against this nematode. This investigation was undertaken to screen 37 pigeonpea accessions received from the Indian Institute of Pulses Research, Kanpur, Uttar Pradesh, India against *M. incognita* and *R. reniformis* to identify possible sources of resistance.

Three to four seeds of each accession were inoculated with *Rhizobium* using 5% sucrose solution as a sticker and were sown in 15-cm diameter clay pots each containing 1 kg steam sterilized soil. After germination, plants were thinned to one per pot. Three-week-old plants were inoculated with 5,000 nematodes plant^{-1} of freshly hatched second stage juveniles (J2) of *M. incognita* or immature females of *R. reniformis*. One set of each accession was left uninoculated as a control. Each treatment, including the uninoculated control, was replicated six times. The experiment was terminated 3 months after inoculation, and the fresh mass of the plants was recorded. On the basis of disease development and reduction in plant mass, the accessions were classified into four categories: highly susceptible, susceptible, moderately resistant, and resistant (Anver 1990).

Results indicate that KA-3 exhibited resistant reaction to *M. incognita* but was susceptible to *R. reniformis* (Table 1). The variety KM-137 was resistant to *R. reinformis* and moderately resistant to *M. incognita* while KM-138 was moderately resistant to both the nematode species. The remaining varieties were either susceptible or highly susceptible to both the nematodes.

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Entomology

Tanaostigmodes cajaninae Promotes Pod Growth in Pigeonpea

Nalini Mallikarjuna and **T G Shanower** (International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Patancheru 502 324, Andhra Pradesh, India)

The pod wasp, *Tanaostigmodes cajaninae* LaSalle (Hymenoptera: Tanaostigmatidae), was first reported as a pest of pigeonpea (*Cajanus cajan*) in 1977 (Lateef 1977). It is widely distributed in India, but ocassionally causes serious damage to pigeonpea on research stations (ICRISAT 1988).

Lateef et al. (1985) described the biology of *T. cajaninae*. Eggs are laid on flowers and young pods of pigeonpea. Upon hatching the larvae enter the pod. Usually there is one larva per pod and it feeds on the seeds and/or inner pod wall. Pupation occurs within the pod and the adult emerges through a small hole made earlier in the pod wall. Lateef et al. (1985) reported that such pods fail to develop and may not be shed.

We observed stimulation of pod development when the ovaries of unopened pigeonpea flowers were infested with *T. cajaninae*. In the experiments on hybridization between *C. platycarpus* and *C. cajan*, pod formation was not observed on the hybrid plant unless it was backcrossed to either parent, because it was completely pollen sterile. However, *T. cajaninae* infestation has been recorded on *C. cajan*, the male parent used to produce the hybrid. In 1991, we observed pod development in F_1 hybrids and the pods were infested with *T. cajaninae* (Fig. 1a). The pods were small (Fig. 1b) and differed in shape when compared with the normal fertile pods.

During 1993, we recorded observations on the cause of pod formation in F_1 plants. Dissected pods showed unfertilized ovules (Fig. 1c). We observed larvae/pupae (Fig. 1d), and exit holes in most of the pods examined. Early instars of *T. cajaninae* larvae were observed in flower buds at pre-anthesis stage, indicating that the females laid eggs in the ovary before anthesis.

It is unclear why this phenomenon happened with such a high frequency (50% of flower buds) in this particular cross. We also do not know whether *T. cajaninae* females oviposit in unopened flower buds under field conditions, or whether the lack of young pods, due to infertility in this cross, forced females to select an alternative

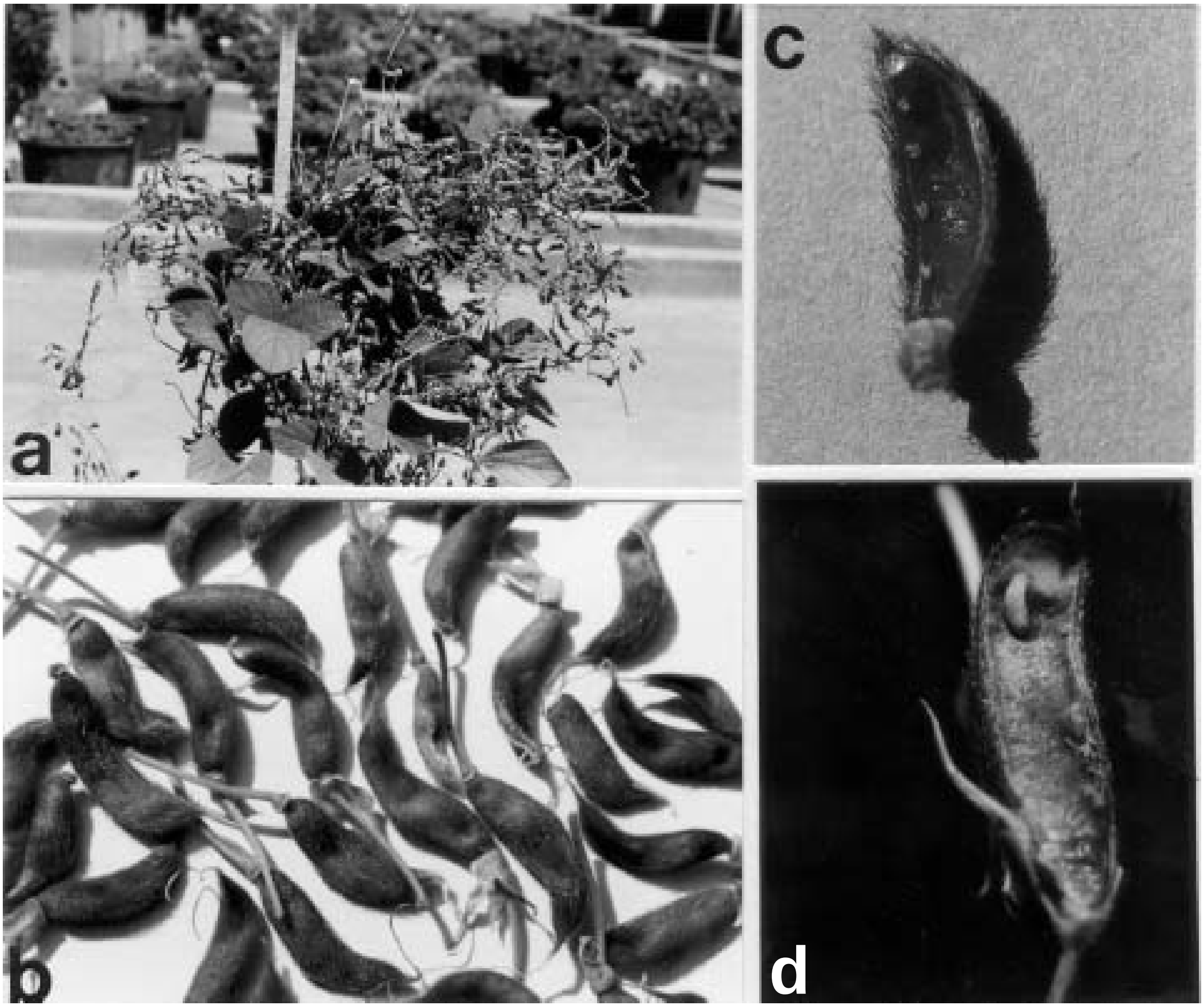

Figure 1. Pod formation induced by *Tanaostigmodes cajaninae* in the cross *Cajanus platycarpus* × *C. cajan*. (a) Hybrid plant with *T. cajaninae* induced pods; (b) Close-up of the pods; (c) Dissected pod showing unfertilized ovules; and (d) Dissected pod showing *T. cajaninae* pupa.

oviposition site. Perhaps the most intriguing question is how *T. cajaninae* induced pod development in an otherwise sterile cross.

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