



Stress Combination and their Interaction in Plants (SCIP) Database

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

Effect on grape cultivars (*Vitis vinifera* L.)

The interaction between the fungus and insect pathogens under the combined stress treatment at the plant interface

Stress 1: *Botrytis cinerea*
Stress 2: *Lobesia botrana*
Stage of plant: Full grown plants

The table shows the effect of fungus *B. cinerea* on the number and development of insect *L. botrana* on two grape cultivars in the field experiment

Cultivar	Treatment	Response under combined stress (Type B parameters*)					
		Year 1997					Year 1998
		Fungus disease (%)	Number of larvae/cluster	Frequency of instar larvae			Number of larvae
Third	Fourth			Fifth			
Cabernet sauvignon	<i>B. cinerea</i> + <i>L. botrana</i> (Sequential stress)	41	3.2	0.21	0.33	0.55	15.05
	<i>L. botrana</i>	10	2.1	0.55	0.40	0.05	7.31
Cabernet franc	<i>B. cinerea</i> + <i>L. botrana</i> (Sequential stress)	41	4.2	0.10	0.30	0.575	13.70
	<i>L. botrana</i>	5	3.2	0.22	0.31	0.45	8.48

For raw data– Click here (.xlsx file)

Reference– Mondy N, and Corio-Costet M F (2004) Feeding insects with a phytopathogenic fungus influences their diapause and population dynamics. *Ecol. Entomol.* **29**: 711–717

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

The inference from the study: Mondy and Costet, 2004 studied the interaction between the fungus *B. cinerea* and insect *L. botrana* on two grape cultivars Cabernet Sauvignon and Cabernet franc in grape field experiments. Both the cultivars pre-infected with fungus *B. cinerea* received a higher number of insect larvae, in comparison with the plants infested with insects only. Similarly, the development of insects was also positively affected by both the cultivars when pre-infected with fungus. **The overall observation recorded on both the cultivars concludes the facultative mutualistic relationship between both the pathogens.**