Speculation in Scientific Writing

In the May 1996 issue of *Agronomy News*, William R. Luellen commented on speculation in scientific writing. He had examined three papers in the 1950 volume of *Agronomy Journal* written by people who are recognized today as outstanding scientists. Each paper ended with speculation about the significance of the results or where further related research should be directed. Luellen recognized that such speculation in scientific papers is valuable. He expressed concern that such speculation is no longer common.

I appreciated Luellen’s article. As a research scientist, I always felt it was my responsibility to suggest possible reasons for results, to speculate on the significance of the results, and to suggest what additional research would be worthwhile. Not everyone agreed with me. I was once told, “Present the results of your research, and let the reader decide what the results mean.” I could never accept this philosophy. No one should be better qualified than the authors to comment on, discuss, or speculate about the content of a paper. They have repeatedly thought about the subject during the planning and conduct of the research and preparation of the manuscript. Why deprive the reader of the benefit of this experience?

I remember preparing a research report for publication in which I had included a statement speculating on the significance of some of the results. A reviewer suggested deletion, with the comment, “The data do not support this statement; it is pure speculation.” The reviewer’s comment was absolutely true. But reasonable speculation should not have to be deleted.

Speculation should always be identified as such. Words such as “perhaps,” “possibly,” “if,” or “might” can clearly separate speculation from positive statements. Reviewers can help prevent unreasonable or excessive speculation.

Clearly identified, reasonably conceived, and logically presented, the authors’ speculation can add to the value of a research report.

Remember:

To speculate, the author
   is fully qualified;
But the speculation
   Must be well identified.

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