1. <u>Recovered inbreds</u>.

In the last year, 1955, second cycle inbreds, recovered by backcrossing from single crosses of "American" x "American," were tested for the character being selected. The comparison of crosses of C103 and corresponding crosses of (TL. C103^{II})S$_3$ is interesting. See Table I.

Table 1. A comparison of the combining ability of C 103 and (TL. C 103^{II})-S$_3$

Trial	Hybrids	Grain yield moisture (15.5% moisture) Kgs./Ha.	% grain moisture at harvest	Stalk juice refracto-metrical reading at grain harvest
V	(M B.G. 404 x W22) x C103	8,603	29.9	10.23
V	(M.B.G. 404 x W22)x(TL-C103^{II})-S$_3$	9,430	28.4	11.06
Difference		+ 827	-1.5	+0.83
V	V30 Commercial	8,766	28.1	8.57
V	V31 Commercial	7,337	22.8	3.36
V	V32 Commercial	6,728	28.5	9.25
T	W22 x C103	12,030	26.0	10.45
T	W22 x (TL-C103^{II}) S$_3$	12,780	26.6	8.38
Difference		+ 750	0.6	-2.07
T	B14 x C103	11,225	27.4	7.67
T	B14 x (TL-C103^{II}) S$_3$	13,144	26.9	8.67
Difference		+1,959	-0.5	+1.00
T	PS x C103	12,581	26.7	7.10
T	PS x (TL-C103^{II}) S$_3$	13,002	27.2	8.57
Difference		+ 921	+0.5	+1.47
T	MOG x C103	12,053	28.0	7.03
T	MOG x (TL-C103^{II}) S$_3$	13,980	25.8	8.16
Difference		+1,927	-2.2	+1.13
S	(P8 x W22) x C103	8,562	31.2	8.90
S	(P8 x W22) x (TL-C103^{II}) S$_3$	11,057	30.0	8.40
Difference		2,495	-1.2	-0.50
T	T43= A, Standard Commercial	10,118	25.3	--
T	T44= B, Standard Commercial	10,859	25.0	--
T	T42= C, Standard Commercial	10,649	24.4	--
S	S28= A, Standard Commercial	10,079	28.1	--
S	S27= C, Standard Commercial	10,450	31.9	--
Average difference with standard hybrids.		+2,849	+0.7	+1.87

| Average difference between homologous hybrids. | +1,767 | -0.4 | +0.31 |