

# **“Clearness of style, plainness of statement” Experiment Station Bulletins In The Early Years**

**by Lynn B. Padgett**

*Experiment Station bulletins of the late 19th century were written by the scientists themselves in candid, colorful language. The early bulletins from one state (North Carolina) display the personalities of the writers and the excitement and frustration of developing the disciplines of the new agricultural sciences.*

During the past year, I spent a good deal of time collecting materials for the centennial celebration of the 1887 Hatch legislation which established the agricultural experiment station system. Although I was, initially, reluctant to delve into heavy, dusty volumes of early station bulletins from the archives, once they were opened, I was immediately charmed by the clarity of the prose and the crusading spirit of the writers.

For felicity of expression, these early bulletins have few rivals in the agricultural literature of today. For example, H. D. Battle, the first station director in North Carolina, regarded clarity as a priority for the state's new bulletin series:

*This series of reports of progress . . . are intended for the people . . . and clearness of style, plainness of statement, and freedom from technicality is rather to be sought after than purely scientific and theoretical discussions which would interest only those of scientific training. (Battle 1888)*

Surely, this would make an admirable standard for agricultural communicators today as we struggle through the wasteland of jargon and statistics that passes for research reporting in agriculture. Just for a few minutes, let us enjoy a look backward, as we may confess that modern experiment station and extension service publications lack the warmth and personality so clearly shown in these early bulletins.

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**The author is experiment station editor, Department of Agricultural Communications, North Carolina State University.**

When for example, was the last time you found a scientist reporting candidly on the performance of dairy cows, by name, as F. E. Emery did in 1895? He tells us about "Dora McKee," who had "infirmities coming on;" "Fannie" of Sedgefield, who "may be dropped for non-breeding;" and "Polly K.," who was sold to Professor McCarthy. There was the naughty "Miss Haley," the "fierce master of the heifer yard," who had "a bad character as a fence breaker." (Emery 1895)

These early bulletins contain colorful analogies. What scientist, today, would say: "The leaves of the corn plant are at once its lungs and its stomach." (McCarthy 1889:78) "The Codling-moth. . . is a European insect, introduced into the United States about 1800, and now costs the country annually as much as the United States Army." (McCarthy 1891b:25) W. F. Massey uses a financial analogy to explain the difference between the *farmer* (who makes deposits and draws dividends from his soil) and the *planter* who

*. . . draws on the original deposit in his soil until his drafts are dishonored, and then gambles in fertilizers, . . . his account with the soil being continually overdrawn, until the bank bursts." (Massey 1891:15)*

### **Running into Reality**

These early bulletins reveal more of the realities of conducting research than readers usually are permitted to see. Consider the reporting of field trials. We all know that the weather fouls things up from time to time, but we often don't have the opportunity to see reality set in with such a vengeance as it did in 1890.

On his arrival, the new station horticulturist in North Carolina, W.F. Massey, announced some rather ambitious plans for field testing the state's major vegetable crops. By the end of the year, his annual report read as follows: "Variety testing, either of fruits or vegetables, is commonly very unsatisfactory to an earnest student. . . . The past season was a peculiarly unfortunate one for vegetable testing. . ." (Massey, 1890:3) The "sudden and severe frost of March 3d" destroyed his planting of peas, the early cabbages, and the strawberries. The tomatoes which "started finely, were cut short by the extreme dry and hot weather the last of June."

As a result of this discouraging experience, Massey shifted the emphasis of his research program and his tone. "Mere variety testing will in future form but a small part of the work of the Horticultural Division of this station. . ." (Massey 1890:3).

## **“We caution our friends . . . to be patient . . .”**

The bulletins for these first years show the experiment stations developing the methods of agricultural science and explaining their procedures to the farmers. The first experiment station director in North Carolina even worried about the impatience of his constituents for the benefits promised by agricultural research.

*The lines of proposed investigation will require much labor. Careful scientific work is very slow, and if well performed will occupy months before results of value can be reached. We caution our friends therefore to be patient and not expect too much. (Battle 1888)*

Today's directors, seeking support for projects not expected to pay off for a decade or more, would probably envy Battle his "months" to produce results.

## **Crusades And Exhortations**

Persuading farmers to replace the habits of a lifetime with new practices based on information gained by careful experimentation was apparently a struggle. Perhaps a long series of frustrating encounters lies behind F.B. Dancy's declaration that:

*If any one should be disposed to doubt the practical side of feeding standards, and by reason of a too common prejudice, to regard them as belonging to a large class of useless theoretical principles that are found on paper rather than in practice, let him remember that these standards are the result of practice. (Dancy 1889:19)*

Some of the first station scientists crusaded to protect farmers from fraud and loss. They were especially indignant at unscrupulous vendors of fertilizer and seed, singling out for particular vituperation one who tried to sell to North Carolina farmers fertilizer already declared worthless in Georgia. The establishment of standards for seed purity and germination and fertilizer composition were major achievements of the early station scientists. The end of this type of fraud also ended this kind of exhortation in station bulletins, but while they lasted many were as passionately phrased as this one:

*The farmers of the state are urgently advised not to pay any money for fertilizing formulas. . . . Of what earthly use is it to buy from a man, at a high price, a set of figures, which nine times out of ten is incorrect, and even if correct, could be had by application to the Station without cost? (Battle 1897:40)*

These early writers were also somewhat more candid than our contemporary specialists in assessing agricultural practices:

*... most of the apples that grow in the mountain country grow in spite of neglect and not because of any care. . . . Our people. . . seem to think that because the trees in the forest take care of themselves that orchard trees can do the same.* (Massey, 1898:307)

Few contemporary scientists express themselves as forcefully as F.B. Dancy did in 1889. "If the farmers are over-feeding their stock in North Carolina, it ought to be found out. More than that, it ought to be promptly stopped."

The researchers and the station director clearly believed that most farmers wanted to know the best ways of doing things in accordance with the latest scientific discoveries. Some variation of the following statement is found in many bulletins:

*... it is taken for granted that the man of intelligence wants to know the whys and wherefores of what he attempts to put into practice, and rightly so. . . his heart will be more in the work.* (Dancy, 1889:3)

The station botanist, G.W. McCarthy, says that "the man who farms with brains as well as with muscle and machinery, will be quick to discern the value of improved strains. . ." (McCarthy 1889:79)

Farming with brains was certainly necessary. The bulletins are filled with directions for building various pieces of equipment and carried complicated recipes for pesticides using Paris green, London purple, Bordeaux mixture, *Eau Celeste*, and various combinations of kerosene, wood ash, soft or hard soap, tobacco decoction, crude carbolic acid, or corrosive sublimate. (McCarthy 1891a)

## **The More Things Stay The Same**

I have been alternately amused and depressed that the topics of agricultural research in the 1880's and 1890's look remarkably similar to the topics still under investigation in 1987. In my assignment for the Hatch Centennial to emphasize the great accomplishments of the experiment stations, I focused on the firsts, the unique, the epoch making. I found that experiment station scientists were first to discover most vitamins and certain antibiotics as well as ways to control tick fever, New Castle disease, and other conditions we no longer worry about. But many of the bulletins discuss subjects still of concern to farmers: apple pests, weeds, cattle feeds, forage species, and hog health problems.

Continuity is evident in the philosophy of distribution as well as the subject matter. Those of us who work on station or exten-

sion publications in these days of tight publication budgets waver between desire to see them widely disseminated and desire to protect our finite supplies. The North Carolina director was outspoken on this very issue in his regular newspaper column.

*The Experiment Station has no money to throw away. So if you are not going to read carefully the bulletins and other publications, do not ask for them. . . . If you really desire to receive and read and profit by them, you will be cheerfully supplied with any. . . bulletins. (Battle, 1893:72)*

And then, as now, fan mail was treasured. Excerpts were even reprinted in the annual report of 1896, where 25 pages of 7-point type were devoted to carefully editing expressions of "The Opinions of Nearly One Thousand North Carolina Farmers" (Nineteenth Annual Report, 1896). Not surprisingly, the opinions reprinted in this report were uniformly favorable.

What editor would not appreciate a reader who will write in, as H.H. Perry of Camden County did, "Accept my compliments for the great good you are doing. . ." (NCAES 1896:lix); or, as Isaac S. Groce of Yadkin County did, "I will read anything you send me. . ." (NCAES: 1896:lxxxii). Who could fail to suspect that E.D. Heineman of Buncombe County was probably right when he wrote, "I am a firm believer in yours and your colleagues" work. . . . Anything you can do in this line will be a boon. . . . Perhaps you will not get your reward in this world." (NCAES 1896:lviii) Surely, the authors of the day regarded letters such as this one a reward in themselves.

Much as I have enjoyed my excursion into the bulletins of the past century, I am also left with a feeling of loss as well. These lively, colorful bulletins were written, for the most part, by the scientists themselves; a station editor was not added to the North Carolina staff until 1915, by which time the bulletins had become far more technical and far less personal. Some part of the change in flavor of station bulletins was also due to the creation of the extension service as the communications arm of the land-grant colleges. By 1920 the writings of the station scientists were more often for their scientific peers rather than for the "people." The education of scientists had also undergone a change from 1887 to 1920; they were no longer learning to write Victorian prose or to moralize with Victorian righteousness.

### **Educating More Than Farmers**

"Facts for Farmers," one of the most interesting bulletins in the North Carolina collection, was written by W.F. Massey in response to a letter from a self-styled "Practical Farmer" who wrote to the station as follows:

*Why don't some of the Stations do something towards educating farmers into a proper understanding of matters discussed in their Bulletins. Many things in them are doubtless valuable, but nine-tenths of us farmers don't know any more than a mule about things which you all take for granted we know. If you would put some explanation of these things into a compact shape as a Bulletin, it would do a world of good. (Preface to Massey 1891:4)*

I believe that the experiment stations and the extension services have done a very good job over the past century in educating the farmers. What worries me today, however, is the nearly total ignorance of 95% of the U.S. population on subjects related to agriculture. Although a few excellent efforts to dispel some of this ignorance are coming from the Council on Food and Agricultural Technology in Ames, Iowa, from the experiment stations in various states, and in a different way through the "Ag in the Classroom" program of the USDA, I wish that those of us in experiment stations could reach more of those who "don't know any more than a mule" about the exciting developments now taking place in the experiment stations.

Perhaps we could rephrase Director Battle's 1888 "Special Notice" that

*The Experiment Station was established for the benefit of the farmers of the state; they should take the liveliest interest in its . . . present and future workings. By keeping in constant communication with it, the Station will be able to receive and impart many hints and suggestions which will be mutually valuable. (Battle 1888:7)*

If we replace the word "farmers" with the word "people," we would come close to the Experiment Station mission of this century and the next. In every state that relies upon its experiment station to conduct basic and applied research and to contribute to economic growth through the development and transfer of technology, communications with "clearness of style, plainness of statement, and freedom from technicality" will be as important today as they were when the stations were founded.

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Azaleas, abundant and popular in Florida's horticulture market, are often requested to be drawn for University of Florida publications. These three azalea flowers were drawn to complement a series of other plants and vegetables used as a county extension newsletter masthead. The ink drawing was done on wet media acetate. Nancy Shaskey illustrates for the Institute of Food and Agricultural Sciences at the University of Florida.

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