found. The fungus makes its appearence as a small circular powdery growth on both surfaces of the leaflets and becomes irregular as it spreads. During severe infection the entire surface becomes covered with the fungus leading to serious defoliation.

Mycelium superficial, creeping, septate, hyaline, 4–6 μm thick, attached to the host by multilobed haustoria (Figure 1b); conidiophores erect, cylindrical, 1–3 septate, hyaline, measuring 52-125 × 5.6–11 μm; conidia single celled, oblong to cylindric, rarely ovoid, hyaline, thin walled, wall not smooth, catenulate, acrogenus, measuring 24-46 × 12-21.6 μm, fibrosin bodies inconspicuous; conidia germinating immediately producing a single germ tube, sometimes upto 145 μm in length (Figure 1d) with an appressorium at the tip. The appressoria are variously shaped (Figure 1c).

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ALL PLANT MYCOPLASMAS ARE NOT *SPIROPLASMA*

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It is true that the most exciting developments in mycoplasmatology during the past ten years have been in the field of plant and insect mycoplasmas. The successful cultivation *in vitro* of the first mycoplasma, the one causing the "Stubborn disease" of citrus[1], led to the addition of the genus *Spiroplasma*[2,3], whose members are charactierized by their helicity and 'cork screw' motility. Later, two more Plant mycoplasmas were identified as spiroplasmas[4-6]. Razin[7] in his review generalized that all plant mycoplasmas fall under the genus *Spiroplasma* and are not species of *Mycoplasma* as believed earlier. We wish to convey through this note, a word of caution against any such generalization.

With a view to ascertaining the nature of causal agent–*Mycoplasma* or *Spiroplasma*,–we have examined the sieve elements of internodes supporting "little leaf" disease of brinjal (*Solanum melongena* L.) of mycoplasmal etiology[8] under transmission electron microscope and phase contrast microscope. The method of Davis and Worley[2,9] was followed in the preparation of the material for electron microscopy. Internodes of the infected brinjal plants were fixed in 3% glutaraldehyde and post fixed in 2% osmium tetroxide and were embedded in Spurr resin. Ultrathin sections were mounted on the formvar coated grids and were stained with uranyl acetate and lead citrate. Electron micrographs were taken on Phillips 400 EM. Thick sections were observed under phase contrast microscope, as the spiral nature is revealed by this technique[9]

The electron micrograph of the infected sieve element (figure 1A) clearly shows the presence of pleomorphic bodies of various sizes, each bounded by unit membrane. No helical filaments could ever be seen in any of the large number of sections of varying thickness examined. Our repeated observations of thick sections of the infected phloem tissue under phase contrast microscope also never showed any helical filaments (figure 1B). Further, the cut pieces of uniformly-thick helical body of a *Spiroplasma* would never be so variable in their diameter. Our attempts to culture the organism in a medium (PPLO broth base 21g/l; yeast hydrolysate 5g/l; fructose 1g/l; glucose 1g/l; sucrose 16g/l; horse serum 100 ml/l[3-5]; have unfortunately not been fruitful.

Under the present circumstances we are encouraged to mention that relegating all plant pathogenic mycoplasmas to *Spiroplasma*, on the basis of a few studies, will be premature.

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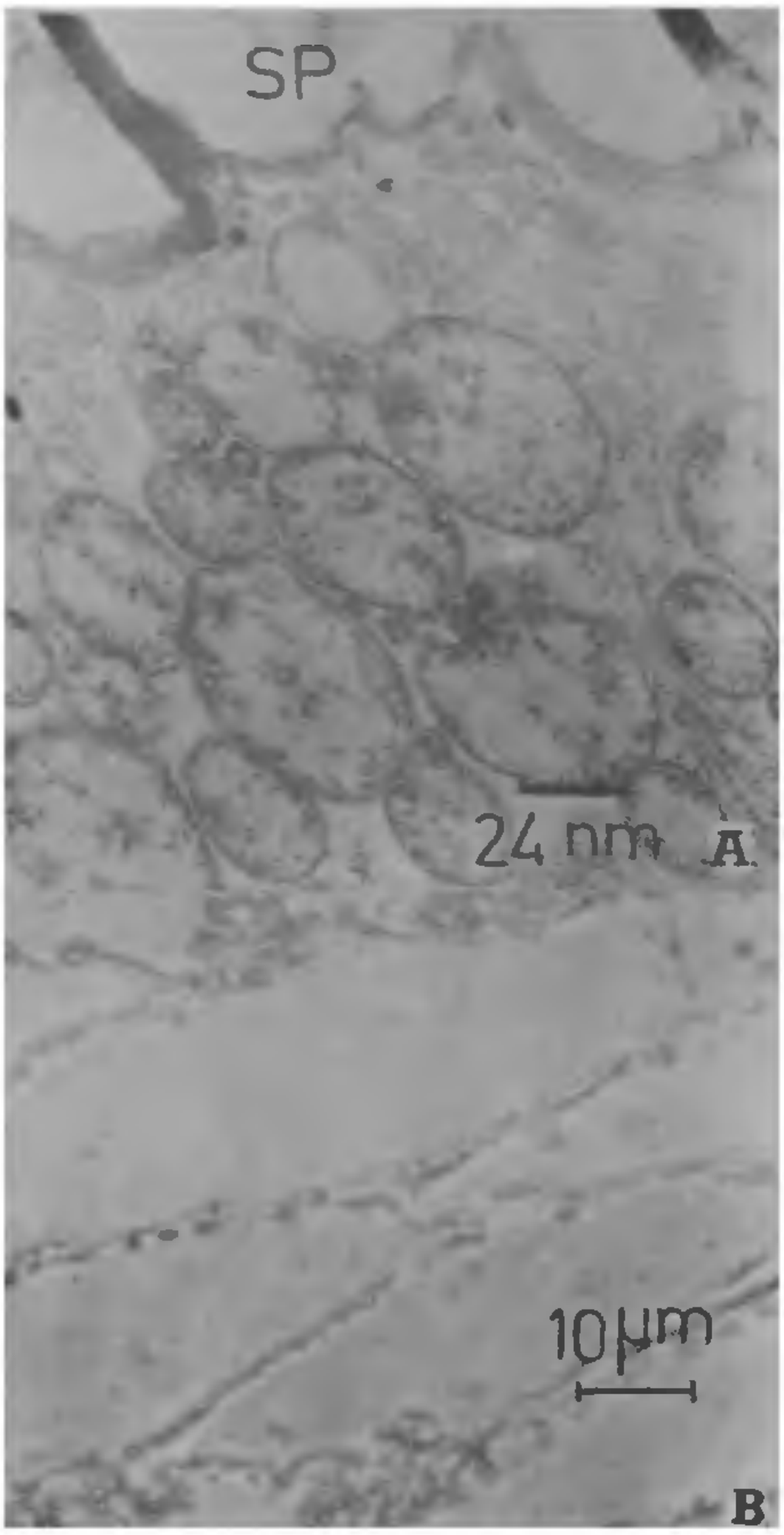

Figure 1. A Electron micrograph showing mycoplasma-like-bodies in the sieve element of little leaf disease brinjal. **B.** Phase-contrast photomicrograph of sieve elements (SP–sieve plate).

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REDUCTION IN TISSUE SENSITIVITY TO AUXIN ACTION IN GAMMA-IRRADIATED BARLEY COLEOPTILE

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MIURA *et al*[1] have shown that elongation in oat coleoptile segments was inhibited by high doses of gamma radiation through the reduction in tissue sensitivity to the applied IAA. Also, there are reports on the *in vivo* regulation of RNA metabolism *via* auxin suppression of RNase[2,3]. The present study was, therefore, undertaken to examine the ability of barley coleoptile to respond to applied IAA in terms of elongation and acid RNase activity on exposure to gamma radiation.

Surface-sterilized seeds of huskless barley (*Hordeum vulgare* L., c.v. 292) were sown aseptically on filter paper and seedlings harvested at 68 hr. After excising 2 mm portion from the tip, the coleoptiles were maintained for an hour after which 5 mm segments were taken as the test material. The segments were irradiated in ^{60}Co gamma cell at the rate of 5 kR/min, transferred to the incubation medium (2% sucrose in pH 5.0 citrate-phosphate buffer, with or without 5×10^{-6}M IAA) and then maintained in a shaking water bath for 24 hr. Percent increase over the initial length (5 mm) was determined and the values plotted against radiation doses. Crude enzyme extract for acid RNase was obtained by homogenizing twenty segments in ice-cold 0.44 M sucrose solution. The homogenate was centrifuged at 2000 *g* and the supernatant made up to 10 ml. Enzyme activity in one ml of the supernatant was assayed as difference in OD values between the test sample and the experimental blank[4,5] All operations were carried out in the dark or in green safe light and at 25° C.