

Effect on pigeon pea cultivars (*Cajanus cajan* L.)

The net impact of individual and combined stress on plant growth

Stress 1: Drought
Stress 2: Cadmium & Chromium
Stage of plant: Seedlings

The table shows the impact of individual and combined drought and heavy metal cadmium/chromium stress on dry weight & root length of pigeon pea cultivars

	Treatment	Response under combined stress			
		(Type A parameters [±])			
		Dry weight (g/10 seedlings)		Root length (cm)	
		4DAS	8DAS	4DAS	8DAS
LRG-41	Cadmium (20ppm) + PEG 6000 (-0.9MPa) (Simultaneous stress)	0.91	1	0.23	0.33
	Chromium (100ppm) + PEG 6000 (-0.9MPa) (Simultaneous stress)	0.8	0.87	0	0.1
Yashoda-45	Cadmium (20ppm) + PEG 6000 (-0.9MPa) (Simultaneous stress)	1	0.87	0.43	0.67
	Chromium (100ppm) + PEG 6000 (-0.9MPa) (Simultaneous stress)	1.09	0.96	0.23	0.33
	Untreated	1.12	1.22	1.43	5.03

Reference– Swapna B, Rama Gopal G (2015). Impact of combination of water stress and heavy metals on germination and seedling growth of two Pigeon Pea (*Cajanus Cajan* L. millspaugh) cultivars . *Biolife* 3: 917-921

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

Inference from the study: Swapna and Rama Gopal, 2015 studied the interactive effect of drought and two heavy metal, Cadmium, and Chromium on pigeon pea cultivars LRG-41 and Yashoda-45. The combined stress of drought and heavy metals showed detrimental effect on both the cultivars by reducing the dry weight and root length of the seedlings in comparison with the untreated plants.