

Character	No. of ears in which found a ratio of	
	3:1	15:1
Defective seeds	12	
Opaque endosperm	2	1
Lemon endosperm	1	
White endosperm	1	
Oily spot seedling	3	
Albino seedling	22	1
Dwarf seedling	8	
Booster color	4	3
Luteus seedling	22	2
Yellow-green seedling	13	1
Pale-green seedling	17	3
Fine stripe seedling	73	10
Glossy seedling	19	8
Abnormal growth	6	3
Liguleless plant	6	
Virescent	14	5
Abnormal leaves		1
Yellow stripe	9	
Albescens	1	
Horn-like coleoptile	1	

-- Angelo Bianchi
-- Marisa Pozzi

3. Knobs in open-pollinated maize populations in Italy.

Additional cytological data have been obtained from samples of open-pollinated maize populations, collected throughout Italy.

Some populations have been studied with the following results (to be added to those which appeared in M N L, 1958, p. 13):

Origin	No. of Knobs						Total	B chromosomes
	0	1	2	3	4	5		
Northern Italy	7	17	20	35	11	6	96	0
Middle Italy	5	6	7	1	2	0	21	0
Southern Italy	1	6	4	6	3	1	21	4
Italy	13	29	31	42	16	7	138	

As reported for the samples studied previously (M N L, 1958) the knob frequency is low, and B chromosomes are practically absent.

The identification of specific knobs has been possible in most cases. The following table summarizes the results for the samples where all the knobs have been identified.

Origin	Position of knobs										Total samples
	1S2	3L1	4L1	5L1	6L1	6L2	7L1	7Lit.	8L1	9S1	
Northern It.	2	12	48	39	9	2	44	23	70	43	292
Middle It.	0	2	8	6	3	0	6	3	12	14	54
Southern It.	0	7	5	9	1	0	8	2	14	8	54
Italy	2	21	61	54	13	2	58	28	96	65	400

The indication 7 L It. refers to a characteristic knob structure which is frequent in Italian maize (Genetics 44 : 500).

-- Angelo Bianchi

4. Cytoplasmic sterility restoration in Italian populations.

Crosses have been made on cytoplasmic male sterile types of plants of open pollinated Italian populations. A progeny of 20 individuals has been carefully scrutinized during the flowering time for every single cross. Although the number of crosses for the various populations was low, Table 1 shows that the Italian populations consist chiefly of the genotypes $Rf\ rf$ and $rf\ rf$. Homozygosity for the restoration factors seems rather rare. This situation is of meaning in the maize breeding program.

Table 1. Results of crossing types of Italian open-pollinated populations on cytoplasmic male steriles.

Populations denomination	Seed parent type											
	A 158 T			WF9 T			W 22 T			C106S X A158		
	No. of Plants			No. of Plants			No. of Plants			No. of Plants		
	RfRf	Rfrf	rfrf	RfRf	Rfrf	rfrf	RfRf	Rfrf	rfrf	Rfrf	RfRf	rfrf
V. L. Matera											2	7
V. L. Arezzo												4
Bianco Perla		3				4						
Marano	1	3	5			1						
Scagliolo 23A		1	2		1	1						
V. O. Coll. bol.		1							2			
Bianco veron.									2			
Var. Brianza		1	1									
Tisica			2									
Cinquantino			2									
Pallot. bianca	1	1										
Ottofile			2									
Spadona					2							
Ambrogio				2								

-- Angelo Bianchi

-- Giuseppe Marchesi