



Effect on linseed cultivars (*Linum usitatissimum* L. cv. Padmini, T-397)

The net impact of individual and combined stress on plant growth

Crop: Linseed (*Linum usitatissimum* L. cv. Padmini, T-397)
 Stress 1: UV-B (7.2 kJ m⁻²)
 Stress 2: Ozone (10 ppb)
 Stage of plant: At sowing

The table shows the impact of UV-B irradiance and ozone alone and in combination on biomass and yield of linseed cultivars.

	Treatment	Plant response to stress**	
		Type A parameters*	
		Yield (% reduction)	Biomass (% reduction)
Padmini	UV-B (7.2 kJ m ⁻²)	45.2	55.1
	Ozone (10 ppb)	60	40.4
	UV-B (7.2 kJ m ⁻²) + Ozone (10 ppb) Simultaneous stress	29	27.5
T-397	UV-B (7.2 kJ m ⁻²)	24.7	50.5
	Ozone (10 ppb)	41.1	37
	UV-B (7.2 kJ m ⁻²) + Ozone (10 ppb) Simultaneous stress	19.9	18.9

Reference - Tripathi R, Agrawal SB (2013) Evaluation of changes in lipid peroxidation, ROS production, surface structures, secondary metabolites and yield of linseed (*Linum usitatissimum* L.) under individual and combined stress of ultraviolet-B and ozone using open top chambers. Indian J Biochem Biophys. 50(4):318-325.

Note:

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

** - Values are presented as it is from the source article without subjecting to the calculation.

Inference From the study: Tripathi and Agrawal studied the interaction of UV-B irradiation and ozone in two linseed cultivars Padmini and T-397. Stress was given singly and simultaneously. Yield reduction and biomass reduction was not synergistically reduced under combined stress treatment. Yield loss was more under individual ozone treatment whereas biomass was reduced more under UV-B treatment. **Thus, this stress combination is not detrimental to linseed cultivars.**