

KORTE MEDEDELINGEN

AN IMPROVED GLASS SPATULA FOR INOCULATING PLANTS WITH VIRUSES

BY

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The plant virologist has used several different types of instrument to replace the inoculation needle of the bacteriologist and mycologist. One of these was the ground glass spatula, used in conjunction with carborundum or some other abrasive agent. This proved to be very efficient, particularly for making inoculations from single lesions when the quantity of inoculum is very limited. But it was a tedious task to inoculate large numbers of plants with a glass spatula and a quicker method of inoculation was demanded; the outcome of which was the use of the forefinger. Many good results were, and are still, obtained by using the forefinger for inoculation, but when working with more than one virus during a day, including some highly infectious ones, such as some of the strains of the tobacco mosaic virus, the writer found it difficult, if not impossible, to disinfect his forefinger as thoroughly as he could disinfect a glass spatula.

This problem, together with the demand for a speedy method, suggested a ground glass spatula with a reservoir for containing the inoculum (see fig. 1). This was made of a piece of glass tubing 6 mm in diameter and from 10 to 12 cms long. One end was flattened and bent to an angle suiting the convenience of the worker. At the „heel” a small tube was pulled out which was then ground off to the same level, or a little shorter than the under surface of the flat part, which was also ground.

With this instrument, any quantity of inoculum, from one drop to the maximum capacity of the instrument can be used, and it can also be applied very sparingly. Experience proved that even the very sensitive leaves of *Datura stramonium* could be inoculated successfully without showing any visible signs of mechanical damage, provided that the abrasive was used very sparingly and the leaves were supported on a folded piece of soft paper (see fig. 2). With this glass spatula, as with all others, any contact of the hands with either inoculum or the plant to be inoculated is entirely eliminated. This method of inoculation thus fully complies with the established standards of aseptic working methods and, furthermore, it does not take longer than using the forefinger.

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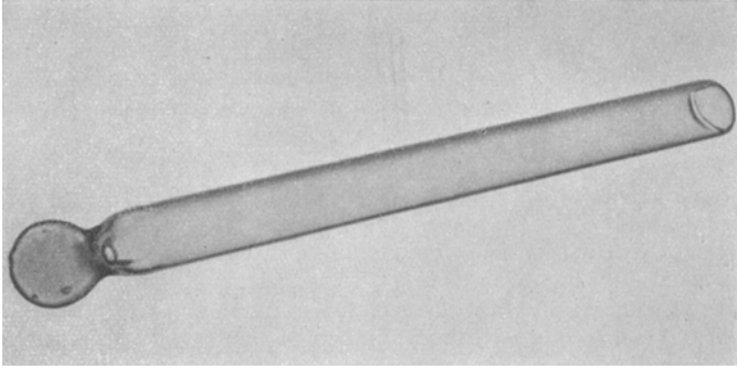


Fig. 1. Glass Spatula.

(Photographed by S. Frey)

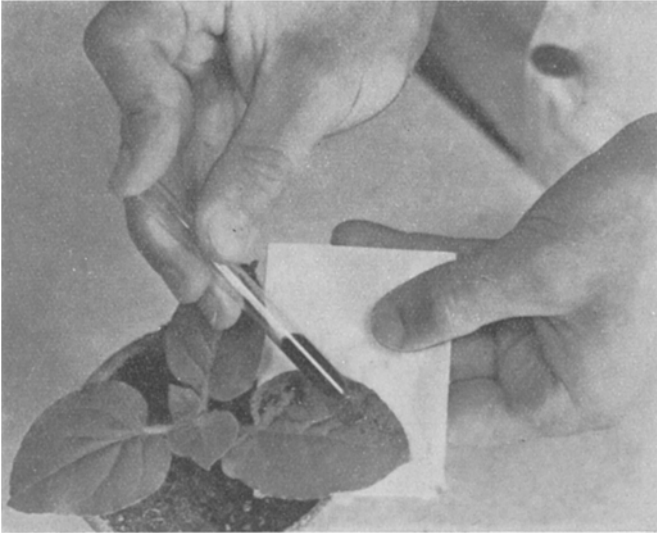


Fig. 2. Method of using the glass spatula.

(Photographed by S. Frey)