Pearly root' of pigeonpea caused by Heterodera cajani

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The pigeonpea cyst nematode, *Heterodera cajani* Koshy, is an important parasitic nematode of pigenpea in India. Although the nematode may cause more than 30% loss in yield (S.B. Sharma, unpublished data), yet the foliage of infected plants shows no visible symptoms of disease even in heavily infested soil (> 31 cysts per 100 cm^3 soil). However, reduction in height and vigor of the infected plants can be discerned if they are carefully compared with healthy plants grown under protection with 6 kg a.i. per ha of carbofuran 3G.

Close examination of the root systems of 30 to 35 day-old seedlings of infected, Susceptible pigeonpea plants discloses many minute (0.36-0.68 mm × 0.27 - 0.48 mm) pearl-like white bodies attached to the roots. These are the females of *H. cajani* which erupt from the epidermis, gradually turn brown, and are later dislodged from the roots. The white females can be seen with th unaided eye, but use of a hand lens cna be helpful. Presence of many white females gives a "pearl-studded" appearace to the root system. Sometim es, the posterior region of females may show presence of yellow or violet coloured egg-sacs.

For a quick diagnosis of *H. cajani* infestation in a pigeonpea field, examination of 30 to 35 day-od seedlings, carefully uprooted, for the 'pearly root' Symptom is suggested. This is the most characteristic symptom of cyst nematode attack and is very helpful in diagnosis of cyst nematode infestation during pigeonpea crop surveys at the vegetative stage.

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