

## V. PUBLICATIONS OF E. G. ANDERSON AND ASSOCIATES

- Anderson, E. G., 1914. Retention of chlorophyll through the paraffin process. Bot. Gaz. 58:528.
- \* \_\_\_\_\_ 1921. The inheritance of salmon silk color in maize. Cornell Univ. Agr. Exp. Sta. Memoir 48:535-554.
- \* \_\_\_\_\_ 1922. Heritable characters of maize XI. Fine-streaked leaves. J. Heredity 13:91-92.
- \_\_\_\_\_ and R. A. Emerson, 1923. Pericarp studies in maize. I. The inheritance of pericarp colors. Genetics 8:466-476.
- \_\_\_\_\_ 1923. Maternal inheritance of chlorophyll in maize. Bot. Gaz. 76:411-418.
- \_\_\_\_\_ 1924. Genetic factors for yellow endosperm color in maize. Papers Mich. Acad. Sci., Arts Lett. 4:51-54.
- \_\_\_\_\_ 1924. X-rays and the frequency of non-disjunction in *Drosophila*. Papers Mich. Acad. Sci., Arts Lett. 4:523-525.
- \_\_\_\_\_ 1924. Pericarp studies in maize. II. The allelomorphism of a series of factors for pericarp color. Genetics 9:442-453.
- \* \_\_\_\_\_ 1925. Crossing over in a case of attached X chromosomes in *Drosophila melanogaster*. Genetics 10:403-417.
- Bridges, C. B., and E. G. Anderson, 1925. Crossing over in the X chromosomes of triploid females of *Drosophila melanogaster*. Genetics 10:418-441.
- \*Anderson, E. G., 1925. A dominant brown pericarp color in maize. Papers Mich. Acad. Sci., Arts Lett. 5:73-75.
- \* \_\_\_\_\_ 1925. The proportion of exceptions in the offspring of exceptional females from X-ray treatment of *Drosophila*. Papers Mich. Acad. Sci., Arts Lett. 5:355-366.
- \* \_\_\_\_\_ 1926. A comparison of the percentages of non-disjunction in successive broods. Papers Mich. Acad. Sci., Arts Lett. 7:273-278.
- \* \_\_\_\_\_ and W. H. Eyster, 1928. Pericarp studies in maize. III. The frequency of mutation in variegated maize pericarp. Genetics 13:111-120.
- \* \_\_\_\_\_ 1929. Studies on a case of high non-disjunction in *Drosophila melanogaster*. Z. ind. Abst. Vererb. 51:397-441.
- \* \_\_\_\_\_ 1929. A second case of silklessness in maize. Papers Mich. Acad. Sci., Arts Lett. 9:1-3.
- \* \_\_\_\_\_ and Adrian L. Ter Louw, 1929. Description of a mosaic pericarp color in maize. Papers Mich. Acad. Sci., Arts Lett. 9:5-9.
- \* \_\_\_\_\_ and Marcus M. Rhoades, 1930. The distribution of interference in the X-chromosome of *Drosophila*. Papers Mich. Acad. Sci., Arts Lett. 13:227-239.
- \_\_\_\_\_ and R. A. Emerson, 1931. Inheritance and linkage relations of chocolate pericarp in maize. Amer. Nat. 65:253-257.
- \* \_\_\_\_\_ 1931. The constitution of primary exceptions obtained after X-ray treatment of *Drosophila*. Genetics 16:386-396.
- \*Emerson, R. A., and E. G. Anderson, 1932. The A series of allelomorphs in relation to pigmentation in maize. Genetics 17:503-509.
- \*Anderson, E. G., 1934. A chromosomal interchange in maize involving the attachment to the nucleolus. Amer. Nat. 68:345-350.
- \_\_\_\_\_ and I. W. Clokey, 1934. Chromosomes involved in a series of interchanges in maize. Amer. Nat. 68:440-445.

- Clarke, A. E., and E. G. Anderson, 1935. A chromosomal interchange in maize without ring formation. *Amer. J. Bot.* 22:711-716.
- \*Anderson, E. G., 1935. Chromosomal interchanges in maize. *Genetics* 20:70-83.
- \_\_\_\_\_ 1936. Induced chromosomal alterations in maize. Chapter in "Biological Effects of Radiation," edited by B. M. Duggar. Pages 1297-1310. New York: McGraw Hill.
- \* \_\_\_\_\_ 1938. Translocations in maize involving chromosome 9. *Genetics* 23:307-313.
- \* \_\_\_\_\_ 1939. Translocations in maize involving chromosome 8. *Genetics* 24:385-390.
- \* \_\_\_\_\_ and R. A. Brink, 1940. Translocations in maize involving chromosome 3. *Genetics* 25:299-309.
- \* \_\_\_\_\_ 1941. Translocations in maize involving the short arm of chromosome 1. *Genetics* 26:452-459.
- \* \_\_\_\_\_ and L. F. Randolph, 1945. Location of the centromeres on the linkage maps of maize. *Genetics* 30:518-526.
- \* \_\_\_\_\_ 1948. On the frequency and transmitted chromosome alterations and gene mutations induced by atomic bomb radiations in maize. *Proc. Nat. Acad. Sci. USA* 34:386-390.
- \* \_\_\_\_\_, A. E. Longley, C. H. Li and K. L. Retherford, 1949. Hereditary effects produced in maize by radiation from the Bikini atomic bomb I. Studies on seedlings and pollen of the exposed generation. *Genetics* 34:639-646.
- Teas, H. J., and E. G. Anderson, 1951. Accumulation of anthranilic acid by a mutant of maize. *Proc. Nat. Acad. Sci. USA* 37:645-649.
- \*Brown, William L., E. G. Anderson and Roy Tuchawena, Jr., 1952. Observations on three varieties of Hopi maize. *Amer. J. Bot.* 39:597-609.
- \*Anderson, E. G., 1952. A chromosomal technique used in biochemical studies on the developing endosperm of maize. *Agron. J.* 44:560-561.
- \* \_\_\_\_\_ and H. H. Kramer, 1954. Translocations in maize involving chromosome 10. *Genetics* 39:506-512.
- \* \_\_\_\_\_, \_\_\_\_\_ and A. E. Longley, 1955. Translocations in maize involving chromosome 4. *Genetics* 40:500-510.
- \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_ 1955. Translocations in maize involving chromosome 6. *Genetics* 40:531-538.
- \*Teas, H. J., E. G. Anderson and J. W. Cameron, 1955. Roles of embryo and endosperm in determining niacin content of starchy and sugary maize endosperms. *Plant Physiol.* 30:334-337.
- \*Anderson, E. G., 1956. The application of chromosomal techniques to maize improvement. *Brookhaven Symp. Biol.* 9:23-36.
- Kramer, H. H., R. L. Whistler and E. G. Anderson, 1956. A new gene interaction in the endosperm of maize. *Agron. J.* 48:170-172.
- Duvick, D. N., R. J. Snyder and E. G. Anderson, 1961. The chromosomal location of Rf<sub>1</sub>, a restorer gene for cytoplasmic pollen sterile maize. *Genetics* 46:1245-1252.

Copies of the following are also available:

- \*Nickerson, N. H., and E. E. Dale, 1955. Tassel modifications in Zea mays. *Annals Mo. Bot. Garden* 42:195-212.
- \*Teas, H. J., 1954. B vitamins in starchy and sugary maize endosperms. *Plant Physiol.* 29:190-194.

\*Copies available from E. H. Coe., Jr., Curtis Hall, University of Missouri, Columbia, Missouri 65201.

## VI. RECENT MAIZE PUBLICATIONS

- Abdalla, M. M. F., 1974. Reciprocal-cross differences and maize breeding I. Possible causes and implications of such differences. *Z. Pflanzenzucht.* 71:290-298.
- Abdalla, M. M. F., 1974. Reciprocal-cross differences and maize breeding II. Magnitude of yield differences. *Z. Pflanzenzucht.* 72:166-172.
- Alberte, R. S., J. D. Hesketh, G. Hofstra, J. P. Thornber, A. W. Naylor, R. L. Bernard, C. Brim, J. Endrizzi and R. J. Kohel, 1974. Composition and activity of the photosynthetic apparatus in temperature-sensitive mutants of higher plants. *Proc. Nat. Acad. Sci. USA* 71:2414-2418.
- Arnold, J. M., A. Piovarci, L. F. Bauman and C. G. Poneleit, 1974. Weight, oil, and fatty acid composition of components of normal, opaque-2, and floury-2 maize kernels. *Crop Science* 14:598-599.
- Arntzen, C. J., M. F. Haugh and S. Bobick, 1974. Induction of stomatal closure by Helminthosporium maydis pathotoxin. *Plant Physiol.* 52:569-574.
- Ashour, N. I., D. Neumann and U. zur Nieden, 1973. Gibberellic acid induced changes in the ultrastructure of chloroplasts and the content of chlorophyll in leaves of dwarf maize (Zea mays). *Bioch. Physiol. Pflanzen* 164:402-413.
- Bachmann, M. D., D. S. Robertson, C. C. Bowen and I. C. Anderson, 1974. Chloroplast ultrastructure in pigment-deficient mutants of Zea mays under reduced light. *J. Ultrastruc. Res.* 45:384-406.
- Baibekova, T. K., and A. T. Seisebaev, 1974. Study of IAA cytogenetic effect on corn seed irradiation. *Tsitol. Genet.* 8:163-165.
- Banerjee, U. C., 1973. Morphology and fine structure of the pollen grains of maize and its relatives. Ph.D. thesis, Harvard Univ.
- Barél, D., and P. A. Peterson, 1974. Differential leaf absorption of a high-molecular-weight phosphate in maize (Zea mays L.) plants of differing cytoplasm. *Bioch. Bioph. Res. Comm.* 58:736-742.
- Bazzaz, M. B., Govindjee and D. J. Paolillo, Jr., 1974. Biochemical, spectral and structural study of olive necrotic 8147 mutant of Zea mays L. *Z. Pflanzenphys.* 72:181-192.
- Boyer, C. D., and J. C. Shannon, 1974. Chromosome constitution and cell division in in vitro cultures of Zea mays L. endosperm. *In Vitro* 9:458-462.
- Brink, R. A., 1973. Paramutation. *Ann. Rev. Genetics* 7:129-152.
- Brinkman, G. L., J. S. Shenk, R. G. Creech and D. L. Garwood, 1974. Comparisons between rats, voles, and chemical methods for the determination of protein quality of four maize (Zea mays L.) genotypes. *Nutr. Rep. Internat.* 10:61-68.
- Brown, W. L., 1974. The history of maize; book review of: *Corn, Its Origin, Evolution and Improvement*, by P. C. Mangelsdorf; Belknap Press of Harvard Univ. Press, 1974. *Science* 185:687-688.
- Buren, L. L., J. J. Mock and I. C. Anderson, 1974. Morphological and physiological traits in maize associated with tolerance to high plant density. *Crop Science* 14:426-429.
- Calub, A. G., G. M. Dunn, D. G. Routley and R. M. Couture, 1974. Genetic and environmental effects on production of inhibitory compounds in corn resistant to Helminthosporium turcicum. *Crop Science* 14:359-361.
- Calub, A. G., B. J. Long and G. M. Dunn, 1974. Production of inhibitory compounds in corn inbreds with monogenic and multigenic resistance to Helminthosporium turcicum. *Crop Science* 14:303-304.

- Calub, A. G., M. L. Schuster, W. A. Compton and C. O. Gardner, 1974. Improved technique for evaluating resistance of corn to Corynebacterium nebraskense. *Crop Science* 14:716-718.
- Calub, A. G., M. L. Schuster, C. O. Gardner and W. A. Compton, 1974. Effect of plant age and inoculum concentration on Leaf Freckles and Wilt of corn. *Crop Science* 14:398-401.
- Cetl, I., 1973. Mendel's hybridization experiments with other plants than Pisum. *Folia Fac. Sci. Nat. Univ. Purkynianae*, Brun 14:3-42.
- Chang, C. C., and G. Y. Kikudome, 1974. The interaction of knobs and B chromosomes of maize in determining the level of recombination. *Genetics* 77:45-54.
- Choe, B. H., B. G. Cumbie and M. S. Zuber, 1974. Association of zein body classification with lysine content of corn (Zea mays L.) endosperm. *Crop Science* 14:187-190.
- Chollet, R., 1974.  $^{14}\text{C}$  fixation and glycolate metabolism in the dark in isolated maize (Zea mays L.) bundle sheath strands. *Arch. Bioch. Bioph.* 163:521-529.
- Christianson, D. D., U. Khoo, H. C. Nielsen and J. S. Wall, 1974. Influence of opaque-2 and floury-2 genes on formation of proteins in particulates of corn endosperm. *Plant Physiol.* 53:851-855.
- Colella, C., and G. Gavazzi, 1974. Induced instability at a paramutagenic R locus in Zea mays. *Accad. Naz. Dei Lincei* 16:94-104.
- Cornelius, P. L., and J. W. Dudley, 1974. Effects of inbreeding by selfing and full-sib mating in a maize population. *Crop Science* 14:815-819.
- Criswell, J. G., D. J. Hume and J. W. Tanner, 1974. Effect of cytoplasmic male sterility on accumulation and translocation of  $^{14}\text{C}$ -labelled assimilates in corn. *Crop Science* 14:252-254.
- Croft, S. M., C. J. Arntzen, L. N. Vanderhoef and C. S. Zettinger, 1974. Inhibition of chloroplast ribosome formation by N,N-bis-(phosphonomethyl)glycine. *Bioch. Bioph. Acta* 355:211-217.
- Dankov, T., 1973. A suggested new classification of maize inbreds according to the type of cytoplasm and the Rf factors. *Z. Pflanzenzucht.* 70:281-288.
- Davis, D. L., and C. G. Poneleit, 1974. Sterol accumulation and composition in developing Zea mays L. kernels. *Plant Physiol.* 54:794-796.
- de la Torre, C., and F. A. L. Clowes, 1974. Thymidine and the measurement of rates of mitosis in meristems. *New Phytol.* 73:919-925.
- Demeter, S., G. Horváth, F. Joó, N. Halász and Á. Faludi-Dániel, 1974. Stacking capacity and chlorophyll forms of thylakoids in normal and mutant maize chloroplasts of different granum content. *Physiol. Plant.* 32:222-227.
- de Wet, J. M. J., and J. R. Harlan, 1974. Tripsacum-maize interaction: a novel cytogenetic system. *Genetics* 78:493-502.
- Dimitrov, P., O. Nashkova, S. Petkova, D. Nashkov and E. Marinkov, 1974. Immunochemical prognosis of heterosis in Zea mays. *Theor. Appl. Genet.* 45:91-95.
- Donaldson, C., and G. E. Blackman, 1974. The initiation of hybrid vigour in Zea mays during the germination phase. *Ann. Bot.* 38:515-528.
- Dooner, H. K., and J. L. Kermicle, 1974. Reconstitution of the R<sup>r</sup> compound allele in maize. *Genetics* 78:691-701.
- Douglas, G. R. and D. B. Walden, 1974. Cytogenetic studies of chromosome replication in Zea mays L.: regulation of homologue synchrony. *Chromosoma* 46:13-22.
- Efron, Y., 1974. An EMS-sensitivity factor in maize conditioning albino leaf stripes. *Genetics* 78:859-867.

- Engle, L. M., J. M. J. deWet and J. R. Harlan, 1974. Chromosomal variation among offspring of hybrid derivatives with 20 Zea and 36 Tripsacum chromosomes. *Caryologia* 27:193-209.
- Fincham, J. R. S., and G. R. K. Sastry, 1974. Controlling elements in maize. *Ann. Rev. Genetics* 8:15-50.
- Fischer, M., and D. Schwartz, 1974. Biosynthesis of maize alcohol dehydrogenase dimers. Evidence for immature oligomeric forms. *Bioch. Bioph. Acta* 364:200-203.
- Flavell, R., 1974. A model for the mechanism of cytoplasmic male sterility in plants, with special reference to maize. *Plant Sci. Lett.* 3:259-263.
- Flavell, R. B., M. D. Bennett, J. B. Smith and D. B. Smith, 1974. Genome size and the proportion of repeated nucleotide sequence DNA in plants. *Bioch. Genet.* 12:257-269.
- Forster, M. J., and C. O. Grogan, 1974. Inheritance of another small maize rachis characteristic. *J. Hered.* 65:195-196.
- Fowler, R., and P. A. Peterson, 1974. The a2m(r-pa-pu) allele of the En-controlling element system in maize. *Genetics* 76:433-446.
- Freeling, M., 1974. Dimerization of multiple maize ADHs studied in vivo and in vitro. *Bioch. Genet.* 12:407-417.
- Galinat, W. C., 1974. The domestication and genetic erosion of maize. *Econ. Bot.* 28:31-37.
- Galinat, W. C., 1974. Book review of: *Corn, Its Origin, Evolution and Improvement*, by P. C. Mangelsdorf; Belknap Press of Harvard Univ. Press, 1974. *Amer. Scientist* 62:720.
- Garay, A., S. Demeter, K. Kovács, G. Horváth and A. Faludi-Dániel, 1974. Circular dichroism spectra of system I particles from normal chloroplasts and carotenoid-deficient mutants of maize. *Photochem. Photobiol.* 16:139-144.
- Garwood, D. L., 1974. Genetic mutants aid in improving corn. *Sci. Agr.* 21:9.
- Garwood, D. L., J. S. Shenk and R. F. Barnes, 1974. Influence of maize endosperm mutants on ground kernel in vitro dry matter disappearance. *Crop Science* 14:676-678.
- Gengenbach, B. G., R. J. Miller, D. E. Koeppe and C. J. Arntzen, 1974. The effect of toxin from Helminthosporium maydis (race T) on isolated corn mitochondria: swelling. *Can. J. Bot.* 51:2119-2125.
- Ghidoni, A., 1974. A dominant gene that produces necrotic lesions in maize associated with chromosome 9 and with a lethal effect in the homozygous state. *Genet. Agrar.* 28:162-169.
- Giles, K. L., 1974. Complementation by protoplast fusion using mutant strains of maize. *Plant Cell Physiol.* 15:281-285.
- Giles, K. L., M. F. Beardsell and D. Cohen, 1974. Cellular and ultrastructural changes in mesophyll and bundle sheath cells of maize in response to water stress. *Plant Physiol.* 54:208-212.
- Gillies, C. B., S. W. Rasmussen and D. von Wettstein, 1974. The synaptonemal complex in homologous and nonhomologous pairing of chromosomes. *Cold Spring Harbor Symp. Quant. Biol.* 38:117-122.
- Givens, J. F., 1974. Molecular hybridization and cytological characterization of plants partially hyperploid for different segments of the nucleolus organizer region of Zea mays L. Ph.D. thesis, Univ. of Minnesota.
- Gontarovskiy, V. A., 1974. Role of supplementary genes in the control of the Texas type of CMS in maize. *Genetika* 10 (1):15-24.

- Gontarovskiy, V. A., 1974. Variable restorers of the Texas-type CMS in maize. *Genetika* 10 (2):7-18.
- Gracen, V. E., and C. O. Grogan, 1974. Diversity and suitability for hybrid production of different sources of cytoplasmic male sterility in maize. *Agron. J.* 66:654-657.
- Green, C. E., and R. L. Phillips, 1974. Potential selection system for mutants with increased lysine, threonine, and methionine in cereal crops. *Crop Science* 14:827-830.
- Green, C. E., R. L. Phillips and R. A. Kleese, 1974. Tissue cultures of maize (*Zea mays* L.): Initiation, maintenance, and organic growth factors. *Crop Science* 14:54-58.
- Greenblatt, I. M., 1974. Movement of modulator in maize: a test of an hypothesis. *Genetics* 77:671-678.
- Gresshoff, P. M., and C. H. Doy, 1973. *Zea mays*: methods for diploid callus culture and the subsequent differentiation of various plant structures. *Austr. J. Biol. Sci.* 26:505-508.
- Gupta, D., and I. Kovács, 1974. Inter-character relationships and heterosis observed in opaque-2 maize crosses and their normal analogues. *Theor. Appl. Genet.* 45:64-71.
- Gupta, D., and I. Kovács, 1974. A method of measuring drought resistance in maize and drought resistance of parents, single, 3-way and double crosses of opaque-2 maize inbreds and their normal analogues. *Z. Pflanzenzucht.* 73:125-130.
- Gupta, D., and I. Kovács, 1974. Root characters and their relationships with yield of opaque-2 and analogous normal maize single, 3-way and double cross hybrids and inbred lines. *Z. Acker- u. Pflanzenbau* 139:233-242.
- Gupta, D., and I. Kovács, 1974. Dynamics of seedling emergence of opaque-2 and analogous normal maize in cold tests and effect of fungicide seed treatment on their cold tolerance. *J. Agric. Sci.* 83:551-555.
- Gyurján, I., and J. N. Rakovan, 1973. Light induction of nucleic acid synthesis in normal and chloroplast mutant maize leaves. *Ann. Univ. Sci. Budap. Rolando Eotvos Nominatae Sect. Biol.* 14:39-46.
- Hallauer, A. R., 1974. Heritability of prolificacy in maize. *J. Hered.* 65:163-168.
- Hammond, J. J., and C. O. Gardner, 1974. Modification of the variety cross diallel model for evaluating cycles of selection. *Crop Science* 14:6-8.
- Hammond, J. J., and C. O. Gardner, 1974. Effect of genetic sampling technique on variation within populations derived by crossing, selfing, or random-mating other populations. *Crop Science* 14:63-66.
- Harvey, B. M. R., and A. Oaks, 1974. The role of gibberellic acid in the hydrolysis of endosperm reserves in *Zea mays*. *Planta* 121:67-74.
- Hawke, J. C., M. G. Rumsby and R. M. Leech, 1974. Lipid biosynthesis by chloroplasts isolated from developing *Zea mays*. *Phytochem.* 13:403-413.
- Hoffman, S. E., and F. P. Zcheile, Jr., 1974. Resistance and susceptibility of *Zea mays* to *Helminthosporium carbonum*: toxin and lesion induction; isozyme differences. *Phytopathol. Z.* 80:13-28.
- Holder, D. G., D. V. Glover and J. C. Shannon, 1974. Interaction of shrunken-2 with five other carbohydrate genes in *Zea mays* L. endosperm. *Crop Science* 14: 643-646.
- Holder, D. G., D. V. Glover and J. C. Shannon, 1974. Interaction of shrunken-2 and sugary-1 in dosage series in *Zea mays* L. endosperm. *Crop Science* 14:647-648.

- Hooker, A. L., 1974. Cytoplasmic susceptibility in plant disease. *Ann. Rev. Phytopath.* 12:167-180.
- Horváth, G., J. Kissimon and A. Faludi-Dániel, 1974. Effect of light intensity on the formation of carotenoids in normal and mutant maize leaves. *Phytochem.* 11:183-187.
- Ikenaga, M., S. Kondo and T. Fujii, 1974. Action spectrum for enzymatic photo-reactivation in maize. *Photochem. Photobiol.* 19:109-113.
- Iqbal, J., M. Kutacek and V. Jiracek, 1974. Effects of acute irradiation on the concentration of amino acids and protein-nitrogen in Zea mays. *Radiation Bot.* 14:165-172.
- Johnson, J. W., and D. J. Holden, 1974. Ultrastructure of callus tissue of Zea mays. *Can. J. Bot.* 52:251-254.
- Kao, K. N., F. Constabel, M. R. Michayluk and O. L. Gamborg, 1974. Plant protoplast fusion and growth of intergeneric hybrid cells. *Planta* 120:215-227.
- Katz, S. H., M. L. Hediger and L. A. Valleroy, 1974. Traditional maize processing techniques in the New World--traditional alkali processing enhances the nutritional quality of maize. *Science* 184:765-773.
- Kermicle, J. L., 1974. Organization of paramutational components of the R locus in maize. *Brookhaven Symp. Biol.* 25:262-280.
- Kivilaan, A., and D. F. Blaydes, 1974. Attempts to achieve genetic transformation in plants. *Mich. State Univ. Agr. Exp. Sta. Res. Rep.* 246:1-5.
- Koepe, D. E., and R. J. Miller, 1974. Kaempferol inhibitions of corn mitochondrial phosphorylation. *Plant Physiol.* 54:374-378.
- Kohl, J.-G., and J. Baierova, 1973. Variations of ADH-isoenzymespectrum of maize root tips under partial anaerobiosis. *Bioch. Physiol. Pflanzen* 164:624-628.
- Kovac, L., 1974. Biochemical mutants: an approach to mitochondrial energy coupling. *Bioch. Bioph. Acta* 346:101-135.
- Krueger, W. A., L. M. Josephson and J. W. Hilty, 1974. Response of mitochondria from corn cytoplasms to the pathotoxin of Helminthosporium maydis race T. *Phytopath.* 64:735-737.
- Larque-Saavedra, A., and R. L. Wain, 1974. Abscisic acid levels in relation to drought tolerance in varieties of Zea mays L. *Nature* 251:716-717.
- Leffler, H. R., and J. H. Cherry, 1974. Destruction of enzymatic activities of corn and soybean leaves exposed to ozone. *Can. J. Bot.* 52:1233-1238.
- Linskens, H. F., P. L. Pfahler and A. W. A. M. de Cock, 1974. Effect of maize (Zea mays) endosperm mutants on the surface relief of the kernel pericarp. *Theor. Appl. Genet.* 45:137-139.
- Lodha, M. L., P. C. Mali, A. K. Agarwal and S. L. Mehta, 1974. Changes in soluble protein and isoenzymes in normal and opaque-2 Zea mays endosperm during grain development. *Phytochem.* 13:539-542.
- Long, B. J., G. M. Dunn and D. G. Routley, 1974. Rapid procedure for estimating cyclic hydroxamate (DIMBOA) concentration in maize. *Crop Science* 14:601-603.
- MacDonald, T., and J. L. Brewbaker, 1974. Isoenzyme polymorphism in flowering plants. IX. The  $E_5$ - $E_{10}$  esterase loci of maize. *J. Hered.* 65:37-42.
- Mache, R., C. Rozier, S. Loiseaux and A. M. Vial, 1973. Synchronous division of plastids during the greening of cut leaves of maize. *Nature New Biol.* 242:158-160.
- Maguire, M. P., 1974. Synaptic initiation and extension as prerequisites for crossing over. *Genetica* 45:11-28.
- Maguire, M. P., 1974. Mitotic preparation for homologous chromosome pairing at meiosis. *Genetics* 77:s41. Abstr.

- Maguire, M. P., 1974. Intra-anther clustering of sporocytes with crossovers in specific regions. *J. Cell Biol.* 63:204a. Abstr.
- Maguire, M. P., 1974. Chemically induced abnormal chromosome behavior at meiosis in maize. *Chromosoma* 48:213-223.
- Maguire, M. P., 1974. A new model for homologous chromosome pairing. *Caryologia* 27:349-357.
- Majumdar, G., and K. R. Sarkar, 1974. Chromosome associations during meiosis in haploid maize (*Zea mays* L.). *Cytologia* 39:83-89.
- Maletskii, S. I., and B. N. Siritsa, 1974. Effect of pollinating conditions on the appearance of the gametophyte locus of the fourth chromosome in corn. *Genetika* 10(3):10-16.
- Malone, C., D. E. Koeppe and R. J. Miller, 1974. Corn mitochondrial swelling and contraction--an alternate interpretation. *Plant Physiol.* 53:918-927.
- Mangelsdorf, P. C., 1974. *Corn, Its Origin, Evolution and Improvement.* Belknap Press of Harvard Univ. Press, Cambridge, Mass. 262 pp.
- Marshall, D. R., P. Broué and A. J. Pryor, 1973. Adaptive significance of alcohol dehydrogenase isozymes in maize. *Nature New Biol.* 244:16-17.
- Matthews, D. L., C. O. Grogan and C. E. Manchester, 1974. Terminal ear mutant of maize (*Zea mays* L.). *J. Agric. Sci.* 82:433-435.
- Maynard, J. C., S. M. Mertz, Jr., C. J. Arntzen and W. W. Payne, 1974. Abnormal guard cell development in an olive necrotic mutant of maize. *Amer. J. Bot.* 61:580-584.
- Miku, V. E., 1973. Studies on the interaction of certain genes controlling sex in corn. *Genetika* 9(10):23-29.
- Miku, V. E., and S. I. Mustyatsa, 1974. Chlorophyll mutations among the corn specimen collection. *Izv. Akad. Nauk Mold. SSR Ser. Biol. Khim. Nauk:*34-38.
- Miles, C. D., and D. J. Daniel, 1974. Chloroplast reactions of photosynthetic mutants in *Zea mays*. *Plant Physiol.* 53:589-595.
- Mock, J. J., and S. H. Schuetz, 1974. Inheritance of tassel branch number in maize. *Crop Science* 14:885-888.
- Mulcahy, D. L., 1974. Correlation between speed of pollen tube growth and seedling height in *Zea mays* L. *Nature* 249:491-493.
- Müller, E., U. zur Nieden and A. Nelles, 1974. Dwarfism and ionic relations in maize (*Zea mays* L.). *Bioch. Physiol. Pflanzen* 165:505-516.
- Nagy, A. H., I. Gyurján, S. Székely and N. G. Doman, 1974. Activities of enzymes related to photosynthesis and  $^{14}\text{CO}_2$  fixation products in normal and carotenoid mutant maize leaves. *Photosynthetica* 7:87-92.
- Nagy, A. H., J. N. Rakovan, M. Roman and N. G. Doman, 1973. Plastid development and capacity of carboxylating enzymes in normal and mutant maize leaves under different illumination intensity. *Ann. Univ. Sci. Budap. Rolando Eotvos Nominatae Sect. Biol.* 14:59-72.
- Naismith, R. W., M. W. Johnson and W. I. Thomas, 1974. Genetic control of relative calcium, phosphorus, and manganese accumulation on chromosome 9 in maize. *Crop Science* 14:845-849.
- Nakashima, H., and S. Hosokawa, 1974. Histochemical studies on the cytoplasmic male-sterility of some crops. Part 3. Distribution of carbon-14 assimilates in maize. *Proc. Crop. Sci. Soc. Japan* 43:1-7.
- Nelson, O. E., and M. T. Chang, 1974. Effect of multiple aleurone layers on the protein and amino acid content of maize endosperm. *Crop Science* 14:374-376.



- Neuffer, M. G., and E. H. Coe, Jr., 1974. Corn (Maize). Pp. 3-30 in Handbook of Genetics, v. 2, R C. King, ed., Plenum, N. Y.
- Newell, C. A., and J. M. J. de Wet, 1974. Morphology of some maize-Tripsacum hybrids. *Amer. J. Bot.* 61:45-53.
- Newell, C. A., and J. M. J. de Wet, 1974. Morphological and cytological variability in Tripsacum dactyloides (Gramineae). *Amer. J. Bot.* 61:652-664.
- Nielsen, G., and J. G. Scandalios, 1974. Chromosomal location by use of trisomics and new alleles of an endopeptidase in Zea mays. *Genetics* 77:679-686.
- Paterniani, E., and A. C. Stort, 1974. Effective maize pollen dispersal in the field. *Euphytica* 23:129-134.
- Peterson, P. A., 1974. Unstable genetic loci as a probe in morphogenesis. *Brookhaven Symp. Biol.* 25:244-261.
- Peterson, P. A., R. B. Flavell and D. H. P. Barratt, 1974. A simple biochemical assay for "Texas" cytoplasm in corn by use of Helminthosporium maydis, race T pathotoxin. *Plant. Dis. Rep.* 58:777-780.
- Peterson, P. A., and O. Leleji, 1974. Differential activity of dominant aleurone color suppressors in maize. *Can. J. Genet. Cytol.* 16:389-398.
- Pfahler, P., 1973. In vitro germination and pollen tube growth of maize (Zea mays L.) pollen--VII. Effects of ultraviolet irradiation. *Radiation Bot.* 13:13-18.
- Pfahler, P. L., and H. F. Linskens, 1974. Ash percentage and mineral content of maize (Zea mays) pollen and style. I. Genotypic effects. *Theor. Appl. Genet.* 45:32-36.
- Phillips, R. L., D. F. Weber, R. A. Kleese and S. S. Wang, 1974. The nucleolus organizer region of maize (Zea mays L.): Tests for ribosomal gene compensation or magnification. *Genetics* 77:285-297.
- Polyakova, E. V., and T. M. Karafet, 1973. Isozyme pattern of endosperm and scutella catalases in ontogenesis of diploid corn strains. *Genetika* 9(11):26-31.
- Ponnuswamy, K. N., M. N. Das and M. I. Handoo, 1974. Combining ability type of analysis for triallel crosses in maize (Zea mays L.). *Theor. Appl. Genet.* 45:170-175.
- Pryor, A. J., 1974. Allelic glutamic dehydrogenase isozymes in maize--a single hybrid isozyme in heterozygotes? *Heredity* 32:397-401.
- Rao, B. G. S., and W. C. Galinat, 1974. The evolution of the American Maydeae 1. The characteristics of two Tripsacum chromosomes (Tr7 and Tr13) that are partial homeologs to maize chromosome 4. *J. Hered.* 65:335-340.
- Rees, H., and J. Hutchinson, 1974. Nuclear DNA variation due to B chromosomes. *Cold Spring Harbor Symp. Quant. Biol.* 38:175-182.
- Rice, J. S., and J. W. Dudley, 1974. Gene effects responsible for inbreeding depression in autotetraploid maize. *Crop Science* 14:390-393.
- Richmond, B. J., and R. G. S. Bidwell, 1974. CO<sub>2</sub> fixation in a mutant of corn, white-3, which lacks carotenoids. *Can. J. Bot.* 51:1927-1929.
- Ryan, R. M., and Y. C. Ting, 1974. A preliminary study of T-type cytoplasmic male sterile maize. *Amer. J. Bot.* 61 Supp.:62. Abstr.
- Sarkar, K. R., 1974. Genetic selection techniques in the production of haploids in higher plants. In Haploids in Higher Plants, ed. K. J. Kasha, Univ. of Guelph, Ont.
- Sarkar, K. R., B. K. Mukherjee, D. Gupta and H. K. Jain, 1974. Maize. Pp. 121-127 in Evolutionary Studies in World Crops: Diversity and Change in the Indian Subcontinent, ed. J. Hutchinson, Cambridge Univ. Press.
- Sartori, L. C., and Y. C. Ting, 1974. Giemsa banding in the chromosomes of haploid maize. *Amer. J. Bot.* 61 Supp.:63. Abstr.

- Scandalios, J. G., 1974. Subcellular localization of catalase variants coded by two genetic loci during maize development. *J. Hered.* 65:28-32.
- Schechter, Y., J. G. Waines and R. P. Ayala, 1974. Single-seed disc electrophoresis of maize, wheat and sorghum. *Bull. Torrey Bot. Club* 101:207-210.
- Scott, G. E., and E. E. Rosenkranz, 1974. Independent inheritance of resistance to corn stunt and maize dwarf mosaic in corn. *Crop Science* 14:104-106.
- Shah, D. M., and C. S. Levings, III, 1974. Mitochondrial DNA from maize hybrids with normal and Texas cytoplasm. *Crop Science* 14:852-853.
- Shannon, J. C., 1974. *In vivo* incorporation of carbon-14 into Zea mays L. starch granules. *Cereal Chem.* 51:798-809.
- Shannon, J. C., and L. C. Chu, 1974. Endosperm tissue culture used in searching for more productive corn. *Sci. Agr.* 21:8-9.
- Shortess, D. K., 1974. Electrophoresis of water-insoluble chloroplast proteins in a phenol, acetic acid, urea solvent. *J. Exp. Bot.* 25:647-651.
- Siritsa, B., and S. I. Maletskii, 1974. Analysis of populations of Zea mays everta for the composition of the alleles of the gametophyte locus of the fourth chromosome. *Sov. Genet.* 8:133-138.
- Smith, H. H., H. H. Rossi and A. M. Kellerer, 1974. Relation between mutation yield and cell lethality over a wide range of X-ray and fission neutron doses in maize. Pp. 405-416 in *Biological Effects of Neutron Irradiation*, Internat. Atomic Energy Agency, Vienna.
- Smith, H. H., R. G. Woodley, A. Maschke, N. C. Combatti and P. J. McNulty, 1974. Relative cytogenetic effectiveness of 28 GeV protons. *Radiation Res.* 57:59-66.
- Smith, H. J., and L. Bogorad, 1974. The polypeptide subunit structure of the DNA-dependent RNA polymerase of Zea mays chloroplasts. *Proc. Nat. Acad. Sci. USA* 71:4839-4842.
- Sorenson, J. C., and J. G. Scandalios, 1974. Developmental regulation of catalase in maize. *Genetics* 77:s61. Abstr.
- Springer, W. D., 1974. A cytogenetic method for utilizing nuclear male sterility in hybrid corn production. M. S. thesis, Univ. of Minnesota.
- Stout, J. T., and R. L. Phillips, 1973. Two independently inherited electrophoretic variants of the lysine-rich histones of maize. *Proc. Nat. Acad. Sci. USA* 70:3043-3047.
- Strel'chuk, S. I., and G. R. Strel'chuk, 1974. Competitive ability of pollen in corn tetraploid plants. *Tsitol. Genet.* 8:106-110.
- Stuber, C. W., and R. H. Moll, 1974. Epistasis in maize (Zea mays L.): IV. Crosses among lines selected for superior intervariety single cross performances. *Crop Science* 14:314-317.
- Suzuki, S., 1974. Electron microscope studies on the morphogenesis of plastids in C-4 plants Part 2. Development of etioplasts under illumination in Zea mays. *Sci. Rep. Tokyo Kyoiku Daigaku Sect. B* 15:255-263.
- Suzuki, S., and R. Ueda, 1974. Electron microscope studies on the morphogenesis of plastids in C-4 plants Part 1. The relationship between development of plastids and leaf cell differentiation during germination in Zea mays. *Sci. Rep. Tokyo Kyoiku Daigaku Sect. B* 15:237-254.
- Thomas, J. R., and K. K. Tewari, 1974. Conservation of 70S ribosomal RNA genes in the chloroplast DNAs of higher plants. *Proc. Nat. Acad. Sci. USA* 71:3147-3151.
- Ting, Y. C., 1974. Chromosome polymorphism of teosinte. *Genetics* 77:s65. Abstr.
- Towill, L. E., and L. D. Noodén, 1973. An electrophoretic analysis of the acid-soluble chromosomal proteins from different organs of maize seedlings. *Plant and Cell Physiol.* 14:851-863.

- Tsai, C. Y., 1974. The function of the waxy locus in starch synthesis in maize endosperm. *Bioch. Genet.* 11:83-96.
- Tsai, C. Y., and D. V. Glover, 1974. Effect of the brittle-1 sugary-1 double mutant combination on carbohydrate and postharvest quality of sweet corn. *Crop Science* 14:808-810.
- Tyrnov, V. S., V. M. Sukhanov and S. S. Khokhlov, 1973. Prospects of using haploid angiosperms in mutational selection. *Genetika* 9(11):38-46.
- Van't Hof, J., 1974. The regulation of cell division in higher plants. *Brookhaven Symp. Biol.* 25:152-165.
- Vasil, V., and I. K. Vasil, 1974. Regeneration of tobacco and petunia plants from protoplasts and culture of corn protoplasts. *In Vitro* 10:83-96.
- Vozda, J., 1973. Genetics of the restoration of pollen fertility in the S type and M type of cytoplasmic pollen sterility of maize. *SB Uviti (Ustav Vedeckotech Inf.) Genet. Slechteni* 9:181-188.
- Webster, J. H., and M. B. Wilkins, 1974. Lateral movement of radioactivity from (<sup>14</sup>C) gibberellic acid (GA<sub>3</sub>) in roots and coleoptiles of Zea mays L. seedlings during geotropic stimulation. *Planta* 121:303-308.
- Wheeler, H., D. J. Politis and C. G. Poneleit, 1974. Pathogenicity, host range, and distribution of Colletotrichum graminicola on corn. *Phytopath.* 64:293-296.
- Williams, E., 1974. Fine structure of vascular and epidermal plastids of the mature maize leaf. *Protoplasma* 79:395-400.
- Williams, E., and J. L. Kermicle, 1974. Fine structure of plastids in maize leaves carrying the striate-2 gene. *Protoplasma* 79:401-408.
- Wimber, D. E., P. A. Duffey, D. M. Steffensen and W. Prenskey, 1974. Localization of the 5S RNA genes in Zea mays by RNA-DNA hybridization in situ. *Chromosoma* 47: 353-359.
- Yang, N. S., and J. G. Scandalios, 1974. Purification and biochemical properties of genetically defined malate dehydrogenase in maize. *Arch. Bioch. Bioph.* 161: 335-353.
- Zuber, M. S., and D. V. Glover, 1974. Mutants of corn. *Crops and Soils Mag.*, pp. 12-14.
- Zuber, M. S., M. J. Wolf, E. S. Hilderbrand and I. Cull, 1974. Inheritance of hilar layer coloring in white corn (Zea mays L.). *Crop Science* 14:199-200.