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International Organization of Citrus Virologists Conference Proceedings (1957-2010)

Title

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Permalink

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Journal

International Organization of Citrus Virologists Conference Proceedings
(1957-2010), 7(7)

ISSN

2313-5123

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Publication Date

1976

DOI

10.5070/C573p3d8zq

Peer reviewed

Growth of Exocortis-Infected Citrus on Dabeh Rootstock

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Dabeh is a local citrus clone grown in the Khuzestan plain for its large citron-like fruits. Although the foliage and fruits indicate citron parentage they differ in character from Etrog and other true citrons. Seedlings are very vigorous and uniform indicating asexual seeds. Because of this vigor it has occasionally been used for rootstock. Virus-free clones of various kinds of citrus grown on Dabeh are also vigorous. Its extreme susceptibility to phytophthora gummosis, however, has reduced its usefulness.

Redblush grapefruit and local Dezful orange budded onto Dabeh produced small compact trees less than one meter

high after two years in the orchards. These were in contrast to trees of the same age grown from the same bud sources on Cleopatra mandarin which were over two meters high. The dwarfed trees had dense dark green foliage and appeared healthy, other than being dwarfed. They set many fruits both the first and second year in the orchard and developed typical exocortis bark shelling lesions below the bud union (Calavan and Weathers, 1961). Sprouts of the Dabeh rootstock showed no leaf distortion similar to that of exocortis on Etrog citron (Garnsey and Cohen, 1965; Kapur *et al.*, 1974).

DISCUSSION

The purpose of this report is to indicate Dabeh as a possible new indicator host for the study of exocortis virus strains such as reported by Kapur *et al.*, (1974), Rodriguez *et al.*, (1974), and Calavan and Weathers (1961). Because of its strong reaction to one strain of exocortis virus it may be useful for the study of others, particularly mild strains. It may

also be useful for the production of dwarfed trees as suggested by Cohen (1968, 1969, 1974). Small trees are reported to have borne heavy crops even at two years of age. To be useful, exocortis-free orchard trees on Dabeh would have to be grown until they reached the desired size before inoculation with exocortis virus.

LITERATURE CITED

- CALAVAN, E. C., AND L. G. WEATHERS
1961. Evidence of strain differences and stunting with exocortis virus, p. 26-33. *In* W. C. Price, (ed.), Proc. 2nd Conf. Intern. Organization Citrus Virol. Univ. of Florida Press.
- COHEN, M.
1968. Exocortis virus as a possible factor in producing dwarf citrus trees. Proc. Fla. State Hort. Soc. 18:115-19.
- COHEN, M.
1969. Exocortis virus as a possible factor in producing dwarf citrus trees. Citrus Industry. 50:21-23.
- COHEN, M.
1974. Effect of exocortis inoculations on performance of Marsh grapefruit trees on various rootstocks, p. 117-21. *In* L. G. Weathers and M. Cohen, (eds.), Proc. 6th Conf. Intern. Organization Citrus Virol. Univ. California Div. Agr. Sci., Berkeley.

GARNSEY, S. C., AND M. COHEN

1965. Response of various citron selections to exocortis infection in Florida. Proc. Fla. State Hort. Soc. 18:41-48.

KAPUR, S. P., L. G. WEATHERS, AND E. C. CALAVAN

1974. Studies of exocortis virus in citron and *Gynura aurantiaca*, p. 105-09. In L. G. Weathers and M. Cohen, (eds.), Proc. 6th Conf. Intern. Organization Citrus Virol. Univ. California Div. Agr. Sci., Berkeley.

RODRIGUEZ, O., A. SALIBE, AND J. POMPEU, JR.

1974. Reaction of nucellar Hamlin orange on Rangpur lime to several exocortis strains, p. 114-16. In L. G. Weathers and M. Cohen, (eds.), Proc. 6th Conf. Intern. Organization Citrus Virol. Univ. California Div. Agr. Sci., Berkeley.