



Effect on bonnet pepper genotypes (*Capsicum chinense* Jacq.)

The interaction between the virus and high temperature treatment under combined stress at plant interphase

Plant: Bonnet pepper (*Capsicum chinense* Jacq.)
 Stress 1: *Tomato spotted wilt tospovirus*
 Stress 2: Heat
 Stage of plant: Cotyledonary stage

Table showing the effect of high temperature on *Tomato spotted wilt tospovirus* (TSWV)-induced susceptibility in bonnet pepper genotypes

Genotype	Stress	Treatment	Response under combined stress
			Type B parameters*
			Susceptible plant (%)
PI 159236	Combined stress	Five days at 32°C after inoculation followed by transfer to 22°C (Simultaneous stress)	11
		Nine days at 32°C after inoculation followed by transfer to 22°C (Simultaneous stress)	46
		12 days at 32°C after inoculation followed by transfer to 22°C (Simultaneous stress)	52
		Three days at 32°C before inoculation and 22°C continuously afterward (Sequential stress)	0
		32°C from 3 days before to 9 days after inoculation followed by a transfer to 22°C (Sequential stress)	56
		32°C for 10h (light) alternating with 22°C for 14h (dark) during 12 days after inoculation (Sequential stress)	6
	Virus stress	Virus + 22°C	0
PI 152225	Combined stress	Five days at 32°C after inoculation followed by transfer to 22°C (Simultaneous stress)	0
		Nine days at 32°C after inoculation followed by transfer to 22°C (Simultaneous stress)	27
		12 days at 32°C after inoculation followed by transfer to 22°C (Simultaneous stress)	61
		Three days at 32°C before inoculation and 22°C continuously afterward (Sequential stress)	0



Stress Combination and their Interaction in Plants (SCIP) Database

Website link- <http://www.nipgr.ac.in/scipdb.php>

		32°C from 3 days before to 9 days after inoculation followed by a transfer to 22°C (Sequential stress)	10
		32°C for 10h (light) alternating with 22°C for 14h (dark) during 12 days after inoculation (Sequential stress)	4
	Virus stress	Virus + 22°C	0
7204	Combined stress	Five days at 32°C after inoculation followed by transfer to 22°C (Simultaneous stress)	23
		Nine days at 32°C after inoculation followed by transfer to 22°C (Simultaneous stress)	22
		12 days at 32°C after inoculation followed by transfer to 22°C (Simultaneous stress)	52
		Three days at 32°C before inoculation and 22°C continuously afterward (Sequential stress)	0
		32°C from 3 days before to 9 days after inoculation followed by a transfer to 22°C (Sequential stress)	18
		32°C for 10h (light) alternating with 22°C for 14h (dark) during 12 days after inoculation (Sequential stress)	0
	Virus stress	Virus + 22°C	0

For raw data – Click here (.xlsx file)

Reference- Moury *et al.*, 1998

Note: Values presented as it is from the source article without subjecting to the calculation.

*- For more information on parameters classification, please refer to 'methodology' tab

The inference from the study: Moury *et al.*, 1998 study aims to understand the effect of high temperature treatments on the virus (*Tomato spotted wilt tospovirus*) induced susceptibility in bonnet pepper (*Capsicum chinense*) genotypes (PI 159236, PI 152225, and 7204). The result showed that virus inoculated plants incubated at a higher temperature (32 °C) for 12 days showed more susceptible plants than plants incubated for a short period (5 & 9 days) irrespective of genotypes. Moreover, among the genotypes, PI 52225 showed a higher number of susceptible plants compared to the other two genotypes. Whereas, plants incubated at 32 °C before virus inoculation showed no susceptibility to virus infection. **The overall result indicates that high-temperature treatment for the extended period after TSWV inoculation increases the number of susceptible plants in bonnet pepper genotypes.**