

IV. RECENT MAIZE PUBLICATIONS

Alexander, D. E. Genetic induction of autotetraploidy in maize. Proc. X Int. Cong. Genet., Montreal: 3. 1958.

Ballesteros, O. Q. General and specific combining ability of S₂ College White Flint and S₃ Bicol White Flint inbred lines. The Philippine Agriculturist 42: 231-249. 1958.

Bear, R. P., M. L. Vineyard, M. M. Macmasters and W. L. Deatherage. Development of "Amylomaize"--Corn hybrids with high amylose starch: II. Results from breeding efforts. Agron. J. 50: 598-602. 1958.

Beard, B. H., F. A. Haskins, and C. O. Gardner. Comparison of effects of x-rays and thermal neutrons on dormant seeds of barley, maize, mustard, and safflower. Genetics 43: 728-736. 1958.

Bell, M. E. Histology of the maize plant in relation to susceptibility to the European corn borer. Iowa St. Coll. J. Sci. 31: 9-17. 1956.

Bell, W. D., L. Bogorad and W. J. McIlrath. Response of the yellow-stripe mutant (ys1) to ferrous and ferric iron. Bot. Gaz. 120: 36-39. 1958.

Bianchi, A. Genetic and cytological studies in Italian maize varieties. Proc. X Int. Cong. Genet., Montreal: 25. 1958.

Blickenstaff, J., D. L. Thompson and P. H. Harvey. Inheritance and linkage of pollen fertility restoration in cytoplasmic male-sterile crosses of corn. Agron. J. 50: 430-434. 1958.

Brandolini, A. Maize germ plasm and its conservation. Maydica, Bergamo 3: 4-14. 1958.

Brink, R. A. Paramutation at the R locus in maize. Cold Spring Harbor Symp. Quant. Biol. 23. 1958.

_____. The genetic basis of a transallelic change occurring invariably in certain maize heterozygotes. Proc. X Int. Cong. Genet., Montreal: 34. 1958.

_____. A stable somatic mutation to colorless from variegated pericarp in maize. Genetics 43: 435-447. 1958.

_____. Basis of a genetic change which invariably occurs in certain maize heterozygotes. Science 127: 1182-1183. 1958.

Brink, R. A. and B. Mikula. Plant color effects of certain anomalous forms of the R^F allele in maize. Z. indukt. Abstamm.- u. VererbLehre 89: 94-102. 1958.

- Brink, R. A. and D. R. Wood. The neutral effect of modulator in maize on plant and pollen-tube growth. Amer. J. Bot. 45: 38-44. 1958.
- Brooks, J. S. An experimental re-examination of mass selection in corn, *Zea mays L.* Proc. X Int. Cong. Genet., Montreal: 35. 1958.
- Cameron, J. W. and D. Cole. Use of the genes su2 and du to reduce starchiness during ontogeny in the maize kernel. Proc. X Int. Cong. Genet., Montreal: 41-42. 1958.
- Cervantes, J., A. Rodriguez and J. S. Niederhauser. Resistance to the virus causing stunting of maize. Foll. Tec. Secretaria Agric. Ganad., Mex. No. 29. 1958.
- Chao, C. Y. Heterotic effects of a chromosomal segment in maize. Diss. Abstr. 17: 2130. 1957. (Abstr.)
- Chase, S. S. The utilization of parthenogenesis in maize breeding. Proc. X Int. Cong. Genet., Montreal: 48. 1958.
- Clements, T. E. Dwarf corn. What's New Crops Soils 10: 18, 20. 1957.
- Coe, E. H. A continuing, non-reverting conversion-type phenomenon at the B locus in maize. Proc. X Int. Cong. Genet., Montreal: 55. 1958.
- Costa-Rodrigues, L. Sugar maizes. II. Tests of adaptation. Agron. lusit. 19: 57-69. 1957.
- Crowley, A. J. and R. W. Jugenheimer. Efficient evaluation of oil content in inbred lines of corn. Am. Soc. Agron. Abs. 1958.
- Deanon, J. R. Treatment of sweet corn silks with maleic hydrazide and colchicine as means of increasing the frequency of monoploids. Philipp. Agric. 41: 364-377. 1957.
- Duarte, L. S. do N. and A. Grossmann. Hybrids of *Zea* x *Euchlaena*. I. Comparisons of root and leaf. Rev. Agric. Piracicaba 33: 99-116. 1958.
- Duncan, R. E. and M. D. Persidsky. The achromatic figure during mitosis in maize endosperm. Amer. J. Bot. 45: 719-729. 1958.
- Duncan, W. G. The relationship between corn population and yield. Agron. J. 50: 82-84. 1958.
- Duvick, D. N. Yields and other agronomic characteristics of cytoplasmically pollen sterile corn hybrids, compared to their normal counterparts. Agron. J. 50: 121-125. 1958.

Duvick, D. N. The regional localization of pollen sterility in partially sterile cytoplasmically pollen sterile maize. Proc. X Int. Congr. Genet., Montreal: 72. 1958.

Elitropi, C. A contribution to the knowledge of the floral biology and methods of artificial pollination in maize. II and III. Ann. Sper. Agr. 12: 5-54. 1958.

Emmerling, M. H. An analysis of intragenic and extragenic mutations of the plant color component of the R^f gene complex in Zea mays. Cold Spring Harbor Symp. Quant. Biol. 23. 1958.

_____. Evidence of non-disjunction of abnormal chromosome 10. J. Hered. 49: 203-207. 1958.

Everett, H. L., D. L. Umali and I. S. Santos. Multiple fertilization in maize (*Zea mays* L.). The Philippine Agriculturist 42 (1): 6-11. 1958.

Faberge, A. C. Relation between chromatid-type and chromosome-type breakage-fusion-bridge cycles in maize endosperm. Genetics 45: 737-749. 1958.

Gamble, E. E. Relative importance of epistatic and nonepistatic gene effects in maize. Iowa St. Coll. J. Sci. 32: 178-179. 1957.

Garza, A. and R. D. Osler. Maices Mejorados en el Bajío en 1957. Agric. Tec. en Mexico 6: 5. Verano 1958.

Genter, C. F. Plot competition between corn hybrids. Agron. J. 50: 205-206. 1958.

Graf, G. E. Chromosome breakage by maleic hydrazide and maleic hydrazide derivatives in strains of maize with different knob numbers. Iowa St. Coll. J. Sci. 32: 181. 1957. (Abstr.)

Grogan, C. O. and Zuber, M. S. Comparative performance of various combinations of F_1 and F_2 generation seed of maize. Agron. J. 50: 88-89. 1958.

Gurgel, J. T. A. The non-homologous associations of centromeres and knobs of maize chromosomes at meiosis. Proc. X Int. Congr. Genet., Montreal: 107. 1958.

Haskins, F. A., M. F. Davidson, and R. J. Beers. Influence of seed irradiation with x-rays and thermal neutrons upon cell size and mitotic activity in root tips of maize. Amer. Nat. 92: 365-370. 1958.

Himes, M. Studies on the chemical nature of sticky chromosomes. Diss. Abstr. 17: 2131. 1957.

- Hofmeyr, J. D. F. Pollentube growth studies of inbred lines of *Zea mays*, L. S. Afr. J. Sci. 54: 59-60. 1958. (Abstr.)
- House, L. R. A study of the genetical and physiological bases of cross-sterility in maize. Diss. Abstr. 17: 208-209. 1957.
- House, L. R. and O. E. Nelson. Tracer study of pollen-tube growth in cross-sterile maize. J. Hered. 49: 18-21. 1958.
- Huber, L. L. Functional characteristics of some inbred lines of corn. Prog. Rep. 196 Pa. Agr. Exp. Sta. 1958.
- Inman, L. L. Studies on the methods of production and theoretical applications of large rings of chromosomes in maize. Diss. Abstr. 17: 1874. 1957. (Abstr.)
- Jenkins, M. T. Evaluation of lines for resistance to *Helminthosporium*. 12th Hybrid Corn Industry Research Conf. 12: 7-13. 1957.
- Jennings, P. R. A histological study of northern and southern corn leaf blights. Diss. Abstr. 17: 1880. 1957.
- Johnson, I. J. The role of the experiment stations in basic research relating to corn breeding. 12th Hybrid Corn Industry Research Conf. 12: 31-36. 1957.
- Jones, D. F. Heterosis and homeostasis in evolution and in applied genetics. Amer. Nat. 92: 321-328. 1958.
- _____. Basic research in genetics applied to maize. Proc. X Int. Cong. Genet., Montreal. (In press).
- Jones, D. F., H. T. Stinson, Jr. and U. Khoo. Pollen Restoring Genes. Bull. 610, The Conn. Agric. Expt. Sta., 43 pp. Nov. 1957.
- Josephson, L. M. Breeding for early prolific hybrids. 12th Hybrid Corn Industry Research Conf. 12: 71-79. 1957.
- Judin, B. F. Some peculiarities in the flowering of maize in the Central Urals. Bot. Z. Moskva 43: 861-867. 1958.
- Jugenheimer, R. W. Hybrid maize breeding and seed production. FAO of UN. (Book). 1959.
- _____. High oil hybrids make King Corn more useful. Ill. Res. 1: 7. 1959.
- _____. Two new high-oil corn hybrids developed at the University of Illinois. Agron. Facts. 1958.

Jugenheimer, R. W. Corn hybrids with higher oil or protein content for industry and livestock. Am. Soc. Agron. Abs. 1958.

_____. Performance, uniformity and practicability of various types of corn hybrids. Proc. X Int. Cong. Genet., Montreal: 137-138. 1958.

Katayama, Y. and T. Nagatomo. On a variegated maize strain. Bull. Fac. Agric. Univ. Miyazaki 2: 52-58. 1957.

Kedharnath, S. The integrity of transposed modulator in maize. Diss. Abstr. 17: 2389. 1957.

Kedharnath, S. and R. A. Brink. Transposition and the stability of modulator in maize. Genetics 43: 695-704. 1958.

Kelleher, T. M. Analysis and interpretation of variation of inbred lines and F_1 crosses in corn. Diss. Abstr. 17: 482. 1957.

Kelleher, T., H. F. Robinson and R. E. Comstock. Precision of estimates of variance components. Biometrics 14: 69-77. 1958.

Koehler, B. Pericarp injuries in seed corn: prevalence in dent corn and relation to seedling blights. Bull. Ill. Agric. Exp. Sta. No. 617. 1957.

Kramer, H. H., R. P. Bear and M. S. Zuber. Designation of high amylose gene loci in maize. Agron. J. 50: 229. 1958.

Kramer, H. H., P. L. Pfahler, and R. L. Whistler. Gene interactions in maize affecting endosperm properties. Agron. J. 50: 207-210. 1958.

Lascols, X. Study of some French populations of early maize: experiments on combining ability. Ann. Inst. nat. Rech. agron., Paris, Ser. B. 7: 139-157. 1957.

Lebedeff, G. A. Inheritance of loose pericarp in corn. J. Hered. 49: 129-132. 1958.

Leng, E. R. Genetic production of short stalked hybrids. 12th Hybrid Corn Industry Research Conf. 12: 80-86. 1957.

Lonquist, J. H. and M. D. Rumbaugh. Relative importance of test sequence for general and specific combining ability in corn breeding. Agron. J. 50: 541-543. 1958.

Mangelsdorf, P. C. A genetic reconstruction of the ancestor of maize. Proc. X Int. Cong. Genet., Montreal: 177. 1958.

_____. Reconstructing the ancestor of corn. Proc. Amer. Philos. Soc. 102: 454-463. 1958.

- Mangelsdorf, P. C. The mutagenic effects of hybridizing maize and teosinte. Cold Spring Harbor Symp. Quant. Biol. 23. 1958.
- _____. Ancestor of corn. Science 128: 1313-1319. 1958.
- Maric, M. A contribution to the study of double-cross intervarietal and synthetic F_1 hybrids of yellow and white maize. Zborn. Rad. poljoprivred. Fak./Rev. Res. Wk. Fac. Agric. Beograd 5: 151-174. 1957.
- Mazoti, L. B. Inherited preferential segregation in Zea conditioned by the cytoplasm. Proc. X Int. Cong. Genet., Montreal: 183. 1958.
- Miravalle, R. J. Detection of linkage effects on estimates of genetically interpretable variances and on estimates of the average degree of dominance of genes affecting quantitatively inherited characters in a hybrid population of corn. Diss. Abstr. 17: 2389-2390. 1957. (Abstr.)
- Mohamed, A. H. The use of chromosomal interchanges in locating the genes controlling some agronomical characters in maize. Alexandria J. Agric. Res. 4: 69-82. 1956.
- Moll, R. H. The inheritance of brown spot resistance in corn. Diss. Abstr. 17: 1648. 1957. (Abstr.)
- Murty, G. S. and Roy, N. N. Study of the Indian collection of maize varieties with special reference to the relationship between yield and other characters. Indian J. Genet. 17: 73-89. 1957.
- Nakamura, N. Statistical studies on combining ability in maize. Hyogo Noka Daigaku Kiyo/Mem. Hyogo Univ. Agric. 2: 53. 1956.
- Nelson, O. E. Intercrosses among alleles at the Waxy locus in maize. Proc. X Int. Cong. Genet., Montreal: 204. 1958.
- Nelson, P. M. and E. C. Rossman. Chemical induction of male sterility in inbred maize by use of gibberellins. Science 127: 1500. 1958.
- Nelson, R. R. A major gene locus for compatibility in *Cochliobolus heterostrophus*. Phytopathology 47: 742-743. 1957.
- Notani, N. K. The induction and evaluation of endosperm mutations in maize. Diss. Abstr. 17: 1864-1865. 1957. (Abstr.)
- Nuffer, M. G. A crossover analysis of mutable alleles at the A_1 locus in maize. Proc. X Int. Cong. Genet., Montreal: 206. 1958.
- Obregon, F. and R. D. Osler. H-504 Nuevo Maiz para zonas Tropicales. Agric. Tec. en Mexico 5: 23. Invierno 1957-1958.

Osler, R. D., E. J. Wellhausen and G. Palacios. Effect of visual selection during inbreeding upon combining ability in corn. Agron. J. 50: 45-48. 1958.

Osler, R. D., E. J. Wellhausen and G. Palacios. The effect of visual selection during selfing of maize upon its combining ability. Foll. tec Secretaria Agric. Ganad., Mex. 22: 16. 1957.

Palacios, G. and R. D. Osler. Nuevos Maices para regiones Altas. Agric. Tec. en Mexico 5: 24. Invierno 1957-1958.

Parsons, P. A. A survey of genetical interference in maize. Genetica 29: 222-237. 1958.

Pelton, J. S. Expression of the gene d_1 in the first three leaves of Zea mays L. Butler Univ. Bot. Stud. 13: 66-73. 1956.

Peterson, P. A. The effect of temperature on the mutation rate of a mutable locus in maize. J. Hered. 49: 121-124. 1958.

Petrov, D. F. The importance of apomixis in maintaining heterosis. Proc. Acad. Sci. USSR 112: 954-956. 1957.

Petru, E. and R. Retovsky. Reducing the monoecious character of the maize plant to the purely female condition during ontogeny. Csl. Biol. 6: 393-395. 1957.

Pfahler, P. L. Genetic control of starch properties in maize. Diss. Abstr. 17: 1865. 1957. (Abstr.)

Popov, G. I. Changes in maize plants. Agrobiologija 3: 90-98. 1957.

Prywer, L. Meiosis in *Tripsacum maizar*. Rev. Soc. Mex. Hist. Nat. 15: 59-71. 1954.

Rajki, S. Has formal genetical theory anything to do with heterosis breeding? Noveintymales 6: 367-372. 1957.

Robbins, W. J. Sucrose and growth of excised roots of an inbred Zea mays. PNAS 44: 1210-1212. 1958.

Robinson, H. F., C. C. Cockerham, and R. H. Moll. Genetics and genotypic environmental interaction variances in maize. Proc. X Int. Cong. Genet., Montreal: 239. 1958.

Russell, W. A. and A. L. Hooker. Inheritance of resistance in corn to rust, *Puccinia sorghi* Schw., and genetic relationships among different sources of resistance. Agron. J. 51: 21-23. 1959.

Santos, I. S. An evaluation of Cuban corn as a source of genetic diversity for Philippine hybrids. Philipp. Agric. 41: 378-391. 1957.

Saric, M. R. The effect of x-irradiation upon maize seed differing with regard to degree of hybridization. Proc. Acad. Sci. USSR 116: 1026-1028. 1957.

Sass, J. E. Histolytic polyploidy in root tips of maize. Proc. Iowa Acad. Sci. 64: 213-217. 1957.

Savage, R. R., W. L. Deatherage, M. M. Macmasters, and F. R. Senti. Note on a rapid method to screen corn samples for approximate amylose content in the starch. Cereal Chem. 35: 392-394. 1958.

Schwartz, D. A new temperature-sensitive allele at the sticky locus in maize. J. Hered. 49: 149-151. 1958.

_____. On the stabilization of a ring chromosome in maize. Genetics 43: 86-91. 1958.

_____. A new mutable gene in maize. Proc. X Int. Cong. Genet., Montreal: 256. 1958.

Sidorov, F. F. The world collection of maize at the Institute of Plant Industry. Kukuruza (Maize) 11: 51-54. 1957.

Singleton, W. R. and A. L. Caspar. The Blandy radiation field for inducing mutations in plants. Proc. X Int. Cong. Genet., Montreal: 261. 1958

Smith, D. L. and J. S. Niederhauser. Occurrence of corn stunt virus in central America and Colombia. Plant Dis. Repr. 42: 512. 1958.

Soria, V. J. Maize selections at the Tropical Experimental Station of Ecuador. Turrialba 6: 86-88. 1956.

Spasojevic, V. Heterosis in tillering maize. Arh. poljopr. Nauk 10: 83-90. 1957.

Staby, J. H. New strides in corn borer resistance. What's New Crops Soils 10: 16. 1958.

Storey, H. H., A. K. Howland, J. S. Hemingway, J. D. Jameson, B. J. T. Baldwin, H. C. Thorpe, and G. E. Dixon. East African work on breeding maize resistant to the tropical American rust, Puccinia polyspora. Emp. J. Exp. Agric. 26: 1-17. 1958.

Straus, J. Spontaneous changes in corn endosperm tissue cultures. Science 128: 537-538. 1958.

Stringfield, G. H. Fertility restoration and yields in maize. Agron. J. 50: 215-218. 1958.

Sugiyama, S. History of maize. Iden (Heredity) 11: 28-31. 1957.

Suto, T. Corn races growing in the foot of Mt. Fuji in Japan. Nogyo-Gijitsu (Agr. Tech.) 12: 207-209. 1957.

Tamaoki, T. and A. J. Ullstrup. Cultivation in vitro of excised endosperm and meristem tissues of corn. Bull. Torrey Bot. Club 85: 260-272. 1958.

Tanaka, K. Enzymatic studies on the mechanism of polysaccharide formation in maize seed. IV. Comparison of phosphorylase activity in endosperm. Bot. Mag. (Tokyo) 70: 149-152. 1957.

Tandler, C. J. A chemically specific technique for the intracellular localization of inorganic phosphate. J. Histochem. Cytochem. 5: 489-499. 1957.

Tate, W., H. Tanabe and T. Kuwabata. On the breeding process of four new double-cross hybrids, DC-4, DC-5, DC-6 and DC-7. Hokuno (North Agr.) 24: 6-15. 1957.

Tavcar, A. Genetics and cytogenetics of maize with multiple number of leaves and ears on stalk knots and branches on tassel knots. Proc. X Int. Cong. Genet., Montreal: 290. 1958.

Thomas, W. I. Relation of samples size and temperature to volumetric expansion of popcorn. Food Tech. 12: 514-517. 1958.

Ting, Y. C. Inversions and other characteristics of teosinte chromosomes. Proc. X Int. Cong. Genet., Montreal: 295. 1958.

Inversions and other characteristics of teosinte chromosomes. Cytologia 23 (3). 1958.

On the origin of abnormal chromosome 10 in maize (*Zea mays L.*). Chromosoma 9: 286-291. 1958.

Toda, S., U. Mori, and H. Hasegawa. Two recommended hybrids, Golden Cross Bantam and Tsukiko No. 193. Hokuno (North Agr.) 24: 16-23. 1957.

Tovmasjan, O. V. The inheritance of the characters of two pollinator varieties in maize. Agrobiologija 2: 25-30. 1957.

Urano, K., S. Sakaguchi, and Y. Tanaka. Studies on the ear differentiation of corn plants. Proc. Crop Sci. Soc. Japan 25: 163-164. 1957.

Urano, K. A study on the diagnosis of relationships between maize strains using the precipitin reaction. Bull. Kikyogahara Branch, Nagano Agr. Exp. Sta. 50 pp.

Valentine, F. A. Orange variegated, a mutant originating from variegated pericarp in maize. Diss. Abstr. 17: 2390. 1957. (Abstr.)

Van Eijnatten, C. L. M. A preliminary investigation on the resistance to West African stem-borers in Zea mays. Mem. W. Afr. Maize Res. Unit, Ibadan No. 13 1958.

Vineyard, M. L., R. P. Bear, M. M. Macmasters and W. L. Deatherage. Development of "Amylomaize"--Corn hybrids with high amylose starch: I. Genetic considerations. Agron. J. 50: 595-597. 1958.

Walter, E. V., G. Wene, and E. D. Harris. Corn earworm resistance in commercial sweet corn hybrids. US Dep. Agric. ARS: 33-46. 1958.

Weber, A. V. Growth of the shoot apex in dwarf-1 and its normal segregates in four inbred lines of maize. Diss. Abstr. 18: 40. 1958. (Abstr.)

Whistler, R. L. Raw material for industry. What's New Crops Soils 10: 16-17. 1957.

Wiser, W. J. Inheritance of reaction to Diplodia zeae (Schw.) Lev. in Zea mays L. ears. Diss. Abstr. 17: 12-13. 1957.

Zamkovoij, G. T. The position of axillary buds and sexual differentiation in maize plants. Kukuruza 2: 29-32. 1958.

Zuber, M. S. High amylose corn. 12th Hybrid Corn Industry Research Conf. 12: 14-18. 1957.