

V. RECENT MAIZE PUBLICATIONS

- Alexander, D. E. and J. B. Beckett. Spontaneous triploidy and tetraploidy in maize. *J. Hered.* 54:103-107. 1963.
- Alimova, G. K. Cytochemical study of the development of the pollen grain in maize plants with the Texas and Moldavian type of cytoplasmic male sterility. *Bot. Z. Moskva* 47:1522-1527. 1962.
- Anderson, J. C. and P. N. Chow. Study of the effects of dwarfing on corn. *N.J. Agric.* 44:5. 1962.
- Anderson, J. C. and P. N. Chow. Phenotypes and grain yield associated with brachytic-2 gene in single-cross hybrids of dent corn. *Crop Sci.* 3:111-113. 1963.
- Andrew, R. H. and M. D. Groskopp. Sweet corn cultural studies on loamy sand under supplemental irrigation. *Wis. Res. Report* 13. Aug. 1963.
- Andrew, R. H. and M. D. Groskopp. Sweet corn cultural studies under irrigation. *Agron. Abstr.*: 107. 1963.
- Andrew, R. H., Z. M. Arawinko, J. R. Love and A. E. Peterson. Population, fertility and varietal responses for continuous corn with minimum tillage. *Wis. Res. Bulletin* 244. Nov. 1963.
- Balint, A. and A. Kovacs. The use of X irradiation to produce biochemical mutants in maize. *Hungar. Agric. Rev.* 13:8. 1963. (Abstr.)
- Bauman, L. F., T. F. Conway and S. A. Watson. Heritability of variations in oil content of individual corn kernels. *Science* 139: 498-499. 1963.
- Berry, R. W. and A. L. Flangas. Studies on genetic control of rust reaction type in Puccinia sorghi. *Phytopath.* 52:724-725. 1962.
- Bianchi, A. and M. Contin. Radiogenetical experiments with higher resolving power in maize. *Atti Assoc. Genet. Ital.* 8:257-267. 1962.
- Bianchi, A. and M. Contin. Mutagenic activity of isomeric forms of diepoxybutane in maize. *J. Hered.* 53:277-282. 1962.
- Bianchi, A., M. V. Ghatnekar and A. Ghidoni. Knobs in Italian maize. *Chromosoma* 14:601-617. 1963.
- Bianchi, A. and F. Salamini. Detection of linkage in maize by means of balanced lethal systems. *Maydica, Bergamo* 8:52-58. 1963.
- Boling, M., C. O. Grogan, and J. W. Broyles. A new method for artificially producing epiphytotics of *Fusarium* ear rot of maize. *Plant Dis. Repr.* 47(4):315-317. 1963.

- Bouillenne, M. and C. Leyh. Concerning the auxinic (I.A.A.) metabolism of plants of Zea mays L. (Phinney dwarf varieties), treated with gibberellic acid. Meded. LandbHoogesch. Gent 27:1353-1370. 1962.
- Blessin, C. W., J. D. Brecher, R. J. Dimler, C. O. Grogan, and C. M. Campbell. Carotenoids of corn and sorghum III. Variation in xanthophylls and carotenes in hybrid, inbred, and exotic corn lines. Cereal Chem. 40(4):436-442. 1963.
- Briggs, R. W. Effects of recurrent selection on a synthetic population of corn (Zea mays). Ph.D. Thesis, U. of Minnesota, 60 p. 1963.
- Britton, M. P. and A. L. Hooker. Failure to control corn stalk rots with aboveground applications of protectant fungicides. Plant Dis. Repr. 47:470-471. 1963.
- Calyk, T. S. Cytoplasmic sterility in maize in the light of the research by C. Darwin. Proc. Darwin Jubil. Conf. Kisinev: 199-203. 1960.
- Canic, V. D., D. I. Hadzijev, B. P. Belia and S. A. Grujic. Ribonucleic acid in the maize kernel. Savremen. Poljopr., Novi Sad 10:931-945. 1962.
- Carballo Quiros, A. Genetic variances in a Mexican variety of corn of the Tuxpeno race. Diss. Abstr. 23:1172. 1962. (Abstr.)
- Caspar, A. L. and W. R. Singleton. Induced loss of maize chromosome 9 genes observed in seedlings and endosperm. Genetics 48:885. 1963. (Abstr.)
- Chase, S. S. Androgenesis--its use for transfer of maize cytoplasm. J. Hered. 54:152-159. 1963.
- Clowes, F. A. L. X-irradiation of root meristems. Ann. Bot., Lond. 27:343-352. 1963.
- Coe, E. H., Jr. Discrimination among copying, plasmid, and episome models for conversion-type inheritance in maize. Proc. XI Int. Cong. Genetics, Vol. I., p. 44. 1963. (Abstr.)
- Collins, W. K. Development of potential ears in Corn Belt Zea mays. Iowa State Jour. Sci. 38:187-199. 1963.
- Curtis, H. J. and H. H. Smith. Corn seeds affected by heavy cosmic ray particles. Science 141:158-160. 1963.
- Daniel, L. Fused leaf sheath and branched stalk in maize. Acta Biol. Budapest 13:89-97. 1962.
- Dorovskaja, N. F. Formation and photosynthetic activity of the assimilatory surface in inbred and hybrid maize. Fiz. Rasten. (Phys. Pl.) 9:635-638. 1962.

- Doyle, G. G. Preferential pairing in structural heterozygotes of Zea mays. Genetics 48:1011-1027. 1963.
- Du Toit, A. F. and J. M. P. Geerthsen. The influence of controlled selection without inbreeding on corn yield. Proc. 2nd Cong. South African Genet. Soc.: 139-142. 1963.
- Duvick, D. N. Intracellular location of zein in maize. Proc. Seed Protein Conf., USDA ARS Southern Utilization Res. and Dev. Div., New Orleans, La. pp. 196-211. 1963.
- Eriksson, G. Induction of waxy mutants in maize by acute and chronic gamma irradiation. Hereditas 50:161-178. 1963.
- Faludi, B. and A. A. Faludi-Daniel. Inheritance of the carotenoid-forming properties of the grain in albino maize. Hungar. Agric. Rev. 11:15. 1962.
- Fleming, A. A. and G. M. Kozelnicky. Differential reaction of stocks of the same long-time inbred line of Zea mays L. to Helminthosporium turcicum. Plant Dis. Rept. 47:955-957. 1963.
- Galinat, W. C. Form and function of plant structures in the American Maydeae and their significance for breeding. Econ. Bot. 17:51-59. 1963.
- Galinat, W. C. and J. H. Gunnerson. Spread of eight-rowed maize from the prehistoric southwest. Bot. Mus. Leafl. Harv. 20:117-160. 1963.
- Garza, A., A. A. Fleming and E. B. Browne. A method of identifying maize hybrids with the same pedigree and the effect of varying numbers of lines in common on contrasts among hybrid and sib populations. Crop Sci. 2:371-374. 1962.
- Gavazzi, G. Modifications resulting from posttreatment of the genetic damage in irradiated maize grains. Atti Assoc. Genet. Ital. 8: 322-333. 1962.
- Giesbrecht, J. Gamete selection in two early maturing corn varieties. Crop Sci. 4:19-21. 1964.
- Gomez, A. A. and A. C. Mercado. The occurrence of pollen-fertility restorers of T-sterile cytoplasm in inbred lines of corn in the Philippines. Philipp. Agric. 46:1-6. 1962.
- Gorsline, G. W., W. I. Thomas, D. E. Baker and C. C. Wernham. Corn leaf blight severity associated with genetically controlled element content. Plant Dis. Rept. 47:359-361. 1963.
- Graner, E. A. Maize: the Y₁, Y₃, Y₇ interaction in the yellow coloration of the endosperm. An. Esc. Agric. Queiroz 8:35-44. 1961.

Grebenscikov, I. On the importance of the superior and the inferior parent in the performance of the F_1 hybrids and on the validity of Mitscherlich's law regarding the heterosis effect. *Z. Pflanzenz.* 47:388-397. 1962.

Greenblatt, I. M. and R. A. Brink. Transpositions of modulator in maize into divided and undivided chromosome segments. *Nature* 197:412-413. 1963.

Grobman, A., W. Salhuana, R. Sevilla and P. C. Mangelsdorf. Races of maize in Peru; their origins, evolution and classification. *Publ. Nat. Acad. Sci. Nat. Res. Coun.* No. 915:374. 1961.

Grogan, C. O., C. W. Blessin, R. J. Dimler and C. M. Campbell. Parental influence on xanthophylls and carotenes in corn. *Crop Sci.* 3:213-214. 1963.

Grogan, C. O., E. F. Eastin, and R. D. Palmer. Inheritance of susceptibility of a line of maize to simazine and atrazine. *Crop Sci.* 3:451. 1963.

Hageman, R. H. How corn uses nitrogen. *Ill. Res.* 4:8-9. 1962.

Hageman, R. H., J. F. Zieserl and E. R. Leng. Levels of nitrate reductase activity in inbred lines and F_1 hybrids in maize. *Nature* 197:263-265. 1963.

Hamilton, R. H. A corn mutant deficient in 2,4-dihydroxy-7-methoxy-1,4-benzoxazin-3-one with an altered tolerance of atrazine. *Weeds* 12:27-30. 1964.

Haunold, A. and M. F. Lindsey. Amylose analysis of single kernels and its implication for breeding of high-amyllose corn. *Crop Sci.* 4: 58-60. 1964.

Hilu, H. M. and A. L. Hooker. Monogenic chlorotic lesion resistance to Helminthosporium turcicum in corn seedlings. *Phytopathology* 53: 909-912. 1963.

Hofmeyr, J. D. J. Reciprocal translocations and pollen tube competition in Zea mays. *Proc. 2nd Cong. South African Genet. Soc.*: 154-155. 1963.

Hofmeyr, J. D. J. Genes for ear-row number in chromosome 3 of Zea mays L. *Proc. 2nd Cong. South African Genet. Soc.*: 157-158. 1963.

Hooker, A. L. Greater resistance to northern corn leaf blight is on the way. *Ill. Res.* 5:8-9. 1963.

Hooker, A. L. Corn leaf diseases. *Proc. 17th Hybrid Corn Industry-Research Conf.*: 24-36. 1962.

Hooker, A. L. A second major gene locus in corn conditioning resistance to Puccinia sorghi. *Phytopathology* 53:221-223. 1963.

- Hooker, A. L. Inheritance of chlorotic-lesion resistance to Helminthosporium turcicum in seedling corn. Phytopathology 53: 660-662. 1963.
- Hooker, A. L. Monogenic resistance in Zea mays L. to Helminthosporium turcicum. Crop Sci. 3:381-383. 1963.
- Hooker, A. L. Leaf blight resistance announced by Illinois. Crops and Soils 15:19. 1963.
- Hooker, A. L., P. E. Johnson, M. C. Shurtleff and W. D. Pardee. Soil fertility and northern corn leaf blight. Agron. Jour. 55:411-412. 1963.
- Horner, E. S., H. W. Lundy, M. C. Lutrick and R. W. Wallace. Relative effectiveness of recurrent selection for specific and for general combining ability in corn. Crop Sci. 3:63-66. 1963.
- Hulea, A. The response of different double hybrids of maize to infection by Ustilago zaeae (Beckm.) Ung. and Helminthosporium turcicum Pass. An. Inst. Centr. Cerc. Agric. Bucuresti 29:265-284. 1961.
- Irwin, H. T. and E. S. Barghoorn. Criteria in distinguishing the pollen of maize, teosinte, and Tripsacum. Inter. Conf. Palynology 4:352-353. 1962. (Abstr.)
- Ivannikov, S. G. Research on the mentor effects of foreign pollen in self pollination of maize. Sci. Rep. Tech. Sch. Biol. Sci.: 201-205. 1960.
- Koul, A. K. and R. L. Paliwal. An ageotropic mutant of annual teosinte and its cytological behaviour. Agra Univ. J. Res. 11:223-232. 1962.
- Kovacs, E. Genetic analysis of coleoptile and mesocotyl growth in maize. Hungar. Agric. Rev. 11:15. 1962.
- Kovacs, E. I. The morphogenetic effect of an albino factor in maize. Acta Biol. Budapest 13:61-62. 1963. (Abstr.)
- Kramer, H. H. Genes and gene combinations affecting corn endosperms. Proc. 16th Hybrid Corn Industry-Research Conf. 16:57-66. 1962.
- Latterell, R. L. Somatic mutation and seedling height reduction as criteria of radiosensitivity in maize. Genetics 48:897. 1963. (Abstr.)
- Lee, B. H., A. L. Hooker, W. A. Russell, J. G. Dickson and A. L. Flangas. Genetic relationships of alleles on chromosome 10 for resistance to Puccinia sorghi in 11 corn lines. Crop Sci. 3:24-26. 1963.
- Leng, E. R. Component analysis in inheritance studies of grain yield in maize. Crop Sci. 3:187-190. 1963.

- Leng, E. R. Oil and protein contents of corn have been greatly changed in long-time selection experiment. *Ill. Res.* 5:10-11. 1963.
- Leng, E. R., A. Tavcar, and V. Trifunovic. Maize of southeastern Europe and its potential value in breeding programs elsewhere. *Euphytica* 11:263-272. 1962.
- Lima-de-Faria, A. and P. Sarvela. Variation of the chromosome phenotype in *Zea*, *Solanum* and *Salvia*. *Chromosoma* 13:300-314. 1962.
- Linden, D. B. Additional sources of paramutation induction ability from South American races with variegated aleurones. *Genetics* 48:898. 1963. (Abstr.)
- Loesch, P. J., Jr., M. S. Zuber, and C. O. Grogan. The inheritance of crushing strength and rind thickness in several inbred lines of corn. *Crop Sci.* 3:173-174. 1963.
- Mackov, F. F. and Sz. G. Manzjuk. The role of phytohormone and vitamin-type substances in the heterosis phenomena of maize. *Hungar. Agric. Rev.* 11:10. 1962. (Abstr.)
- Maguire, M.P. Chromatid inheritance in allo diploid maize-Tripsacum hybrids. *Canad. J. Genet. and Cyt.* 5:414-420. 1963.
- Maguire, M. P. Variability in length and arm ratio of pachytene chromosomes of corn. *Cytologia* 27(3):248-257. 1962.
- Maguire, M. P. High transmission frequency of a *Tripsacum* chromosome in corn. *Genetics* 48:1185-1194. 1963.
- Maguire, M. P. Genetic determination of the frequency of nondisjunctive distribution following crossing-over in a trivalent. *Genetics* 48:899. 1963.
- Maguire, M. P. Crossing over and anaphase I distribution of the chromosomes of a maize interchange trivalent. *Genetics* 49:69-80. 1964.
- Malca, I. and F. P. Zscheile. Effect of the *Helminthosporium* leafspot disease on organic acid content of corn seedlings. *Phytopath.* 53:341-343. 1963.
- Mangelsdorf, P. C. and W. C. Galinat. The tunicate locus in maize dissected and reconstituted. *P.N.A.S.* 51:147-151. 1964.
- Maroti, M. Some factors of cell growth in maize roots. *Acta Bot. Acad. Sci. Hung.* 8:302-316. 1962.
- McClintock, B. Further studies of gene-control systems in maize. *Carnegie Inst. Wash. Yearb.* 62:486-493. 1963.
- McWhirter, K. S. and R. A. Brink. Paramutation in maize during endosperm development. *Genetics* 48:189-205. 1963.

- Miller, O. L., Jr. Cytological studies in asynaptic maize. *Genetics* 48:1445-1467. 1963.
- Moll, R. H., M. F. Lindsey and H. F. Robinson. Estimates of genetic variances and level of dominance in maize. *Genetics* 49:411-423. 1964.
- Movsesyan, S. N. The size and quantity of pollen grains in some lines and varieties of maize. *News Acad. Sci. Armen. SSR, Biol. Sci.* 15:57-61. 1962.
- Neuffer, M. G. and G. Ficsor. Mutagenic action of ethyl methanesulfonate in maize. *Science* 139:1296-1297. 1963.
- Nitsch, J. P. and C. Nitsch. Comparative activities of nine gibberellins on three biological test plants. *Ann. Physiol. Veg.* 4:85-97. 1962.
- Noble, S. W. and W. A. Russell. Effects of male-sterile cytoplasm and pollen fertility genes on performance of hybrid corn. *Crop Sci.* 3:92-96. 1963.
- Ottaviano, E. Influence of chromosome duplications on grain size in maize. *Maydica*, Bergamo 7:99-114. 1962.
- Penny, L. H., W. A. Russell, G. F. Sprague and A. L. Hallauer. Recurrent selection. *Statistical Genetics and Plant Breeding*. Nat. Acad. Sci. NRC Publ. 982. pp. 352-367. 1963.
- Peterson, P. A. and A. Munson. B-chromosomes and pollen size in maize. *Iowa Acad. Sci.* 69:155-159. 1963.
- Petrov, D. F. and N. B. Zeleznova. The experimental induction of androgenesis in maize. *Proc. Acad. Sci. USSR* 147:1470-1472. 1962.
- Raicu, P. Vegetative hybridization in maize. *Rev. Biol. Bucuresti* 5: 19-32. 1960.
- Reddy, G. M. Gene action sequence and some chemical studies in anthocyanin synthesis in maize. *Diss. Abstr.* 23:2296. 1963. (Abstr.)
- Reddy, G. M. Leucoanthocyanidin formation in maize. *Genetics* 48:906. 1963. (Abstr.)
- Reeves, R. G. and A. J. Bockholt. Modification and improvement of a maize inbred by crossing it with *Tripsacum*. *Crop Sci.* 4:7-9. 1964.
- Rinke, E. H. and J. C. Sentz. Moving corn-belt germ-plasm northward. *Proc. 16th Hybrid Corn Industry-Research Conf.* 16:53-56. 1962.
- Rowe, P. R. and R. H. Andrew. Phenotypic stability for a systematic series of maize genotypes grown in several environments. *Agron. Abstr.*: 89. 1963.

Russell, W. A., G. F. Sprague and L. H. Penny. Mutations affecting quantitative characters in long-time inbred lines of maize. *Crop Sci.* 3: 175-178. 1963.

Rychter-Kowalska, M. Studies on the differentiation in content of carotenoids in some breeding lines and varieties of maize (*Z. mays* L.). *Hodowla Roslin Aklimatyz. Nasiennictwo* 6:311-337. 1962.

Salamini, F. The leaf surface of maize. *Maydica, Bergamo* 8:65-72. 1963.

Sarkissian, I. V., M. A. Kessinger and W. Harris. Differential rates of development of heterotic and non-heterotic young maize seedlings. I. Use of gamma plantlets in the demonstration of differential mitotic rates. *Amer. J. Bot.* 50:618. 1963.

Sarkissian, I. V., M. A. Kessinger and W. Harris. Differential rates of development of heterotic and nonheterotic young maize seedlings, I. Correlation of differential morphological development with physiological differences in germinating seeds. *P.N.A.S.* 51:212-218. 1964.

Sarvela, P. and C. O. Grogan. Morphology, cytology, and biochemistry of male-sterile lines of maize. *Proc. XI Int. Cong. of Genet.* 1: 204-205. 1963. (Abstr.)

Schwartz, D. Genetic studies on mutant enzymes in maize. IV. Comparison of pH 7.5 esterases synthesized in seedling and endosperm. *Genetics* 49:373-377. 1964.

Shaver, D. L. A study of meiosis in perennial teosinte, in tetraploid maize and in their tetraploid hybrid. *Caryologia* 15:43-57. 1962.

Shaver, D. L. The effect of structural heterozygosity on the degree of preferential pairing in allotetraploids of *Zea*. *Genetics* 48: 515-524. 1963.

Shaver, D. L. Cytogenetic studies of perennialism in derivatives of interspecific hybrids of *Zea*. *Genetics* 48:909. 1963. (Abstr.)

Sidorov, F. F. and I. K. Sulakov. Hybrids of maize and teosinte. *Trud. Priklad. Bot. Genet. Selekci.* 34:76-85. 1962.

Smith, H. H., J. L. Bateman, H. Quastler, and H. H. Rossi. RBE of monoenergetic fast neutrons: Cytogenetic effects in maize. Intern. Atomic Energy Agency Symp., Oct. 1963.

Smith, H. H., H. J. Curtis, R. G. Woodley and O. L. Stein. The deuteron microbeam as a tool in botanical research. *Radiation Botany* 1:255-268. 1962.

Termunde, D. E., D. B. Shank and V. A. Dirks. Effects of population levels on yield and maturity of maize hybrids grown on the Northern Great Plains. *Agron. Jour.* 55:551-555. 1963.

- Thomas, W. I. Interest increases in prolific corn hybrids. *Crops and Soils* 15:19. 1963.
- Ting, Y. C. Evidence of interchromosome effect of inversions on crossing over. *Genetics* 48:913. 1963. (Abstr.)
- Ullstrup, A. J. Sources of resistance to northern corn leaf blight. *Plant Dis. Rept.* 47:107-108. 1963.
- Ulrich, V. and R. S. Snell. The effect of ear-to-row and convergent improvement breeding in sweet corn, Zea mays. *Proc. W. Va. Acad. Sci.* 34:39-45. 1962.
- Vaidya, S. M. and B. Singh. A new type in sweet corn. *Curr. Sci.* 31: 393. 1962.
- Vaidya, S. M., R. L. Paliwal and B. Singh. A new lodging index for the use of maize breeders. *Curr. Sci.* 32:128-129. 1963.
- van der Walt, W. J. and J. D. J. Hofmeyr. The part played by differential pollen tube growth in maize pollen competition. *Proc. 2nd Cong. South African Genet. Soc.*: 156. 1963.
- van Schaik, N. Secondary transposition of Modulator, a movable genetic element in maize. *South African J. Sci.* 58:69-70. 1962.
- van Schaik, N. Modulator, a possible episomic element in maize. *South African J. Sci.* 59:111-114. 1963.
- van Schaik, N. Analogies between the behaviour of Modulator, a controlling element in maize, and the episomic elements in bacteria. *Proc. 2nd Cong. South African Genet. Soc.*: 72-76. 1963.
- Varma, B., A. Caspar, and W. R. Singleton. Genetic effects of cobalt-60 radiation on proembryos of corn. *Genetics* 48:914. 1963. (Abstr.)
- Volkin, E. and D. Schwartz. Nucleic acid metabolism of germinating corn seedlings. *Bull. Res. Coun. of Israel* 11A4:387-388. 1963.
- Vozda, J. A study of mixed pollination with foreign pollen in maize with the aid of pollen marked with the phosphorus isotope P^{32} . I. The influence of foreign pollen on the fertilization process in self-pollinated maize. *Rostlinna výroba* 35:1169-1186. 1962.
- Zecevic, L. M. Cytogenetic study of inbred lines of maize (Z. mays L.). II. Chiasma frequency at diakinesis. *Zborn. Rad. Biol. Inst. Beograd* 5:43. 1962.
- Zieserl, J. F., W. L. Rivenbark and R. H. Hageman. Nitrate reductase activity, protein content, and yield of four maize hybrids at varying plant populations. *Crop Sci.* 3:27-32. 1963.