, such as for example the topics in this manual.