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Homoeopathic Drugs as Inhibitors of Tobacco Mosaic Virus

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Control of plant virus diseases by homoeopathic drugs has been tried by a few workers in the past (Verma et al., 1969; Khurana, 1971 and Abidi et al., 1977). In mosaic and papaya mosaic viruses, a few more drugs were tried in the present investigation.

MATERIALS AND METHODS

Thyroidinum and Uranium nitricum of 3x potency were raised to 7x potency and converted into liquid base using distilled water. Sulphur 100, Carcinocin 1000, Morgan 30; Dolichos 6 x ray 30, Influenzinum 200 and Vaccinium 30 were raised to next higher potency by adding 99 ml of distilled water in 1 ml of the drug and giving proper Succussion to it.

Culture of TMV was maintained on *Nicotiana tabacum* var white burley. The experiments were carried out on *N. glutinosa*, a hypersensitive host of TMV. Sulphur, Carcinocin, Morgan, Dolichos, Thyroidinum and Uranium nitricum were sprayed on the plants

after 15 minutes and 24 hrs of virus inoculation while Influenzinum, X-ray and Vaccinium were sprayed twice (48 hrs and 24 hrs) before virus inoculation.

Inoculum of TMV was prepared by macerating young infected leaf tissue in a pestle and mortar with equal amount of 0.01 M, pH 7 phosphate buffer. The slurry was centrifuged at 5000 rpm for 15 minutes and the supernatant, thus obtained was used as inoculum.

Inoculations were made by rubbing on leaves dusted with corborundum power. Lesions were counted on fourth day of virus inoculation and percent inhibition was calculated by comparing with check plants.

RESULTS.

Influenzinum, vaccinium and X-ray when sprayed before virus inoculation on *N. glutinosa* plants did not exert any kind of protection. Instead, the number of lesions were enhanced in treated plants as compared to controls.

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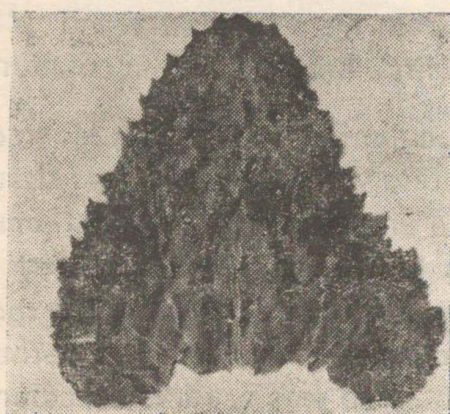
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Out of 6 drugs tried from therapeutic point of view, Thyroidinum and Uranium nitricum were found to be more effective in decreasing the number of local lesions as compared to Morgan. Spray of Dolichos, Sulphur and Carcinocin, however, had no marked effect in reducing the number of local lesions.

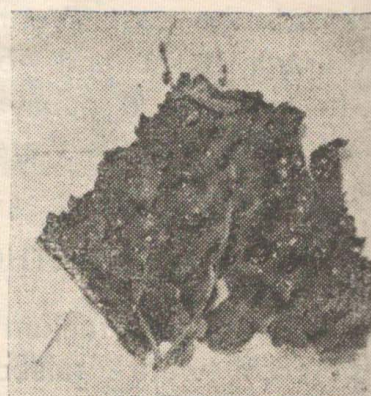
Table 1 :

Effect of post-inoculation sprays of some drugs on number of local lesions produced on *N. glutinosa* by tobacco mosaic virus.

Drugs	Potency	Percent Reduction in Number of lesions over Control
Thyroidinum	7x	45
Morgan	31	21
Uranium nitricum	7x	46
Dolichos	7	Nil
Sulphur	102	Nil
Carcinocin	1001	Nil



A—Photograph of untreated leaf of Control Plant Showing Pathological lesions after Viral inoculation.)



B—Photograph showing treated leaf with Homeopathic Drugs.

DISCUSSION

Search for inhibitors of plant virus-multiplication has not been very successful inspite of continued efforts during the past several decades. Our investigations as well as previous records have yielded enough encouraging results to explore the use of homeopathic drugs for prevention and control of plant virus diseases.

It is obvious that systematic approach towards control of viral maladies of the plants through homeopathic drugs might yield some reliable and concrete

data. It would be worth while to work in two lines; (i) to prepare drugs from infected plant tissue in accordance with the theory of homeopathic nosodes and observing their prophylactic effect against plant viruses. (ii) to screen various available drugs on healthy plants for development of virus like symptoms (proving) with a view to select the drugs for controlling different viral diseases. Such approach in future might prove a headway towards control of plant viruses which otherwise are difficult to manage.

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Green Revolution by Homoeopathy

(Continued from page 300)

6. The quality of the yield (vegetable, fruit, grain) is well formed and tasty.
7. In the chemical fertilizer, the quantity is to be increased every year while the quantity of capsules are to be decreased every year. 120 capsules in the 3rd, 4th and 5th crop and any further use of capsules is not needed in 6th 7th and 8th crop. But the yield is the same as in the first crop, this the fertility of land is preserved.
8. The seed of the crop becomes hybrid in each crop when homoeopathic capsules are used.
9. The continuous use of the chemical fertilizers make the soil hard which also injures the feet of the farmers but when the homoeopathic capsules are used, the fertility of land increases everytime, the soil remains soft and farmers get rid of the injury to their feet.

Dr. Omprakash Sharma, village: Kasaravad, Distt. Khargone, M.P. got 9" long beans and 3 ft. long bottlegourd with the usual taste maintained by the use of above homoeopathic mixture.

Dr. B. L. Jain, Dewas, M.P. got tasty and larger maize cobs by the use of same mixture. Shri Bhagwatiprasad Sharma, Civil Hospital, Shajapur, M.P. has got a considerate change in the flowers and the brinjals by the use of same mixture, for 12 days continuously. Shri Dattatreya Dange, LIC. Ujjain has informed in writing to Ujjain Unit regarding the yield of sweet and larger papayas and fragrant flowers of rose, jasmine, mogra etc. in larger quantity.

Not only the farmers of East & West but the farmers of Maharashtra also have started taking profit by the use of homoeopathic Capsules.

The homoeopaths should cooperate with each other, following the principles of Hahnemann, making their joint contribution for a healthier nation by helping in the eradication of tropical diseases and should strive by heart, head, hand and should be curing the nation of its tropical illnesses, bringing a socio-economic change in the society.

This can be the only tribute to HAHNEMANN, the father of Homoeopathy.