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New Records

SOME NEW HOST RECORDS FOR *CYLINDROCLADIUM QUINQUESEPTATUM* FROM INDIA

A severe leaf blight disease of clove *(Eugenia caryophyllata L.)* caused by C. *quinqueseptatum* Boedijn *et* Reitsma was found to be widely prevalent in many parts of Kerala, India which has been reported by Wilson *et al*. (1977), Peerally (1972) had reported that C. *quinqueseptatum* could infect *Anona, Camellia sinensis, Eucalyptus, Eugenia caryophyllata* and *Hevea*.

In the present study a total number of sixteen plants were tried, **of** which fourteen were found to be new records for the organism. The new host records are tapioca *(Manihot esculenta* Crantz), cashew *(Anacardium occidentals* L.), citrus *(Citrus sinensis* Osbeck), guava (*Psidium guajava* L), cherry *(Malphigia punicifolia* L.), nutmeg (*Myristica fragrans* Houtt.), clerodendran *(Clerodendran infortunatum* Gaertn), synedrella *(Synedrella nodiflora* L), lucas *(Lucas aspera* Spreng), croton (*Croton sparsiflorus* Morong), ageratum (*Ageratum conyzoides* L.), sida *(Sida acuta* L), euphorbia *(Euphorbia hirta* L.) and sapota *(Achras sapota L.)*

Sixteen common plants were artificially inoculated with the actually growing fungal culture of the test organism, of which the above fourteen were found to be the new host records for the fungus. The test plants were inoculated with the culture bit as well as by spraying them with the spore suspension of the fungus, with and without injury, both on cut twigs and on standing crop. The treated plants were covered with polythene bags for 48 hours to maintain high humidity. The observations were recorded 6 to 8 days after inoculation.

All the plants tested gave positive results with the spore suspension and symptoms produced within 4 to 5 days after inoculation. It was noticed that injury of the tissues was a pre-requisite for the successful development of symptom expressions in the case of mature tissues. Intensity of infection varied with the age of the tissue also. Symptoms produced on cut twigs and on standing crop were more or less same.

Tapioca *(Manihot esculenta* Crantz)

Symptoms appeared on the third day of inoculation as a blighted area on the surface of the leaves which soon turned ashy grey and profuse white mycelial growth of the fungus was also observed on the affected leaf surface. A general chlorosis of the plant was also observed as a result of infection.

Cashew *(Anacardium occidentale* L.)

Infection initiated as spots which varied in size measuring 2.5 to 4.0 mm in diameter. These spots soon coalesced giving a blighted appearance.

Infection extended to the leaf stalk also resulting in defoliation. On the infected twigs brown lesions with distinct margins were observed.

Citrus *(Citrus sinensis* Osbeck.)

Necrotic area was observed around the inoculated region which extended to two-third of the leaf surface. Thick whitish growth of the mycelium was observed on the under surface of the leaves.

Guava (*Psidium guajava* L.)

Symptoms were noticed on the next day of inoculation as blighting on the leaf surface which soon covered three-fourth of the lamina. Shedding of infected leaves within a few days was observed.

Cherry (*Malphigiapunicifolia* L.)

Small brown spots appeared on the leaves extending to larger areas giving patchy brown appearance. Defoliation of the leaves occurred on the sixth day.

Nutmeg (*Myristica fragrans* Houtt)

Blighted necrotic areas on the leaves were initiated within three to four days which later enlarged and extended to about two-third of the leaf area.

Clerodendran (*Clerodendran infortunatum* Gaerth.)

Symptoms developed as dark brown blighted necrotic patch which later extend to the whole leaf surface. Shot hole symptoms were also observed. Infection spread rapidly resulting in defoliation.

Synedrella (*Synedrella nodiflora* L.)

Dark brown spots appeared on the leaf surface which later coalesced with a blighted appearance. An yellowish green halo was also observed around the blighted portion

Lucas *(Lucas aspera* Spreng.)

Small brown necrotic areas surrounded by yellow halos were developed at first which later extended to the whole leaf.

Croton *(Croton sparsiflorus* Morong.)

Symptoms starated as small brown necrotic specks on the leaf surface which enlarged in size and colour and turned to black. Leaves became blighted and lost the turgidity.

Ageratum (*Ageratum conyzoides* L.)

Brown necrotic areas were developed around the inoculated portion and later extended and covered the whole lamina. Whitish mycelial growth observed on the upper surface of the leaves which defoliated later.

Sida (*Sida acuta* L)

Dark coloured necrotic areas developed which later extended and covered the whole lamina. Around the necrotic area an yellowish green halo was observed. After one week, these portions turned black and dried up.

Euphorbia (*Euphorbia hirta* L.)

Symptoms developed as small brown necrotic spots which later increased in size and covered nearly the entire lamina. Severely infected leaves turned dark brown in colour.

Sapota *(Achras sapota* L.)

Infection started as brown rotted areas which later turned black in color. Rotting extended and covered the whole leaf and such leaves defoliated.

Spraying the spore suspension of the fungus also gave positive results and the symptoms were identical to those described above. In this case also injury of the host tissues was found to be a pre-requisite for the development of symptom. The fact that this fungus has a wide host range and it causes infection to many important crop plants is of concern in the cultivatton of these crops. Further the wide host range of this fungus has epidemiological significance and this organism can be a potential pathogen for many of the important crop plants in future.

സംഗ്രഹം

ഗ്രാമ്പൂവിനെ ബാധിക്കുന്ന ഇലകരിച്ചിൽ aരാഗത്തിന് കാരണമായ *സിലിൺ ട്രോക്ളേഡിയം കപ്പിൻകപ്പിസെപ്ഠോഠം* എന്ന കുമിളിന്റെ ആക്രമണം സാധാരണയായി കണ്ടുവരുന്ന 16 ഇനം സസ്യങ്ങളിൽ പരീക്ഷിച്ചു നോക്കുകയുണ്ടായി. അതിൽ നിന്നും പരീക്ഷിച്ചു നോക്കിയ എല്ലാ ഇനം സസ്യങ്ങളേയും ആക്രമിക്കുവാനുള്ള കഴിവ് ഇതിനുണ്ട് എന്നു മനസ്സിലായി. മാത്രവുമല്ല, 14 ഇനം സസ്യങ്ങളും ഈ കുമിളിനെ സംബന്ധിച്ചിടത്തോളം പുതിയവയാണെന്നും കണ്ടു.

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