

## A Selective Medium for the and *Alternaria radicina*

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A selective medium to detect *Alternaria dauci* and *A. radicina* on seed, plant debris and other substrates was developed. Growth and sporulation by most undesired organisms was reduced, but adequate mycelial growth and sporulation by *A. dauci* and *A. radicina* was maintained so they could be identified by their unusual mycelial growth or characteristic spores. The medium is based upon carrot leaf extract, which promotes profuse sporulation by both pathogens. Glucose, sodium polypectate and mineral salts further enhanced spore and mycelial production. Streptomycin sulfate and metalaxyl (or mefenoxam), combined with either benomyl or thiophanate-methyl, reduced growth and sporulation of unwanted organisms. There were strong interactions among the fungicides, bactericide, and most other medium components. There were also significant effects on the type of mycelial growth produced by some medium components. If the unique, dark mycelia produced by both pathogens is the desired detection method, the medium components must be optimized for either *A. dauci* or *A. radicina* because the two fungi responded differently in this regard. All medium configurations allowed both fungi to be identified by their characteristic spores. The sensitivity of the *Alternaria dauci-radicina* selective medium (ADRSM) to detect *A. radicina* on carrot seeds was similar to other methods presently in use, but ADRSM was more sensitive than the other methods for detecting *A. dauci* on infested carrot seeds.

**KEYWORDS:** Carrot diseases; *Daucus carota*; seed assays; seedborne pathogens; pathogen detection.

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