



Stress Combination and their Interactions in Plants (SCIP) Database

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

Effect on tomato (*Lycopersicon esculentum* L.) cultivar

The net impact of individual and combined stress on plant growth

Stress 1: Nitrogen
Stress 2: *Meloidogyne javanica*
Stage of plant: Seedlings

The table shows the impact of individual and combined treatment of nutrient nitrogen and nematode *M. javanica* on dry weight of tomato resistant and susceptible cultivars

Cultivar	Treatment	Response under combined stress (Type A parameters*)
		Shoot dry weight
Resistant cv. VFN-8	Nitrogen (Deficient) + <i>M. javanica</i> (1000 second-stage juveniles) (Sequential stress)	0.57
	Nitrogen (Deficient) only	0.45
	<i>M. javanica</i> (1000 second-stage juveniles) only	0.51
Susceptible cv. Rutgers	Nitrogen (Deficient) + <i>M. javanica</i> (1000 second-stage juveniles) (Sequential stress)	0.52
	Nitrogen (Deficient) only	0.55
	<i>M. javanica</i> (1000 second-stage juveniles) only	0.45

Reference– Melakeberhan H (1998) Effects of temperature and nitrogen source on tomato genotypes response to *Meloidogyne incognita* infection. *Fundamental and applied nematology* **21**: 25-32

Note: Values are presented as it is from the source article without subjecting to the calculation. ‘*’- For more information on parameters classification, please refer to

'methodology' tab

Inference from the study: Melakeberhan et al., 1998 studied the interactive effect of nitrogen and *M. javanica* on shoot dry weight of tomato resistant and susceptible cultivars VFN-8 and Rutgers respectively. As evident the combined treatment of deficient nitrogen and *M. javanica* caused high reduction of shoot dry weight in susceptible cv. Rutgers in comparison to resistant cv. VFN-8.