

## An Approach to Annual Reports By Agricultural Research Departments

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### Recommended Citation

Kern, K. Robert (1992) "An Approach to Annual Reports By Agricultural Research Departments," *Journal of Applied Communications*: Vol. 76: Iss. 1. <https://doi.org/10.4148/1051-0834.1469>

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## An Approach to Annual Reports By Agricultural Research Departments

### Abstract

Leaders in agricultural research institutions in many developing countries want to publish English-language annual reports. They have few editorial and financial resources. Few have ( 1) analyzed their reasons for reporting, (2) set priorities among audiences, or (3) considered a design that would serve the audience(s). This paper proposes three main audiences for such reports: heads of agencies that use agricultural research findings, agricultural scientists, and some persons interested in agricultural science (but not scientists). An audience-friendly approach is suggested for the design and preparation of annual reports that can be more useful than those written in the usual scientific-report form.

# An Approach To Annual Reports By Agricultural Research Departments

K. Robert Kern

Leaders in agricultural research institutions in many developing countries want to publish English-language annual reports. They have few editorial and financial resources. Few have (1) analyzed their reasons for reporting, (2) set priorities among audiences, or (3) considered a design that would serve the audience(s). This paper proposes three main audiences for such reports: heads of agencies that use agricultural research findings, agricultural scientists, and some persons interested in agricultural science (but not scientists). An audience-friendly approach is suggested for the design and preparation of annual reports that can be more useful than those written in the usual scientific-report form.

Most administrators and some researchers in small national agricultural research systems believe they should issue annual reports of research. Their thoughts on the subject seem to have been influenced by an institution where they did post-graduate studies (in developed countries) or by international research centers. Many have trouble saying why they want to make annual reports. Few actually bring out reports that either scientific or political audiences find useful.

Few of these system staffs include professional agricultural communicators. Some have people with such titles, but few have professionally qualified people in the roles.

While on a consultancy early in

1991, we were asked to advise on an annual report of research. The query came from people in the University of the South Pacific School of Agriculture. Based in Western Samoa, the research institute serves 11 Pacific Island countries. We met and talked with both administrators and researchers. They still asked for something in writing. Here's what we said.

## About the Audience(s)

The first problem in advising on annual report style is that the sponsor usually wants a single report to serve several audiences and purposes. The wish is understandable. But such a report seldom fits interests of more than one audience.

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**K. Robert Kern** was president during ACE's fiftieth anniversary year, 1966, and first chair of the International SIG (1983-85). He and his wife divide their in-country time between Ames, IA (winters) and Laporte, MN (summers).

Editorial advisers have to assume some things, putting themselves in the mind of the executive. Here were my assumptions about audiences for annual institutional research reports.

The audience most important to the research system is the heads of agricultural departments or executives in ministries that have potential use for results of agricultural research. (We suggest that the community of science has its own well-developed systems to exchange true contributions to world knowledge. Institutional reports have a small role in such systems. They fall short in terms of almost random circulation and weak peer review.)

These people are mainly administrators. They don't have time to read what they **must** read. They have little time for other reading. While many were once in research, that is no longer their main activity. Their guiding interests and needs now limit their appetite for technical reports of research.

Their main interests, in my assumptions, include wanting to know: What problems are addressed by a piece of research; and What general findings relate to those problems and whether the findings will be relevant to their interests.

Their reading habits probably justify another assumption: They skip most items that deal with design of experiments and scientific details. Some will pursue data on some experiments, but on a selective, personal-choice basis.

Some such persons expect subordinates to screen material and to select for them; then to read and summarize the selected items. These "readers" are often weak on technical and scientific matters. (Our presumption here is that people in the research system are better able

to screen and summarize research reports than are subordinates of people in their target audience.)

Second-order audiences include working researchers and persons who are simply interested in what scientists are doing. One is an audience of scientists, the other is a general-interest audience.

**Take first the general-interest audience, which may include mass media writers, university faculty, politicians, civil servants, and others.**

Reading behaviors of this audience (actually several audiences) probably resembles those of the administrator audience. The format that suits an administrator audience should serve this one as well. For many of the same reasons of time and the way they follow their interests while reading. They tend to be consummatory readers, as Jim Grunig described in a paper to a research-writers conference in 1979. When their interest flags, they move on to something else.

Some in this group (perhaps university faculty) may read like scientists. Those few can be served in the way we'll suggest to serve researcher audiences.

**Active researchers in fields of agricultural science and related sciences.**

These people, as part of their work, must read in and about their field of interest. They are accustomed to reading scientific articles in a typical form, such as Robert Day's IMRAD (introduction, methods and materials, results and discussion). They need to know these details to judge for themselves the validity and perhaps reliability of the work.

The IMRAD form that thrills these readers tends, unfortunately, to bore non-scientist audiences. The publication that serves the research

audience simply will not reach the other audiences. These other audiences will not work hard enough to find out whether the content is important to them.

On the other hand, the researcher audience has sufficient need to read research in his/her field that this reader will attend to a format different from the one they prefer. (These are the "instrumental" readers on which Grunig reported.) They need to have information that lets them judge the worth of the work. They need details of design, materials, and methods.

Against these background assumptions, we offered an annual-report pattern for what we might call dual-purpose reporting.

We don't like dual-purpose anything in communications. This doesn't meet a true professional standard. We'd rather do two or more treatments. But few research administrators feel they have resources for more than one report. So this is our compromise.

We assume the administrator audience to be the more crucial one, and thus our target. And we fashion the report for the administrator audience. Then we add bits for the researchers. Thus we give the technical readers what they have to have without, we hope, losing our main audience. We think this a better choice than to report research in the conventional mode and expect the non-scientist audiences to dig out what they can use. (We see little evidence that many will do it.)

On the basis of these assumptions, we offer advice to the person who has to write the item(s) for the annual report. That's usually at least one lead researcher on each project. So we give direct advice to him or her.

And we start with some thinking about what should go into the

annual report. The first hurdle in researcher thinking may be to accept the idea that an annual report is more often an administrative requirement than a legal one. (The research system may gather information on every project, but it doesn't have to publish it. Few outsider audiences want that much verbiage. Most systems don't really have resources to publish that much material.) The typical report usually tries to combine accountability with some exchange of scientific matter.

From these standpoints, a project may be reportable on three bases:

1. the start of new work (what problem is under study and why);
2. progress (when some pattern of findings begins to emerge);
3. findings (when the researcher is ready to interpret results and stand behind the data).

### **Guidelines for Writing Research Reports**

First, think in terms of what about your work may interest the non-scientists whom you hope will read the report. That suggests the area of content and your points of emphasis.

When starting to write, think about conversing with the reader. Perhaps pick an actual person to represent your intended readers — someone you know. And resolve to write in conversational terms rather than scientific terms.

Remember, anyone with a college education can write material that others will find difficult to read and understand. (In fact, a muddier thinker with little or no education can do that.) It takes special skill to write so others read and understand easily.

### **Design of the Article**

Begin with the problem that

motivated the research. Place it within a relevant context. Does it attack a known social problem; does it seek better practices for farmers; does it expand export earnings? (**The researcher's objectives seldom does the job here. Objectives may guide the research but not touch the reader's interest. So restate the purpose in the reader's terms.**)

For example: This project was undertaken to find cultivars that resist common diseases and yield better than those used now by farmers. Trials were grown with practices that most farmers use.

Second, tell how the research was done. Not in the details of a scientific report. But in terms understandable to a non-scientist.

For example: Three improved cultivars were compared for four years in replicated trials. Locations in three regions gave results under different climate and soil conditions, as reported in Table x.

Third, report the findings in general terms. And get them stated early in the article. Don't go into detail. If a new cultivar is much better than an old one, tell that. Say it's "double" or "one-third better." (And leave off those decimal points: 40 t/ha and 28 t/ha, not 39.86 and 27.95).

Fourth, present tabled data that lets the reader examine results — if he/she wishes. Many will want to see numbers. This also gives the system a set of data in published form. That makes the data retrievable, which is not always the case in research systems, especially where expatriates do the research. Use graphs to show important findings — but only those simple enough to convey a message at a glance.

Fifth, for the researcher-reader, give "Scientific details" following the table. Give what's relevant to the

study: the site, the soils, irrigation, fertilizer regime, specific cultivars, design of the experiment, planting and harvesting dates. If you used special materials or methods, state them in a minimum of words. (The guide for scientific detail is this: Another worker, from your statement of methods, could repeat your experiment.) This item should be set out in a form that lets the reader see what it is. The general reader can skip it. The non-scientist will appreciate a cue that permits him/her to skip something not needed. (General readers of science, said the editor of *Nature*, read for "the excitement of science, not the mechanics.")

Remember this about reader behavior: A general reader of news and technical information tends not stay with a suspense format (in which the writer holds the "good stuff" to the last). If there isn't "good stuff" up front, most will stop reading after a minimum exposure.

### Final Note

We've offered this advice in several situations. It's been followed at least twice (in Fiji and at the University of the South Pacific). The followers have said they like it. No, we've had no chance to research the readership. But we'd like to.

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