



Table S1. Eigenvalues and proportion of variance of each principal component for various physiological and morphological traits in maize plants of different hybrids (ZP341 vs. FuturiXX), in different water regimes (water deficient vs. well-watered) and subjected to herbivory (no wireworms vs. wireworm infested).

PHYSIOLOGY DAY 14				PHYSIOLOGY DAY 21			PHYSIOLOGY DAY 28			MORPHOLOGY		
	Eigenvalue	Proportion of variance explained (%)	Cumulative variance (%)	Eigenvalue	Proportion of variance explained (%)	Cumulative variance (%)	Eigenvalue	Proportion of variance explained (%)	Cumulative variance (%)	Eigenvalue	Proportion of variance explained (%)	Cumulative variance (%)
PC1	3.21	53.52	53.52	4.26	71.03	71.03	3.21	53.52	53.52	2.57	64.23	64.23
PC2	1.46	24.45	77.97	0.83	13.93	84.96	1.47	24.45	77.97	0.71	17.84	82.08
PC3	0.80	13.29	91.26	0.60	9.97	94.93	0.80	13.29	91.26	0.54	13.42	95.50
PC4	0.34	5.71	96.96	0.21	3.51	98.44	0.34	5.71	96.96	0.18	4.50	100.00
PC5	0.11	1.77	98.73	0.08	1.41	99.85	0.11	1.77	98.73	/	/	/
PC6	0.08	1.27	100.00	0.01	0.15	100.00	0.08	1.27	100.00	/	/	/

Table S2. PERMANOVA results for the overall effect of water regime, presence of pest and hybrid on a) maize physiological data in three time points, and b) maize morphology data. Df - degrees of freedom; SumsSqs - sum of squares; MeanSqs – meansum of squares; * Asterisk indicates statistical significance with $P < 0.05$, P-values based on 999 permutations (lowest P-value possible 0.001).

a)

	DAY 14					DAY 21					DAY 28				
	Df	SumsSqs	MeanSqs	F	P	Df	SumsSqs	MeanSqs	F	P	Df	SumsSqs	MeanSqs	F	P
drought	1	156.2	156.17	1.258	0.294	1	511.3	511.26	6.1869	0.007**	1	122.8	122.832	1.1316	0.297
pest	1	107.8	107.76	0.868	0.445	1	622.8	622.84	7.5373	0.003**	1	176.2	176.207	1.6233	0.199
hybrid	1	498.7	498.67	4.0166	0.021*	1	432.4	432.38	5.2324	0.01**	1	258.5	258.533	2.3818	0.073
drought:pest	1	67.8	67.79	0.546	0.668	1	120.3	120.31	1.4559	0.23	1	38.3	38.303	0.3529	0.773
drought:hybrid	1	38.3	38.33	0.3087	0.801	1	46.5	46.48	0.5625	0.601	1	19.2	19.151	0.1764	0.897
pest:hybrid	1	78.1	78.14	0.6294	0.565	1	50	49.98	0.6048	0.592	1	7.9	7.932	0.0731	0.956
drought:pest:hybrid	1	41.8	41.85	0.3371	0.778	1	215.5	215.52	2.6081	0.077	1	65.5	65.541	0.6038	0.618

Residuals	24	2979.6	124.15	0.7509	24	1983.2	82.64	0.4981	24	2605.1	108.546	0.791
Total	31	3968.3	1		31	3982	1		31	3293.6	1	

b)

	Df	SumsSqs	MeanSqs	F	P
Water	1	440.15	440.15	38.969	0.001***
Pest	1	346.79	346.79	30.703	0.001***
Hybrid	1	154.1	154.1	13.644	0.001***
Water:Pest	1	44.35	44.35	3.927	0.032*
Water:Hybrid	1	23.15	23.15	2.049	0.134
Pest:Hybrid	1	7.19	7.19	0.637	0.437
Water:Pest:Hybrid	1	52.35	52.35	4.635	0.029*
Residuals	48	542.15	11.29	0.33669	
Total	55	1610.24	1		