

**Effect on cucumber cultivars (*Cucumis sativum* cv. Bet-alfa, poinsett, SMR-58, marketer, straight-8)**

**Interaction between fungus and virus pathogen under combined stress at plant interphase**

Plant: Cucumber cultivars (*Cucumis sativum*)  
 Stress 1: Tobacco necrosis virus (TNV)  
 Stress 2: *Sphaerotheca fuliginea*  
 Growth stage: Second true leaf stage

**Table showing an effect of the virus on fungal development in cucumber cultivars**

Treatment  (Virus – About 30 lesions per leaf)	Response under combined stress				
	Type B parameters*				
	Conidia cm leaf tissue (x10 <sup>3</sup> )				
	Leaf 2 (11 day)				
	Bet-alfa.	Poinsett	SMR - 58	Marketer	Straight-8
TNV + <i>S. fuliginea</i>	56.38 ↑	94.12 ↑	78.03 ↑	61.09 ↑	52.69 ↑

For raw data – Click here (.xlsx file)  
 Reference- Bashan and Cohen, 1983

**Note:** Values presented in the table were calculated using the formula described below.

$$\text{Reduction over control (\%)} = \frac{(\text{Value Pathogen stress} - \text{Value Combined stress})}{\text{Value Pathogen stress}} \times 100$$

‘ ↑ ’ - indicates plant parameters less/not affected by stress leading to improved resistance (higher the value lesser the damage)

‘\*’ - For more information on parameters classification, please refer to ‘methodology’ tab.

**Inference from the study:** Bashan and Cohen 1983, study focused on understanding the effect of Tobacco necrosis virus infection on *Sphaerotheca fuliginea* growth in cucumber plant cultivars. The result showed that plants infected with both virus and fungus reported a reduction in conidial yield as compared to plants infected with fungus alone. The maximum reduction in conidial yield was reported in Poinsett and

the minimum in Straight-8 cultivar respectively. **Overall results indicate that TNV decreases the conidial yield of *Sphaerotheca fuliginea* in cucumber cultivars.**