Yield Responses to Total Water Input from Irrigation and Rainfall in Six Wheat Cultivars Under Different Climatic Zones in Egypt

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Supplementary figures and tables as below

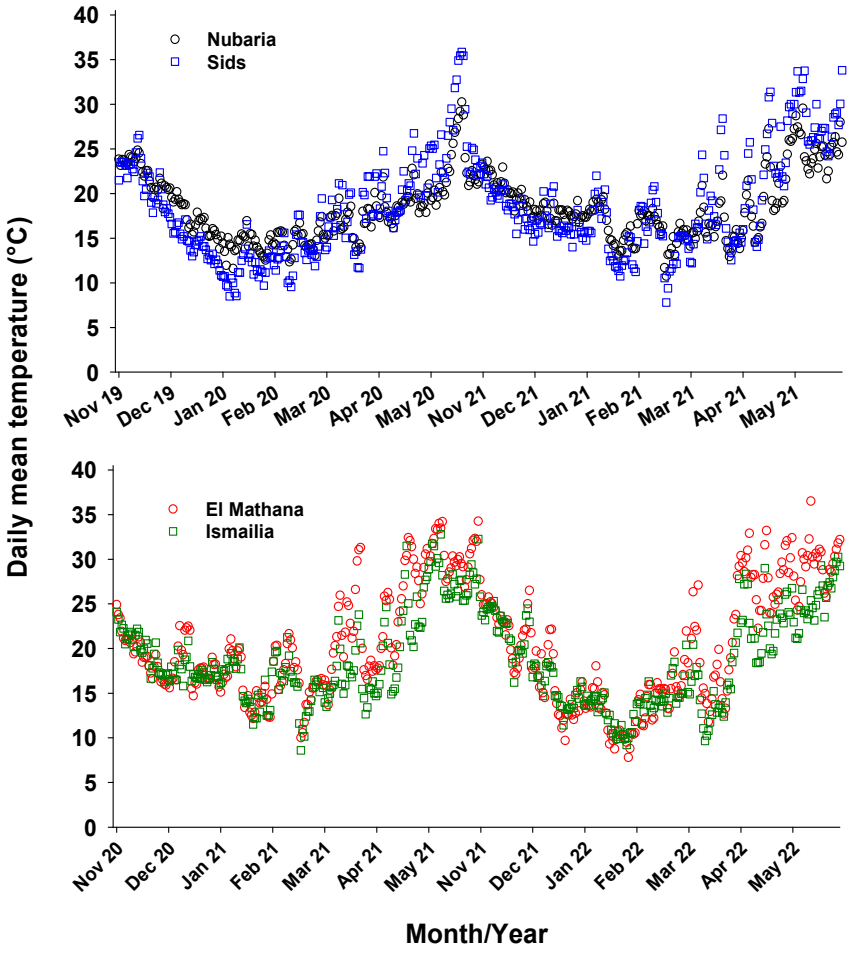

Figure S1 Daily mean air temperature (°C) from 1 November to 31 May in 2019/2020 and 2020/2021 at Nubaria and Sids and from 1 November to 31 May in 2020/2021 and 2021/2022 at Al Mataenah and Ismailia in Egypt.

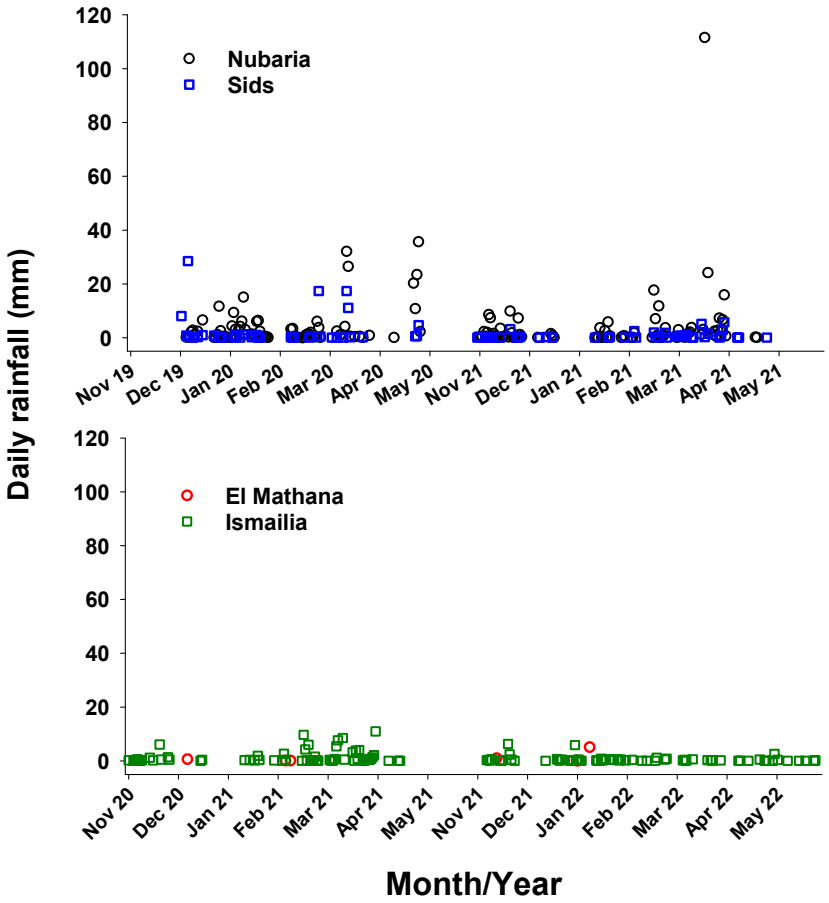

Figure S2 Daily precipitation (mm) from 1 November to 31 May in 2019/2020 and 2020/2021 at Nubaria and Sids and from 1 November to 31 May in 2020/2021 and 2021/2022 at Al Mataenah and Ismailia in Egypt

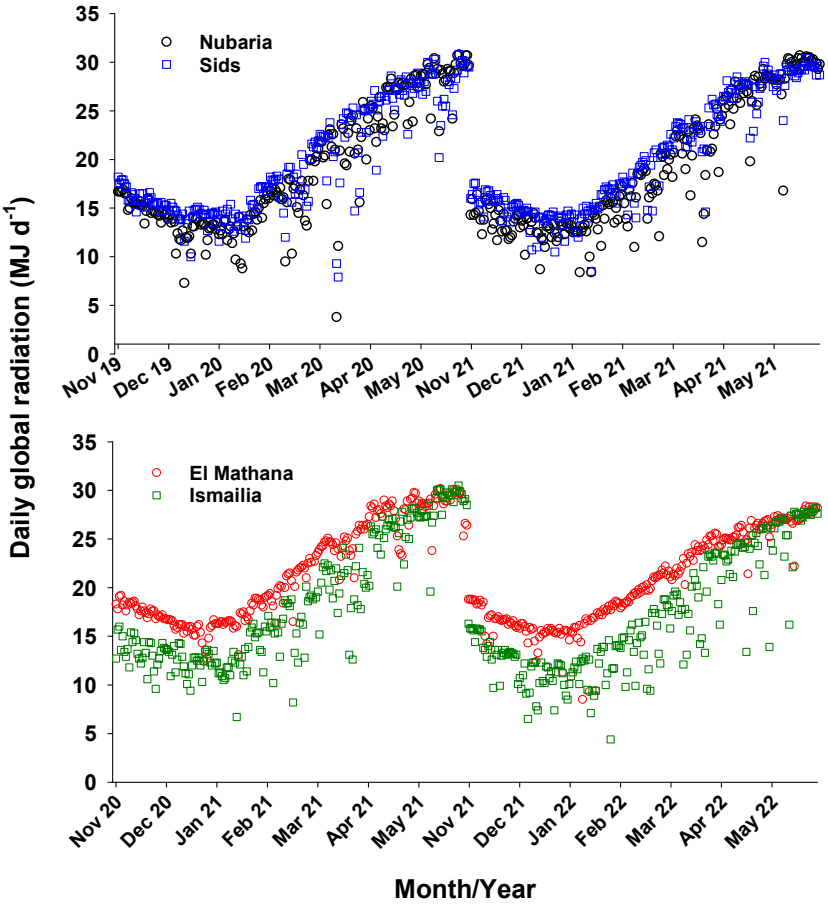

Figure S3 Daily global radiation (MJ d^{-1}) from 1 November to 31 May in 2019/2020 and 2020/2021 at Nubaria and Sids and from 1 November to 31 May in 2020/2021 and 2021/2022 at Al Mataenah and Ismailia in Egypt

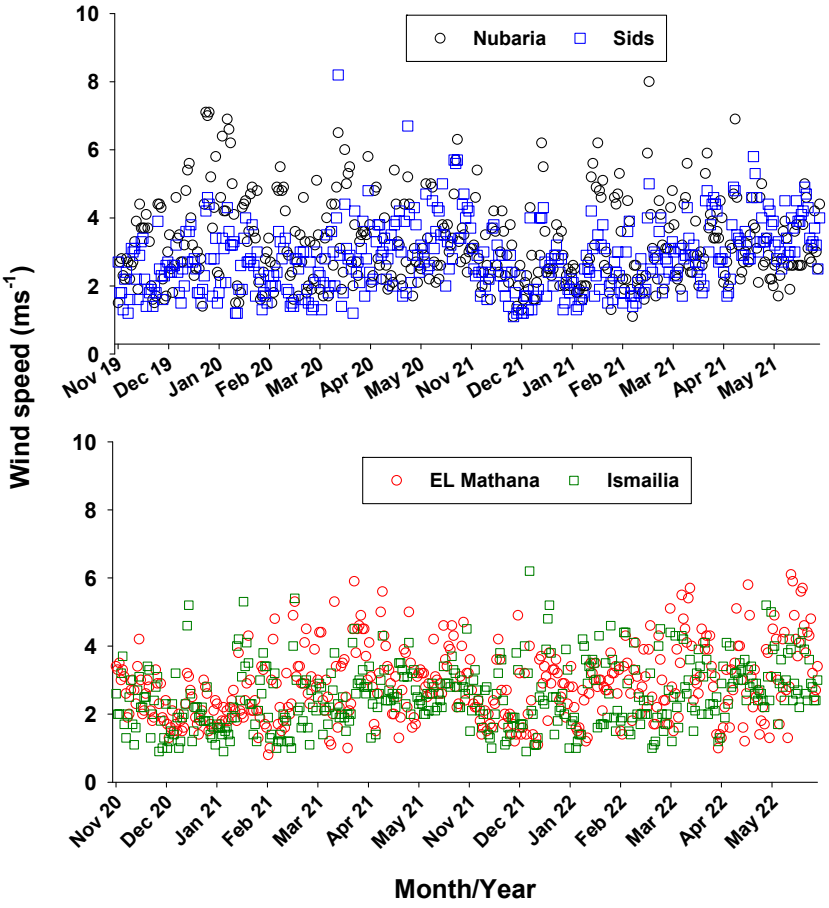

Figure S4 Daily wind speed (m s^{-1}) from 1 November to 31 May in 2019/2020 and 2020/2021 at Nubaria and Sids and from 1 November to 31 May in 2020/2021 and 2021/2022 at Al Mataenah and Ismailia in Egypt

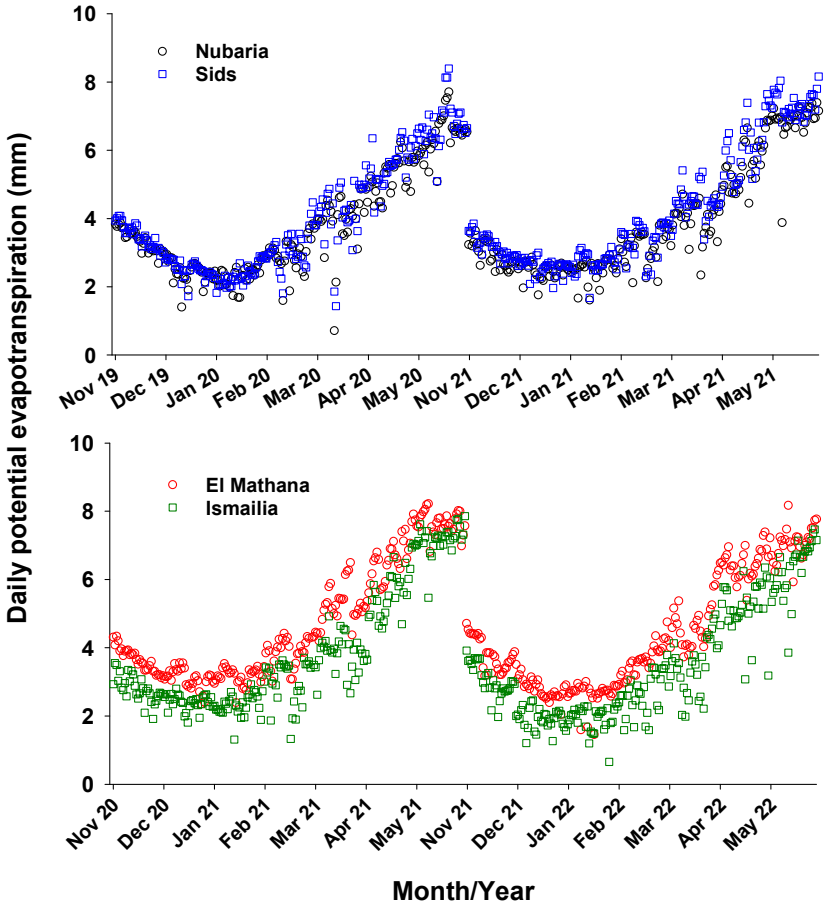

Figure S5 Daily potential reference evapotranspiration (ETo) from 1 November to 31 May in 2019/2020 and 2020/2021 at Nubaria and Sids and from 1 November to 31 May in 2020/2021 and 2021/2022 at Al Mataenah and Ismailia in Egypt. ETo is calculated using the method developed by Hargreaves (1975).

Table S1 Results for significance tests for the respective source of variation in the analysis of variance for the nine traits measured on six wheat cultivars with five irrigation treatments in two cropping seasons at Nubaria. Grain and above ground biomass yields in kg were based on harvested plot area of 2.8m^2.

Factor	Days to heading	Days to maturity	Plant height	Flag leaf area	Spikes /m2	Kernels /spike	1000GWT	Grain yield	Biomass yield
Season (S)	**	**	**	*	**	*	ns	**	**
Irrigation (I)	**	**	**	**	**	ns	**	**	**
S×I	**	**	ns	**	**	**	**	ns	**
Cultivar(C)	**	**	**	**	**	**	**	**	**
S×C	**	**	**	**	**	ns	**	**	**
I×C	**	**	**	**	**	**	ns	**	*
S×I×C	**	**	**	**	**	ns	ns	**	ns

Note **=significant at p≤0.01, *=significant at p≤0.05, and ns=not statistically significant (i.e. p>0.05).

Table S2 Results for significance tests for the respective source of variation in the analysis of variance for the nine traits measured on six wheat cultivars with five irrigation treatments in two cropping seasons at Al Mataenah . Grain and above ground biomass yields in kg were based on harvested plot area of 2.8m^2.

Factor	Days to heading	Days to maturity	Plant height	Flag leaf area	Spikes/m2	kernels/spike	1000GWT	Grain yield	Biomass yield
Season (S)	**	*	*	*	ns	ns	*	ns	ns
Irrigation (I)	**	**	**	**	**	**	**	**	**
S×I	**	*	**	ns	ns	ns	ns	*	*
Cultivar(C)	*	**	ns	**	*	**	**	*	ns
S×C	*	ns	ns	ns	ns	ns	ns	*	ns
I×C	ns	**	ns	**	ns	**	ns	ns	ns
S×I×C	ns	ns	ns	ns	ns	ns	ns	ns	ns

Note **=significant at p≤0.01, *=significant at p≤0.05, and ns=not statistically significant (i.e. p>0.05).

Table S3 Results for significance tests for the respective source of variation in the analysis of variance for the nine traits measured on six wheat cultivars with five irrigation treatments in two cropping seasons at Sids. Grain and above ground biomass yields in kg were based on harvested plot area of 2.8m^2.

Factor	Days to heading	Days to maturity	Plant height	Flag leaf area	Spikes/m2	kernels/spike	1000GWT	Grain yield	Biomass yield
Season (S)	**	**	*	**	**	*	ns	ns	ns
Irrigation (I)	**	**	**	**	**	**	ns	**	**
S×I	*	**	**	ns	**	ns	**	**	ns
Cultivar(C)	ns	ns	ns	*	ns	ns	ns	ns	ns
S×C	*	ns	ns	*	ns	ns	ns	ns	ns
I×C	ns	ns	ns	ns	ns	ns	ns	ns	ns
S×I×C	ns	ns	ns	ns	**	ns	ns	ns	ns

Note **=significant at p≤0.01, *=significant at p≤0.05, and ns=not statistically significant (i.e. p>0.05).

Table S4 Results for significance tests for the respective source of variation in the analysis of variance for the nine traits measured on six wheat cultivars with five irrigation treatments in two cropping seasons at Ismailia. Grain and above ground biomass yields in kg were based on harvested plot area of 2.8m^2.

Factor	Days to heading	Days to maturity	Plant height	Flag leaf area	Spikes/m2	kernels/spike	1000GWT	Grain yield	Biomass yield
Season (S)	**	**	*	ns	ns	*	*	**	**
Irrigation (I)	**	**	**	**	**	**	**	**	**
S×I	**	**	**	ns	ns	ns	ns	**	**
Cultivar(C)	**	**	**	**	**	**	**	**	*
S×C	ns	**	**	ns	**	**	**	ns	**
I×C	**	**	**	*	*	*	**	**	ns
S×I×C	ns	**	**	ns	**	ns	ns	**	*

Note **=significant at p≤0.01, *=significant at p≤0.05, and ns=not statistically significant (i.e. p>0.05).

Table S1a Number of days from sowing to heading date for six wheat cultivars under five irrigation treatments in two cropping seasons at Nubaria.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	91.3	96.3	90.7	94.0	99.3	95.3	94.5
	T2	90.7	98.3	91.0	94.3	99.3	94.7	94.7
	T3	91.7	95.3	91.3	94.7	95.7	94.7	93.9
	T4	90.3	91.3	89.0	88.3	94.0	91.7	90.8
	T5	89.3	90.7	88.7	89.3	97.0	88.3	90.6
	Cultivar mean	90.7	94.4	90.1	92.1	97.1	92.9	
2020-2021	T1	94.3	95.7	94.3	96.3	99.7	97.0	96.2
	T2	92.0	95.0	91.7	96.0	99.3	96.7	95.1
	T3	93.0	92.7	89.3	95.3	99.7	95.3	94.2
	T4	92.0	92.7	92.7	95.0	99.0	94.7	94.3
	T5	92.3	94.0	92.3	95.7	99.0	95.7	94.8
	Cultivar mean	92.7	94.0	92.1	95.7	99.3	95.9	

Table S2a Number of days from sowing to maturing date for six wheat cultivars under five irrigation treatments in two cropping seasons at Nubaria.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	131.3	137.7	131.7	134.7	138.7	134.7	134.8
	T2	131.3	134.3	131.3	135.3	135.3	134.3	133.7
	T3	130.0	131.3	132.3	131.7	133.7	131.7	131.8
	T4	130.7	130.3	131.3	130.3	132.3	132.3	131.2
	T5	130.3	130.7	130.7	130.3	135.7	132.0	131.6
	Cultivar mean	130.7	132.9	131.5	132.5	135.1	133.0	
2020-2021	T1	144.3	147.0	147.3	147.7	153.0	149.0	148.1
	T2	143.7	147.0	146.7	147.3	152.3	149.0	147.7
	T3	143.7	145.7	144.3	146.0	150.3	146.7	146.1
	T4	144.3	146.0	146.0	146.3	148.7	147.0	146.4
	T5	142.3	144.7	144.7	145.7	148.3	146.3	145.3
	Cultivar mean	143.7	146.1	145.8	146.6	150.5	147.6	

Table S3a Plant height (cm) for six wheat cultivars under five irrigation treatments in two cropping seasons at Nubaria.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	94.0	102.3	102.3	99.3	102.0	115.0	102.5
	T2	101.3	101.7	104.7	98.0	104.3	112.7	103.8
	T3	103.7	97.3	98.3	103.0	101.3	111.7	102.6
	T4	95.7	95.7	96.7	97.0	101.7	106.0	98.8
	T5	98.0	94.7	100.7	98.0	101.3	99.0	98.6
	Cultivar mean	98.5	98.3	100.5	99.1	102.1	108.9	
2020-2021	T1	103.3	111.7	115.0	113.3	126.7	113.3	113.9
	T2	104.7	107.3	113.0	114.7	125.7	114.0	113.2
	T3	103.3	106.7	111.7	109.0	122.3	113.3	111.1
	T4	101.7	103.3	110.7	106.7	118.3	111.7	108.7
	T5	98.3	98.3	106.3	109.3	118.3	107.7	106.4
	Cultivar mean	102.3	105.5	111.3	110.6	122.3	112.0	

Table S4a Flag Leaf area (cm^2) for six wheat cultivars under five irrigation treatments in two cropping seasons at Nubaria.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	44.8	45.4	40.5	59.6	63.1	52.3	51.0
	T2	33.6	43.3	37.0	37.9	56.0	50.2	43.0
	T3	48.0	47.5	34.1	49.4	54.9	50.0	47.3
	T4	36.1	30.8	31.6	30.5	56.2	44.2	38.2
	T5	35.2	37.9	28.1	26.8	63.8	49.2	40.2
	Cultivar mean	39.6	41.0	34.3	40.9	58.8	49.2	
2020-2021	T1	51.3	40.5	43.8	52.2	67.2	52.7	51.3
	T2	49.2	39.2	45.3	52.0	63.5	40.8	48.3
	T3	47.6	43.2	40.0	57.0	62.2	53.7	50.6
	T4	54.5	40.4	42.5	53.2	63.6	46.1	50.0
	T5	49.5	41.0	45.4	53.7	61.4	54.3	50.9
	Cultivar mean	50.4	40.9	43.4	53.6	63.6	49.5	

Table S5a Number of spikes per square metre for six wheat cultivars under five irrigation treatments in two cropping seasons at Nubaria.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	263.3	180.0	296.7	283.3	243.3	263.3	255.0
	T2	220.0	250.0	240.0	230.0	243.3	326.7	251.7
	T3	200.0	250.0	230.0	263.3	243.3	240.0	237.8
	T4	196.7	226.7	190.0	216.7	213.3	246.7	215.0
	T5	193.3	196.7	260.0	236.7	216.7	246.7	225.0
	Cultivar mean	214.7	220.7	243.3	246.0	232.0	264.7	
2020-2021	T1	291.7	278.3	306.7	290.0	276.7	276.7	286.7
	T2	313.3	293.3	281.7	290.0	283.3	300.0	293.6
	T3	310.0	286.7	293.3	291.7	276.7	298.3	292.8
	T4	306.7	286.7	293.3	291.7	303.3	300.0	296.9
	T5	290.0	291.7	283.3	290.0	280.0	278.3	285.6
	Cultivar mean	302.3	287.3	291.7	290.7	284.0	290.7	

Table S6a Number of kernels per spike for six wheat cultivars under five irrigation treatments in two cropping seasons at Nubaria.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	35.0	52.7	30.7	37.3	42.7	43.7	40.3
	T2	41.7	37.7	41.0	45.7	35.7	30.3	38.7
	T3	44.7	44.0	37.0	40.3	42.3	37.3	40.9
	T4	41.3	48.7	43.0	46.3	42.7	43.3	44.2
	T5	38.0	48.0	39.3	40.7	45.7	36.0	41.3
	Cultivar mean	40.1	46.2	38.2	42.1	41.8	38.1	
2020-2021	T1	48.7	55.0	45.0	56.7	53.0	48.0	51.1
	T2	49.3	51.7	49.3	54.7	50.0	44.0	49.8
	T3	47.7	50.7	48.7	49.0	50.0	45.3	48.6
	T4	49.0	53.0	46.7	48.0	49.3	49.7	49.3
	T5	49.7	50.7	49.0	53.3	47.3	44.7	49.1
	Cultivar mean	48.9	52.2	47.7	52.3	49.9	46.3	

Table S7a Thousand grain weight (g) for six wheat cultivars under five irrigation treatments in two cropping seasons at Nubaria.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	55.0	48.7	56.8	54.8	49.6	58.5	53.9
	T2	52.4	50.9	54.3	49.7	52.2	58.3	53.0
	T3	46.6	46.4	60.2	51.0	47.4	54.2	51.0
	T4	50.9	47.8	60.1	50.5	48.1	55.8	52.2
	T5	54.6	51.4	57.2	50.3	52.1	57.6	53.9
	Cultivar mean	51.9	49.0	57.7	51.2	49.9	56.9	
2020-2021	T1	58.9	53.4	60.9	59.0	47.2	59.1	56.4
	T2	59.3	53.7	58.6	57.4	45.9	57.6	55.4
	T3	56.6	53.0	57.7	58.5	44.3	54.8	54.1
	T4	52.2	49.7	54.3	53.0	39.1	53.4	50.3
	T5	54.5	49.1	54.4	52.3	44.0	59.7	52.3
	Cultivar mean	56.3	51.8	57.2	56.0	44.1	56.9	

Table S8a Mean grain yield (kg) per harvested plot area of 2.8 m^2 for six wheat cultivars under five irrigation treatments in two cropping seasons at Nubaria.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	1.34	1.75	1.67	1.68	1.41	2.11	1.66
	T2	1.39	1.60	1.67	1.62	1.37	1.90	1.59
	T3	1.37	1.48	1.63	1.45	1.31	1.71	1.49
	T4	1.19	1.40	1.59	1.42	1.23	1.64	1.41
	T5	1.20	1.38	1.60	1.23	1.32	1.72	1.41
	Cultivar mean	1.30	1.52	1.63	1.48	1.33	1.82	
2020-2021	T1	2.00	2.16	2.14	2.12	1.80	2.03	2.04
	T2	1.98	1.97	1.96	2.06	1.66	2.09	1.95
	T3	1.90	1.99	2.02	1.95	1.73	2.03	1.94
	T4	1.85	1.85	1.99	1.93	1.61	2.02	1.88
	T5	1.70	1.94	2.01	1.80	1.55	1.62	1.77
	Cultivar mean	1.89	1.98	2.02	1.97	1.67	1.96	

Table S9a Mean above ground biomass yield (kg) per harvested plot area of 2.8 m^2 for six wheat cultivars under five irrigation treatments in two cropping seasons at Nubaria.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	4.13	5.07	4.50	4.93	4.20	6.13	4.83
	T2	4.22	4.63	5.00	4.77	4.23	5.43	4.71
	T3	4.37	4.97	5.27	4.45	4.33	5.20	4.76
	T4	4.07	5.03	5.47	4.77	4.17	5.27	4.79
	T5	4.10	4.90	5.47	4.32	4.10	5.60	4.75
	Cultivar mean	4.18	4.92	5.14	4.65	4.21	5.53	
2020-2021	T1	5.63	5.77	6.00	5.80	5.33	5.93	5.74
	T2	5.40	5.33	5.43	5.87	4.90	5.83	5.46
	T3	5.50	5.33	5.80	5.47	5.17	5.77	5.51
	T4	5.07	5.00	5.83	5.60	4.67	5.93	5.35
	T5	4.83	5.33	5.60	5.13	4.70	4.53	5.02
	Cultivar mean	5.29	5.35	5.73	5.57	4.95	5.60	

Table S1b Number of days from sowing to heading date for six wheat cultivars under five irrigation treatments in two cropping seasons at Al Mataenah .

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	77.0	77.0	77.3	76.7	76.7	77.7	77.1
	T2	76.7	76.3	75.7	76.3	78.3	78.0	76.9
	T3	74.7	74.3	74.0	74.7	76.0	76.3	75.0
	T4	74.3	72.3	72.3	73.3	74.3	74.3	73.5
	T5	69.7	70.0	69.0	68.7	70.3	70.3	69.7
	Cultivar mean	74.5	74.0	73.7	73.9	75.1	75.3	
2020-2021	T1	84.3	83.0	83.3	83.7	84.3	82.3	83.5
	T2	83.0	81.0	81.3	82.7	83.3	81.3	82.1
	T3	81.0	78.7	80.0	81.0	80.3	78.0	79.8
	T4	80.0	77.3	77.0	78.3	78.7	77.3	78.1
	T5	72.7	72.3	72.3	74.0	72.0	71.0	72.4
	Cultivar mean	80.2	78.5	78.8	79.9	79.7	78.0	

Table S2b Number of days from sowing to maturing date for six wheat cultivars under five irrigation treatments in two cropping seasons at Al Mataenah .

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	126.7	126.3	126.0	125.3	127.0	125.3	126.1
	T2	125.3	125.7	124.7	124.7	126.3	124.7	125.2
	T3	122.3	122.7	121.3	120.0	122.7	121.0	121.7
	T4	117.0	117.7	116.3	115.7	116.7	114.0	116.2
	T5	108.7	108.3	106.7	110.7	110.0	109.0	108.9
	Cultivar mean	120.0	120.1	119.0	119.3	120.5	118.8	
2020-2021	T1	131.0	131.0	131.7	131.7	133.3	130.0	131.4
	T2	127.3	127.7	128.0	128.0	129.7	126.3	127.8
	T3	124.0	125.7	125.7	124.7	126.7	122.7	124.9
	T4	116.7	122.7	119.3	117.3	120.7	118.7	119.2
	T5	109.3	113.0	110.0	114.7	112.0	112.0	111.8
	Cultivar mean	121.7	124.0	122.9	123.3	124.5	121.9	

Table S3b Plant height (cm) for six wheat cultivars under five irrigation treatments in two cropping seasons at Al Mataenah .

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	103.3	108.3	101.7	105.0	108.3	105.0	105.3
	T2	108.3	110.0	106.7	106.7	110.0	103.3	107.5
	T3	105.0	108.3	108.3	105.0	108.3	103.3	106.4
	T4	93.3	95.0	95.0	93.3	96.7	98.3	95.3
	T5	85.0	91.7	88.3	93.3	90.0	90.0	89.7
	Cultivar mean	99.0	102.7	100.0	100.7	102.7	100.0	
2020-2021	T1	113.3	118.3	120.0	113.3	118.3	116.7	116.7
	T2	110.0	115.0	116.7	111.7	115.0	110.0	113.1
	T3	98.7	111.7	110.0	108.3	110.0	106.7	108.6
	T4	96.7	103.3	105.0	105.7	103.3	102.3	102.7
	T5	91.7	96.7	96.7	99.0	96.7	100.3	96.8
	Cultivar mean	103.3	109.0	109.7	107.6	108.7	107.2	

Table S4b Flag Leaf area (cm^2) for six wheat cultivars under five irrigation treatments in two cropping seasons at Al Mataenah .

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	54.2	50.8	53.1	59.2	60.5	59.5	56.2
	T2	49.6	45.7	48.2	52.0	49.8	50.2	49.2
	T3	39.5	40.6	44.2	47.0	42.7	43.3	42.9
	T4	39.6	38.4	35.2	37.6	41.5	36.0	38.0
	T5	32.9	27.6	27.8	34.1	37.9	31.3	31.9
	Cultivar mean	43.2	40.6	41.7	46.0	46.5	44.0	
2020-2021	T1	53.6	58.3	54.5	63.6	63.7	66.3	60.0
	T2	50.7	51.4	51.5	56.1	52.8	54.7	52.9
	T3	42.1	44.6	44.6	48.0	46.0	48.7	45.7
	T4	36.3	39.4	41.7	40.0	45.3	41.4	40.7
	T5	35.1	26.6	31.8	39.4	42.9	34.2	35.0
	Cultivar mean	43.6	44.1	44.8	49.4	50.2	49.0	

Table S5b Number of spikes per square metre for six wheat cultivars under five irrigation treatments in two cropping seasons at Al Mataenah .

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	488.0	504.0	490.7	496.0	470.7	474.7	487.3
	T2	474.7	516.7	492.0	485.3	488.0	462.7	486.6
	T3	461.3	444.0	465.3	456.0	464.0	442.7	455.6
	T4	438.7	453.3	441.3	425.3	409.3	398.7	427.8
	T5	445.3	440.0	442.7	425.3	453.3	452.0	443.1
	Cultivar mean	461.6	471.6	466.4	457.6	457.1	446.1	
2020-2021	T1	472.7	465.3	497.3	468.0	472.0	469.3	474.1
	T2	464.0	450.7	473.3	456.0	462.0	458.7	460.8
	T3	446.7	437.3	458.7	445.3	449.3	441.3	446.4
	T4	433.3	416.0	446.7	425.3	426.7	428.0	429.3
	T5	415.3	394.7	433.3	391.3	400.7	397.7	405.5
	Cultivar mean	446.4	432.8	461.9	437.2	442.1	439.0	

Table S6b Number of kernels per spike for six wheat cultivars under five irrigation treatments in two cropping seasons at Al Mataenah .

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	54.0	60.7	61.7	60.7	62.3	62.7	60.3
	T2	57.7	59.0	56.3	52.3	54.7	60.3	56.7
	T3	53.5	53.3	49.7	44.0	47.0	51.7	49.9
	T4	40.6	46.3	41.0	38.0	39.6	44.7	41.7
	T5	30.3	36.3	35.1	32.0	36.2	38.5	34.7
	Cultivar mean	47.2	51.1	48.8	45.4	48.0	51.6	
2020-2021	T1	60.0	70.7	69.0	64.0	69.0	70.7	67.2
	T2	62.0	60.7	59.7	51.7	58.3	61.7	59.0
	T3	52.3	53.0	51.0	45.0	48.0	54.0	50.6
	T4	41.7	48.7	43.3	39.7	41.0	47.3	43.6
	T5	32.0	37.7	38.3	35.7	39.7	41.0	37.4
	Cultivar mean	49.6	54.1	52.3	47.2	51.2	54.9	

Table S7b Thousand grain weight (g) for six wheat cultivars under five irrigation treatments in two cropping seasons at Al Mataenah .

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	57.5	58.8	57.5	53.4	52.2	58.1	56.2
	T2	46.4	45.4	48.5	43.5	44.9	52.1	46.8
	T3	44.1	42.1	41.7	40.6	38.6	44.1	41.9
	T4	40.8	39.0	38.9	38.8	36.6	39.8	39.0
	T5	33.4	34.6	30.4	32.1	29.3	34.4	32.4
	Cultivar mean	44.4	44.0	43.4	41.7	40.3	45.7	
2020-2021	T1	55.5	54.2	58.6	56.3	53.0	58.6	56.0
	T2	50.5	47.5	52.3	46.9	48.5	54.1	50.0
	T3	47.7	44.9	45.0	44.0	42.6	47.3	45.2
	T4	44.2	41.8	43.1	41.7	40.0	43.2	42.3
	T5	35.3	37.5	33.4	35.2	32.3	37.8	35.2
	Cultivar mean	46.7	45.1	46.5	44.8	43.3	48.2	

Table S8b Mean grain yield (kg) per harvested plot area of 2.8 m^2 for six wheat cultivars under five irrigation treatments in two cropping seasons at Al Mataenah .

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	3.50	3.45	3.29	3.52	3.48	3.49	3.45
	T2	3.19	3.32	3.23	3.30	3.54	3.03	3.27
	T3	2.79	2.87	2.77	2.69	2.86	2.52	2.75
	T4	2.34	2.61	2.37	2.66	2.80	2.51	2.55
	T5	2.01	1.74	1.84	2.07	1.74	1.69	1.85
	Cultivar mean	2.77	2.80	2.70	2.85	2.88	2.65	
2020-2021	T1	2.95	2.99	3.17	3.15	3.00	3.16	3.07
	T2	2.66	2.62	2.81	2.86	2.62	2.82	2.73
	T3	2.41	2.44	2.66	2.68	2.36	2.44	2.50
	T4	2.16	2.23	2.49	2.58	2.19	2.17	2.30
	T5	1.78	1.89	2.19	2.35	1.93	1.94	2.01
	Cultivar mean	2.39	2.43	2.67	2.73	2.42	2.51	

Table S9b Mean above ground biomass yield (kg) per harvested plot area of 2.8 m^2 for six wheat cultivars under five irrigation treatments in two cropping seasons at Al Mataenah .

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	10.53	10.40	10.23	10.07	10.87	10.03	10.36
	T2	9.60	10.00	9.93	9.73	10.70	9.20	9.86
	T3	8.57	8.80	8.77	7.63	8.27	7.87	8.32
	T4	7.37	7.77	7.43	7.57	8.00	7.17	7.55
	T5	5.97	6.13	5.87	6.25	5.90	5.13	5.88
	Cultivar mean	8.41	8.62	8.45	8.25	8.75	7.88	
2020-2021	T1	8.90	9.60	9.80	9.60	9.00	9.33	9.37
	T2	8.47	8.17	8.67	8.83	8.20	8.63	8.49
	T3	7.47	7.43	8.20	8.13	7.93	7.63	7.80
	T4	7.17	6.77	7.80	7.77	7.40	7.00	7.32
	T5	4.90	6.77	6.70	6.43	6.63	6.03	6.24
	Cultivar mean	7.38	7.75	8.23	8.15	7.83	7.73	

Table S1c Number of days from sowing to heading date for six wheat cultivars under five irrigation treatments in two cropping seasons at Sids.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	103.7	101.7	103.3	101.7	102.3	103.0	102.6
	T2	102.7	102.7	101.3	102.0	100.3	101.7	101.8
	T3	100.3	104.0	101.7	100.7	102.7	100.7	101.7
	T4	98.0	98.7	98.3	98.7	99.7	98.3	98.6
	T5	91.7	94.7	93.3	91.7	91.0	92.0	92.4
	Cultivar mean	99.3	100.3	99.6	98.9	99.2	99.1	
2020-2021	T1	91.0	92.0	92.0	92.0	90.0	93.7	91.8
	T2	93.0	92.0	92.0	91.0	91.0	91.0	91.7
	T3	85.3	87.0	86.3	86.0	88.0	88.3	86.8
	T4	86.0	87.0	88.7	87.0	86.7	89.7	87.5
	T5	81.3	82.7	84.3	85.7	84.3	87.7	84.3
	Cultivar mean	87.3	88.1	88.7	88.3	88.0	90.1	

Table S2c Number of days from sowing to maturing date for six wheat cultivars under five irrigation treatments in two cropping seasons at Sids.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	159.0	159.0	158.0	157.7	158.7	159.3	158.6
	T2	155.7	156.7	155.0	156.3	155.3	155.7	155.8
	T3	165.0	165.7	166.3	167.3	166.0	165.7	166.0
	T4	165.7	164.3	165.3	167.7	166.7	166.0	165.9
	T5	160.0	159.3	159.3	162.7	159.3	159.7	160.1
	Cultivar mean	161.1	161.0	160.8	162.3	161.2	161.3	
2020-2021	T1	131.0	132.0	132.0	132.0	130.0	133.7	131.8
	T2	133.0	132.0	132.0	131.0	131.0	131.0	131.7
	T3	130.3	132.0	131.3	131.0	133.0	133.3	131.8
	T4	131.0	132.0	133.7	132.0	131.7	134.7	132.5
	T5	125.3	126.7	128.3	129.7	128.3	131.7	128.3
	Cultivar mean	130.1	130.9	131.5	131.1	130.8	132.9	

Table S3c Plant height (cm) for six wheat cultivars under five irrigation treatments in two cropping seasons at Sids.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	110.0	116.7	111.7	116.7	100.0	111.7	111.1
	T2	111.7	110.0	111.7	113.3	110.0	108.3	110.8
	T3	108.3	103.3	105.0	105.0	110.0	106.7	106.4
	T4	100.0	100.0	96.7	106.7	96.7	98.3	99.7
	T5	98.3	90.0	91.7	96.7	93.3	91.7	93.6
	Cultivar mean	105.7	104.0	103.3	107.7	102.0	103.3	
2020-2021	T1	97.3	98.3	98.3	103.3	101.7	101.7	100.1
	T2	96.7	96.7	96.7	98.3	98.7	97.7	97.4
	T3	97.0	97.7	99.3	96.7	98.3	100.0	98.2
	T4	100.0	98.3	97.0	96.3	97.7	100.0	98.2
	T5	93.3	93.7	97.0	96.7	94.7	97.0	95.4
	Cultivar mean	96.9	96.9	97.7	98.3	98.2	99.3	

Table S4c Flag Leaf area (cm^2) for six wheat cultivars under five irrigation treatments in two cropping seasons at Sids.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	42.5	27.4	42.8	31.4	44.5	37.5	37.7
	T2	38.0	35.8	48.9	33.8	42.0	33.9	38.7
	T3	40.4	35.1	41.6	38.3	50.0	43.1	41.4
	T4	27.9	37.3	37.3	34.8	44.5	31.5	35.5
	T5	16.5	33.4	24.0	27.8	26.1	23.3	25.2
	Cultivar mean	33.1	33.8	38.9	33.2	41.4	33.9	
2020-2021	T1	24.1	25.3	40.8	27.4	23.6	27.5	28.1
	T2	31.0	24.8	36.4	22.9	29.1	33.0	29.5
	T3	24.7	28.3	24.9	22.9	23.9	26.4	25.2
	T4	25.5	24.2	25.6	27.4	22.9	26.0	25.3
	T5	18.2	17.5	29.0	23.3	13.8	27.4	21.5
	Cultivar mean	24.7	24.0	31.4	24.8	22.7	28.0	

Table S5c Number of spikes per square metre for six wheat cultivars under five irrigation treatments in two cropping seasons at Sids.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	494.7	498.7	513.3	498.7	538.7	470.7	502.4
	T2	624.0	429.3	453.3	454.7	448.0	573.3	497.1
	T3	481.3	460.0	492.0	550.7	540.0	485.3	501.6
	T4	398.7	461.3	466.7	488.0	490.7	382.7	448.0
	T5	344.0	340.0	329.3	378.7	346.7	356.0	349.1
	Cultivar mean	468.5	437.9	450.9	474.1	472.8	453.6	
2020-2021	T1	406.7	197.3	320.0	333.3	380.0	286.7	320.7
	T2	285.3	388.0	304.0	342.7	404.0	345.3	344.9
	T3	273.3	349.3	386.7	308.0	350.7	301.3	328.2
	T4	305.0	299.7	327.7	305.0	303.7	342.3	313.9
	T5	300.0	308.0	336.0	269.3	320.0	257.3	298.4
	Cultivar mean	314.1	308.5	334.9	311.7	351.7	306.6	

Table S6c Number of kernels per spike for six wheat cultivars under five irrigation treatments in two cropping seasons at Sids.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	52.1	64.0	67.9	64.3	61.7	65.7	62.6
	T2	60.3	57.4	67.0	63.5	60.4	65.0	62.3
	T3	60.9	61.0	59.1	55.9	59.7	57.1	59.0
	T4	64.3	68.1	68.2	74.7	62.5	61.5	66.6
	T5	51.3	49.1	56.2	48.6	61.9	45.0	52.0
	Cultivar mean	57.8	59.9	63.7	61.4	61.3	58.9	
2020-2021	T1	69.4	76.1	53.8	67.8	52.5	71.6	65.2
	T2	67.0	64.9	62.5	68.3	77.9	67.7	68.1
	T3	82.7	60.9	72.9	77.3	71.3	69.1	72.4
	T4	64.8	69.5	74.0	78.3	63.0	67.1	69.5
	T5	55.9	55.0	50.9	60.4	60.2	52.9	55.9
	Cultivar mean	68.0	65.3	62.8	70.4	65.0	65.7	

Table S7c Thousand grain weight (g) for six wheat cultivars under five irrigation treatments in two cropping seasons at Sids.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	40.4	49.0	44.7	50.2	55.3	51.0	48.4
	T2	42.0	50.1	53.7	49.8	46.6	44.9	47.9
	T3	33.6	45.9	42.6	43.0	52.0	45.3	43.7
	T4	42.0	48.0	45.1	46.8	46.4	44.6	45.5
	T5	49.5	54.9	52.0	53.8	57.2	46.6	52.3
	Cultivar mean	41.5	49.6	47.6	48.7	51.5	46.5	
2020-2021	T1	48.1	51.3	50.5	49.2	52.4	52.4	50.7
	T2	47.9	43.2	47.0	50.8	49.5	51.4	48.3
	T3	47.8	50.8	49.4	50.5	48.1	50.0	49.4
	T4	48.4	47.5	50.2	52.1	50.1	50.4	49.8
	T5	40.6	42.6	41.2	45.2	42.1	44.9	42.8
	Cultivar mean	46.6	47.1	47.6	49.6	48.4	49.8	

Table S8c Mean grain yield (kg) per harvested plot area of 2.8 m^2 for six wheat cultivars under five irrigation treatments in two cropping seasons at Sids.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	3.15	2.88	2.44	3.42	2.91	2.68	2.91
	T2	3.42	2.44	2.29	3.42	3.17	3.19	2.99
	T3	3.22	2.55	2.22	2.78	2.95	2.89	2.77
	T4	2.95	2.71	2.26	3.07	3.13	2.67	2.80
	T5	2.76	2.58	2.02	2.71	2.69	2.68	2.57
	Cultivar mean	3.10	2.63	2.25	3.08	2.97	2.82	
2020-2021	T1	2.95	3.84	3.46	3.69	2.97	3.63	3.42
	T2	3.74	3.41	3.00	3.52	3.26	3.09	3.34
	T3	3.06	2.94	3.15	3.45	3.42	3.11	3.19
	T4	2.50	2.29	2.51	2.70	2.23	2.57	2.47
	T5	2.00	1.90	2.53	2.21	2.44	2.03	2.18
	Cultivar mean	2.85	2.88	2.93	3.11	2.86	2.89	

Table S9c Mean above ground biomass yield (kg) per harvested plot area of 2.8 m^2 for six wheat cultivars under five irrigation treatments in two cropping seasons at Sids.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	6.90	6.19	5.24	7.25	6.41	5.76	6.29
	T2	6.95	5.37	5.11	7.24	6.45	6.70	6.30
	T3	6.88	5.60	5.04	5.96	6.19	6.35	6.00
	T4	6.49	5.95	4.97	6.75	6.88	5.88	6.15
	T5	6.07	5.68	4.44	5.51	5.91	5.90	5.58
	Cultivar mean	6.66	5.76	4.96	6.54	6.37	6.12	
2020-2021	T1	6.17	6.72	6.70	6.73	5.77	6.91	6.50
	T2	7.02	5.99	5.94	6.43	6.23	6.37	6.33
	T3	5.73	6.67	6.37	6.45	6.48	6.85	6.43
	T4	4.90	5.20	5.13	5.30	4.80	4.78	5.02
	T5	4.33	4.60	4.63	5.10	4.80	4.35	4.64
	Cultivar mean	5.63	5.84	5.76	6.00	5.62	5.85	

Table S1d Number of days from sowing to heading date for six wheat cultivars under five irrigation treatments in two cropping seasons at Ismailia.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	81.7	86.7	84.3	82.7	84.3	83.0	83.8
	T2	79.3	84.0	83.3	80.3	83.3	79.7	81.7
	T3	78.3	82.3	80.3	78.7	82.0	78.3	80.0
	T4	78.0	81.7	80.3	77.7	80.3	78.3	79.4
	T5	77.7	80.0	79.0	77.3	79.7	78.3	78.7
	Cultivar mean	79.0	82.9	81.5	79.3	81.9	79.5	
2020-2021	T1	89.7	91.0	89.7	89.3	89.0	89.0	89.6
	T2	87.0	89.0	88.3	88.3	89.0	86.3	88.0
	T3	84.3	87.3	86.7	86.3	89.0	87.3	86.8
	T4	85.7	85.7	86.7	84.3	85.3	86.3	85.7
	T5	83.3	83.3	84.3	82.0	84.0	84.3	83.6
	Cultivar mean	86.0	87.3	87.1	86.1	87.3	86.7	

Table S2d Number of days from sowing to maturing date for six wheat cultivars under five irrigation treatments in two cropping seasons at Ismailia.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	128.7	133.0	132.0	131.3	132.3	130.7	131.3
	T2	121.7	126.7	124.7	126.0	124.7	124.0	124.6
	T3	119.7	123.3	122.0	120.0	123.3	121.3	121.6
	T4	118.0	121.7	121.7	120.0	121.0	119.0	120.2
	T5	116.3	121.0	119.7	119.0	120.3	119.3	119.3
	Cultivar mean	120.9	125.1	124.0	123.3	124.3	122.9	
2020-2021	T1	133.0	133.0	132.3	138.0	135.3	137.3	134.8
	T2	129.7	133.0	130.7	134.3	135.3	134.0	132.8
	T3	128.7	129.7	129.3	130.0	133.0	129.7	130.1
	T4	124.7	129.0	124.3	123.3	129.7	123.0	125.7
	T5	121.0	122.0	121.7	122.3	124.3	125.0	122.7
	Cultivar mean	127.4	129.3	127.7	129.6	131.5	129.8	

Table S3d Plant height (cm) for six wheat cultivars under five irrigation treatments in two cropping seasons at Ismailia.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	93.0	101.7	102.0	99.3	94.3	101.7	98.7
	T2	88.0	95.3	88.3	90.7	90.0	91.7	90.7
	T3	80.0	85.3	86.0	81.0	85.3	80.7	83.1
	T4	72.3	78.3	79.7	78.7	79.0	75.0	77.2
	T5	66.3	70.3	72.7	71.3	71.3	69.0	70.2
	Cultivar mean	79.9	86.2	85.7	84.2	84.0	83.6	
2020-2021	T1	83.0	85.0	80.0	86.3	86.0	86.0	84.4
	T2	80.3	73.7	76.0	79.7	82.0	81.0	78.8
	T3	73.3	73.0	79.0	78.3	76.3	79.0	76.5
	T4	70.3	68.3	69.7	72.3	72.7	72.0	70.9
	T5	59.7	65.3	65.7	62.0	61.3	64.3	63.1
	Cultivar mean	73.3	73.1	74.1	75.7	75.7	76.5	

Table S4d Flag Leaf area (cm^2) for six wheat cultivars under five irrigation treatments in two cropping seasons at Ismailia.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	30.3	31.1	33.1	38.1	41.8	37.1	35.2
	T2	32.7	24.8	29.7	33.5	36.5	31.5	31.5
	T3	27.0	30.8	24.4	27.3	44.0	25.4	29.8
	T4	24.2	21.9	21.2	23.8	26.3	24.8	23.7
	T5	19.8	22.4	24.1	31.2	36.5	30.1	27.3
	Cultivar mean	26.8	26.2	26.5	30.8	37.0	29.8	
2020-2021	T1	30.9	29.6	26.6	35.8	36.8	33.6	32.2
	T2	33.8	24.5	29.7	30.7	27.9	28.8	29.2
	T3	28.8	33.3	29.7	31.5	35.5	30.0	31.5
	T4	30.3	26.2	24.5	20.7	25.4	24.2	25.2
	T5	24.8	24.2	24.4	24.1	24.0	20.6	23.7
	Cultivar mean	29.7	27.6	27.0	28.6	29.9	27.5	

Table S5d Number of spikes per square metre for six wheat cultivars under five irrigation treatments in two cropping seasons at Ismailia.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	383.3	381.7	395.0	355.0	405.3	396.7	386.2
	T2	295.0	328.3	311.7	315.0	321.7	293.3	310.8
	T3	280.0	288.3	290.0	288.3	298.3	273.3	286.4
	T4	246.7	281.7	266.7	256.7	281.7	266.7	266.7
	T5	228.3	255.0	243.3	236.7	241.7	245.0	241.7
	Cultivar mean	286.7	307.0	301.3	290.3	309.7	295.0	
2020-2021	T1	301.7	343.3	408.3	450.0	388.3	371.7	377.2
	T2	253.3	278.3	286.7	315.0	300.0	291.7	287.5
	T3	255.0	281.7	273.3	301.7	305.0	283.3	283.3
	T4	221.7	240.0	285.0	245.0	261.7	241.7	249.2
	T5	210.0	201.7	210.0	218.3	235.0	241.7	219.4
	Cultivar mean	248.3	269.0	292.7	306.0	298.0	286.0	

Table S6d Number of kernels per spike for six wheat cultivars under five irrigation treatments in two cropping seasons at Ismailia.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	43.9	49.0	39.0	43.8	41.6	47.5	44.1
	T2	37.3	42.6	40.1	39.1	39.5	38.4	39.5
	T3	34.9	38.3	34.2	36.9	35.2	39.3	36.5
	T4	30.6	32.9	35.4	37.2	33.8	33.3	33.9
	T5	26.7	26.2	25.8	29.7	27.3	26.4	27.0
	Cultivar mean	34.7	37.8	34.9	37.3	35.5	37.0	
2020-2021	T1	45.0	46.7	54.3	45.3	47.0	56.0	49.1
	T2	41.3	41.7	49.7	42.7	42.0	49.3	44.4
	T3	36.0	39.0	45.3	39.3	36.0	48.7	40.7
	T4	35.0	36.0	40.7	35.3	35.3	36.0	36.4
	T5	28.0	32.0	34.0	31.0	30.3	32.3	31.3
	Cultivar mean	37.1	39.1	44.8	38.7	38.1	44.5	

Table S7d Thousand grain weight (g) for six wheat cultivars under five irrigation treatments in two cropping seasons at Ismailia.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	40.3	44.0	41.7	48.0	45.3	46.0	44.2
	T2	38.7	40.3	37.7	42.0	36.7	41.3	39.4
	T3	33.7	37.3	36.7	38.7	36.3	36.3	36.5
	T4	31.7	36.0	36.7	37.0	31.7	36.3	34.9
	T5	28.3	33.0	31.0	33.3	29.3	31.0	31.0
	Cultivar mean	34.5	38.1	36.7	39.8	35.9	38.2	
2020-2021	T1	44.3	43.0	42.0	42.3	39.7	46.0	42.9
	T2	38.7	39.3	39.7	36.3	38.0	41.7	38.9
	T3	39.7	36.7	33.7	33.0	32.3	38.3	35.6
	T4	35.7	30.7	29.3	33.0	32.0	35.0	32.6
	T5	29.7	26.7	29.3	27.3	28.0	32.7	28.9
	Cultivar mean	37.6	35.3	34.8	34.4	34.0	38.7	

Table S8d Mean grain yield (kg) per harvested plot area of 2.8 m^2 for six wheat cultivars under five irrigation treatments in two cropping seasons at Ismailia.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	1.99	2.23	2.19	2.45	1.90	2.43	2.20
	T2	1.57	1.85	1.62	1.80	1.50	1.94	1.71
	T3	1.34	1.49	1.43	1.37	1.34	1.53	1.42
	T4	1.22	1.42	1.19	1.11	1.03	1.48	1.24
	T5	1.24	1.23	1.30	1.37	1.36	1.29	1.30
	Cultivar mean	1.47	1.64	1.55	1.62	1.43	1.73	
2020-2021	T1	0.96	1.04	1.17	1.27	1.02	1.19	1.11
	T2	0.97	1.03	1.10	1.13	0.99	1.03	1.04
	T3	0.80	0.94	0.99	1.03	0.83	1.01	0.93
	T4	0.48	0.56	0.62	0.69	0.54	0.64	0.59
	T5	0.32	0.43	0.49	0.47	0.38	0.45	0.43
	Cultivar mean	0.71	0.80	0.88	0.92	0.75	0.87	

Table S9d Mean above ground biomass yield (kg) per harvested plot area of 2.8 m^2 for six wheat cultivars under five irrigation treatments in two cropping seasons at Ismailia.

Season	Irrigation	Cultivar						Irrigation mean
		Gemmiza12	Sakha94	Sakha95	Shandaweel1	Sids1	Sids14	
2019-2020	T1	6.63	6.70	6.40	6.92	5.93	6.87	6.58
	T2	4.73	6.10	4.60	4.80	4.67	5.83	5.12
	T3	4.03	4.27	3.43	3.43	5.07	3.83	4.01
	T4	3.63	4.33	2.87	2.93	2.80	3.20	3.29
	T5	2.43	2.87	2.50	2.70	2.13	2.67	2.55
	Cultivar mean	4.29	4.85	3.96	4.16	4.12	4.48	
2020-2021	T1	3.23	4.43	4.40	4.80	4.53	4.13	4.26
	T2	3.37	3.50	4.13	4.33	3.80	3.77	3.82
	T3	2.70	3.20	3.47	3.50	3.00	3.40	3.21
	T4	1.77	1.80	1.90	2.40	1.83	2.03	1.96
	T5	1.33	1.53	1.77	1.63	1.43	1.57	1.54
	Cultivar mean	2.48	2.89	3.13	3.33	2.92	2.98	