

Effect on tobacco species

Interaction between shade and virus

The table shows the interaction between shading and viral infection in relation to the number of lesions

Crop: Tobacco (*Nicotiana tabacum* and *N. glutinosa*)
Virus: Tobacco necrosis virus, tomato bushy stunt virus, Tobacco mosaic virus, Tomato aucuba mosaic virus
Stress 1: Shade treatment with a covering of closely woven white muslin
Stress 2: Rub inoculations with virus
Stage of the plant: Seedling

Species	Stress treatments	Plant response to stress
		Type B parameters *
		Average no. of local lesions per half leaf [#]
<i>N. tabacum</i>	Shading + TNV ^a	105
	Unshading + TNV ^a	8
<i>N. glutinosa</i>	Shading + TBSV ^b	25.5
	Unshading + TBSV ^b	3.9
	Shading + TMV ^b	15.6
	Unshading + TMV ^b	1.5
	Shading + TAMV ^b	46
	Unshading + TAMV ^b	31

a- 1/100 of inoculum with abrasive, b- @10⁻⁵ dilution of virus, c-@10⁻⁷ dilution of virus

For raw data – Click here (.xlsx file)

Note: Values are presented as they are from the source article without subjecting to the calculation.

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

Reference-

Bawden FC and Roberts FM (1947). The influence of light intensity on the susceptibility of plants to certain viruses. *Annals of Applied Biology* 34(2):286-96.

The inference from the study: Bawden and Roberts 1947 studied the interaction between shading and susceptibility to TNV infection in *N. tabacum* and *N. glutinosa*. The authors observed that the low light intensity due to shading increased the susceptibility of both species of tobacco to various viral infections like TMV, TBSV, and TAMV. **Thus, the study indicates that shade treatment makes tobacco plants susceptible to viral infections.**