

Not!

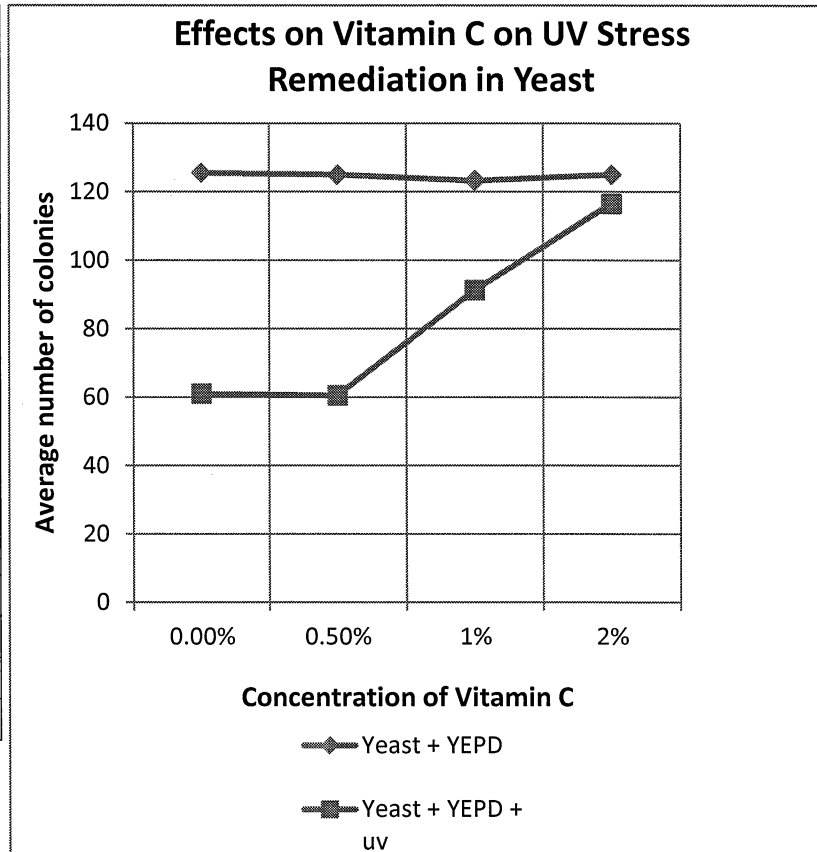
Yeast Two-Factor ANOVA Challenge

Null hypothesis:

Culturing yeast on growth media infused with Vitamin C will not significantly help cells recover from damage caused by ultraviolet radiation.

Results:

	Yeast + YEPD	Yeast + YEPD + uv
0.0% Vit C	120	60
	132	66
	128	56
	122	62
0.5% Vit C	120	60
	130	65
	125	55
	125	62
1% Vit C	125	95
	122	90
	128	88
	118	92
2% Vit C	125	115
	126	120
	121	117
	128	114



ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Sample	4258	3	1419.333	90.95861	3.02E-13	3.008787
Columns	14365.125	1	14365.13	920.5955	1.18E-20	4.259677
Interaction	4468.375	3	1489.458	95.4526	1.78E-13	3.008787
Within	374.5	24	15.60417			
Total	23466	31				

Conclusion:

The ANOVA demonstrates that the P-value for the interaction of variable factors was 1.78×10^{-13} . Additionally, the F value for this row, 96.4526 is greater than the F-critical value of 3.08787. This indicates that the variation between groups was significant. Thus, the null hypothesis can be rejected and it can be concluded that infusing the growth media with Vitamin C did aid the cells in recovering from stress caused by UV radiation.