

source guide is the CMI AAB *Descriptions of Plant Viruses* (4). For new viruses, the best hosts to try are *Chenopodium amaranticolor*, *C. quinoa*, *Vigna unguiculata* spp. *sinensis*, and *Phaseolus vulgaris*. If problems are encountered in obtaining the required numbers of local lesions, the response can often be increased by leaving the plants in the dark for 24 h prior to inoculation (5). Age of the plant can also be important. For example, the susceptibility of primary leaves of cowpea to cucumber mosaic virus decreases markedly when trifoliate leaves begin to appear.

7. If it is necessary to make more than just simple comparisons of samples, and if anything other than large differences are sought, the local lesion data requires some statistical analysis; **refs. 6–8** review the analysis in more detail.

## References

1. Holmes, F. O. (1929) Local lesions in tobacco mosaic. *Bot. Gaz.* **87**, 39–55.
2. Matthews, R. E. F. (1991) Methods for assay, detection, and diagnosis, in *Plant Virology* (Matthews, R. E. F., ed.), Academic, San Diego, pp. 11–52.
3. Fulton, R. W. (1962) The effect of dilution on necrotic ringspot virus infectivity and the enhancement of infectivity by non-infective virus. *Virology* **18**, 477–485.
4. Descriptions of Plant Viruses. Commonwealth Mycological Institute, Association of Applied Biologists, Kew, Surrey, England.
5. Bawden, F. C. and Roberts, F. M. (1947) The influence of light intensity on the susceptibility of plants to certain viruses. *Ann. Appl. Biol.* **34**, 286–296.
6. Kleczkowski, A. (1949) The transformation of local lesion counts for statistical analysis. *Ann. Appl. Biol.* **36**, 139–152.
7. Kleczkowski, A. (1950) Interpreting relationships between concentrations of plant viruses and numbers of local lesions. *J. Gen. Microbiol.* **4**, 53–69.
8. Roberts, D. A. (1964) Local-lesion assay of plant viruses, in *Plant Virology* (Corbett, M. K. and Sisler, H. D., eds.), University of Florida Press, Gainesville, pp. 194–210.