Vegetable Cultivar Testing: Introduction to the Symposium

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Choice of the most appropriate cultivars is a key decision that vegetable growers face every growing season, and one on which the profitability of the crop depends. Evaluation of cultivars for adaptation to local growing conditions is therefore of crucial importance to extension and research personnel that serve the vegetable industry and the companies that are developing and releasing vegetable cultivars. The present-day climate of restricted budgets and pressure to move from applied to more basic research has forced experiment station and university personnel in North America to abandon or greatly reduce vegetable cultivar testing. The seed industry has traditionally relied on both public institutions and its own grower-cooperators to evaluate the merits of new lines. Increasingly, seed companies face requests for funding of these public trials, or are asked to pay entry fees to submit new cultivars for testing.

In Europe, cultivar testing has been more formally organized for many years, with separate government institutions responsible for testing and deciding which cultivars merit inclusion in official lists. The considerable cost of these programs is also forcing changes in testing methodology at present. Although one can assume that good-quality seed of a large number of cultivars of most vegetable crops is available for purchase by growers in developed countries, cultivar testing in developing countries of the tropics requires much more concern with availability of good-quality seed of adapted cultivars after testing. Techniques of cultivar testing are often taken for granted, but may be major causes for meaningless results and wasted effort. This consequence is true not only in temperate areas but also in the tropics, where work with little-known species may require considerable preliminary experimentation to establish valid testing criteria.

The symposium authors address these and other major issues related to cultivar testing of vegetables and seek solutions to some of the questions posed below: a) How can vegetable cultivar testing be done more cheaply and efficiently? b) Who should be doing vegetable cultivar testing? c) Who should pay for vegetable cultivar testing, and how much does it cost? d) How can cultivar testing techniques be improved?