

## New Resistant Rootstocks from Geneva

JAMES N. CUMMINS\* AND HERB S. ALDWINCKLE

A new series of apple rootstocks from the Geneva breeding program will reduce potential for damage by diseases and pests and will also reduce need for chemical controls. Two resistant rootstocks, 'Novole' and Geneva 65, have been introduced and should become available for orchard planting in 1995 or 1996. Others have also been distributed to licensed rootstock propagators.

Geneva 65 (G.65) is suitable for the most intensive orchard systems. This new introduction is almost immune to fire blight, unlike any other dwarfing rootstock now in commerce. Compared to Malling 9, G.65 is somewhat more dwarfing, more precocious, slightly more productive, better anchored and more winter hardy and has fewer burrknots and more suckers. G.65 is tolerant to *Phytophthora* root rot, resistant to apple scab and powdery mildew, and moderately susceptible to woolly apple aphids.

'Novole' is very tolerant to *Phytophthora* and resistant to scab and fire blight and has "non-preference" resistance to meadow voles and pine voles. 'Novole' is more vigorous than standard seedling, so it must be used under a

high-worked resistant interstem. Also, 'Novole' is sensitive to apple stem grooving virus, so virus-free scionwood must be used.

Two Cornell-Geneva selections that challenge Malling 26 and M.7 will probably be released next fall. Both are tolerant to *Phytophthora*, resistant to fire blight, and moderately susceptible to woolly apple aphids. Both induce very early, heavy cropping.

We are continuing to evaluate other advanced selections that are resistant to woolly aphid and fire blight and tolerant of *Phytophthora*. These represent the entire range of vigor from Malling 9 to standard seedling. We expect to see further introductions from this group.

All the Geneva introductions have less tendency than the Malling and Malling-Merton rootstocks to develop burrknots. This will mean less likelihood of infestation by plum borer and dogwood borer and may make it possible to eliminate the two Lorsban sprays now required to control these pests. The new Geneva rootstocks will not directly reduce the susceptibility of the scion variety to the diseases and pests considered.

\*New York State Agricultural Experiment Station, Cornell University, Geneva, NY 14456.

### U. P. Hedrick Judges

The American Pomological Society extends sincere appreciation to the following members who served as judges for the 1993 Hedrick Awards.

Susan K. Brown, Dept. of Horticultural Sciences, Geneva, NY

David G. Himelrick, Dept. of Horticulture, Auburn, AL

John M. Smagula, Dept. of Plant and Soil Science, Orono, ME