

III. MAIZE PUBLICATIONS - 1951
(Including some early 1952 publications.)

- Abbe, E. C., Phinney, B. O. and D. F. Baer. The growth of the shoot apex in maize: internal features. *Am. Jour. Bot.* 38:744-751. 1951.
- Anonymous. Wisconsin releases two new hybrid corns. *Seed World*, p. 78, June 1, 1951.
- Anonymous. New outstanding Texas corn hybrids. *Seed World*, p. 20, April 20, 1951.
- Anonymous. Borer-tolerant hybrids are announced by Iowa crops workers. *Crops and Soils* 3(5):26. 1951.
- Anonymous. Attempt solution of Florida corn problems. *Seed World*. 68(5):44. 1951.
- Anonymous. U. S. scientists help Mexico improve corn strains. *Crops and Soils* 3(4): 25. 1951.
- Anonymous. Report of the fifth meeting on maize. 27 and 28 July, 1950 at the Pergamino Experimental Station. *Minist. Agric. Gonad Nacion, Argentina* 1950, pp. 213. (Mimeographed)--P.B.A.21 (4):843-844. 1951.
- Bauman, L. F., Jugenheimer, R. W., Woodworth, C. M., Alexander, D. E., and Koehler, B. Experimental corn hybrids, 1950 tests. *Ill. Agr. Exp. Sta. Bul.* 543, 1951.
- Bennett, E. Sugars of the hemicelluloses of cornstalks. *Plant Physiol.* 26:182-185. 1951.
- Blanco, J. L. and A. J. DeOliveira. Hibridacion en cadena. Produccion de emergencia de semilla hibrida de maiz. (Chain crossing. Emergency production of hybrid maize seed.) *Genetica Iberica* 2:15-27. 1950 (P.B.A. 21(2):336. 1951.)
- Bottger, G. T. Sugars and protein in the corn plant as related to nutrition of the Europ
- Brimhall, B. and Sprague, G. F. Unsaturation of corn oil -- Inheritance and maturity studies. *Cereal Chem.* 28(3):225-231. 1951.
- Brodell, A. P. and Cooper, M. R. Trends in planting and fertilizing corn. *Agr. Situation (Washington)* 35(7):7-8. 1951.
- Brown, W. L. and Mangelsdorf, P. C. The effects on yield and morphology of the addition of teosinte germplasm to maize. *Genetics* 36(5):544. 1951.
- Burdick, A. B. Evidence concerning the structure of an ear of corn. *Amer. Nat.* 85(825):353-356. 1951.
- Dominance, as function within organism environment in kernel-row number in maize. *Genetics* 36(6):652. 1951.
- Carter, G. F. Origin of maize. *Geog. R.* 41:338-340. 1951.
- Cooper, D. C. Caryopsis development following matings between diploid and tetraploid strains of *Zea Mays*. *Am. Jour. Bot.* 38:702-708. 1951.
- Costa, A. S. and Penteado, M. P. Corn seedlings as test plants for the sugar-cane mosaic virus. *Phyopath.* 41:758-763. 1951. (abst.)
- Cutler, H. C. The geographic origin of maize. *Biologia 2. Chron. Bot.* 12:4-6. 1951.
- Cunningham, J. C. Maize bibliography for the years 1937 to 1945, inclusive. *Iowa Corn Research Inst.* 3(3). 1951.

- Dungan, G. H. and Gausman, H. W. Clipping corn plants to delay their development. *Agron. Jour.* 43:90-93. 1951.
- Dunn, G. and Kramer, H. H. Gene dosage effects on carbohydrate content in corn endosperm. Abstract, Amer. Soc. Agron. August, 1951.
- Dvonch, W., Kramer, H. H. and Tsuchiya, H. M. Polysaacharides of high-amylose corn. *Cereal Chem.* 28(4):270-279. 1951.
- Erwin, A. T. Sweet corn, mutant or historic species. *Econ. Bot.* 5:302-306. 1951.
- Everett, H. L. New twist to the double cross. *Gard. Jour. N.Y. Bot. Gard.* 1:114-116. 1951.
- Mankind's debt to Mendelism: hybrid corn (*Zea Mays*). *Pflanzenz.* 29:394-405. 1951.
- Fabergé, A. C. Ultra-violet induced chromosome aberrations in maize. *Genetics* 36(5):549-550. 1951.
- Fairchild, R. S. Comparative development of the embryos of inbred and hybrid maize. *Iowa State College Jour. Sci.* 25:203-205. 1951.
- Finan, J. J. Maize in the Great Herbals. *Chronica Botanica Co. N.Y.* pp.99. 1950.
- Fleming, A. A. Inheritance of characters in corn with special reference to European corn borer. Abstract. Amer. Soc. Agron. August, 1951.
- Frey, K. J. The interrelationships of proteins and amino acids in corn. *Cereal Chem.* 28(2):123-131. 1951.
- Galinat, W. C. Glumeless hybrid sweet corn. *Jour. Hered.* 42(3):115. 1951.
- and Naylor, A. W. Relation of photoperiod to inflorescence proliferation in *Zea Mays* L. *Amer. Jour. Bot.* 38:38-47. 1951.
- Gardner, C. O., Harvey, P. H., Comstock, R. E. and Robinson, H. F. Estimates of the average degree of dominance for genes determining quantitative characters in maize. Abstract. Amer. Soc. Agron. August, 1951.
- Gilles, A. and Randolph, L. F. Reduction of quadrivalent frequency in autotetraploid maize during a period of 10 years. *Am. Jour. Bot.* 38:12-17. 1951.
- Gundy, L. F. Prediction of corn hybrids from single cross data. *Agron. Jour.* 43:245-246. 1951.
- Hamilton, T. S., Hamilton, B. O., Johnson, B. C. and Mitchell, H. H. The dependence of the physical and chemical composition of the corn kernel on soil fertility and cropping system. *Cereal Chem.* 28:163-176. 1951.
- Harrison, C. M. The story of hybrid corn. *Hoard's Dairyman* 96:392. 1951.
- Haskell, G., and Dow, P. Studies with sweet corn V. Seed setting with distance from pollen source. *Emp. J. Exp. Agric.* 19:45-50. 1951.
- Studies with sweet corn IV. The frit fly problem. *Bull. Ent. Res.* 42:519-526. 1951.
- Heimsch, C. and Stafford, H. J. Developmental relationships of the internodes of maize. *Torrey Bot. Club Bul.* 79(1):52-58. 1952.
- Hooker, A. L. The corn embryo as a factor in resistance in *Pythium* during germination. *Phytopath.* 41:17. 1951. (Abst.)

- Hofmyer, J. D. J. Application of male sterility in the production of hybrid maize. *Fmg. S. Afr.* 25:281. 1950.
- Jenkins, M. T. and Robert, A. L. Inheritance of resistance to the leaf blight of corn caused by *Helminthosporium turcicum*. *Abst. Amer. Soc. Agron.* August, 1951.
- , Watkins, W. P., Ferguson, C. E. and Eckhardt, R. C. Hybrid maize (corn) in European countries. *Columbia Univ. Press.* pp.59. 1950.
- Jensen, C. O., Sacks, W., and Baldauski, F. A. The reduction of triphenyltetrazolium chloride by dehydrogenases of corn embryos. *Science* 113(2925):65. 1951.
- Jones, D. F. The induction of cytoplasmic pollen sterility and the restoration of fertility in maize. *Genetics* 36(5):557. 1951.
- Josephson, L. M. Injury to seed corn from vapors of TCA. *Agron. Jour.* 43:513-514. 1951.
- . Effect of maleic hydrazide in delaying flowering in corn. *Agron. Jour.* 43:404-405. 1951.
- and Reid, D. A. Variety tests of wheat, oats, barley and corn in the Pennyroyal area of Kentucky, 1946-50. *Ky. Agr. Exp. Sta. Bul.* 569:31p. 1951.
- Jugeneheimer, R. W. Agriculture in Turkey. *Crops and Soils* 3:8. 1951.
- , Bauman, L. F., Alexander, D. E., Woodworth, C. M. and Koehler, B. Experimental corn hybrids tested in 1951. *Ill. Agr. Exp. Sta. Bul.* 551. 1952.
- Kavanagh, L. R. The story of hybrid maize. *Agr. Gaz. N.S. Wales* 62:61-66. 1951.
- Kennedy, N. F. Chemurgy and corn; the corn processor talks to the corn breeder. *Chemurgic Digest* 10:14-15. 1951.
- Kiesselbach, T. A. A half-century of corn research. *Amer. Sci.* 39:629-655. 1951.
- Kinman, M. L. Composite sibbing versus selfing in the development of corn inbred lines. *Iowa State College. Jour. Sci.* 25:273-275. 1951.
- Koehler, B. Husk coverage and ear declination in relation to corn ear rots. *Phytopath.* 41:22. 1951. (Abst.)
- Kohnke, H. and Miles, S. R. Rates and patterns of seeding corn on high-fertility land. *Agron. Jour* 43(10):488. 1951.
- Krantz, B. A. and Chandler, W. V. Lodging, leaf composition and yield of corn as influenced by heavy applications of nitrogen and potash. *Agron. Jour.* 43(11):547-552. 1951.
- Laughnan, J. R. Reaction sequence in anthocyanin synthesis in maize. *Genetics* 36(5):559-560. 1951.
- Leng, E. R. Time-relationships in tassel development of inbred and hybrid corn. *Agron. Jour.* 43:445-450. 1951.
- , Earle, F. R. and Curtis, J. J. Direct effect of pollen parent on protein content of the corn kernel. *Cereal Chem.* 28(6):479-482. 1951.
- Livingston, J. E. Effect of controlled low temperature on the emergence of seedlings from artificially dried seed corn. *Phytopath.* 41:24. 1951. (Abst.)

- Lonquist, J. H. Recurrent selection as a means of modifying combining ability of corn. *Agron. Jour.* 43:315-320. 1951.
- Lutz, J. A., Jr. From poverty grass to 100-bushel corn. *Crops and Soils.* 3(8):21. 1951.
- Mangelsdorf, P. C. Hybrid corn. *Scientific American* 185:39-47. 1951.
- _____ and Oliver, D. L. Whence came maize to Asia? *Harvard U. Bot. Mus. L.* 14:263-291. 1951.
- Maramorasch, K. Mechanical transmission of corn stunt virus to an insect vector. *Phytopath.* 41:833-838. 1951.
- Martinez, J. J. and Wellhausen, E. J. Relation between yield and plant color in corn. *Abstract. Amer. Soc. Agron.* August, 1951.
- McKeen, W. E. Seedling susceptibility of dent corn inbreds to root rot caused by *pythium arrhenomanes*. *Sci. Agr.* 31:475-479. 1951.
- _____. A preliminary study of corn seedling blight in Southern Ontario. *Canadian Jour. Bot.* 29:125-137. 1951.
- _____. A corn root-and-stalk-rot complex hitherto known as *Gibberella zeae* stalk rot. *Phytopath.* 41:26. 1951. (Abst.)
- Menezes, O. B. De. A new method for predicting the performance of the multiple hybrid resulting from crossing 2 three-way hybrids (3 x 3). *Rev. Agric. S. Paulo* 26:43-47. 1951. (P.B.A. 21(4):847. 1951.)
- Miller, P. A. Variation of oil percentage in the corn kernel and a study of its inheritance through the use of chromosomal translocation. *Iowa State Coll. Jou*
- _____. Use of chromosomal interchanges for investigating the inheritance of oil in the corn kernel. *Agron. Jour.* 43:229-234. 1951.
- _____ and Brimhall. Factors influencing the oil and protein content of corn grain. *Agron. Jour.* 43:305-311. 1951.
- Morgan, D. T. and Rappleye, R. D. Polyembryony in maize and lily following X-irradiation of the pollen. *Jour. Hered.* 42:91-93. 1951.
- Muhr, G. R. and Rost, C. O. The effect of population and fertility on yields of sweet corn and field corn. *Agron. Jour.* 43:315-319. 1951.
- Murthy, G. S. Hybrid maize. *Indian Farming* 1(5):20-22. 1951.
- Nicholson, A. A hand in the future of hybrid corn. *Country. Gent.* 121(51):22. 1951.
- Organization for European Economic Cooperation. Hybrid maize (corn) in European countries; report by United States specialists, M. T. Jenkins, W. P. Watkins, C. E. Ferguson and R. C. Eckhardt. Paris, 1950.
- Pendleton, J. W., Dungan, G. H., Koehler, B., Bigger, J. H., Lang, A. L., Jugenheimer, R
- Randolph, L. F. New evidence on the origin of maize. *Abstract. Amer. Soc. Agron.* August, 1951.
- Richey, F. D. Old corn: new bottle. (Review of "Corn and Corn Growing." -- Wallace and Bressman, 5th edition). *Jour. Hered.* 42:197-198. 1951.
- _____ and Dawson, R. F. Experiments on the inheritance of niacin in corn. *Plant Physiol.* 26:475-493. 1951.
- Riedl, W. A., Rincker, C. M. and Quayle, W. L. Hybrid corn adaptation trials in Wyoming for 1947-1950. *Wyo. Agr. Exp. Sta. Bul.* 306:15p. 1951.

- Rinke, E. H. and Pinnell, E. L. Genetics aids the hybrid makers. Minn. Agr. Exp. Farm & Home Sci. 9:14. 1951.
- Rhoades, M. M. Duplicate genes in maize. Am. Nat. 88:105-110. 1951.
- Robinson, H. F., Comstock, R. E. and Harvey, P. H. Estimates of the additive genetic and dominance variance in open-pollinated varieties of corn. Abstract. Amer. Soc. Agron. August, 1951.
- _____, _____, and _____. Genotypic and phenotypic correlations in corn and their implications in selection. Agron. Jour. 43:282-287. 1951.
- Rogers, J. S. The utilization of cytoplasmic male-sterile inbreds in the production of corn hybrids. Abstract. Amer. Soc. Agron. August, 1951.
- _____ and Edwardson, J. R. The utilization of cytoplasmic male-sterile inbreds in the production of corn hybrids. Agron. Jour. 44(1):8-12. 1952.
- Roman, H. and Ullstrup, A. J. The use of A-B translocations to locate genes in maize. Agron. Jour. 43:450-454. 1951.
- Rounds, W. T. Rate, method and date of planting corn. Mich. Ag. Exp. Q. Bul. 33:373-387. 1951.
- Rush, G. E. and Neal, N. P. The effect of maturity and other factors on stands of corn at low temperature. Agron. Jour. 43:112-117. 1951.
- Sager, R. On the mutability of the waxy locus in maize. Genetics 36(5):510. 1951.
- Salamov, A. B. New data on the problem of fertilization in maize. Agrobiology 4:110-118. 1950. (Russian) (P.B.A. 21(3):585. 1951)
- Schmidt, J. W. and Frolik, B. F. Effects of thermal-neutron irradiation of maize and barley kernels. Nebr. Ag. Exp. Res. Bul. 167:1-29. 1951.
- _____ and _____. Comparative effects of thermal neutron irradiation of maize pollen and maize seed on subsequent seedling growth. Jour. Hered. 42:172-177. 1951.
- Schultz, J. Effect of ultra-violet radiation on a ring chromosome in Zea Mays. Natl. Acad. Sci. Proc. 37:590-600. 1951.
- Schwartz, D. A case of male sterility in maize involving gene-cytoplasm interaction. Genetics 36(5):575. 1951.
- Shaw, R. H. and Thom, H. C. S. On the phenology of field corn, the vegetative period. Agron. Jour. 43:9-15. 1951.
- _____ and _____. On the phenology of field corn, silking to maturity. Agron. Jour. 43(11):541-546. 1951.
- Sherbakoff, C. D. A correction of the identification of Helminthosporium causing black ear rot of corn. Phytopath. 41:378-380. 1951.
- Singleton, W. R. Effects of continuous gamma radiation on corn. Abstract. Amer. Soc. Agron. August, 1951.
- _____. Effect of continuous gamma radiation on mutation rate in maize. Genetics 36(5):575-576. 1951.
- _____. Inheritance of corn grass a macromutation in maize, and its possible significance as an ancestral type. Amer. Nat. 85:81-96. 1951.
- Sokolov, B. P. Increasing the efficacy of breeding work with maize. Agriobiology 5:36-44. 1950. (Russian) (P.B.A. 21(3):582. 1951.)

- Sprague, G. F. The breeding of corn for increased feeding value. Abstract. Amer. Soc. Agron. August, 1951.
- and Federer, W. T. A comparison of variance components in corn yield trials: II. Error, Year X variety, Location X variety, and Variety components. Agron. Jour. 43(11):535. 1951.
- and Miller, P. A. New corn hybrids for Iowa. Iowa Farm Sci. 5:137-178. 1951.
- Standley, P. C. Teosinte from Honduras. Rev. Bot. Appl. 30:331-333. 1950. (P.B.A. 21(1):106. 1951.)
- Stringfield, G. H. and Thatcher, L. E. Corn row spaces and crop sequences. Agron. Jour. 43:276-282. 1951.
- Tatum, L. A. and Kehr, W. R. Observations on factors affecting seed-set with inbred strains of dent corn. Agron. Jour. 43:270-276. 1951.
- Taylor, G. S., Semenivk, G., and Melhus, I. E. Guatemalan corn as a source of resistance to *Helminthosporium turcicum* in maize. Phytopath 41:34. 1951. (Abst.)
- Teas, H. J. and Anderson, E. G. Accumulation of anthranilic acid by a mutant of maize. Proc. Nat. Acad. Sci. 37:645-649. 1951.
- and Newton, A. C. Tryptophase, niacin and indoleacetic acid in several endosperm mutants and standard lines of maize. Plant Physiol. 26:494-501. 1951.
- Thompson, D. J. and Hutchcroft, C. D. Accuracy of estimating the mean percentage of nondetasseled plants in double cross corn seed production fields. Agron. Jour. 43(12):609-616. 1951.
- Thompson, M. A. Hybrid corn moves southeast -- still room for expansion. Agr. Situation (Washington) 35(8):2. 1951.
- Van Staden, J. F. "Missing link" in hybrid maize experiments; three promising lines developed and vital clues confidentially expected. Farmer's Wk. (Bloemfontein) 82:41. 1951.
- Ullstrup, A. J. The effect of some leaf diseases on grain yield in corn. Phytopath. 41:36. 1951. (Abst.)
- Walter, E. V. The development of sweet corn varieties resistant to earworm (*Heliothis armigera*). Amer. Assoc. Econ. Ent. No. Cent. States. Br. Proc. 6:13-14. 1951.
- Wellhausen, E. J. El maiz hibrido y su utilizaci3n en Mexico. Mex. Sec. de Agr. y Ganad. Fol. Tec. 6:57. 1951.
- , Roberts, L. M. and Wortman, L. S. Relationship between first and advanced generation selfed lines of corn in combining ability. Abstract. Amer. Soc. Agron. August, 1951.
- , -----, and Ochoa, R. E. Experiences in visual selection for combining ability in corn. Abstract. Amer. Soc. Agron. August. 1951.
- et al. Razas de maiz en Mexico; su origen. Caracteristicas y distribution. Mex. Sec. de Agr. y Ganad. Fol. Tech. 5:237. 1951.
- Widdakas, William, and Widdifield, R. B. 1951 hybrid corn field trials. N. Dak. Agr. Exp. Sta. Agron. Mimeo. Circular 84. Released January, 1952.
- Wortman, L. S. and Rinke, E. H. The inheritance of cold-test reaction in *Zea Mays*. Abstract. Amer. Soc. Agron. August, 1951.

Zuber, M, S. Effect of the Y-y factor pair on yield and other agronomic characters in corn. Iowa St. Coll. Jour. Sci. 25:392-394. 1951.

Val W. Woodward
Julian P. Craigmiles