

Table 1. Mean values for growth characters, grain yield and yield components and in 2012 seasons.

Treatment	RGR (g/day)	SGR (g/day)	LAI	No. panicles/m²	No. Filled grains/panicle	1000-grain weight (g)	GY (t/fed)
Cultivars:							
Giza 178	0.18	0.59	6.81	295.50	112.97	20.55	3.32
Sakha 104	0.19	0.71	6.76	273.88	113.87	24.19	3.4
Sakha 106	0.20	0.70	6.81	275.98	114.21	25.08	3.51
LSD 0.05	0.01	0.08	N.S	2.15	N.S	0.67	0.09
Nitrogen sources:							
Control (T1)	0.13	0.51	6.60	214.30	95.83	21.66	1.82
75 % Mineral (T2)	0.14	0.57	6.72	273.92	111.49	22.68	3.22
50 % Mineral + 25 % BGA (T3)	0.14	0.61	6.76	274.58	111.71	22.38	2.95
50 % Mineral + 25 % OM (T4)	0.19	0.58	6.74	276.64	112.4	22.95	3.07
25 % Mineral + 25 % BGA + 25 % OM (T5)	0.20	0.67	6.91	282.81	116.02	24.41	4.26
100 Mineral (T6)	0.21	0.72	6.92	280.17	112.89	23.57	3.91
75 % Mineral + 25 % BGA (T7)	0.20	0.69	6.87	280.36	114.52	23.33	3.39
75% Mineral + 25 % OM (T8)	0.26	0.81	6.82	292.61	116.39	23.72	3.60
50 % Mineral + 25 % BGA + 25 % OM(T9)	0.27	0.82	6.82	298.67	118.89	24.75	4.43
LSD 0.05	0.01	0.06	0.13	3.09	1.15	0.35	0.10

Table 2. Mean values for growth characters, grain yield and yield components and in 2013 seasons

Treatment	RGR (g/day)	SGR (g/day)	LAI	No. panicles/m²	No. Filled grains/panicle	1000-grain weight (g)	GY (t/fed)
Cultivars:							
Giza 178	0.41	0.62	6.83	316.7	117.10	22.24	3.53
Sakha 104	0.41	0.71	6.83	294.1	117.78	25.41	3.70
Sakha 106	0.50	0.72	6.88	294.9	118.74	26.13	3.85
LSD 0.05	0.01	0.04	N.S	2.80	N.S	0.48	0.06
Nitrogen sources:							
Control (T1)	0.33	0.56	6.38	238.3	91.82	22.73	2.00
75 % Mineral (T2)	0.40	0.56	6.49	285.4	115.52	24.05	3.27
50 % Mineral + 25 % BGA (T3)	0.43	0.61	6.78	286.5	115.92	23.51	3.39
50 % Mineral + 25 % OM (T4)	0.37	0.63	6.78	287.8	116.59	23.99	3.54
25 % Mineral + 25 % BGA + 25 % OM (T5)	0.45	0.72	6.88	308.9	119.30	25.20	3.73
100 Mineral (T6)	0.55	0.76	6.89	314.9	118.41	24.66	3.70
75 % Mineral + 25 % BGA (T7)	0.45	0.69	6.91	290.2	118.30	25.03	4.18
75% Mineral + 25 % OM (T8)	0.50	0.79	6.94	320.4	120.73	26.22	4.50
50 % Mineral + 25 % BGA + 25 % OM (T9)	0.51	0.86	6.93	324.8	121.84	25.95	4.71
LSD 0.05	0.06	0.04	0.09	15.00	2.15	0.58	0.12

Table 3. Means of interaction between rice cultivars and nitrogen sources on 1000-grain weight and grain yield in 2012 and 2013 seasons.

	N treatment	1000-grain weight (g)		GY (t/ha)	
		2012	2013	2012	2013
Giza 178	T1	19.43	20.77	1.90	2.01
	T2	20.00	21.56	2.92	3.11
	T3	20.30	22.06	2.97	3.20
	T4	20.06	21.49	3.13	3.37
	T5	20.60	22.06	3.15	3.43
	T6	21.10	22.50	3.33	3.52
	T7	20.90	22.63	3.81	3.92
	T8	21.20	23.20	4.23	4.46
	T9	21.40	23.90	4.46	4.77
Sakha 104	T1	22.06	23.30	1.85	2.03
	T2	23.03	24.66	2.99	3.39
	T3	23.83	24.30	3.24	3.55
	T4	23.40	24.46	3.34	3.60
	T5	24.30	26.33	3.47	3.72
	T6	24.60	25.46	3.65	4.10
	T7	24.46	25.90	3.76	4.14
	T8	25.93	27.73	4.03	4.33
	T9	26.13	26.53	4.24	4.48
Sakha 106	T1	23.50	24.13	1.71	1.95
	T2	24.13	25.93	2.95	3.32
	T3	24.73	24.16	3.01	3.43
	T4	24.60	26.03	3.20	3.66
	T5	25.10	27.20	3.56	4.03
	T6	25.46	26.03	3.84	4.23
	T7	25.36	26.56	4.17	4.48
	T8	26.10	27.73	4.52	4.71
	T9	26.73	27.43	4.60	4.89
LSD 0.05		0.77	1.10	0.18	0.20

Table 4. Mean values for grain quality characters in 2012 and 2013 seasons

Treatment	2012 season					2013 season				
	Hulling %	Milling %	Broken %	Protein %	Amylose %	Hulling %	Milling %	Broken %	Protein %	Amylose %
Cultivars:										
Giza 178	78.98	71.22	7.92	8.17	19.67	79.23	71.18	7.81	8.31	19.85
Sakha 104	80.17	70.44	4.81	7.95	19.06	80.39	70.58	4.76	8.19	19.20
Sakha 106	80.69	70.89	5.78	8.25	19.32	80.93	71.04	5.60	8.44	19.46
LSD 0.05	0.83	0.10	0.78	N.S	0.33	0.38	0.07	0.53	N.S	0.43
Nitrogen sources:										
Control (T1)	79.36	70.25	6.62	7.56	18.99	79.60	70.46	6.63	7.74	19.13
75 % Mineral (T2)	79.62	70.54	6.40	7.86	19.19	79.92	70.70	6.33	8.11	19.40
50 % Mineral + 25 % BGA (T3)	79.55	70.46	6.19	7.80	19.15	79.76	70.66	6.43	7.96	19.30
50 % Mineral + 25 % OM (T4)	79.74	70.58	6.38	7.96	19.26	79.96	70.73	6.29	8.13	19.42
25 % Mineral + 25 % BGA+ 25 % OM (T5)	80.44	71.14	5.86	8.51	19.54	80.61	71.29	5.56	8.68	19.70
100 Mineral (T6)	80.05	70.83	6.12	8.22	19.35	80.38	71.04	5.83	8.42	19.55
75 % Mineral + 25 % BGA (T7)	79.93	71.71	6.22	8.17	19.39	80.15	70.98	6.13	8.33	19.54
75% Mineral + 25 % OM (T8)	80.11	70.84	6.04	8.32	19.48	80.34	71.167	5.95	8.56	19.63
50 % Mineral + 25 % BGA+ 25 % OM (T9)	80.74	71.28	5.69	8.69	19.79	80.92	71.41	5.39	8.89	19.84
LSD 0.05	0.50	N.S	0.30	0.28	0.46	0.59	N.S	0.42	0.35	0.31