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1. Pollination with liquid suspensions.

Paraffin oil and the aqueous pollen germination medium of Cook and Walden (News Letter 39: 170; Can. J. Bot. 43: 779) were used to suspend pollen before pollination; both media allowed successful fertilization. Paraffin oil was best of the two in seed set; pollen stored in oil as long as overnight (in the refrigerator) was also successful. Either medium can include Tween detergent. An emulsion of paraffin oil-Tween-aqueous medium can also be used. One cc of pollen (estimated to contain well over  $2 \times 10^6$  grains) per 1 to 6 cc of medium was used. Sequential dilution of suspensions with the aqueous medium or aqueous-Tween decreased seed sets. A manuscript is in preparation.

"Enrichment" should be possible with these media, parallel to the use of selective agents and conditions in micro-organisms.

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(in collaboration with D. B. Walden  
and F. S. Cook, U. of Western  
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2. Endosperm losses following exposure to an intermittent DC electrical field.

Three plants of  $++/a sh_2$  were used in a test of effects of exposure to an intermittent DC field, in collaboration with D. L. Waidelich (Electrical Engineering Dept., U. of Mo.). The three plants were uniform in developmental stage at the time of treatment (meiosis to post-meiosis). Plant No. 1 was untreated. Plant No. 3 was exposed in the tassel region to 30,000 volts DC across a 5 cm insulated gap (6,000 volts/cm) for 40 minutes, intermittently and irregularly (1 to 10 min. on, briefly off, 1 to 10 min. on, etc.). Plant No. 11 was exposed to the same 40-minute pattern as No. 3 and then continued for a total of 3.5 hours, on a regular pattern (1 minute on, briefly off, 1 minute on, etc.). No adverse effects other than localized searing (connected with corona discharge) were apparent; pollen of treated plants appeared to have slightly decreased fertility.

Pollinations on  $a sh_2$  were made daily. Fractional losses of  $A Sh_2$  were scored; pooled data for all pollination dates are presented in Table 1. Judging by Poisson limits, fractionals were definitely more frequent for treated males. Further experiments of better design will be needed to determine whether the effect is real.