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Published by: Great Plains Agricultural Council - 14. Crops and Soils Committee.

Evaluating potential pathogens for biological control of leafy spurge

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Fifteen genera of fungi were identified among 200 selected isolates (not including rust pathogens) which were obtained from diseased leafy spurge collected in People's Republic of China and U.S.A. (Maryland, Montana, Nebraska, and North Dakota) in 1989 and 1990. One of the 200 isolates (*Myrothecium* sp.) appears to be a good potential pathogen of leafy spurge. Among six inoculation methods tested, the inoculation method involving placement of an agar block with mycelium on untreated leaves on intact leafy spurge plants was the most rapid, dependable, and effective for preliminary screening of potential fungal biocontrol pathogens. This method has been adopted for use in our laboratory for screening fungal pathogens for biocontrol of leafy spurge and also for maintaining the pathogenicity of the potential pathogens. *Alternaria alternata* and *A. angustiovoidea* could infect and kill leafy spurge plants in the absence of dew in the greenhouse when conidia in emulsion were atomized on the plants. The control plants which received only emulsion, either remained uninjured or showed yellowing and defoliation of lower leaves and/or browning of the tips.