

Effect on bell pepper cultivars (*Capsicum annuum* L. cv. Early calwonder, delray bell, florida VR-2)

The interaction between virus and fungus pathogen under combined stress at plant interphase

Table showing an effect of the virus on fungus-induced damping-off in different bell pepper cultivars

Plant: Bell pepper (*Capsicum annuum* L.)
Stress1: Tobacco mosaic virus (TMV-P) and Pepper mottle virus (PeMV)
Stress 2: *Rhizoctonia solani*
Growth stage: Three weeks old plants

Treatments	Response under combined stress					
	Type B parameters*					
	Damping-off (%)					
	One week after inoculation with <i>R. solani</i>			Two weeks after inoculation with <i>R. solani</i>		
	Early Calwonder	Delray bell	Florida VR-2	Early Calwonder	Delray bell	Florida VR-2
TMV-P + <i>R. solani</i>	55	51	72	59	53	76
PeMV + <i>R. solani</i>	59	51	NA	66	51	NA
TMV-P + PeMV + <i>R. solani</i>	57	77	NA	64	77	NA
TMV-P + PeMV	0	0	NA	0	0	NA
TMV-P	0	0	0	0	0	0
PeMV	0	0	NA	0	0	NA
<i>R. solani</i>	11	43	28	12	43	37

NA- data not

available

For raw data – Click here (.xlsx file)

Reference- Pieczarka and Zitter, 1981

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

Inference from the study: Pieczarka and Zitter 1981, study aims to understand the effect of viruses (*Tobacco mosaic virus* and *Pepper mottle virus*) on fungus (*Rhizoctonia solani*) induced damping-off on three bell pepper (*Capsicum annuum* L.) cultivars. Plants infected with the combined virus and fungus stress showed higher damping-off in the first week than those treated with virus or fungus alone. Plants of Florida VR-2 infected with *Tobacco mosaic virus* and *R. solani* showed more damping-off compared to early calwonder and delray bell plants. The plants of Early calwonder and Delray bell showed more damping-off than Florida VR-2 under every combined stress treatment as compared to single stress except in one case when plants of Florida VR-2 were infected with *Tobacco mosaic virus* and *R. solani*. **The overall**



result indicates that virus promotes fungus-induced damping-off in these three bell pepper cultivars.