

permanently augmented, by the presence either of more pollen or of pollen extractables.

In the control series 67 kernels were obtained from one ml of pollen, while 208 were obtained in the experimental series. The overload requirement (thousands more pollen grains were applied than kernels obtained) was still not greatly altered, and remains puzzling.

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3. Tests of selection for pollen resistance to exposure to aqueous media.

Repeated trials have failed to support the idea that heritable variation might exist among pollen grains in respect to their ability to withstand exposure, brief or prolonged, to aqueous media. The current data are presented here as examples. Three lines (W23; N, a purple-seeded standard; K55) have been tested by simply planting the kernels that resulted from pollinations with exposed pollen, and selfing the plants with again-exposed pollen. In the following table are data for the third or fourth exposure for each of four media (Y is the aqueous medium; YD contains 5% dimethyl sulfoxide, YSC saline citrate, and YT 2% Tween 80).

Medium	Line	Selection Cycles	No. retested plants with seed set of				
			0	1	2	3	5
Y	W23	2	19	1			
	N	3	2				
	K55	2	4				
YD	W23	2	1				
	N	3	21	6		1	1
	K55	2	4				
YSC	W23	3	1				
	K55	2	2				
YT	W23	2	21				
	N	2	24	3	1		
	K55	2	11	1			

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