

Poorman orange and Troyer citrange was found to be superior to that of the other varieties (Fig. 1), particularly since they exhibited high rooting percentages already after 20 days, while all the other rootstocks began rooting only 10 days later. Evidently, also, the hormonal treatment generally improved rate of rooting, which in the case of sour orange and 48/21 was statistically significant ($P = 0.05$).

Nematode infection of roots produced by leaves was studied on "Eureka" lemon (*C. limon* L.); sour orange; citrumelo (*P. trifoliata* × *C. paradisi* Macf.); and *Severinia buxifolia* Poir. Of these, the former two are known to be susceptible and the latter two resistant, to varying degrees, to the Israeli populations of the citrus nematode (Gottlieb, Cohn & Spiegel-Roy, 1986). Leaves of these plant varieties were rooted as described above, then transferred into plastic containers on a medium of peat and sand (2 : 1), and kept in a growth chamber at $25 \pm 1^\circ$. The plants were inoculated by introducing 17 500 free-living stage *T. semipenetrans* into the rhizosphere, and were removed for examination of nematode buildup four months later (Fig. 2). Nematode infection and multiplication were determined by counting the

Table 1

Citrus nematode infection rate of roots produced by leaves from different rootstocks

| Rootstocks | No. of replicates | Mean no. of nematodes/g root* |
|---------------------|-------------------|-------------------------------|
| "Eureka" lemon | 4 | 2173 ± 609 |
| Citrumelo | 7 | (6 ± 1) |
| <i>S. buxifolia</i> | 9 | (3 ± 1) |
| Sour orange | 4 | 1130 ± 192 |

* Parentheses indicate no adult females present on roots.

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number of free-living stages emerging from roots incubated overnight in modified Baermann funnels. Results (Tab. 1) indicate that whereas leaf roots of the susceptible varieties showed a high degree of nematode infection, the two resistant varieties did not support nematode reproduction.

Free-hand cross-sectioning of infected susceptible leaf roots revealed a similar pattern of nematode parasitism as that known from normal citrus roots, viz. embedding of the female head within the cortical tissue of the root, surrounded by a small feeding zone comprising a number of discolored parenchyma cells (Cohn, 1965).

We conclude, therefore, that roots produced by leaves in citrus species and hybrids are functionally similar to natural roots in their reaction to parasitism by *T. semipenetrans*, and can serve as a useful tool for rapid evaluation of resistance to the citrus nematode.

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ON MACROPOSTHONIA AND CRICONEMOIDES, AGAIN (NEMATA : CRICONEMATIDAE)

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In his recently published book on Tylenchida Siddiqi (1986) revalidated the genera *Macroposthonia* de Man, 1880 and *Criconemoides* Taylor, 1936. Both these genera have been declared *genera dubia*, and so rejected, by Luc

and Raski (1981), who presented a detailed and factually based argumentation for such a nomenclatorial action. Consequently most of the species in these two genera were placed in the genus *Criconemella* De Grisse &

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Loof, 1965. Luc and Raski (1981) proposed a wider concept for that genus, which in its new definition, is " used increasingly by taxonomists and non-taxonomists " (Siddiqi, 1986).

The history of nomenclature within Tylenchida, and particularly Criconematidae, contains several examples of such creation, rejection and revalidation of names of genera, but these changes have been the consequence of detailed studies, rediscovery and description of type specimens, etc.; on short, changes have originated from new data or at least of more careful examination and argumented interpretation of the data already known. At each step, arguments are offered to justify the change proposed. Thus the revalidation of *Macroposthonia* and *Criconemoides* by Siddiqi (1986) should be acceptable, for further consideration provided the author offered sufficient arguments for such a purpose. Such is not the case :

— concerning both genera, Siddiqi (1986) declared they " have unjustifiably been rejected by Luc & Raski (1981) " (p. 387);

— this sentence is the only one concerning *Macroposthonia*, and Siddiqi (1986) gave no arguments for revalidating this genus; we do not believe that such a simple statement may constitute a valid argument. (Siddiqi (1986) cited also some nematologists who approved (*in litt.*) his position. This kind of " argument " necessitates an answer : *i*) we believe that the " authority argument " has been abandoned in science for more than two centuries; *ii*) none of the nematologists cited by Siddiqi published their argumentation against rejection of the genera; *iii*) we have received several letters approving our action, but we do not consider them as an argument having a taxonomic value.);

— concerning *Criconemoides*, the argumentation is somewhat more developed. Siddiqi (1986, p. 399) argued on the fact that when they revalidated *Criconemoides* (after having rejected it some years before) Loof and De Grisse (1967) produced measurements, and mainly " 4 excellent photographs " of what Siddiqi called the lectotype of the type species, *C. morgensis* (Hofmänner *in Hofmänner & Menzel*, 1914) Taylor, 1936; consequently, even if this " lectotype " has been lost after Loof and De Grisse took its measurements, it remains valid since a photograph can be sufficient indication (Art. 74 (b) of the International Code of Zoological Nomenclature). Unfortunately, the " four indeed excellent photographs " are not those of the Hofmänner's type of *C. morgensis* but of a neotype pertaining to *C. pseudohercyniensis* De Grisse & Koen, 1964, a species

which Loof and De Grisse (1967) considered as identical with *C. morgensis*. We presented evidence (Luc & Raski, 1981) to prove the original drawings of *C. morgensis* (in Hofmänner & Menzel, 1915) do not fit on several and important points with what is known for *C. pseudohercyniensis*; consequently the neotype designated by Loof and De Grisse (1967) was invalidated, and the type of *C. morgensis* not being extant, *C. morgensis* type species, was declared *species dubia* and *Criconemoides genus dubium* (see Luc & Raski, 1981).

Consequently : *i*) we cannot see any reason to modify our past nomenclatorial action concerning the genera *Macroposthonia* and *Criconemoides* and we maintain that this action was particularly well justified; *ii*) due to the lack of arguments (*Macroposthonia*) and to a basic error (*Criconemoides*) we declare the action of Siddiqi (1986) in revalidating these two genera as not justified, and consequently we reject it and *iii*) declare again the genera *Macroposthonia* and *Criconemoides* as *genera dubia*.

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