



Effect on barley varieties (*Hordeum vulgare* L.)

The net impact of individual and combined stress on the plant growth

Stress 1: High light
Stress 2: UV-B

The table shows the impact of individual and combined high light and UV-B radiation stress on biomass and photosynthesis of barley varieties

Variety	Treatment	Response under combined stress			
		(Type A Parameter*)		(Type B Parameter*)	
		Leaf length (cm)	Leaf area (cm ²)	CO ₂ assimilation (Amax)	Maximum quantum yield of photosystem II (Fv/Fm)
Barke	High light + UV-B (Simultaneous stress)	15.99	7.90	8.41	0.52
	High light only	18.52	9.71	10.04	0.66
	UV-B only	15.08	5.76	2.89	0.12
Bonus	High light + UV-B (Simultaneous stress)	14.17	6.28	8.86	0.56
	High light only	14.47	6.54	10.40	0.63
	UV-B only	14.67	5.57	4.43	0.32

Reference– Klem K, Alexander A, Holub P, Kovac D, Spunda V, Robson TM, Urban O (2012) Interactive effects of PAR and UV radiation on the physiology, morphology and leaf optical properties of two barley varieties. *Environ. Exp. Bot.*75:52-64

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: Klem Robson *et al.*, 2012 studied the interactive effect of high light and UV-B radiation on two barley varieties Barke and Bonus. **The combined high light and UV-B radiation treatment significantly damaged the morphology and physiology of both the barley varieties Barke and Bonus.**