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RESEARCH NOTE

A LOW COST EASY TECHNIQUE FOR THE CULTURING OF *ASCOCHYTA RABIEI* FUNGUS

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Artificial inoculation of chickpea (*Cicer arietinum* L.) germ plasm lines with *Ascochyta rabiei* (Pass) Lab. is a usual procedure for secreening of the sources of resistance against gram blight disease. Among the culture meida, the chickpea seed meal agar (CSMA) medium is the best for growing and culturing the colonies of *A. rabiei* (Kaiser, 1973), but it usually took 30-40 days to cover the surface of the medium in a 90mm diameter petridish. This slow growth of the fungus and the use of a large number of petridishes for mass culturing was not only discouraging (time consuming) but also costly. Earlier and pioneer pathogists on chickpea blight desired the development of a quick methodology for mass culturing of *A. rabiei* (Sattar and Hafiz, 1952). As a positive response to this desire, Khan (1980) developed a mass culturing technique, involving the use of auto-claved chickpea seeds in a glass flask and their inoculation with the culture of *A. rabiei*. This technique, though proved to be a quick methodology for culturing of the fungus but the use of costly glass-ware (500-1000 ml flask) was still a limiting factor for mass culturing. Therefore, a technique was developed which replaced the use of costly glass-ware by pelythene bags and it proved an extremely low cost easy-go method for mass culturing.

The materials used in this technique were 12″ x 8″ size polythene bag, a half inch plastic ring cut from an inch diameter plastic pipe, a cotton plug and 300 g of chick pea seeds. The chickpea seeds were soaked in tape water for about six hours and then they were boiled for about 30 minutes. The boiled seeds were spread on paper towels to absorb free moisture and were surface dried. The seeds were then put into the polythene bag and the open end of the bag was passed through the half inch plastic ring. A cotton plug was inserted into the mouth of the bag passing through the ring. The bag, with seeds inside, was autoclaved at 15 p. s. i. for 20 minutes. The seeds were inoculated with *A. rabiei* by inserting three to four 6 mm agar plugs, containing *A. rabiei* myce-

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lium and pycnidia, cut from a 15 - days old CSMA culture plate, using a sterile cork borer .After plugging the mouth, the bag was incubated at 15-20°C. Several bags could thus be prepared, inoculated and incubated simultaneously for mass culturing of *A· rabiei*. Addition of 15-20 mg of streptomycine and penicillin per bag would prevent bacterial contaimination.

A. rabiei grew luxuriantly on chickpea within a 7-day incubation period. This chickpea seed culture of the fungus when spread, either as such or in the form of water suspension, in chickpea fields of a susceptible cultivar developed heavy blight infection. The use of this technique heavily reduced the cost of mass culturing of *A. rabiei*, as a polythene bag costed only Rs. 0.15 against Rs. 55.00 and 65.00 for a 500 ml and 1000 ml flasks (pyrex made). The bag can be reused after washing and autocalving.

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