Table 1. Number of local lesions produced by various inoculums

<table>
<thead>
<tr>
<th>Source of inoculum</th>
<th>TMV</th>
<th>PVX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virus-infected leaf (inoculum I)</td>
<td>142</td>
<td>98</td>
</tr>
<tr>
<td>Isolated chloroplast of chlorotic areas of virus-infected leaf (inoculum II)</td>
<td>50</td>
<td>36</td>
</tr>
<tr>
<td>Isolated chloroplast from green area of virus-infected leaf (inoculum III)</td>
<td>12</td>
<td>8</td>
</tr>
</tbody>
</table>

*Local lesions on 20 leaves of C. amaranticolor.

Table 1 indicates that the inoculum prepared by chloroplast isolated from the chlorotic tissues (inoculum II) caused similar type of local lesions as caused by inoculum I and also the number of local lesions was found more or less the same. But the inoculum of chloroplast from non-chlorotic areas (green area) from the same infected leaf produced fewer number of local lesions than that of chloroplast of necrotic areas of the same virus-infected leaf with both the viruses.

In the present study the inoculum prepared by isolated chloroplast of virus-infected leaf produces similar local lesions as of virus-infected leaf itself. This proves the presence of virus particles inside the chloroplast of N. tabacum leaves.

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A RAPID TECHNIQUE FOR OBTAINING LEAF PRINTS FOR STOMATAL COUNT WITH FEVICOL

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Stomatal resistance to the diffusion of water vapour or carbon dioxide from leaf surface can be regulated by stomatal frequency, stomatal size and opening closing of the stomata. Genetically, it is possible to control stomatal resistance by selecting for suitable stomatal size and frequency. The techniques for stomatal examination described earlier are time-consuming, and often the method alters the impression of leaf surface and prints are disturbed.

Fevicol (Fidilite Industries Pvt. Ltd, Bombay) is a commonly used synthetic adhesive. It is much easier

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Figures 1 and 2. 1. Application of Fevicol over leaf surface using a needle; 2. Open and closed stomata of *Triticum dicoccum*. 
to remove from the leaf surface after drying. A simple and quick technique, by which one sample can be taken in 2–3 min, is described below.

i) Fervicol mix is gently applied (figure 1) on the leaf surface over an area of 1.5 to 2 cm², and is allowed to dry for 1–2 min.

ii) The dry Fervicol is removed carefully with a pin till a fine film is separated from the leaf.

iii) The fine film is removed and immediately placed on a slide.

iv) The Fervicol film, which has an impression of the leaf surface, is cut into pieces of suitable size using a sharp razor. The pieces are properly arranged and pressed on the slide using another plane slide.

v) The slide is ready for immediate microscopic observation or can be stored for an extended period. On one slide 2, 3 or 4 samples can be mounted according to convenience.

Using this technique a large number of plants in a segregating population can be screened. Leaves or portions of leaves are not separated from the plant and there is no damage to the plant. The stomata and epithelial cells can be easily observed (figure 2) and counted for monocots and dicots (simple or compound leaves/grasses, fleshy leaves). Slides prepared by this method have been preserved for more than a year.

NEW TECHNIQUE TO CULTURE NEOVOSSSIA INDICA ON YEAST POTATO DEXTROSE AGAR

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CULTURES of Neovossia indica (Mitra) Mundkar have been obtained by various workers by inducing teliospores to germinate in water or in yeast potato dextrose broth medium amended with soil extract. The floating colonies produced in 18–20 days at 20°C are then transferred to yeast potato dextrose agar (YPDA) slants and subcultured by placing a small growing bit from the liquid culture. Sporidal cultures were then produced in a week's time. We have been able to culture the pathogen by directly inoculating the YPDA slants with dry teliospores (figures 1 and 2). Well-formed sporidial colonies of allantoid sporidia were obtained in three weeks at 20°C in all the slants inoculated. It is suggested that sporidial cultures may be obtained by direct dusting of teliospores on YPDA slants, as it is a less time-consuming procedure and requires no subculturing for the production of allantoid sporidia. This is contrary to the earlier belief that free floating of teliospores on liquid substrate is essential for teliospores to germinate and grow.

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Figures 1 and 2. 1. Teliospores on the surface of YPDA slants. 2. Colonies grown from teliospores.

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