

M0002857: Diagram showing the purification of the germ-plasm in maize through inbreeding / M0002857EB: Diagram showing mendelism in mice

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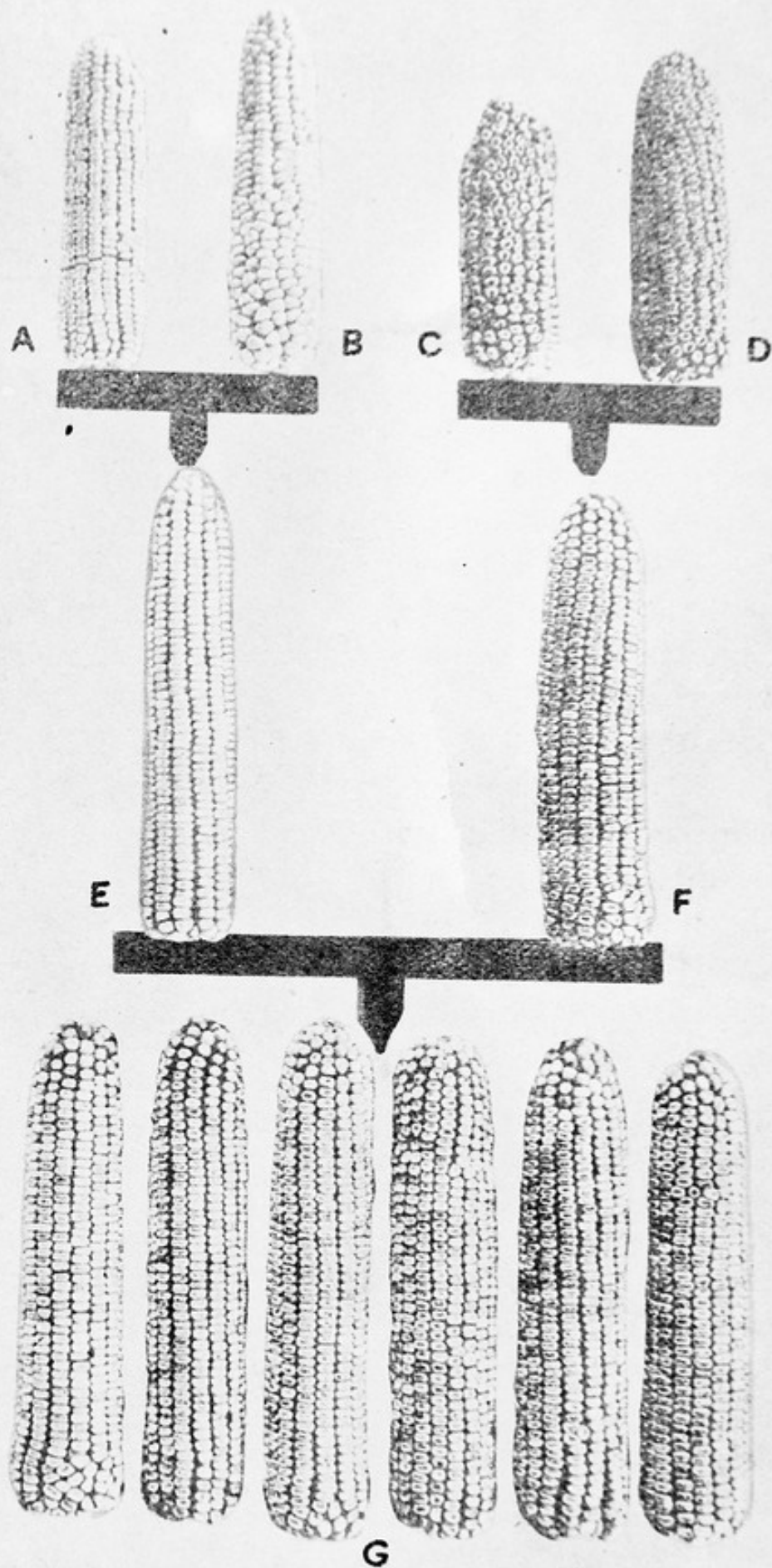


Fig. 393. Purifying the germ-plasm by inbreeding. Above : The cobs of four strains of maize (A, B, C, D) which have been inbred for many generations. A and B were crossed, and gave E ; C and D were crossed and gave F. In both cases the cross produced marked improvement. E and F were then crossed, and gave G, a very high-yielding strain. (From "Inbreeding and Outbreeding," by E. M. East, Ph.D. and D. F. Jones, Sc.D. J. B. Lippincott Co.)

White Mouse, an albino variety of the House Mouse, without pigment in hair or eye; locomotion normal.

White Waltzing Mouse, a Japanese variety, given to spinning round as if after its tail; no pigment except small patches of fawn.

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If pure-bred forms of the above cross the offspring are largely grey, with black eyes and normal locomotion.

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If these hybrids pair the offspring are varied.

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Group A

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Group B

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Group C

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Group A, 25 per cent. are albinos.

Group B, 50 per cent. have black eyes and are grey, or black, or black and grey piebald.

Group C, 25 per cent. have pink eyes, but are fawn, lilac, or piebalds of white with fawn or lilac. Rather less than a fifth of the total number (A, B, and C) are waltzers. Colour and waltzing are independently transmitted.

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Members of Group A mated together produce only albinos like themselves.

Members of Group B mated together produce greys only like (3), or a mixed litter of albinos, greys, fawns, and piebalds of these.

Members of Group C mated together produce fawns, lilacs, piebalds of these, and an occasional albino.

Photo: British Museum (Natural History).