

**Proceedings of the Symposium**

**Statistics:  
A Tool for the Horticultural Scientist**

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## SYMPOSIUM PAPERS AND AUTHORS

Presiding over the symposium was T. W. Tibbitts.

INTRODUCTION TO THE SYMPOSIUM. P. Allen Hammer.

THE ANATOMY OF A STUDY. N. Scott Urquhart.

CONTROLLING VARIABILITY. P. Allen Hammer.

STATISTICAL APPROACHES TO STUDIES INVOLVING ANNUAL CROPS. Elmer E. Remmenga.

STATISTICAL APPROACHES TO STUDIES INVOLVING PERENNIAL CROPS. William H. Swallow.

INTERPRETATION AND PRESENTATION OF RESULTS. Thomas M. Little.



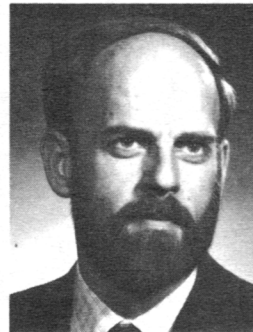
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## INTRODUCTION TO THE SYMPOSIUM

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Statistics is a very important tool for the horticultural scientist. But, like any tool, statistics can be, and often is, misused and abused. In nearly all cases the misuse is not intentional but rather a misunderstanding of how to correctly use the tool.

As a science, statistics is rather young and as such is undergoing improvement and change. It is important that we make ourselves aware of these advances. The Working Group on Growth Chambers and Controlled Environments sponsored the symposium to sensitize all of us to the role statistics should play in horticultural research. Over the past 10 years the working group has been deeply involved in

improving the use of controlled environments as a tool. This symposium is a natural offshoot of that work but aimed at understanding statistics as a tool in all horticultural research.

Certainly, a single symposium can neither make statisticians out of us nor make us want to become statisticians. However, it can make us sensitive to the role statistics and statisticians can play in our research. As you read the papers, remember that statistics is a powerful *tool* to help in answering questions important to horticulture. Statistics does not ask the "right" question or improve a poorly designed experiment, but statistics and statisticians, when used properly, can help in the design and analysis of studies that attempt to answer questions posed by horticultural scientists.

<sup>1</sup>Associate Professor.