Isolation, Cultivation and Identification of Symbiotic Bacteria of *D-Cucurbitae*

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Abstract *:* Flies in general and Dacus-Cucurbi tae in particular have been a subject of research by injsect microbiologist. It is now established and in many cases experimentally demonstrated that the basis of insect plant relationship lies in the real of Nutrition which is turn matredly influenced insect contain intercellular symbiotic flora. The present work was takenup with a view to investigate the nature and identification of symbiotes. Symbiotes isolated from D-cucurbitae appears very near to pseudomonas pseudomali on the basis of marphological, Biochemical and Serological test of the culture of symbiotes at 30^0C. However 35-370 was optimum temperature for growth.

Keywords : Symbiotic Bacteria, D-cucurbitae, Contamination, Insect.

I. INTRODUCTION

A large number of species belonging to practically all the orders of insects as a intimates relationship with symbiotic micro organism like Bacteria, Rickettsia and Fungi Dacus-cucurbitae is a major pest of several fruits belonging to cucurbitae family. The fly has a longer flight ranges and there is capable to cover a wide area of distribution considerably. The relationship between Microbes and host has been the subject for investigation since the beginning of century when petri (1909). First demonstrated the presence of extracellular Microbes in D-cucurbitiae.

II. MATERIALS AND METHODS

Symbiotic bacteria in Dacus-cucurbitae are harboured in mycetome located at different sites of larvae and adult. Histological examination of mycetome of larvae and adult. Shows intracellular and extracellular stae in order to understand the nature and behaviour of symbiotes their isolation and cultivation in pure culture is essential standard bacteria logical producers was followed during working to climate the chance of contamination.

All isolates obtained from different site such as egg, overy, adult mycetome, Transmission organs fat bodies and larval mycetome. Marphological, Biochemical and Serological test ware performed to study the cultural characteristics and identification of isolated symbiot of Dacus-cucurbitae. Cultural characteristics of the isolated symbiote of Dacus-cucurbitae.

A. Biotechmical Tests

Hydrolysis of gelatin	-	+
Hydrolysis of butter test	-	+
Hydrolysis of olive oil test	-	+
Hydrolysis of tween compound	-	+
Polysacchrides form	-	White colonies
Glucose	-	+ Yellow colonies
Litmus Milk	-	Curdling with level of acidity pink colour
Blood serum	-	Liquified
Colonies in 2% boiling HCL	-	Light yellow

Hydrolysis of carbohydrate, arabinose, sorbose, oxylose, ribose, Glucose, Trihalose, Starch, Maltose, Manose, Dextrose, Fructose, Raffinose, Lnulin, Dulcital, Pectin and Melzitose

	-	(Oxidative)
Lactose	-	Slow exidation
Production of Ammonia	-	+

Production of Indole	-	-
Production of Nitrate to Nitrite	-	+
Methyle red test	-	-
V.P. test	-	-

Morphological Tests

Shape and Size	-	Coccoid rods 1.3 Notin tri chomes.
Motility	-	+ Motile
Flagella	-	Present
Gram Staining	-	Gram Negative
Capsule Staining	-	Non capsulated
Spore Stining	-	Non Sporulated
Potato Cylinder test	-	Cream coloured, fase moist growth
Glycerol Agar Slant	-	Whitish, wavy margin, thick
Growth in nutrient	-	turbid with pellicle growth
Optimum temp.	-	35-37^{0}C
Instant growth	-	42^{0}C followed by mortality

III. Results and Discussion

Very little is known about the symbiotes, Mode of transmission and Function of bacterium like symbiotes of D-cucurbitae. The present work was taken up with the view to investigate the nature and identify of symbiot of Dacus-cucurbitae.

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