

**Supplemental Table S2. ANOVA on number of viable seeds per head on crop-wild hybrid sunflowers grown in the field in Kansas, USA.**

Source	Ndf	Primary HQ			Primary LQ			Secondary HQ			Secondary LQ		
		ddf	F	P	ddf	F	P	ddf	F	P	ddf	F	P
Frequency of Hybrids	1	155	1.69	0.1985	55	0.89	0.3492	55	0.13	0.7159	55	0.29	0.5948
Interspec Competitors	1	55	10.19	<b>0.0023</b>	55	0.07	0.7888	55	3.91	0.0529	55	0.21	0.6465
Density of Seeding	2	55	25.46	<b>&lt;.0001</b>	55	1.7	0.1913	55	8.74	<b>0.0005</b>	55	0.37	0.6922
Freq*Interspec	1	55	0.4	0.5291	55	0.47	0.4959	55	0	0.9587	55	0.23	0.631
Freq*Dens	2	55	0.13	0.8803	55	1.86	0.166	55	4.23	<b>0.0196</b>	55	0.25	0.7781
Interspec*Dens	2	55	0.31	0.7342	55	0.24	0.7856	55	0.25	0.7819	55	0.59	0.5574
Freq*Interspec*Dens	2	55	1.23	0.3006	55	0.44	0.6436	55	0.11	0.8949	55	0.82	0.4458
Cross Type	3	175	13.02	<b>&lt;.0001</b>	108	14.63	<b>&lt;.0001</b>	114	33.25	<b>&lt;.0001</b>	84	8.59	<b>&lt;.0001</b>
Freq*Cross	3	175	0.59	0.6216	108	0.4	0.7558	114	0.2	0.8941	84	0.11	0.9551
Interspec*Cross	3	175	0.24	0.8693	108	0.97	0.4078	114	0.53	0.6614	84	0.18	0.9081
Dens*Cross	6	175	1.17	0.3267	108	1.08	0.3765	114	0.59	0.7343	84	1.79	0.1112
Freq*Interspec*Cross	3	175	1.15	0.3309	108	4.88	<b>0.0032</b>	114	0.02	0.9963	84	0.22	0.8805
Freq*Dens*Cross	6	175	0.72	0.6318	108	0.34	0.9116	114	0.99	0.4377	84	1.42	0.2184
Interspec*Dens*Cross	6	175	0.47	0.8312	108	0.34	0.9129	114	0.86	0.5239	84	0.83	0.5471
Freq*Interspec*Dens*Cross	6	175	0.97	0.4439	108	0.92	0.4844	114	1.26	0.28	84	0.66	0.6784

Notes: Primary and secondary high (HQ) and low (LQ) quality head data analyzed separately. Only data from plants who survived to reproduce were employed in the ANOVA using Restricted Maximum Likelihood. Data include only primary and first secondary heads and were natural log transformed. P-values <0.05 are bolded as significant. nnf, numerator degrees of freedom; ddf, denominator degrees of freedom.