

AGRICULTURAL COMMUNICATIONS AND THE AGRONOMIST*

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The Canadian author, Stephen Leacock, once said that the true title of every speech should be: "How to be more like me."

I have made my living for the past 40 years in journalism, spending a major part of that time taking technical information from people who knew what they were doing and translating it into more readable language.

One of my early bosses told me: "Just work on it until you understand it, and then write it. If you can understand it, anybody can." He was right!

Please understand that I am not trying to tell you to be more like me, but perhaps we can think together along some lines that will help us to communicate better with each other and with the public we are trying to serve.

As men of science, your work is valuable, but its true value to society may depend largely upon how well results are communicated to those who can apply and utilize your findings.

If you are successful in your research, you may have no real choice as to whether you will or will not try to communicate. You must communicate.

My function and that of others in related or similar positions is very simple. Our job is to help you to communicate useful information to potential users.

Ralph Waldo Emerson wrote that if you build a better mouse trap, the world will beat a path to your door.

That may have been true in Emerson's day, but nowadays you've got to tell the world. If you don't let people know about your better mousetrap, all you will have on your doorstep will be a heckuva big pile of dead mice.

Think about communications for a moment. From the time we get up in the morning until we retire at night, we are either the source of some form of communication, or we are the object of some attempted communication, or both.

You hear your alarm clock, your wife speaks, children ask questions, the radio comes on, you pick up your newspaper and read headlines, somebody turns on the TV, your phone rings, you start to the office and traffic signals try to communicate with you while you are being distracted by billboards.

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You open your mail, dictate a few letters, write a report, read a magazine, look at a picture, instruct an assistant, hear a lecture.

Some of these communications are in code. Every business, trade or profession has its own language which doesn't convey ideas to outsiders.

Robert Gunning, an expert in effective communications says: "An able writer has something to say, says it simply, and uses a variety of sentence structures to say it interestingly."

That's about all there is to writing. Just say complicated things in a simple way.

You can compress an entire writing short course into these 10 easy sentences.

- Keep sentences short.
- Prefer the simple to the complex.
- Prefer the familiar to the unfamiliar.
- Write the way you talk.
- Avoid unnecessary words.
- Put action into your verbs.
- Use terms your readers can visualize.
- Tie in with your readers' experiences.
- Make full use of variety.
- Write to express; not to impress.

A story from the Bureau of Standards in Washington illustrates this point. A plumber wrote to the Bureau to say that he had made a great discovery. He had found that hydrochloric acid could work wonders in clogged drains. He wanted to know whether its use was harmful.

The Bureau answered: "The efficiency of hydrochloric acid is indisputable, but the corrosive residue is incompatible with metallic permanence."

The plumber wrote back, thanking the Bureau for telling him his method was OK. This upset the Bureau, so they explained further: "We cannot assume responsibility for the production of toxic and noxious residue that may result from hydrochloric acid and suggest that you adopt an alternative procedure."

The plumber replied how glad he was that the Bureau was so crazy about his discovery for using hydrochloric acid in drains. Finally, somebody explained: "Dear Plumber: Quit using hydrochloric acid. It eats the hell out of pipes."

You can't be too explicit if you want to be understood.

It is also important when you have something to say to address it to the audience you want to reach, and use a means of communication which will reach that audience.

Visualize your audience--whether it is farms, commercial seed companies, ranchers, chemical companies, retail dealers, or other scientists.

Then write directly for them and don't hide your message under a lot of big words.

Finally, select your means of communication. Choose one that has regular contact with the particular audience you want to receive your message.

People in public positions sometimes miss this point. They may make a general news release when what they need is to zero in on a particular group through a particular medium of communication--or vice versa.

Publications and other forms of communication are highly competitive. Sometimes it is advisable to give the same information to every one of them available, and other times it is not.

Whichever the case, let your actions be known. Nothing will shut off your lines of communication more quickly than to give someone a story that he may assume is exclusive and then have him read it somewhere else before he gets it in print.

If each knows in advance that the other has it, there will be no trouble, because they will know how to handle it--but always play fair.

Now here's my commercial. When you have something to say, keep this in mind:

The TV picture is a flicker that is quicker;
A newspaper has its say, and lasts for a day.
The magazine will be seen before, after, and in between.

Whatever you do, tell the world about it, and you will have a better chance for success.

Those of us in the field of agricultural communications take considerable satisfaction in carrying news of scientific developments to our readers or listeners who want to know.

We often want to tell the story before you are ready to tell it, but that's the way things are.

We are aware of the pressure that you face to produce rapid results with your research.

Formerly, scientists had ample time to plan, develop and complete a research project, but the more rapid pace of the world has become a factor here.

Now you not only have to plan the project and figure out possible solutions to problems, then prove them. You also must guess whether the problem itself will become obsolete before the solution to it is found.

You dedicated men of science are to be congratulated for your great contributions to humanity by making it possible for us to produce more food per acre than ever before. I have enjoyed writing about hundreds of these changes.

Since I joined The Farmer-Stockman magazine staff 35 years ago, the population of the United States has almost doubled and the number of farms has been reduced by more than half.

Not a variety of corn, cotton, grain sorghum, rice, peanuts or soybeans is grown in substantial acreages in Texas that was grown then. All have been replaced by improved sorts.

Land that was in grass is now in irrigated crops and land that was in crops is now pastureland.

Beef cattle conformations have been much improved along with rate of gain and quality of meat. Crossbreeding is now being promoted by purebred organizations that recently considered this a sinful and immoral practice.

The hoe has been made obsolete by chemicals and plants are better bed than ever before.

Poultry and hogs thrive in giant factories. Tractor power has replaced horsepower and manpower.

Even when you see the progress that has been made in agriculture, it is hard to believe. And you do not need to be a prophet to anticipate that further drastic changes lie ahead of us.

The future is coming, and it is moving in on us very rapidly. And it is going to be different.

We can't stop where we are today and be ready for the future. Somebody has said that the man who is resting on his laurels is wearing them in the wrong place.

Our future still depends primarily upon the land. Thousands of farm families have moved into cities, but there they still depend upon the land for their food, their water and for raw materials to keep industries and business operating to make jobs for them.

The future holds out great promises, great challenges and great opportunities for progress.

Awhile back a national magazine set out imaginative theories about farming in the future. The list includes several stories I'd like to write. It suggested agricultural plots up to 10 miles long, or laid out in circles 4 miles in diameter.

Huge machines operating on permanent tracks would be programmed electronically to function without a man on them, controlled from a central panel in a tower.

Tracks might be laid atop conduits which would convey fertilizers, insecticides, herbicides, irrigation water, and defoliants. Infrared sensors would determine when each was needed.

Dwarf plants adapted to denser populations would be used, precision planted by machines or by tapes.

Harvested products would move from fields to factories in large plastic capsules that would maintain temperature and humidity.

Waste plant materials would be recycled on the spot to make fortified feed for confinement fed livestock, whose waste in turn would be restored to the land to feed more crops.

Multiple births of livestock were envisioned,--even cows with 1,000 offspring each in a lifetime--calves that would gain rapidly and weigh 1,000 pounds when 10 months old.

This forecaster imagined plastic domes would cover acres of crops and microbe refineries to raise proteins.

Possibilities also included wheat that would yield 300 bu/acre and corn plants like small pines, thick as grass, and with numerous small ears (nubbins) on every stalk.

When you look backward to see where agriculture was just 30 years ago, it doesn't seem so wild to project these dreams into the year 2000.

We probably will have to spend more money on research and persuade people to think faster, but I am confident research scientists will find ways to reach some of these fantastic goals.

Not only must we step up the pace of our planning for the future and our rate of discovery of better ways to do things, we also must make more use of what we know now.

I can think of several instances where we have delayed in utilizing scientific information, resulting in significant loss of agricultural income and progress. I'll mention just one.

This is the use of cloud seeding knowledge to help alleviate and possibly prevent severe drouths. We have known how to do this for more than a quarter of a century and have spent millions of dollars to affirm the idea.

Still, we are not effectively using our knowledge. One result is that we have recently experienced another disastrous drouth. In 1971, OEP expended more than \$150 million in emergency drouth funds in Texas, Oklahoma, New Mexico, and Arizona. This did not begin to cover all drouth losses.

This tragic circumstance occurred in spite of the fact that a continuing year-around cloud seeding program could be put into effect for the entire area for less than \$10 million a year.

I believe that someday we will do it. Then there will be enough clean water for the crops and the livestock and the cities.

While I am convinced that we can trigger the reluctant clouds to release more moisture, I do not foresee the time when human nature will reach the point that everybody will want it to rain on the same day.

I am convinced that we are going to see many more great changes in agriculture, and I am confident that many of you will contribute in an important way to their achievement.

The relationship of the agronomist to the world of communications and vice versa should be one of working together for mutual benefit, and for the good of the public that all of us are dedicated to serving.

The world is looking for a brighter future. When you have done something that will help to bring it about, tell the world about it.

Almost everything that we do that is worthwhile has implications for the future, and nowhere is this more true than in research.

Our future offers just as many opportunities as ever. Some of the challenges may be greater, but achievements are possible.

We have the potential of a great future, one that is limited only by ourselves--and by our ability to communicate.