

AGRICULTURAL WRITING

E B DICKINSON

The Fertilizer Society medal which was awarded to me this year is, I understand, partly in recognition of the writing which I have done on agriculture over quite a number of years. It is appropriate therefore for me to speak about writing as an aspect of agricultural extension. Most of this popular type of writing is either for the agricultural press or for pamphlets and leaflets. I also want to make reference to scientific writing.

The purpose of writing

Why *do* we write? Probably because we have something to say and want to say it. The research scientist will have the results of his work to report. The popular science writer will want to present information in a semi-scientific form so that it can be more easily understood. The extension writer will want to tell farmers, farmers' wives, agricultural students and so on about something that affects them and is of value to them.

Good writing starts with a good reason for writing. Before putting pen to paper, there must of course be a title. A beginning can really only be made after a suitable title has been chosen, which naturally will reflect the subject matter.

From research to extension

In much of extension writing for the agricultural press, the writer tries to tell the reader what research has been discovered. In most cases the reader is a farmer who, in the ultimate, should be motivated to take some kind of action. The step *down* from research reporting to farmer understanding is a very big step. It is a simplification process which is essential to the flow of information from research to practice. I have always believed that, in the main, extension is what agricultural research is all about.

When Professor Leagans addressed this Society some years ago, he referred to the treatment which the research message must be given before it becomes an extension message. He stressed that this was a specialist function important enough to stand on its own. I have not always found it easy to simplify research language and research writing into farmer language. I have too often been frustrated by what I regard as the obscurity of *some* research writing. I appreciate that the good researcher is always very sure of his facts before he draws a definite and easy-to-understand conclusion. I appreciate too that research results don't always come out in neat little packages. They are often complex and complicated. Perhaps this is at least part of the problem. A Senior Extension Officer once said to me that research told him very little and that for much of the time he was forced to operate without the support of research. I am sure that this case is an exception, but

even if there is some truth in it, where does the blame lie?

There is a very real gap between research presentation and extension understanding. This gap can be made smaller in at least two ways, viz

- (i) In the Fertilizer Society over the past few years, accent has been put on research guidelines as opposed to research conclusions. A guideline points a direction without claiming to be the final answer. It is accepted that a guideline is only of value until an improved guideline is produced. It has been our experience that the research-extension gap has been narrowed by the use of guidelines.
- (ii) During Agriculture 1977, the Grassland Society of Southern Africa held its annual proceedings, as did many other societies. Excellent scientific papers were presented and I thought it worthwhile to take out so-called Extension Abstracts of the less fundamental papers. These abstracts have been accepted by the Council of the Grassland Society and are being submitted to the agricultural press. Furthermore the idea of Extension Abstracts has been approved by Council and I understand that in future, authors will be invited to include such abstracts when papers are written.

The writing outline

Just as research reporting has a fairly rigid format, so should all writing begin with the drawing up of an outline or structure. This will vary considerably according to the subject and the type of job being done — whether a press article, a leaflet, bulletin and so on. The purpose of the outline is to enable the writer to plan and then write logically. Like facts must be grouped together and dealt with as an entity. There is nothing more confusing than writing which rambles on and then comes back to a point which has already been covered.

Heading and subheadings

One logical outcome of an outline is the use of headings. Headings in their turn must lead to subheadings. Further divisions right down to clearly divided paragraphs are further plus factors. No writer should ever assume that people will necessarily read what he has written — and read with meaning and understanding. At best, the agricultural writer should hope that at least part of what he has written, will be read. With this somewhat negative, but realistic approach in mind, the article, paper, pamphlet or bulletin should be dressed up and displayed like goods in a supermarket. The prospective reader must be encouraged

to see the article before he starts to read. He must be able to find his way around quickly and easily. Give him also the chance of leaving out something in which he might not be interested. But, more positively, make quite sure that he sees what *will* interest him. Once he takes the visual bait and reads, the writer can notch up another success on his typewriter.

The supermarket approach is essential in leaflets and pamphlets where a minimum of sustained reading is called for.

The reader

Scientific writing is, more often than not, written for fellow scientists. If the writer assumes that his readers will automatically follow his train of thought, irrespective of how he writes, he is likely to be mistaken. By simplifying his writing downwards on the other hand, the writer can only maximise his readership and its understanding.

Most popular agricultural writing is directed to the farmer who, generally speaking, does not read a great deal. This is understandable because his reading time is probably in the evening after a long working day. All the more reason then that the outline and the use of headings are well planned. Photographs should also be used with suitable captions in order to catch and hold his interest. The facts within the subject matter should be confined to what interests him.

Action

In most cases the extension writer wants the reader to do something about it — in other words to take action. The writing must therefore aim to motivate. One of the problems is that if the farmer does his reading in the evening, he is already in a relaxed frame of mind. Once again the writer must go to pains to spell everything out. Salient points can be summarised. In a pamphlet, an address or a telephone number can be given for follow-up. The fact to bear in mind is that this sort of spoon-feeding is well worthwhile if it results in action.

Timing

There is always a right time and a wrong time. The right time for the written word to be read and followed, is when the reader is receptive in terms of his planning or his actual activities. The correct time to give information on the planting of pumpkins is shortly before they are planted — not when the pumpkin fly is doing its damage.

The above are some points to bear in mind in the approach to writing. But what of the writing itself? How well does the agricultural scientist write and how can he tell whether his writing is good, bad or indifferent?

The Fog Index

Niels Lindhard writing in FCI Viewpoint, November 1968, describes what he terms 'the Fog Index'. Although he was referring to business writing, I am sure we can use the index in agricultural writing as well. With adjustments, it could probably be applied to Afrikaans too. I quote from Lindhard.

"If you ever have to read a sentence twice in a business letter, then the chances are that the letter is badly written. In short it has a high fog index. It is actually quite easy to write clearly. The rule is simply to use short words and short sentences. Churchill said 'I like short, strong words'. (He did not say *my preference is for an abbreviated expressive vocabulary.*)"

"You will run into muddled writing in letters written by your staff. Ask the fellow to calculate his fog index like this: take a block of about 100 words. Count the average number of words per sentence. Add to that average, the number of words with more than two syllables. Multiply the lot by point four (0,4). This little tale has a fog index of eight."

"Here is the key. Churchill at his best wrote to a six, the index of the Bible is around eight. A good business letter may run to 12, many American management books run at 24 and many government notices about 26 . . ." Unquote.

I have used this fog index frequently to check my writing. When it has been too high, I have rewritten so as to bring the index down.

How can writing be improved? Many reference books are available on this subject, but I wonder how often they are used? I should like to record a few points which I have tried to follow in my writing. Every writer should remember that the moment the reader stops reading, is the moment of failure. There is absolutely no point in writing if no one is going to read what has been written.

Use full stops

In my experience, the full stop is the most important of all punctuation marks. All of us write sentences which are too long. The longer the sentence, the less chance that the reader will stay the course. The longer the sentence, the quicker the reader gets lost and the sooner he gives up. So — break up long sentences by bringing in full stops.

Example:

In all, fifteen samples of different pastures were taken on the trip, and when it is borne in mind that these were taken at the end of the season when the phosphorus content is usually low, and that a fairly large proportion of old leaves were included in all the samples, which would also naturally lower the percentage figures for at least the phosphorus

and protein, the figures obtained must be regarded as highly satisfactory.

This is a single sentence of 75 words. The fog index is 34. It is a compound-complex sentence containing a number of different, but related facts, which I, at least, find confusing. Let us see what a few full stops can do.

In all, fifteen samples of different pastures were taken on the trip. These were taken at the end of the season when the phosphorus content is usually low. Furthermore, a fairly large proportion of old leaves was included in all the samples. This would also naturally lower the percentage figures for at least the phosphorus and protein. Bearing this in mind, the figures obtained must be regarded as highly satisfactory.

The fog index has been reduced from 34 to 16.

Say what you want to say and then write it

One of the recognised rules for clear writing is to "write the way you talk". While accepting this, I want to make the point slightly differently. Every now and then, a writer will produce a paragraph or a sentence which comes out so confused that it is not clear even to the writer himself! When this happens, one way of reaching clarity is to ask oneself "what do I want to say?" If you then literally speak the answer, it is surprising how often the clarity comes tumbling out.

Use simple and familiar words

There is nothing clever about using big words — in fact it can be stupid. Anything that might lose a reader is stupid and too many unfamiliar words will do just do that. On occasions one might become bored by calling a spade a spade all the time and the writer will look for word variation. When looking for such variation, one must still resist the temptation to use too unfamiliar a word.

As an example of almost over-simplification in the use of short words, Rod McKuen's autobiography "Finding My Father" published by Hamish Hamilton, London has a fog index which is more often nearer six than 10. I mention this book because it was published only recently, and because I found the writing so effective.

Use active construction as opposed to the passive

Writing passively means just that and the reader will soon be nodding off to sleep. Here is an example.

There will be an increase in maize yield with proper fertilization.

This is in the passive and the sentence contains 11 words. If it is changed to

Maize yields will increase with proper fertilization

the statement becomes active and now there are only seven words. In much the same way that pruning and removing dead wood improves a fruit tree, so does pruning improve verbose writing. One must naturally know something about pruning in order to achieve the desired effect.

Use a logical sequence of events

All farming follows a certain sequence of events. A land is prepared, planted and eventually reaped. An animal is born and either it or its products are eventually marketed. All agricultural writing, whether it be directly concerned with production or not, should try to follow the farming sequence, because this is the way the farmer thinks.

Be prepared to rewrite

Lucky is the author or writer who is satisfied with his first draft. In most cases I would say that good writing requires tremendous patience and often rewriting and rewriting. Henry Williamson, and ex-soldier author after World War 1, wrote his prize winning "Tarka the Otter" 17 times before he was satisfied. I have often thought about this when my own patience has begun to drag.

Use rounded-off numbers

When numbers are used, they are used for a purpose and in most cases they are used to be remembered. A rounded-off number is easier to remember than a fractional number. Therefore in all popular and semi-popular writing, numbers are more meaningful when rounded-off. For example a yield of 38 bags per hectare has more meaning for the reader than the actual yield of 37,6 bags per hectare.

Use simplified figures

Figures and graphs must be simple and specific. They should show only the information which the author wants to get across. The reader should not have to 'puzzle' anything out. The moment he feels that a figure is too complicated, is once again, the moment of failure. Bar graphs or histograms are easier to understand than the common line graph and should be used as much as possible. When using bar graphs, try to show a number at the top of each bar and round it off.

Keep it short

I have the impression that length might be a South African weakness, and that it is encouraged in the belief that it impresses others. I hope I am wrong because length for length's sake is a bore and a waste of paper. In referring a few moments ago to rewriting, perhaps I could have said that one of the objects of a rewrite is to make sure that there is no padding. In many cases, a good rewrite means a reduction in length.

I believe that length and verbosity are very real problems in the world — in conference, in parliaments, in world gatherings. There seem to me to be too many people saying too much about too little. And so much of it gets recorded thus aggravating the problem. Let me thus make a plea to each one of you — when next you write something, please keep it short.

Conclusion

You will have gathered that I have no illusions as to how little the written word is read with meaning. In taking this view. I believe that I am being more of a realist than a cynic.

However I am not for a moment belittling the power of the good written word. It is all-powerful and absolutely essential in the total scheme of things. But bad writing I regard as a disaster.

You might also have gained the wrong impression that I think very little of the farmer as a reader. Let me say again that because of the farmer's physical commitment during his long day, purposeful reading is naturally difficult for him. All the more reason therefore that we should use maximum thought, care and patience when writing for the farmer.