MANAGEMENT OF POTATO SCAB DISEASE CAUSED BY STREPTOMYCES SCABIES AND PROMISING RESISTANT VARIETIES

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The study of potato common scab caused by Streptomyces scabies and the evaluation of disease resistance of several clones/varieties was conducted at Potato, Vegetable, & Flower research Center, Ward 12, Dalat, Lamdong, from 01/01/2011 to 30/08/2011. The aim of this project creates scientific premises for incountry long-term potato breeding activities. The result indicated that treatment with soil moisture at 60 - 70 %, pHH₂O 6 - 6.5 and grown-substrate with sand and coconut vermiculite (ratio 1-1) showed the best result with a clearly disease symptom and a strong growth of potato. The evaluation of pathogenicity of several Streptomyces scabies isolated. As a results, isolated GTT4 (the highest pathogenicity) is used to evaluate disease resistance level of parental materials using in breeding. The evaluation of scab resistance level of several potato clones/varieties in artificial infection condition in pots was done. Treatment was separated into sub-treatment 1 and sub-treatment 2 in order to evaluate scab resistance of 22 parentals varieties and 11 imported-clones from CIP to Streptomyces scabies isolated GTT4, respectively. The resistant level was ranked with classification resistant scale described by Bradeen (2007). As general results, there were 12, 15, and 6 clones/varieties with moderately resistant, moderately susceptible, and susceptible, respectively.

