



Figure S1. Monthly rainfall received at Gudeya-Billa trial sites during experimentation in 2018 and 2019 seasons.

Table S1. ANOVA output for grain yield obtained from maize cropping systems tested in western Ethiopia.

	Grain Yield		Gross Margins		Stover		Maize Energy		Maize Protein	
	Estimate	Pr(> t)	Estimate	Pr(> t)	Estimate	Pr(> t)	Estimate	Pr(> t)	Estimate	Pr(> t)
(Intercept)	7388.00	0.00***	986.97	0.00***	17573.00	0.00***	109.19	0.00***	738.79	0.00***
No-till	1210.00	0.28 ^{ns}	357.64	0.17 ^{ns}	2804.00	0.33 ^{ns}	17.88	0.30 ^{ns}	121.00	0.30 ^{ns}
season:2019	-4092.10	0.00***	-863.16	0.00***	-10524.00	0.00***	-60.48	0.00***	-409.20	0.00***
season:2020	-3071.20	0.02**	-340.93	0.24 ^{ns}	-12464.00	0.00***	-45.39	0.02***	-307.11	0.02***
No-till:2019	140.70	0.93 ^{ns}	27.91	0.94 ^{ns}	-1643.00	0.70 ^{ns}	2.08	0.93 ^{ns}	14.06	0.93 ^{ns}
No-till:2020	349.20	0.85 ^{ns}	-201.22	0.62 ^{ns}	-2379.00	0.61 ^{ns}	10.87	0.69 ^{ns}	73.54	0.69 ^{ns}

Ref: CP, season 2018, No-till:2018, ns=not significant and *** significant

Table S2. ANOVA output for analyses of grain and straw yield, gross margins, energy, and proteins from wheat cropping systems.

	Grain Yield		Gross Margin		Stover		Energy		Protein	
	Estimate	Pr(> t)	Estimate	Pr(> t)	Estimate	Pr(> t)	Estimate	Pr(> t)	Estimate	Pr(> t)
(Intercept)	2743.30	0.00***	862.20	0.02***	3923.75	0.00***	37.78	0.00***	340.11	0.00***
No-till	182.20	0.87 ^{ns}	175.30	0.74 ^{ns}	845.00	0.60 ^{ns}	2.51	0.87 ^{ns}	22.62	0.87 ^{ns}
season-2019	-733.70	0.29 ^{ns}	-177.08	0.60 ^{ns}	3390.69	0.00***	-10.11	0.29 ^{ns}	-90.98	0.29 ^{ns}
season-2020	938.60	0.29 ^{ns}	883.40	0.04**	-43.56	0.97 ^{ns}	12.93	0.29 ^{ns}	116.37	0.29 ^{ns}
Sub-humid	852.00	0.37 ^{ns}	6.67	0.99 ^{ns}	1069.04	0.46 ^{ns}	11.74	0.37 ^{ns}	105.71	0.37 ^{ns}
No-till:season-2019	291.70	0.77 ^{ns}	193.43	0.68 ^{ns}	-323.82	0.83 ^{ns}	4.02	0.77 ^{ns}	36.18	0.77 ^{ns}
No-till:season-2020	675.70	0.59 ^{ns}	431.97	0.48 ^{ns}	7.90	1.00 ^{ns}	9.31	0.59 ^{ns}	83.80	0.59 ^{ns}
No-till:Sub-humid	248.90	0.85 ^{ns}	84.88	0.90 ^{ns}	95.29	0.96 ^{ns}	3.42	0.85 ^{ns}	30.83	0.85 ^{ns}

Ref: CP, season 2018, CP-2018, Semi-arid, CP: Sub-humid