Brassica species inhibit take-all fungus of wheat. (C03-west143655-Poster)

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Abstract:

Gaeumannomyces graminis var. tritici (Ggt) is a soilborne fungus causing take-all disease of wheat. We evaluated plant tissue from Brassica juncea cv 'indian mustard' and Brassica napus cv 'Dwarf essex rape' as a biocontrol stategy for Ggt. Ggt was cultured on potato dextrose agar (pda). Mycelia plugs were plated into petri dishes of pda, and the petri dishes were inverted over jars containing 10 g of macerated leaf tissue from wheat, dwarf essex rape, indian mustard, or a control. Petri dishes were sealed to the jars with parafilm. Mycelia growth was measured for 6 days. Both brassica species inhibited growth of Ggt significantly. When the fungus was transferred to new pda plates, there was no visible growth of Ggt from the indian mustard treatment, indicating that the fungus had been killed by exposure to volatile compounds released from the plant material.

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