

Table Heterobeltiosis(%) of F1 hybrids for the grain yield

MS & MA	Rest.		TP		TP		TP		TP		TP		Parental yield (kg/10a)
	706	725	835	884	929	1146	1167	1193	1223	1223	1223	1223	
Kwanak	100.9	102.5	130.4	133.3	121.4	167.8	101.6	113.2	136.4	293.0			
Kwanak es	69.4	67.2	103.3	108.8	94.9	122.3	78.9	98.0	94.8				
Nagdong	114.8	108.0	118.3	104.9	132.2	122.8	111.5	137.1	111.0	618.0			
Nagdong ms	106.8	90.8	81.3	72.3	94.8	95.1	85.6	95.6	76.2				
Samnam	136.2	102.0	118.6	94.1	126.6	123.0	99.6	111.8	114.9	612.3			
Samnam ms	99.5	99.2	79.3	79.0	104.0	92.7	75.5	78.9	79.7				
Jangb.#6	69.7	69.5	104.4	119.3	81.7	132.6	118.0	112.3	113.5	363.7			
Jangb.#6 ms	68.0	72.0	125.2	114.5	83.4	112.5	118.5	125.3	110.5				
Seolak	91.6	83.7	97.2	142.4	102.7	129.2	117.5	129.5	97.0	340.7			
Seolak es	69.1	61.1	80.4	110.4	76.6	107.6	108.4	101.3	81.8				
Parental yield(kg/10a)	674.3	738.7	425.3	301.3	514.3	317.7	407.0	321.0	420.7				

Table Relative magnitude of general combining ability and relative specific combining ability of parents for the grain yield

Parent	gca ¹⁾ r sca ²⁾ rca ³⁾ rca+X ⁴⁾			
	(gca+r sca)	(gca+r sca)	(gca+r sca)	(gca+r sca)
Female parent				
Kwanak	9.2 ⁴⁾	133.0	142.2	677.7
Kwanak ms	-130.7	72.3	-58.4	477.1
Nagdong	214.5	66.6	281.1	816.6
Nagdong ms	33.4	93.0	126.4	661.9
Samnam	186.7	99.4	286.1	821.6
Samnam ms	21.2	100.0	121.2	656.7
Jangb.#6	-76.6	34.2	-42.4	493.1
Jangb.#6 ms	-70.6	44.5	-26.1	509.4
Seolak	-43.2	80.5	37.3	572.8
Seolak ms	-143.7	49.1	-94.6	440.9
Male parent				
TP 708	90.4	158.7	249.1	784.6
TP 725	96.7	126.9	223.6	759.1
TP 835	-18.5	126.9	108.4	643.9
TP 884	-75.9	94.7	18.8	554.3
TP 929	34.4	146.3	180.7	716.2
TP 1146	-6.2	140.6	134.4	669.9
TP 1167	-44.7	101.8	57.1	592.6
TP 1193	-42.1	167.8	125.7	661.2
TP 1223	-33.8	118.8	85.0	620.5

- 1) gca : general combining ability
- 2) r sca : relative specific combining ability
- 3) rca : relative combining ability
- 4) in terms of kg/10a

Table Differences between maintainers/restorers and MS/restorers in several characters

F1 hybrid	Panicles /hill (No.)	Grains /pani. (No.)	1000 grs.wt. (g)	Grain fert. (%)	Culm leng. (cm)	Pani. leng. (cm)	Durat. to head. (day)
Kwanak/restorers	13.3	104.2	25.0	72.8	77.4	20.8	94.1
" ms/ "	11.8	98.8	25.9	62.7	76.4	20.3	95.4
(F-test)	**	*	**	**	**	**	**
Nagdong/ "	13.6	119.8	24.6	88.5	86.5	21.1	102.4
" ms/ "	12.2	112.2	25.1	79.4	85.6	20.7	102.7
(F-test)	**	**	**	**	*	*	ns
Samnam/ "	13.0	118.4	25.4	86.3	75.3	21.7	99.0
" ms/ "	11.7	110.9	26.0	75.9	72.6	21.3	99.4
(F-test)	**	**	**	**	**	ns	ns
Jangb.#6/ "	12.2	85.8	25.2	82.2	76.3	20.4	83.9
" ms/ "	12.1	86.0	25.3	83.6	74.5	20.1	83.5
(F-test)	ns	ns	ns	ns	**	*	**
Seolak/ "	12.6	101.9	24.3	74.5	64.3	21.0	89.9
" ms/ "	11.7	100.1	24.5	63.8	62.8	20.7	90.6
(F-test)	**	ns	ns	**	**	**	**

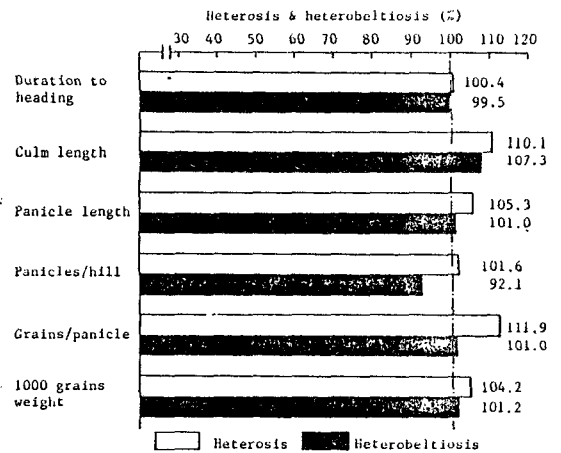


Fig. The mean heterosis and heterobeltiosis of F1 hybrids for several characters

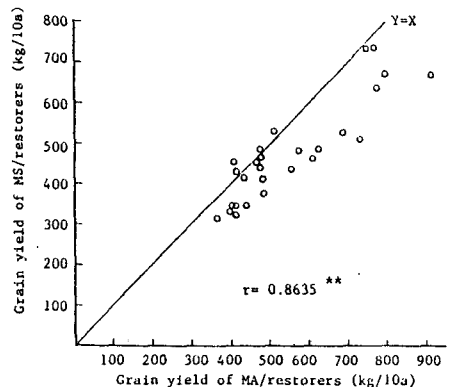


Fig. Correlation coefficient between the grain yield of maintainers(MA)/restorers and that of CCHMS lines(MS)/restorers