

## SURVEY ON INVESTIGATION FOR PECTINASE PATHOGENICITY AND ACTIVITY OF FUNGAL DISEASE (LEAF SPOT) IN *SOLANUM LYCOPERSICUM*

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**ABSTRACT :** Pathogenic efficiency of many fungal species qualified for nine of genera were recognized. (8) fungi were optimistic and positively talented to contaminate leaves of tomato seeming contamination indicators for the disease (leaf spot). *Alternaria citri*, *Alternaria alternata*, *Alternaria tenuissima*, *Botrytis cinerea*, *Botrytis squamosa* were extremely infectious and formed this disease in most of infested leaves. Consequence's protest this, in unhealthy plant life by *Alternaria citri* the chlorophyll was tremendously communicable presented maximum ominously condensed in (1.16 - 0.18) (mg/g fresh leaves) for chlorophyll (a, b) individually associated in (2 - 1.50) (mg/g fresh leaves) in controller plants. *Alternaria alternata* also march exciting condensed for chlorophyll (a, b) were (1.89 - 0.98) (mg/g fresh leaves) correspondingly. (6) species were divided to capabilities to products pectinase by (cup-plate) technique. Totally mycological verified remained (pectinase) inventors then through adaptable shades. (3) species displayed in height pectinase inactivity include (*Alternaria citri*, *Alternaria tenuissima* and *Alternaria alternaria*) were (29, 26 and 23 mm) correspondingly, further species were creating to be practical pectinase action include (*Mycosphaerella tassiana*, *Botrytis squamosa*, *Botrytis cinerea*). Pectinase formed by *Alternaria citri* increased by increasing of incubation dated exhibition its supreme afterwards (ten days) of incubation, in (30°C, pH= 6). Among numerous carbon cradles shared definitely in the media, (pectin) shaped resolute pectinase structure through *Alternaria citri*, whereas (peptone) was greatest nitrogen foundation considerable measures to pectinase.

**Key words :** *Solanum lycopersicum*, pectinase, tomato, *Alternaria*.

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### INTRODUCTION

Tomato (*Solanum lycopersicum* L.) is unique of utmost authoritative vegetable harvests established universal (Abd-El Kareem *et al*, 2006). It is cultivated essentially in wholly nations both in arenas and endangered nations (Khan *et al*, 2003). Tomato Leaf spot produced by some fungal strains is unique from communal effects reduction tomato's manufacture (Faheed *et al*, 2005). Over and done with previous inadequate centuries tomato infections has been fashionable nearly each year, essentially owing to soil-borne survival of mold, native over wintering or over summering of inoculum, farming of susceptible varieties and talented environmental locations. Fungiform herbal pathogenic include collection of fungi exhibition definite countless adaptableness throughout their contamination successions. This flexibility agreements for pollute varied

diversity from yields (Fernandez-Acero *et al*, 2007; Garrido *et al*, 2010). Service miscellaneous methods for contaminate in addition to inhabit plant life, similarly create multilayered statement stuck in the middle of fungal types plus armies (Idnurm and Howlett, 2001; Odds *et al*, 2001; Tivoli *et al*, 2006). A diverse break is between conceivable crop and harvest understood at agriculturalist's arena, that were mostly since to number of (biotic & abiotic) strains from tomato's harvest was defenseless. The disease leaf spot produced by way of *A. solani*, was unique in greatest communal, harmful tomato's diseases of yield. plug in leaves, abrasion stem besides produce spots were the greatest harmless indications by disease then crop sufferers 80% harm via *Alternaria* species (Basu, 1974; Datar and Mayee, 1981; Mathur and Shekawat, 1986; Gwary and Nahunnaro, 1998). Many houseplant pathogenic elements include bacterial or fungal strains