

Rapporteur's report

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The participants felt that Standard International Field Trials (SIFT) take into account both resistance and adaptation towards development of varieties and should continue for the benefit of developing countries. The comment was made that fewer representative sites should be used and results disseminated from them.

Although the presentations of this session dealt with international testing and evaluation, most of the discussion was about breeding and R-genes. The use of R gene-free cultivars was endorsed by many and some felt that breeding in the absence of R genes is essential. Another opinion was that breeding parents should be the best available regardless of whether some R genes are present since the possibility of releasing varieties with both vertical and horizontal resistance would be desirable providing that selections were made with complex races of the pathogen during intense epiphytotics. It was suggested that the use of *Solanum demissum* R genes is not

necessarily undesirable in all circumstances. For example, race 9 is not present in Poland and race 5 is rare.

There was agreement that better sources of genes are needed. It was suggested that non-*S. demissum* R genes be studied, as they might be different and more durable. Also, emphasis should be on seeking genes with large effects, but avoiding R gene-type resistance or hypersensitivity. A comment was made that *S. berthaultii* gives a hypersensitive reaction like that of R genes, but the reaction is caused by several minor genes. It was noted that R genes 1, 3, 4 and 7 were present in early Indian varieties, and the corresponding pathogen virulences developed. However, there seemed to be no explanation why new virulences are not related to R genes in the Indian varieties released in the last twenty years. The consensus was that effort must be spent in resolving these issues.