

Summary Table: 2018-2020 Stress Stability, Common Wheat & Triticale. Stress stability scores of common hard spring wheat and triticale varieties resulting from terminal drought and nitrogen (N) stress in trials conducted in Yolo and Fresno Counties of California during the 2017-18, 2018-19 and 2019-2020 seasons. Terminal drought and N stress responses are based on averages of 3 and 4 site-years of data, respectively. The normalized stress response is calculated as: $[(A_i / \text{mean } A) + [(B_i - \text{mean } B) / (\text{mean } B)] * 100$, where A is a fully watered/fertilized control, B is a managed stress trial grown at the same location, and i is an individual variety. Stress stability score = normalized stress response - 100. Stress trials are managed identically except for the exclusion of irrigation after the vegetative growth period (terminal drought) or the exclusion of N fertilizer additions throughout the season (N stress).

Variety Name	Crop type	Terminal Drought Stress Response								Nitrogen Stress Response											
		Yield				Protein Yield			Protein		Yield				Protein Yield			Protein			
		Rank	Response (%)	SE Response	p-value	Response (%)	SE Response	p-value	Response (%)	SE Response	p-value	Rank	Response (%)	SE Response	p-value	Response (%)	SE Response	p-value	Response (%)	SE Response	p-value
NS 13T00903	triticale	27	-10	14.8	0.503	-34.4	15.3	0.029	-9.2	10.6	0.39	4	48.5	10.1	0	25.3	13.7	0.069	-32.9	5.3	0
NS GOLD RUSH 91	triticale	2	15.7	14.8	0.295	6.6	15.3	0.668	-12.1	10.6	0.26	3	54.3	10.1	0	19.1	13.7	0.167	-31.5	5.3	0
NS SWIFT 77	triticale	21	-0.8	14.8	0.956	-7.8	15.3	0.613	-16.9	10.6	0.119	10	11.8	10.1	0.246	-11.3	13.7	0.412	-19.7	5.3	0
NS TRICAL 115T	triticale	28	-11.5	8.7	0.19	-32.3	9	0.001	-15.6	6.2	0.016	7	29.8	7.2	0	-1.2	9.8	0.9	-31.3	3.8	0
NS TRICAL 158EP	triticale	22	-4.8	8.7	0.58	-29.5	9	0.002	-18.4	6.2	0.005	6	39	7.2	0	17.7	9.8	0.075	-27.2	3.8	0
UC 3184	triticale	1	27.3	8.7	0.003	-4.1	9	0.652	-31.3	6.2	0	2	60.1	7.2	0	27.1	9.8	0.007	-29.5	3.8	0
UC 3185	triticale	4	12.7	8.7	0.15	-15.3	9	0.095	-21.4	6.2	0.001	5	40.5	7.2	0	17.3	9.8	0.081	-22.1	3.8	0
UC 3190	triticale	8	6.3	14.8	0.671	-10.3	15.3	0.505	-19.8	10.6	0.069	1	60.6	10.1	0	28.8	13.7	0.039	-21.6	5.3	0
WB PACHECO	triticale	15	3.8	8.7	0.662	-5.8	9	0.521	-9.3	6.2	0.141	8	15.7	8.3	0.062	0.4	11.3	0.97	-13.4	4.3	0.003
AP OCTANE	wheat	5	11.3	8.7	0.197	4.6	9	0.608	-5.8	6.2	0.357	12	1.5	7.2	0.841	-5.1	9.8	0.605	-14.4	3.8	0
AP VENOM	wheat	25	-8.4	8.7	0.34	-4.2	9	0.639	7.3	6.2	0.246	17	-6.4	7.2	0.375	-9.3	9.8	0.344	-0.1	3.8	0.981
SY 64-1-9	wheat	12	4.2	8.7	0.629	9.8	9	0.28	10.6	6.2	0.095	9	13	7.2	0.075	26.8	9.8	0.008	4.3	3.8	0.261
SY BLANCA GRANDE 515	wheat	17	2.2	8.7	0.799	22.9	9	0.014	5	6.2	0.424	24	-19.6	7.2	0.008	-13.6	9.8	0.168	12.1	3.8	0.002
SY CAL ROJO	wheat	11	5.2	8.7	0.552	4.2	9	0.642	-1.8	6.2	0.779	21	-15.6	7.2	0.033	-11.8	9.8	0.233	3.7	3.8	0.325
SY SIENNA	wheat	19	-0.2	8.7	0.981	13.8	9	0.131	10.5	6.2	0.099	29	-27.6	7.2	0	-12.7	9.8	0.199	14.4	3.8	0
SY SUMMIT 515	wheat	16	2.7	8.7	0.756	3	9	0.737	1.1	6.2	0.857	19	-13.6	7.2	0.064	-8.9	9.8	0.364	1.8	3.8	0.637
UC 1884	wheat	14	3.9	8.7	0.653	8.2	9	0.365	11.6	6.2	0.07	22	-17.2	8.3	0.041	2.5	11.3	0.826	23.2	4.3	0
UC 1907	wheat	6	9.9	14.8	0.505	44.1	15.3	0.006	17.9	10.6	0.099	27	-24	10.1	0.02	6.2	13.7	0.655	26.9	5.3	0
UC 1909	wheat	30	-15.9	14.8	0.288	8.7	15.3	0.571	19.1	10.6	0.079	28	-26.6	10.1	0.01	-0.3	13.7	0.985	26.3	5.3	0
UC CENTRAL RED	wheat	13	4	8.7	0.644	10.9	9	0.228	10.9	6.2	0.086	18	-11.9	7.2	0.102	-2.8	9.8	0.778	11.4	3.8	0.003
UC CENTRAL WHITE	wheat	3	14.6	8.7	0.099	19.4	9	0.036	-0.4	6.2	0.953	11	8.8	8.3	0.29	8.5	11.3	0.451	0.2	4.3	0.957
UC LASSIK	wheat	18	0.1	8.7	0.991	-4.2	9	0.644	-1	6.2	0.879	16	-6.2	7.2	0.39	-8.3	9.8	0.398	-3.2	3.8	0.396
UC PATWIN 515	wheat	9	5.6	8.7	0.52	12.2	9	0.181	7	6.2	0.267	13	1.1	7.2	0.879	-2.2	9.8	0.824	-2.1	3.8	0.583
UC PATWIN 515 HP	wheat	23	-6	8.7	0.494	13.1	9	0.15	20.7	6.2	0.002	20	-14.7	7.2	0.045	14.1	9.8	0.154	23.6	3.8	0
UC YUROK	wheat	20	-0.4	8.7	0.962	1.5	9	0.871	-1.6	6.2	0.796	15	-5.6	7.2	0.437	0.8	9.8	0.938	2.3	3.8	0.536
WB 9229	wheat	24	-7.5	8.7	0.394	7	9	0.436	10.9	6.2	0.086	23	-18.9	7.2	0.011	0.9	9.8	0.925	19	3.8	0
WB 9699	wheat	7	6.7	8.7	0.442	5.8	9	0.521	2.6	6.2	0.684	14	-2.8	7.2	0.695	-4.5	9.8	0.645	-5.3	3.8	0.165
WB 9904	wheat	29	-15.6	8.7	0.078	-17.5	9	0.057	-1.2	6.2	0.845	25	-19.9	7.2	0.007	-22.1	9.8	0.027	-3.7	3.8	0.327
WB JOAQUIN ORO	wheat	31	-21.7	8.7	0.016	-12.5	9	0.169	12.9	6.2	0.044	31	-45.8	7.2	0	-18.4	9.8	0.064	33.2	3.8	0
WB PATRON	wheat	26	-9	8.7	0.307	-6.8	9	0.452	0.5	6.2	0.932	25	-19.9	7.2	0.007	-14	9.8	0.157	5	3.8	0.187
WINCAL 158-5	wheat	10	5.3	14.8	0.724	12	15.3	0.437	7	10.6	0.513	30	-34	10.1	0.001	-30.8	13.7	0.027	0.8	5.3	0.876
YECORA ROJO 515 HP	wheat	32	-30	8.7	0.001	-23.3	9	0.012	10.1	6.2	0.111	32	-54.2	8.3	0	-18.2	11.3	0.11	49.7	4.3	0