

increase in the *amount* of cross-pollination. These changes in fertility relations of the mutant are attributed to the disruption of the normal mechanism for self-pollination wrought by the separation of anthers. Certain aspects of the data pertaining to the rate of outcrossing and comparisons with fertility relations of male-sterile mutants can be explained if it is assumed that *dl dl* flowers set fruit only after pollen is transferred to them by insects.

RILEY, HERBERT PARKES, University of Kentucky, Lexington, Kentucky: *Chromosome studies in a hybrid between Gasteria and Aloe*.—In both *Gasteria* and *Aloe* the haploid complement consists of four large and three small chromosomes. Microsporogenesis was studied in an intergeneric hybrid that resembled *Gasteria* in its general vegetative aspect but had flowers like those of an *Aloe*. At first meiotic metaphase the large chromosomes showed a range of four to no bivalents. Most cells had one or two and the average was 1.3 bivalent per cell. The small chromosomes ranged from three bivalents to none with most cells having two; the average was 1.82 per cell. Therefore, there is some homology between the chromosomes of the two genera. Occasionally a univalent divides equationally at first anaphase, but usually the univalents pass undivided to one or the other pole. The distribution at anaphase agrees with that expected from metaphase configurations. A small percentage of cells at first and second anaphase had inversion bridges and fragments. No cell wall forms at first telophase. After the second division numerous "tetrads" have five or six cells. Most microspores fail to divide; the pollen grain wall forms but the protoplasm eventually disintegrates and the cell shrivels up. Less than one percent of the microspores undergo division, and the few metaphase figures show varying numbers of chromosomes. An occasional anaphase and telophase are observed, but the mature pollen appears to be 100 percent sterile.

RUSSELL, W. L., Roscoe B. Jackson Memorial Laboratory, Bar Harbor, Maine: *Spotch, a new mutation in the house mouse, Mus musculus*.—*Spotch* (symbol *Sp*), a new mutation in the house mouse, occurred in the C57 black strain at the Jackson Laboratory. *Sp sp* animals show white spotting on the belly and occasionally on the back. The feet are usually white and the percentage of tail spotting in the C57 black strain is increased. The gene is lethal when homozygous. *Sp Sp* embryos die in utero at approximately 14 days of age and are characterized by kinky tail, spina bifida and perhaps other abnormalities. *Spotch* is not an allele of *W*. It is probably linked with *Fused*.

SEARS, E. R., U. S. Department of Agriculture and University of Missouri, Columbia, Missouri: *The sphaerococcum gene in wheat*.—*Triticum sphaerococcum* Perc. is characterized by short culms, dense spikes, and small, spherical grains. ELLERTON showed that it differs from *T. vulgare* Vill. by a single recessive gene (or closely linked group of genes). In crosses of *T. sphaerococcum* with 17 different nullisomics of *T. vulgare* var. Chinese Spring, no F₁ was of the *sphaerococcum* type, although the *sphaerococcum* gene would have been in