Effect on white clover (*Trifolium repens*) clones

The net impact of stress on plant growth

Crop: White clover (*Trifolium repens*) clone NC-R and NC-S
Virus: *Peanut stunt virus (PSV)*
Stress 1: Rub inoculation with PSV
Stress 2: Ozone treatment- Elevated ozone treatment of 24, 45, 64 and 76 nl l^{-1} for 111 d.
Stage of the plant: Vegetative

The table shows the effect of individual and combined ozone and viral infection on dry biomass and physiology of white clover clones, NC-R and NC-S

Clones	Stress treatments	Plant response to stress		
		Type A parameter*	Type B parameter *	
		Shoot dry weight (g)	Foliar injury (%)	Chlorophyll content[b] (µg ml^{-1})
NC-R	Ozone (24 nl l^{-1})	194	2	20.6
	Ozone (45nl l^{-1})	195	7	18.5
	Ozone (64 nl l^{-1})	189	29	13.8
	Ozone (76 nl l^{-1})	186	30	16.2
	PSV+ Ozone (24 nl l^{-1})	150	19	14.8
	PSV+ Ozone (45 nl l^{-1})	146	27	13.9
	PSV+ Ozone (64 nl l^{-1})	151	35	13.5
	PSV+ Ozone (76 nl l^{-1})	139	46	10.2
NC-S	Ozone (24 nl l^{-1})	164	5	23.3
	Ozone (45nl l^{-1})	132	41	15
	Ozone (64 nl l^{-1})	97	56	8.1
	Ozone (76 nl l^{-1})	83	66	6.9
	PSV+ Ozone (24 nl l^{-1})	133	22	17.9
	PSV+ Ozone (45 nl l^{-1})	110	48	12.1
	PSV+ Ozone (64 nl l^{-1})	80	65	6.7
	PSV+ Ozone (76 nl l^{-1})	64	64	5.9

a- 111d post treatment, b- 29 d post treatment. Control values not provided.

Note:
'#'- Values are presented as it is from the source article without subjecting to the calculation.

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

Reference-
Heagle AS, McLaughlin MR, Miller JE and Joyner RL (1992). Response of two white clover clones to peanut stunt virus and ozone. *Phytopathology* 82(3):254-8.

The inference from the study: Heagle et al. 1992 studied the effect of combined PSV infection and ozone stress on white clover clones NC-R and NC-S differing in sensitivities to ozone. Bot the ozone resistant (NC-R) and sensitive (NC-S) clones showed more foliar injury and reduced the

biomass under combined stress compared to ozone stress. The ozone-sensitive clone was more negatively affected by the combined stress than the resistant clone.