

Research Paper :

Evaluation of *Trichoderma* compatibility with fungicides, pesticides, organic cakes and botanicals for integrated management of soil borne diseases of soybean [*Glycine max* (L.) Merrill]

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SUMMARY

Compatibility tests were conducted under *in vitro* condition to find out safer fungicides, pesticides, different cakes and botanicals against *Trichoderma*. For this different fungicide, pesticides, cakes and botanicals were tested against *Trichoderma harzianum* (Th 09) and *Trichoderma viride* (Tv 11). Results indicate that among the fungicides tested, thiram (0.2%), copper oxychloride (0.2%) and mancozeb (0.2%) were found comparatively safer against *Trichoderma harzianum* and *Trichoderma viride* as compared to other fungicides. *Trichoderma* was most sensitive to captan, tebuconazole, vitavax, propiconazole and chlorothalonil. But *Trichoderma* was tolerant to all the pesticides and weedicides tested. None of the pesticide and weedicide inhibited the growth of *Trichoderma*. Among the botanicals tested, 10% fresh leaf extract of karanj leaves (*Pongamea pinnata*) and cumin leaves inhibited 32.19% 27.15% growth of *Trichoderma*, respectively as compared to control. Another interesting thing observed that, neem oil (5%), neem leaves extract (10%), wild sorghum leaves extract (10%), neem cake, castor cake and mustard cake extract (10%) enhanced the growth of *Trichoderma*. This finding indicates that seed treatment or furrow applications of *Trichoderma* would be compatible with thiram, copper oxychloride, mancozeb, pesticides, weedicides, neem oil, neem leaves extract, wild sorghum leaves extract, neem cake, castor cake and mustard cake extracts for the integrated management of soil borne diseases of groundnut.

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