

REPORTING GUIDELINES IN PRACTICE: A GOOD IDEA, BUT DOES ANYONE TAKE ANY NOTICE?

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The standardisation of the reporting of environmental parameters in experiments in which plants are grown is essential if meaningful comparisons are to be made between experiments. To this end guidelines developed by the American Society for Horticultural Sciences for scientists reporting research on plants grown in controlled environment chambers have been incorporated into key reference works (ASAE 1992; Salisbury 1996). However, these guidelines are only of any use if journal editors insist on their use and then ensure that they are adhered to.

Fifteen major botanical journals from around the world were surveyed. Papers about plants grown in controlled environment chambers were scored for correct reporting of environmental parameters in thirteen categories as laid down in the guidelines. Whilst the air temperature in which plants are grown is usually well reported, other parameters are listed more variably. Substrate temperature and air velocity in growth chambers are very poorly reported, whilst atmospheric carbon dioxide concentrations, electrical conductivity and pH of nutrient solutions are also poorly covered.

One reason for this non-adherence to the guidelines could be that their use is not stipulated for authors submitting manuscripts. The instructions to authors of 29 botanical journals were examined, and only those for *Plant Physiology* made reference to the guidelines. An additional two journals stated that growth conditions should be reported and four listed some parameters required.

The findings are discussed in relation to the need for standardisation of reporting of plant growth conditions.

References

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