

Effect on cucumber cultivars (*Cucumis sativus* L.)

The interaction between the UV-B radiation and fungal pathogens under the combined stress treatment at the plant interface

Stress 1: *Colletotrichum lagenarium* (Pass.) Ell.
Stress 2: UV-B (11.6 kJm⁻²)

The table shows the effect of UV-B radiation on percentage of disease caused by *C. lagenarium* on cucumber plants

Cultivar	Treatment	Response under combined stress (Type B parameters*)
		Percent Disease
Straight-8	UV-B (11.6 kJ m ⁻²) for 7 days + <i>C. lagenarium</i> (1×10 ⁵ spores/mL) for 4 days (Sequential stress)	44.14
	<i>C. lagenarium</i> (1×10 ⁵ spores/mL) for 4 days	21.11
Calypso Hybrid	UV-B (11.6 kJ m ⁻²) for 7 days + <i>C. lagenarium</i> (1×10 ⁵ spores/mL) for 4 days (Sequential stress)	14.03
	<i>C. lagenarium</i> (1×10 ⁵ spores/mL) for 4 days	3.084
Poinsette	UV-B (11.6 kJ m ⁻²) for 7 days + <i>C. lagenarium</i> (1×10 ⁵ spores/mL) for 4 days (Sequential stress)	22.08
	<i>C. lagenarium</i> (1×10 ⁵ spores/mL) for 4 days	2.097

Reference– Orth AB, Teramura AH, Sisler HD (1990) Effects of ultraviolet-B radiation on fungal disease development in *Cucumis sativus*. Amer. J. Bot. **77(9)**: 1188-1192

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: Orth *et al.*, 1990 studied the effects of UV-B radiation on the disease development by fungal pathogen *Colletotrichum lagenarium* on cucumber cultivars Straight-8, Poinsette, and Calypso Hybrid. Two of these cultivars, Poinsette and Calypso Hybrid, were disease resistant, while the third cultivar, Straight-8, was disease Susceptible. **Hence, the pre-treatment with UV-B radiation increased the percentage of disease by *C. lagenarium* on cv. Straight-8 in comparison cultivars Poinsette and Calypso Hybrid.**