Preservation of plant pathogens on silica gel plates

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Abstract

A useful method of preparation and preservation of soil-borne plant pathogens inoculum is presented. The cultures of *Fusarium. oxysporum, Verticillium dahliae, Rhizoctonia solani* are grown on PDA medium in Petri dishes (10-cm diameter) for 10-14 days at 24C. Then several sterile (5-7) pieces (5x1cm) of aluminium plates precoated with silica-(Merck) are stuck in PDA medium in similar dishes. After 7-10 days the silica-gel pieces overgrown by fungi are dried under the air in –safety cabinet and placed in glass universal bottles (Fisons).. Next the bottles are covered by the layer of thin cigarette paper or in plastic vials. This paper protects samples against mites. The samples are kept at 16C. Optionally the silica –gel pieces can be kept in plastic vials at -85 C. Both types of samples are ready to use for inoculation of liquid and solid media for several years.

This method is not time-consuming nor expensive, can be useful in basic and simple conditions, most probably applied for many other fungi as well. Moreover the method is more safe than well- known maintaining and preserving of fungal samples in silica-gel powder.