

Table 4.7. Central Zone		SPL-IR-ES-HYPT		Centrewise		Yield, q/ha	2023-24
Nutrients Management	Genotype	BISA Jabalpur	Jabalpur	Powarkheda	Udaipur	Vijapur	Zonal mean
100% RFD	RMHYPT201	62.10	49.96	52.06	55.64	51.91	54.33
	RMHYPT202	72.47	65.29	51.57	56.03	49.18	58.91
	RMHYPT203	64.32	54.00	51.72	71.47	55.44	59.39
	RMHYPT204	64.88	62.66	46.03	55.67	53.90	56.63
	RMHYPT205	62.47	40.63	47.84	67.14	48.50	53.32
	RMHYPT206	67.35	54.64	54.95	52.94	51.61	56.30
	Mean	65.60	54.53	50.70	59.81	51.76	56.48
150% RFD+FYM	RMHYPT201	66.38	52.25	61.14	76.39	58.40	62.91
	RMHYPT202	75.41	70.21	58.16	81.47	61.13	69.27
	RMHYPT203	69.76	49.66	60.61	84.21	59.74	64.79
	RMHYPT204	72.66	69.34	64.96	75.00	61.37	68.67
	RMHYPT205	65.32	52.54	59.70	83.37	59.71	64.13
	RMHYPT206	74.59	71.34	62.40	72.82	60.56	68.34
	Mean	70.69	60.89	61.16	78.88	60.15	66.35
Mean	RMHYPT201	64.24	51.11	56.60	66.01	55.15	58.62
	RMHYPT202	73.94	67.75	54.86	68.75	55.15	64.09
	RMHYPT203	67.04	51.83	56.16	77.84	57.59	62.09
	RMHYPT204	68.77	66.00	55.50	65.34	57.63	62.65
	RMHYPT205	63.90	46.59	53.77	75.26	54.10	58.72
	RMHYPT206	70.97	62.99	58.67	62.88	56.09	62.32
	Mean	68.14	57.71	55.93	69.35	55.95	61.42
CD (0.05)	NM (A)	2.28	2.16	0.82	3.11	5.50	2.77
	Genotype (B)	3.73	3.32	1.84	6.78	3.64	3.86
	B within A	5.27	4.69	2.60	9.59	5.15	5.46
	A within B	5.00	4.47	2.42	8.94	5.72	5.31
Date of Sowing:		04.11.2023	14.11.2023	05.11.2023	10.11.2023	04.11.2023	
Date of Harvesting:		07.04.2024	07.04.2024	01.04.2024	25.03.2024	06.03.2024	

Genotype	SPL-IR-ES-HYPT				Pooled	2023-24
	Nutrients Management					
	100% RFD	Rk	150% RFD+FYM	Rk	Mean	Rk
Yield, q/ha						
RMHYPT201	54.33	5	62.91	6	58.62	6
RMHYPT202	58.91	2	69.27	1	64.09	1
RMHYPT203	59.39	1	64.79	4	62.09	4
RMHYPT204	56.63	3	68.67	2	62.65	2
RMHYPT205	53.32	6	64.13	5	58.72	5
RMHYPT206	56.30	4	68.34	3	62.32	3
Mean	56.48		66.35		61.42	
	NM(A)		Genotype (B)		B within A	A within B
CD (0.05)	0.88		1.80		2.55	2.67
Earhead/sqm						
RMHYPT201	410	3	410	5	410	4
RMHYPT202	406	4	442	2	424	3
RMHYPT203	424	2	432	4	428	2
RMHYPT204	386	5	433	3	410	5
RMHYPT205	425	1	449	1	437	1
RMHYPT206	383	6	407	6	395	6
Mean	406		429		417	
	NM(A)		Genotype (B)		B within A	A within B
CD (0.05)	10.92		16.00		NS	24.83
Grains/Earhead						
RMHYPT201	28.41	6	33.47	2	30.94	5
RMHYPT202	30.76	2	32.65	5	31.71	3
RMHYPT203	29.11	5	30.30	6	29.70	6
RMHYPT204	29.46	4	32.73	4	31.10	4
RMHYPT205	30.55	3	33.31	3	31.93	2
RMHYPT206	34.11	1	37.15	1	35.63	1
Mean	30.40		33.27		31.83	
	NM(A)		Genotype (B)		B within A	A within B
CD (0.05)	0.84		1.50		N.S.	2.26
1000 Grains Weight, g						
RMHYPT201	47.65	3	46.41	4	47.03	4
RMHYPT202	47.39	4	49.24	3	48.32	3
RMHYPT203	48.90	2	50.99	1	49.94	2
RMHYPT204	50.20	1	49.69	2	49.95	1
RMHYPT205	42.45	6	43.35	6	42.90	6
RMHYPT206	43.99	5	46.19	5	45.09	5
Mean	46.76		47.64		47.20	
	NM(A)		Genotype (B)		B within A	A within B
CD (0.05)	0.57		0.85		1.20	1.31
Plant Height, cm						
RMHYPT201	99.94	1.00	97.01	1.00	98.48	1
RMHYPT202	88.95	5.00	86.20	3.00	87.57	3
RMHYPT203	92.75	2.00	87.84	2.00	90.30	2
RMHYPT204	89.26	4.00	85.48	4.00	87.37	4
RMHYPT205	88.42	6.00	84.41	5.00	86.41	6
RMHYPT206	91.46	3.00	83.12	6.00	87.29	5
Mean	91.80		87.34		89.57	
	NM(A)		Genotype (B)		B within A	A within B
CD (0.05)	1.51		2.04			3.21
Centres:	BISA Jabalpur, Jabalpur, Powarkheda, Udaipur, Vijapur					

Table 4.8.1. Central Zone **SPL-IR-ES-HYPT** **BISA Jabalpur** **2023-24**

Genotype	Nutrients Management				Mean	Rk
	100% RFD	Rk	150% RFD+FYM	Rk		
Yield, q/ha						
RMHYPT201	62.10	6	66.38	5	64.24	5
RMHYPT202	72.47	1	75.41	1	73.94	1
RMHYPT203	64.32	4	69.76	4	67.04	4
RMHYPT204	64.88	3	72.66	3	68.77	3
RMHYPT205	62.47	5	65.32	6	63.90	6
RMHYPT206	67.35	2	74.59	2	70.97	2
Mean	65.60		70.69		68.14	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		*	0.55	2.28	3.44	
Genotype (B)		**	1.53	3.73	5.50	
B within A		N.S.	2.16	5.27		
A within B			2.05	5.00		
Earhead/sqm						
RMHYPT201	442	3	432	4	437	3
RMHYPT202	457	2	440	2	448	2
RMHYPT203	480	1	448	1	464	1
RMHYPT204	402	5	440	2	421	5
RMHYPT205	422	4	427	6	424	4
RMHYPT206	365	6	432	4	398	6
Mean	428		436		432	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		N.S.	7.32	30.21	7.18	
Genotype (B)		N.S.	19.23	46.92	10.90	
B within A		N.S.	27.20	66.36		
A within B			25.89	63.15		
Grains/Earhead						
RMHYPT201	30.61	5	37.8	3	34.2	3
RMHYPT202	32.34	4	35.3	4	33.8	4
RMHYPT203	26.97	6	33.1	6	30.0	6
RMHYPT204	32.69	3	33.6	5	33.1	5
RMHYPT205	35.28	2	38.5	2	36.9	2
RMHYPT206	41.97	1	40.9	1	41.4	1
Mean	33.31		36.5		34.9	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		N.S.	1.09	4.51	13.26	
Genotype (B)		**	1.87	4.55	13.09	
B within A		N.S.	2.64	6.44		
A within B			2.64	6.45		

1000 Grains Weight, g						
RMHYPT201	46.13	4	41.3	5	43.7	4
RMHYPT202	49.13	3	49.9	1	49.5	2
RMHYPT203	49.87	1	49.3	3	49.6	1
RMHYPT204	49.47	2	49.6	2	49.5	2
RMHYPT205	42.47	6	39.8	6	41.1	6
RMHYPT206	44.60	5	42.3	4	43.4	5
Mean	46.94		45.4		46.2	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		N.S.	0.86	3.56	7.93	
Genotype (B)		**	1.24	3.02	6.57	
B within A		N.S.	1.75	4.27		
A within B			1.82	4.43		
Plant Height, cm						
RMHYPT201	107.5	1	97.5	1	102.5	1
RMHYPT202	98.1	5	90.4	3	94.3	3
RMHYPT203	99.9	3	95.5	2	97.7	2
RMHYPT204	96.6	6	89.2	5	92.9	5
RMHYPT205	98.8	4	89.8	4	94.3	4
RMHYPT206	100.4	2	83.7	6	92.1	6
Mean	100.2		91.0		95.6	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		*	1.18	4.86	5.22	
Genotype (B)		*	2.04	4.97	5.22	
B within A		N.S.	2.88	7.03		
A within B			2.88	7.03		
Date of Sowing	04.11.2023					
Date of Harvesting	07.04.2024					

Table 4.8.2. Central Zone		SPL-IR-ES-HYPT		Jabalpur	2023-24	
Genotype	Nutrients Management				Mean	Rk
	100% RFD	Rk	150% RFD+FYM	Rk		
Yield, q/ha						
RMHYPT201	49.96	5	52.25	5	51.11	5
RMHYPT202	65.29	1	70.21	2	67.75	1
RMHYPT203	54.00	4	49.66	6	51.83	4
RMHYPT204	62.66	2	69.34	3	66.00	2
RMHYPT205	40.63	6	52.54	4	46.59	6
RMHYPT206	54.64	3	71.34	1	62.99	3
Mean	54.53		60.89		57.71	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		*	0.52	2.16	3.85	
Genotype (B)		**	1.36	3.32	5.77	
B within A		**	1.92	4.69		
A within B			1.83	4.47		

Earhead/sqm						
RMHYPT201	517	2	457	5	487	5
RMHYPT202	475	4	543	2	509	1
RMHYPT203	494	3	518	4	506	2
RMHYPT204	459	5	553	1	506	3
RMHYPT205	539	1	406	6	472	6
RMHYPT206	457	6	524	3	491	4
Mean	490		500		495	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		N.S.	4.84	19.98	4.15	
Genotype (B)		N.S.	9.43	23.01	4.67	
B within A		**	13.34	32.54		
A within B			13.10	31.97		
Grains/Earhead						
RMHYPT201	23.85	5	28.9	5	26.4	5
RMHYPT202	32.67	1	31.7	3	32.2	2
RMHYPT203	26.36	4	21.6	6	24.0	6
RMHYPT204	32.13	2	29.7	4	30.9	3
RMHYPT205	18.33	6	35.7	1	27.0	4
RMHYPT206	31.76	3	32.6	2	32.2	1
Mean	27.52		30.0		28.8	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		N.S.	0.54	2.25	8.02	
Genotype (B)		**	1.08	2.63	9.17	
B within A		**	1.52	3.71		
A within B			1.49	3.64		
1000 Grains Weight, g						
RMHYPT201	40.59	5	39.6	5	40.1	4
RMHYPT202	42.36	2	40.9	4	41.6	3
RMHYPT203	41.48	3	44.9	1	43.2	1
RMHYPT204	42.50	1	42.3	2	42.4	2
RMHYPT205	41.14	4	36.3	6	38.7	6
RMHYPT206	37.82	6	41.9	3	39.9	5
Mean	40.98		41.0		41.0	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		N.S.	0.19	0.78	1.95	
Genotype (B)		**	0.51	1.25	3.06	
B within A		**	0.72	1.76		
A within B			0.69	1.67		

Plant Height, cm						
RMHYPT201	104.9	1	105.7	1	105.3	1
RMHYPT202	94.8	4	96.5	3	95.7	3
RMHYPT203	100.8	2	100.7	2	100.8	2
RMHYPT204	93.2	5	93.7	5	93.5	5
RMHYPT205	91.4	6	91.7	6	91.6	6
RMHYPT206	95.1	3	96.1	4	95.6	4
Mean	96.7		97.4		97.1	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		N.S.	0.66	2.73	2.88	
Genotype (B)		**	1.07	2.62	2.71	
B within A		N.S.	1.52	3.70		
A within B			1.53	3.74		
Date of Sowing	14.11.2023					
Date of Harvesting	07.04.2024					

Table 4.8.3. Central Zone		SPL-IR-ES-HYPT		Powarkheda	2023-24	
Genotype	Nutrients Management				Mean	Rk
	100% RFD	Rk	150% RFD+FYM	Rk		
Yield, q/ha						
RMHYPT201	52.06	2	61.14	3	56.60	2
RMHYPT202	51.57	4	58.16	6	54.86	5
RMHYPT203	51.72	3	60.61	4	56.16	3
RMHYPT204	46.03	6	64.96	1	55.50	4
RMHYPT205	47.84	5	59.70	5	53.77	6
RMHYPT206	54.95	1	62.40	2	58.67	1
Mean	50.70		61.16		55.93	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		**	0.20	0.82	1.50	
Genotype (B)		**	0.75	1.84	3.30	
B within A		**	1.07	2.60		
A within B			0.99	2.42		
Earhead/sqm						
RMHYPT201	367	3	397	3	382	3
RMHYPT202	346	5	436	2	391	2
RMHYPT203	359	4	351	5	355	5
RMHYPT204	334	6	339	6	336	6
RMHYPT205	385	1	526	1	456	1
RMHYPT206	372	2	370	4	371	4
Mean	360		403		382	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		*	5.46	22.54	6.06	
Genotype (B)		**	5.81	14.18	3.73	
B within A		**	8.22	20.05		
A within B			9.28	22.63		

Grains/Earhead						
RMHYPT201	31.65	3	31.8	4	31.7	4
RMHYPT202	31.90	2	28.3	5	30.1	5
RMHYPT203	31.23	4	32.7	3	32.0	3
RMHYPT204	28.78	6	38.1	1	33.4	2
RMHYPT205	30.33	5	25.4	6	27.8	6
RMHYPT206	34.76	1	36.3	2	35.5	1
Mean	31.44		32.1		31.8	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		N.S.	0.43	1.76	5.70	
Genotype (B)		**	0.59	1.44	4.55	
B within A		**	0.84	2.04		
A within B			0.87	2.13		
1000 Grains Weight, g						
RMHYPT201	44.83	4	48.5	3	46.7	4
RMHYPT202	46.77	2	47.3	4	47.0	3
RMHYPT203	46.22	3	52.8	1	49.5	1
RMHYPT204	48.00	1	50.3	2	49.2	2
RMHYPT205	41.00	6	44.8	6	42.9	6
RMHYPT206	42.50	5	46.5	5	44.5	5
Mean	44.89		48.4		46.6	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		**	0.22	0.90	1.97	
Genotype (B)		**	0.19	0.47	1.00	
B within A		**	0.27	0.66		
A within B			0.33	0.80		
Plant Height, cm						
RMHYPT201	104.0	1	99.0	1	101.5	1
RMHYPT202	87.7	3	77.7	3	82.7	2
RMHYPT203	86.0	5	77.7	3	81.8	5
RMHYPT204	87.0	4	78.0	2	82.5	3
RMHYPT205	85.3	6	76.3	5	80.8	6
RMHYPT206	88.7	2	76.0	6	82.3	4
Mean	89.8		80.8		85.3	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		*	0.83	3.42	4.12	
Genotype (B)		**	1.41	3.44	4.05	
B within A		N.S.	1.99	4.86		
A within B			2.00	4.88		
Date of Sowing	05.11.2023					
Date of Harvesting	01.04.2024					

Table 4.8.4. Central Zone		SPL-IR-ES-HYPT			Udaipur	2023-24
Genotype	Nutrients Management				Mean	Rk
	100% RFD	Rk	150% RFD+FYM	Rk		
Yield, q/ha						
RMHYPT201	55.64	5	76.39	4	66.01	4
RMHYPT202	56.03	3	81.47	3	68.75	3
RMHYPT203	71.47	1	84.21	1	77.84	1
RMHYPT204	55.67	4	75.00	5	65.34	5
RMHYPT205	67.14	2	83.37	2	75.26	2
RMHYPT206	52.94	6	72.82	6	62.88	6
Mean	59.81		78.88		69.35	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		**	0.75	3.11	4.61	
Genotype (B)		**	2.78	6.78	9.82	
B within A		N.S.	3.93	9.59		
A within B			3.67	8.94		
Earhead/sqm						
RMHYPT201	378	5	439	4	408	4
RMHYPT202	408	3	473	3	440	3
RMHYPT203	421	1	489	1	455	1
RMHYPT204	379	4	428	5	403	5
RMHYPT205	411	2	487	2	449	2
RMHYPT206	331	6	358	6	344	6
Mean	388		445		417	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		N.S.	13.79	56.95	14.04	
Genotype (B)		*	21.34	52.05	12.55	
B within A		N.S.	30.18	73.61		
A within B			30.81	75.15		
Grains/Earhead						
RMHYPT201	28.25	5	33.5	4	30.9	5
RMHYPT202	29.99	4	34.2	3	32.1	3
RMHYPT203	31.05	3	32.4	5	31.7	4
RMHYPT204	25.68	6	31.8	6	28.7	6
RMHYPT205	38.92	1	34.7	2	36.8	1
RMHYPT206	33.71	2	37.1	1	35.4	2
Mean	31.27		34.0		32.6	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		N.S.	0.85	3.53	11.11	
Genotype (B)		*	1.74	4.24	13.04	
B within A		N.S.	2.46	5.99		
A within B			2.40	5.85		

1000 Grains Weight, g						
RMHYPT201	52.24	3	52.2	4	52.2	3
RMHYPT202	45.74	5	51.5	5	48.6	5
RMHYPT203	54.90	2	54.1	3	54.5	2
RMHYPT204	57.52	1	56.5	1	57.0	1
RMHYPT205	43.39	6	49.4	6	46.4	6
RMHYPT206	48.35	4	55.0	2	51.7	4
Mean	50.36		53.1		51.7	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		N.S.	0.45	1.88	3.73	
Genotype (B)		**	0.68	1.66	3.22	
B within A		**	0.96	2.35		
A within B			0.99	2.41		
Plant Height, cm						
RMHYPT201	93.7	1	98.3	1	96.0	1
RMHYPT202	84.7	5	90.5	3	87.6	4
RMHYPT203	90.9	3	90.9	2	90.9	2
RMHYPT204	84.1	6	88.3	5	86.2	5
RMHYPT205	85.3	4	85.7	6	85.5	6
RMHYPT206	91.1	2	89.0	4	90.1	3
Mean	88.3		90.5		89.4	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		N.S.	1.62	6.71	7.71	
Genotype (B)		N.S.	3.04	7.42	8.34	
B within A		N.S.	4.30	10.50		
A within B			4.25	10.37		
Date of Sowing	10.11.2023					
Date of Harvesting	25.03.2024					

Table 4.8.5. Central Zone		SPL-IR-ES-HYPT		Vijapur	2023-24	
Genotype	Nutrients Management				Mean	Rk
	100% RFD	Rk	150% RFD+FYM	Rk		
Yield, q/ha						
RMHYPT201	51.91	3	58.40	6	55.15	4
RMHYPT202	49.18	5	61.13	2	55.15	4
RMHYPT203	55.44	1	59.74	4	57.59	2
RMHYPT204	53.90	2	61.37	1	57.63	1
RMHYPT205	48.50	6	59.71	5	54.10	6
RMHYPT206	51.61	4	60.56	3	56.09	3
Mean	51.76		60.15		55.95	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		*	1.33	5.50	10.10	
Genotype (B)		N.S.	1.49	3.64	6.54	
B within A		N.S.	2.11	5.15		
A within B			2.34	5.72		

Earhead/sqm						
RMHYPT201	348	5	328	5	338	5
RMHYPT202	345	6	321	6	333	6
RMHYPT203	364	3	352	3	358	4
RMHYPT204	359	4	405	1	382	2
RMHYPT205	366	2	401	2	384	1
RMHYPT206	391	1	351	4	371	3
Mean	362		360		361	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		N.S.	12.55	51.81	14.75	
Genotype (B)		N.S.	14.59	35.59	9.90	
B within A		N.S.	20.63	50.33		
A within B			22.63	55.21		
Grains/Earhead						
RMHYPT201	27.69	5	35.4	2	31.5	2
RMHYPT202	26.91	6	33.8	3	30.4	5
RMHYPT203	29.94	1	31.7	5	30.8	4
RMHYPT204	28.03	4	30.5	6	29.3	6
RMHYPT205	29.90	2	32.2	4	31.1	3
RMHYPT206	28.34	3	38.8	1	33.6	1
Mean	28.47		33.7		31.1	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		*	0.51	2.10	6.94	
Genotype (B)		N.S.	1.49	3.64	11.75	
B within A		N.S.	2.11	5.15		
A within B			1.99	4.86		
1000 Grains Weight, g						
RMHYPT201	54.46	1	50.5	3	52.5	3
RMHYPT202	52.97	3	56.7	1	54.8	1
RMHYPT203	52.03	4	53.9	2	52.9	2
RMHYPT204	53.50	2	49.8	4	51.6	4
RMHYPT205	44.24	6	46.5	5	45.3	6
RMHYPT206	46.69	5	45.3	6	46.0	5
Mean	50.65		50.4		50.5	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		N.S.	0.43	1.77	3.60	
Genotype (B)		**	0.99	2.42	4.80	
B within A		*	1.40	3.42		
A within B			1.35	3.29		

Plant Height, cm						
RMHYPT201	89.6	1	84.7	1	87.1	1
RMHYPT202	79.5	6	75.8	4	77.6	5
RMHYPT203	86.2	2	74.4	5	80.3	3
RMHYPT204	85.4	3	78.2	3	81.8	2
RMHYPT205	81.3	5	78.5	2	79.9	4
RMHYPT206	82.0	4	70.8	6	76.4	6
Mean	84.0		77.1		80.5	
		F. Test	SEm	CD (0.05)	CV (%)	
NM (A)		N.S.	1.87	7.73	9.86	
Genotype (B)		**	1.52	3.70	4.62	
B within A		N.S.	2.15	5.24		
A within B			2.71	6.61		
Date of Sowing	04.11.2023					
Date of Harvesting	06.03.2024					