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## Journal Articles, Monographs, and Book Chapters

- Arnason, J.T., Gale, J., Beyssac, B.C. de, Sen, A., Miller, S.S., Philogene, B.J.R., Lambert, J.D.H., Fulcher, R.G., Serratos, A., and Mihm, J.A. 1992. Role of phenolics in resistance of maize grain to the stored grain insects, *Prostephanus truncatus* (Horn) and *Sitophilus zeamays* (Motsch.). *Journal of Stored Products Research* 28(2):119-126.
- Barker, T.C., and Varughese, G. 1992. Combining ability and heterosis among eight complete spring hexaploid triticale lines. *Crop Science* 32(2):340-344.
- Bjarnason, M.S., and Vasal, S.K. 1992. Breeding of quality protein maize (QPM). *Plant Breeding Reviews* 9:181-216.
- Borrero, J.C., Pandey, S., and Ceballos, H. 1992. Performance and stability of tropical maize hybrids developed from lines with different levels of inbreeding. *Maydica* 37(3):251-258.
- Braun, H.-J., Pfeiffer, W.H., and Pollmer, W.G. 1992. Environments for selecting widely adapted spring wheat. *Crop Science* 32(6):1420-1227.
- Brennan, J.P., Warham, E.J., Byerlee, D., and Hernández Estrada, J. 1992. Evaluating the economic impact of quality-reducing, seed-borne diseases: Lessons from Karnal bunt of wheat. *Agricultural Economics* 6(4):345-352.
- Buckles, D., and Chevalier, J. 1992. Ejido versus bienes comunales: Historia política de Pajapan. In *Agraristas y agrarismo: La liga de comunidades agrarias del Estado de Veracruz*. Domínguez Pérez, O., ed., 231-247. Jalapa, Veracruz: Gobierno del Estado de Veracruz.
- Byerlee, D. 1991. Monitoring farmers' practices and fields as a continuing activity in on-farm research for evolving cropping systems. *Journal of the Asian Farming Systems Association* 1:179-190.
- Byerlee, D. 1992. The political economy of Third World food imports: The case of wheat. In *The Political Economy of Development and Under-Development*. Wilber, C.K., and Jameson, K.P., eds., 5th ed., 305-326. New York: McGraw-Hill.
- Byerlee, D. 1992. Technical change, productivity and sustainability in irrigated cropping systems of South Asia: Emerging issues in the post-green revolution era. *Journal of International Development* 4(5):477-496.
- Byerlee, D., and Husain, T. eds. 1992. *Farming systems of Pakistan: Diagnosis priorities for agricultural research*. Lahore, Pakistan: Vanguard Publishing.
- Byerlee, D., and Triomphe, B. 1992. The use of integrated agronomic-economic surveys in the diagnostic stage of on-farm research. In *On-Farm Research in Theory and Practice*. Mutsaers, H.J.W., and Walker, P., eds., 23-38. Ibadan, Nigeria: IITA.
- Ceballos, H., and Deutsch, J.A. 1992. Inheritance of resistance to tar spot complex in maize. *American Phytopathological Society* 82(5):505-512.

- \* Ceccarelli, S., Acevedo, E., and Granado, S. 1991. Breeding for yield stability in unpredictable environments: Single traits, interaction between traits, and architecture of genotypes. *Euphytica* 56(2):169-185.
- Crossa, J., Jewell, D.C., Deutsch, J.A., and Taba, S. 1992. Gene action and the bottleneck effect in relation to sample size for the maintenance of cross-pollinated populations. *Field Crops Research* 29(3):225-239.
- \* Dann, P.R., and Fischer, R.A. 1992. Fertiliser responses of wheat sown into conventionally cultivated seedbeds and direct-drilled into previously uncultivated seedbeds. *Australian Journal of Experimental Agriculture* 32(3):371-376.
- Das, M.K., Rajaram, S., Mundt, C.C., and Kronstad, W.E. 1992. Inheritance of slow-rusting resistance to leaf rust in wheat. *Crop Science* 32(6):1452-1456.
- Duveiller, E., and Bragard, C. 1992. Comparison of immunofluorescence and two assays for detection of *Xanthomonas campestris* pv. *undulosa* in seeds of small grains. *Plant Diseases* 76(10):999-1003.
- Ellis, R.H., Summerfield, R.J., Edmeades, G.O., and Roberts, E.H. 1992. Photoperiod, leaf number, and interval from tassel initiation to emergence in diverse cultivars of maize. *Crop Science* 32(2):398-403.
- Fuentes-Dávila, G., and Lawn, D.A. 1992. Effect of methyl bromide and dazomet on germination of *Tilletia indica* teliospores in field soil. *Tropical Pest Management* 38(3):323-324.
- Harrington, L.W. 1992. Measuring Sustainability: Issues and Alternatives. In *Let Farmers Judge: Experiences in Assessing the Sustainability of Agriculture*. Hiemstra, W., Reijntjes, C., and van der Werf, E. eds., 1-16. Wiltshire, United Kingdom: ILEIA.
- Harrington, L.W. 1992. Measuring Sustainability: Issues and Alternatives. *Journal for Farming Systems Research Extension* 3(1):1-20.
- He Zhong-hu, Peña, R.J., and Rajaram, S. 1992. High molecular weight glutenin subunit composition of Chinese bread wheats. *Euphytica* 64(1-2):11-12.
- Hock, J., Kranz, J., and Renfro, B.L. 1992. Tests of standard diagrams for field use in assessing the tarspot disease complex of maize (*Zea mays*). *Tropical Pest Management* 38(3):314-318.
- Hock, J., Dittrich, U., Renfro, B.L., and Kranz, J. 1992. Sequential development of pathogens in the maize tarspot disease complex. *Mycopathologia* 117:157-161.
- Hoisington, D.A. 1992. Maize as a model system. In *Grass Evolution and Domestication*. Chapman, G.P., ed., 266-289. Cambridge: University Press.
- Jahan, Q., Ter-Kuile, N., Hashmi, N.I., Aslam, M., Vahidy, A.A., and Mujeeb-Kazi, A. 1990. The status of the 1B/1R translocation chromosome in some released wheat varieties and the 1989 candidate varieties of Pakistan. *Pakistan Journal of Botany* 22(1):1-10.

\* Publication by CIMMYT staff using non-CIMMYT data.

- \* Khairallah, M.M., Sears, B.B., and Adams, M.W. 1992. Mitochondrial restriction fragment length polymorphisms in wild *Phaseolus vulgaris* L.: Insights on the domestication of the common bean. *Theoretical and Applied Genetics* 84(7-8):915-922.
- Lawn, D.A., and Sayre, K.D. 1992. Soilborne pathogens on cereals in a highland location of Mexico. *Plant Disease* 76(2):149-154.
- \* López Pereira, M.A., and Sanders, J.H. 1992. Market factors, government policies and adoption of new technology by small Honduran farmers: A stochastic programming application. *Quarterly Journal of International Agriculture* 31(1):55-73.
- Maredia, K.M., Segura, O.L., and Mihm, J.A. 1992. Effects of neem, *Azadirachta indica*, on six species of maize insect pests. *Tropical Pest Management* 38(2):190-195.
- Mujeeb-Kazi, A., 1992 Genetic manipulation in wheat (*Triticum aestivum* L.) mediated by the chromosome 5B Ph locus and its significance for the transfer of alien genes. *Annals of Biology* 8 (2):178-187.
- \* Oosterom, E.J. van, and Acevedo, E. 1992. Adaptation of barley (*Hordeum vulgare* L.) to harsh Mediterranean environments: I. Morphological traits. *Euphytica* 62(1):1-14.
- \* Oosterom, E.J. van, and Acevedo, E. 1992. Adaptation of barley (*Hordeum vulgare* L.) to harsh Mediterranean environments: II. Apical development, leaf, and tiller appearance. *Euphytica* 62(1):25-27.
- \* Oosterom, E.J. van, and Acevedo, E. 1992. Adaptation of barley (*Hordeum vulgare* L.) to harsh Mediterranean environments: III. Plant ideotype and grain yield. *Euphytica* 62(1):29-38.
- Pandey, S., and Gardner, C.O. 1992. Recurrent selection for population, variety, and hybrid improvement in tropical maize. *Advances in Agronomy* 48:1-87.
- Peña, R.J., and Amaya-Celis, A.A. 1992. Milling and breadmaking properties of wheat-triticale grain blends. *Journal of the Science of Food and Agriculture* 60(4):483-487.
- \* Pixley, K.V., and Frey, K.J. 1992. Genetic interrelations among grain quality indicators and agronomic traits for oat. *Euphytica* 60(2):149-156.
- \* Punia, M.S., and Bohorova, N.E. 1992. Callus development and plant regeneration from different explants of six wild species of sunflower (*Helianthus* L.). *Plant Science* 87(1):79-83.
- Raun, W.R., and Barreto, H.J. 1991. Maize yield response as affected by sulfur, phosphorus, and nitrogen as banded applications on a volcanic ash derived soil. *Communications in Soil Science and Plant Analysis* 22(15-16):1661-1676.
- Raun, W.R., and Barreto, H.J. 1992. Maize grain yield response to sulphur fertilization in Central America. *Sulphur in Agriculture* 16:26-30.
- \* Richardson, M.D., Meisner, C.A., Hoveland, C.S., and Karnok, K.J. 1992. Time domain reflectometry in closed container studies. *Agronomy Journal* 84(6):1061-1063.

\* Publication by CIMMYT staff using non-CIMMYT data.

- Riera-Lizarazu, O., Mujeeb-Kazi, A., and William, M.D.H.M. 1992. Maize (*Zea mays* L.) mediated polyhaploid production in some Triticeae using a detached spike method. *Journal of Genetics and Breeding* 46:335-346.
- Robinson, J. 1992. Modes of resistance in barley seedlings to six aphid (Homoptera: Aphididae) species. *Journal of Economic Entomology* 85(6):2510-2515.
- Robinson, J. 1992. Assessment of Russian wheat aphid (Homoptera: Aphididae) resistance in barley seedlings in Mexico. *Journal of Economic Entomology* 85(6):1954-1961.
- Robinson, J., Calhoun, D.S., and Burnett, P.A. 1992. Greenhouse rearing and field infestation of Russian wheat aphid using triticale as an example. *Southwestern Entomologist* 17(1):17-21.
- Robinson, J., Delgado, F., Vivar, H.E., and Burnett, P.A. 1992. Inheritance of resistance to Russian wheat aphid in barley. *Euphytica* 62(3):213-217.
- Savidan, Y.H. 1992. Progress in research on apomixis and its transfer to major grain crops. In *Reproductive Biology and Plant Breeding*. Dattée, Y., Dumas, C., and Gallais, A., eds., 269-279. Berlin: Springer-Verlag.
- Shumba, E.M., Bernstein, R.H., and Waddington, S.R. 1990. Maize and groundnut yield gap analysis for research priority setting in the smallholder sector of Zimbabwe. *Zimbabwe Journal Agricultural Research* 28(2):105-113.
- Shumba, E.M., Waddington, S.R., and Bukuni, M. 1989. Delayed maize plantings in a smallholder farming area of Zimbabwe: Problem diagnosis. *Zimbabwe Journal of Agricultural Research* 27(2):103-112.
- Shumba, E.M., Waddington, S.R., and Rukuni, M. 1992. Use of tine-tillage, with atrazine weed control, to permit earlier planting of maize by smallholder farmers in Zimbabwe. *Experimental Agriculture* 28(4):443-452.
- Singh, R.P. 1992. Genetic association of leaf rust resistance gene *Lr34* with adult plant resistance to stripe rust in bread wheat. *Phytopathology* 82(8):835-838.
- Singh, R.P. 1992. Expression of wheat leaf rust resistance gene *Lr34* in seedlings and adult plants. *Plant Disease* 76(5):489-491.
- Singh, R.P. 1992. Association between gene *Lr34* for leaf rust resistance and leaf tip necrosis in wheat. *Crop Science* 32(4):874-878.
- Singh, R.P., Bechere, E., and Abdalla, O. 1992. Genetic analysis of resistance to stem rust in ten durum wheats. *Phytopathology* 82(9):919-922.
- Singh, R.P., Payne, T.S., Figueroa, P., and Valenzuela, S. 1991. Comparison of the effect of leaf rust on the grain yield of resistant, partially resistant, and susceptible spring wheat cultivars. *American Journal of Alternative Agriculture* 6(3):115-121.
- Singh, R.P., and Rajaram, S. 1992. Genetics of adult-plant resistance of leaf rust in Frontana and three CIMMYT wheats. *Genome* 35(1):24-31.

- \* Spassova, M., Christov, M., Bohorova, N.E., Petrov, P., Dudov, K., Atanassov, A., John, H., Nijkamp, J., and Hille, J. 1992. Molecular analysis of a new cytoplasmic male sterile genotype in sunflower. *FEBS Letters* 297(1-2):159-163.
- Ter-Kuile, N., Jahan, Q., Hashmi, N., Aslam, M., Vahidy, A.A., and Mujeeb-Kazi, A. 1991. IB/IR translocation wheat cultivars detected by A-PAGE electrophoresis and C-banding in the 1990 National Uniform Wheat Yield Trial in Pakistan. *Pakistan Journal of Botany* 23(2):203-212.
- Thome, C.R., Smith, M.E., and Mihm, J.A. 1992. Leaf feeding resistance to multiple insect species in a maize diallel. *Crop Science* 32(6):1460-1463.
- Traxler, G., and Byerlee, D. 1992. Economic returns to crop management research in a post-green revolution setting. *American Journal of Agricultural Economics* 74(3):573-582.
- Traxler, G., Renkow, M., and Harrington, L.W. 1991. Assessing the impact of new technology: Three levels of analysis. *Journal of the Asian Farming Systems Association* 1:227-244.
- \* Tripp, R. 1992. Dietary consequences of changes in trade and agriculture for the Nankane of Northern Ghana. *Ecology of Food and Nutrition* 27:249-258.
- Tripp, R., Anandajayasekeram, P., Byerlee, D., and Harrington, L.W. 1991. FSR: Achievements, deficiencies, and challenges for the 1990's. *Journal of the Asian Farming Systems Association* 1:259-271.
- Vahidy, A.A., Durrani, F.A., Jahan, Q., and Mujeeb-Kazi, A. 1991. Production and cytogenetics of intergeneric hybrids of *Triticum aestivum* L. with *Aegilops variabilis* and *Ae. vavilovi*. *Pakistan Journal of Botany* 23(2):213-222.
- Vasal, S.K., Srinivasan, G., Beck, D.L., Crossa, J., Pandey, S., and León, C. de 1992. Heterosis and combining ability of CIMMYT's tropical late white maize germplasm. *Maydica* 37(2):217-223.
- Vasal, S.K., Srinivasan, G., Crossa, J., and Beck, D.L. 1992. Heterosis and combining ability of CIMMYT's subtropical and temperate early maturity maize germplasm. *Crop Science* 32(4):884-890.
- Vasal, S.K., Srinivasan, G., Han, G.C., and González C., F. 1992. Heterotic patterns of eighty-eight white subtropical CIMMYT maize lines. *Maydica* 37(2):319-327.
- Vasal, S.K., Srinivasan, G., Pandey, S., Córdova, H.S., Han, G.C., and González C., F. 1992. Heterotic patterns of ninety-two white tropical CIMMYT maize lines. *Maydica* 37(2):259-270.
- Vasal, S.K., Srinivasan, G., González C., F., Han, G.C., Pandey, S., Beck, D.L., and Crossa, J. 1992. Heterosis and combining ability of CIMMYT's tropical X subtropical maize germplasm. *Crop Science* 32(6):1483-1489.
- Villareal, R.L., Rajaram, S., and Toro, E. del. 1992. Yield and agronomic traits of Norin 10 derived spring wheats adapted to Northwestern Mexico. *Journal of Agronomy and Crop Science* 168(5): 289-297.

\* Publication by CIMMYT staff using non-CIMMYT data.

William, M.D.H.M., and Mujeeb-Kazi, A. 1992. Isozyme and cytological markers of *Psathyrostachys juncea* accessions. *Theoretical and Applied Genetics* 84(5-6):528-534.

William, M.D.H.M., Riera-Lizarazu, O., and Mujeeb-Kazi, A. 1992. A combination of protein electrophoretic techniques for the detection of IB, IB/IR heterozygotes in *Triticum aestivum* L. *Journal of Genetics and Breeding* 46(2):137-142.

Wiseman, B.R., Snook, M.E., Isenhour, D.J., Mihm, J.A., and Widstrom, N.W. 1992. Relationship between growth of corn earworm and fall armyworm larvae (Lepidoptera: Noctuidae) and maysin concentration in corn silks. *Journal of Economic Entomology* 85(6):2473-2477.

## Published Proceedings

Abdalla, O.S., Dieseth, J.A., and Singh, R.P. 1992. Breeding durum wheat at CIMMYT. In *Durum Wheats: Challenges and Opportunities*. Rajaram, S., Saari, E.E., and Hettel, G.P., eds., 1-13. Mexico, D.F.: CIMMYT.

Amaya-Celis, A.A., and Peña, R.J. 1992. Utilization and quality of durum wheat. In *Durum Wheats: Challenges and Opportunities*. Rajaram, S., Saari, E.E., and Hettel, G.P., eds., 166-170. Mexico, D.F.: CIMMYT.

Baragengana, R., and Tanner, D.G. 1992. Adaptive research on bread wheat and triticale in the Mugamba Region of Burundi in 1989 and 1990. In *VII Regional Wheat Workshop for Eastern, Central and*

*Southern Africa*. Tanner, D.G., Mwangi, W., eds., 321-329. Nakuru, Kenya: CIMMYT.

Barreto, H.J. 1992. Algunas consideraciones sobre la respuesta regional del maíz a la fertilización con azufre en Centro América. In *Programa Regional de Maíz, Centro América y El Caribe (PRM): Síntesis de Resultados Experimentales 1991*. Barreto, H.J., Bolaños, J.A., and Sain, G., eds., 155-160. Guatemala: CIMMYT.

Barreto, H.J., Pérez, C., Fuentes, M.R., and Quemé de León, J.L. 1992. Efecto de dosis de urea-N, insecticida y genotipo en el comportamiento del maíz (*Zea mays* L.) bajo un sistema de labranza mínima en rotación con dos leguminosas de cobertura. In *Programa Regional de Maíz, Centro América y El Caribe (PRM): Síntesis de Resultados Experimentales 1991*. Barreto, H.J., Bolaños, J.A., and Sain, G., eds., 175-192. Guatemala: CIMMYT.

Bolaños, J.A. 1992. Desarrollo del follaje, intercepción de radiación y un modelo simplificado de la productividad potencial del maíz. In *Programa Regional de Maíz, Centro América y El Caribe (PRM): Síntesis de Resultados Experimentales 1991*. Barreto, H.J., Bolaños, J.A., and Sain, G., eds., 215-223. Guatemala: CIMMYT.

Borbón Castro, E., Sain, G., and Castillo, G. 1992. Adopción de variedades tolerantes al achaparramiento en la Región IV de Nicaragua. In *Programa Regional de Maíz, Centro América y El Caribe (PRM): Síntesis de Resultados Experimentales 1991*. Barreto, H.J., Bolaños, J.A., and Sain, G., eds., 67-76. Guatemala: CIMMYT.

- Braun, H.J., and Saari, E.E. 1992. An assessment of the potential of *Puccinia striiformis* f. sp. *tritici* to cause yield losses in wheat on the Anatolian Plateau of Turkey. In *Cereal Rusts and Mildews*. Zeller, F.J., and Fischbeck, G., eds., 121-123. Bonn, Germany: Vortrage fur Pflanzenzuchtung.
- Broers, L.H.M., and Ochoa Lozano, J. 1992. Expression of yellow rust resistance in CIMMYT germplasm in two highland locations. In *Cereal Rusts and Mildews*. Zeller, F.J., and Fischbeck, G., eds., 267-269. Bonn, Germany: Vortrage fur Pflanzenzuchtung.
- Butler, L. 1992. Seed and Seed-Wash Surveys at CIMMYT during 1988-90. In *Update on Karnal Bunt Research in Mexico*. Fuentes-Dávila, G., and Hettel, G.P. eds., 29-31. Mexico, D.F.: CIMMYT.
- Byerlee, D. 1992. Impact of durum wheat breeding in developing countries: A dilemma for the future. In *Durum Wheats: Challenges and Opportunities*. Rajaram, S., Saari, E.E., and Hettel, G.P., eds., 28-42. Mexico, D.F.: CIMMYT.
- Ensermu, R., Kefyalew, A., and Mwangi, W.M. 1992. On-farm verification of improved bread wheat varieties and management practices in Gojam Region of Ethiopia. In *VII Regional Wheat Workshop for Eastern, Central and Southern Africa*. Tanner, D.G., and Mwangi, W., eds., 281-289. Nakuru, Kenya: CIMMYT.
- Fuentes-Dávila, G. 1992. Karnal bunt and durum wheat. In *Durum Wheats: Challenges and Opportunities*. Rajaram, S., Saari, E.E., and Hettel, G.P., eds., 129-132. Mexico, D.F.: CIMMYT.
- Fuentes-Dávila, G., and Rajaram, S. 1992. Sources of resistance and breeding for resistance to *Tilletia indica* Mitra, the causal agent of the Karnal bunt disease of wheat. In *Proceedings of the VIII Biennial Workshop on the Smut Fungi*. Pope, D.D., ed., 4. Athens, GA: University of Georgia.
- Fuentes, M.R., Pérez, C., Villatoro, J.C., Quemé de León, J.L., Orozco, S.H., and Barreto, H.J. 1992. Proyecto colaborativo interredes PRM-1992: Componentes del rendimiento en un sistema intercalado maíz-frijol a diferentes densidades de siembra de maíz. In *Programa Regional de Maíz, Centro América y El Caribe (PRM): Síntesis de Resultados Experimentales 1991*. Barreto, H.J., Bolaños, J.A., and Sain, G., eds., 225-233. Guatemala: CIMMYT.
- Geleta, B., Gebre Marian, H., Tesemma, T., Gebeyehu, G., and Ginkel, M. van 1992. Stability of yield and harvest index of improved bread wheat varieties in Ethiopia. In *VII Regional Wheat Workshop for Eastern, Central and Southern Africa*. Tanner, D.G., and Mwangi, W., eds., 56-63. Nakuru, Kenya: CIMMYT.
- Gilchrist, L., Pfeiffer, W.H., and Velázquez, C. 1992. Resistance to *Helminthosporium sativum* in bread wheat: Relationship amongst infected plant parts and association with agronomic traits. In *VII Regional Wheat Workshop for Eastern, Central and Southern Africa*. Tanner, D.G., and Mwangi, W., eds., 176-181. Nakuru, Kenya: CIMMYT.
- Gilchrist, L., and Skovmand, B. 1992. Septoria diseases of durum wheat. In *Durum Wheats: Challenges and Opportunities*. Rajaram, S., Saari, E.E., and Hettel, G.P., eds., 115-124. Mexico, D.F.: CIMMYT.

- Ginkel, M. van, Rajaram, S., and Thijssen, M. 1992. Waterlogging in wheat: Germplasm evaluation and methodology development. In *VII Regional Wheat Workshop for Eastern, Central and Southern Africa*. Tanner, D.G., and Mwangi, W., eds., 115-123. Nakuru, Kenya: CIMMYT.
- Gorfu, A., Tanner, D.G., and Taa, A. 1992. On-farm evaluation of pre and post-emergence grass herbicides on bread wheat in Arsi Region of Ethiopia. In *VII Regional Wheat Workshop for Eastern, Central and Southern Africa*. Tanner, D.G., and Mwangi, W., eds., 330-337. Nakuru, Kenya: CIMMYT.
- Gorfu, A., Tanner, D.G., and Taa, A. 1992. An evaluation of two small-scale implements for row-seeding and weeding of small-holder bread wheat in Ethiopia. In *VII Regional Wheat Workshop for Eastern, Central and Southern Africa*. Tanner, D.G., and Mwangi, W., eds., 338-344. Nakuru, Kenya: CIMMYT.
- Hamblin, J., and Fischer, R.A. 1992. Closing remarks to international workshop. In *Durum Wheats: Challenges and Opportunities*. Rajaram, S., Saari, E.E., and Hettel, G.P., eds., 178-179. Mexico, D.F.: CIMMYT.
- Hassan, R.M., and Ageeb, O.A.A. 1992. Towards higher wheat productivity in Gezira: The role of efficient input delivery systems and appropriate technology designs. In *VII Regional Wheat Workshop for Eastern, Central and Southern Africa*. Tanner, D.G., and Mwangi, W., eds., 290-306. Nakuru, Kenya: CIMMYT.
- Hassan, R.M., and Mwangi, W.M. 1992. Wheat production technologies in Kenya: An analysis of the major characteristics and constraints to productivity growth. In *VII Regional Wheat Workshop for Eastern, Central and Southern Africa*. Tanner, D.G., and Mwangi, W., eds., 266-280. Nakuru, Kenya: CIMMYT.
- Hoisington, D.A. 1992. Applied molecular genetic approaches to understanding biotic stresses in plants. In *BioTechnology for Crop Improvement in Latin America*. Caracas, Venezuela: BIOCILA.
- Hoisington, D.A. 1992. Chemiluminescent methods for RFLP analysis in the Triticeae. In *Progress in Genome Mapping of Wheat and Related Species*. Gill, B.S., Raupp, W.J., and Corke, H., eds., 39-40. Davis, CA: Genetic Resources Conservation Program.
- Hoisington, D.A., Jewell, D.C., Deutsch, J.A., and Mihm, J.A. 1992. Molecular approaches to understanding resistance to tropical insect pests. In *The Past and Future of Zea mays*. Madrid, Spain: Centre for International Meetings on Biology.
- Jamjod, S., Mann, C.E., and Rerkasem, B. 1992. Combining ability of the response to boron deficiency in wheat. In *Boron Deficiency in Wheat*. Mann, C.E., and Rerkasem, B., eds., 83-85. Mexico, D.F.: CIMMYT.
- Jamjod, S., Mann, C.E., and Rerkasem, B. 1992. Inheritance of boron deficiency response in two wheat crosses. In *Boron Deficiency in Wheat*. Mann, C.E., and Rerkasem, B., eds., 86-89. Mexico, D.F.: CIMMYT.
- Jamjod, S., Mann, C.E., and Rerkasem, B. 1992. Screening for boron deficiency in wheat. In *Boron Deficiency in Wheat*. Mann, C.E., and Rerkasem, B., eds., 79-82. Mexico, D.F.: CIMMYT.

- Kohli, M.M., Nisi, J., and Ramírez, I. 1992. Durum wheat in South America. In *Durum Wheats: Challenges and Opportunities*. Rajaram, S., Saari, E.E., and Hettel, G.P., eds., 70-81. Mexico, D.F.: CIMMYT.
- Kohli, M.M., Mehta, Y.R., and Ackermann, M.D. 1992. Spread of tan spot in the Southern Cone region of South America. In *Advances in Tan Spot Research*. Francel, L.J., Krupinsky, J.M., and McMullen, M.P., eds., 86-90. Fargo, ND: North Dakota State University.
- Marfo, K., and Tripp, R. 1992. A study of maize technology diffusion in Ghana: Some preliminary results. In *Africa's Agricultural Development in the 90's: Can it be Sustained?* Russell, N.C., and Dowswell, C.R., eds., 56-68. Mexico, D.F.: CASIN/SSA/Global 2000.
- Martínez S., J. de J., Rajaram, S., and Pfeiffer, W.H. 1992. Los ensayos uniformes de trigo en México: Una herramienta útil en el mejoramiento genético y la toma de decisiones para liberar y recomendar variedades. In *I Conferencia Nacional sobre la Producción de Trigo en México*. Cd. Obregón, Sonora, Mexico: SARH/INIFAP/CIFAP.
- Misra, R., Munankarmi, R.C., Pandey, S.P., and Hobbs, P.R. 1992. Sterility work in wheat at Tarahara in the Eastern Tarai of Nepal. In *Boron Deficiency in Wheat*. Mann, C.E., and Rerkasem, B., eds., 65-71. Mexico, D.F.: CIMMYT.
- Morris, M.L., Clancy, C., and López-Pereira, M.A. 1992. Maize research investment and impacts in developing countries. In *1991-92 CIMMYT World Maize Facts and Trends: Maize Research Investment and Impacts in Developing Countries*. 1-31. Mexico, D.F.: CIMMYT.
- Mujeeb-Kazi, A. 1992. Wide crosses at CIMMYT with a durum wheat focus. In *Durum Wheats: Challenges and Opportunities*. Rajaram, S., Saari, E.E., and Hettel, G.P., eds., 171-173. Mexico, D.F.: CIMMYT.
- Nachit, M.M. 1992. Durum wheat breeding for Mediterranean drylands of North Africa and West Asia. In *Durum Wheats: Challenges and Opportunities*. Rajaram, S., Saari, E.E., and Hettel, G.P., eds., 14-27. Mexico, D.F.: CIMMYT.
- Nagarajan, S., Saari, E.E.. 1992. Epidemiology of Karnal Bunt (*Tilletia indica*). In *Update on Karnal Bunt Research in Mexico*. Fuentes-Dávila, G., and Hettel, G.P., eds., 19-20. Mexico, D.F.: CIMMYT.
- Negatu, W., and Mwangi, W.M. 1992. On farm economics of herbicide use on durum wheat in Ada and Akaki Woredas of Ethiopia. In *VII Regional Wheat Workshop for Eastern, Central and Southern Africa*. Tanner, D.G., and Mwangi, W., eds., 260-265. Nakuru, Kenya: CIMMYT.
- Negatu, W., Mwangi, W.M., and Tesemma, T. 1992. Farmers's varietal preferences for durum wheat in Ada, Lume and Gimbiwu Woredas of Ethiopia. In *VII Regional Wheat Workshop for Eastern, Central and Southern Africa*. Tanner, D.G., and Mwangi, W., eds., 239-253. Nakuru, Kenya: CIMMYT.
- Nieto Taladriz, M., Brajchich, P., and Amaya-Celis, A.A. 1992. Trigos duros de doble propósito. In *I Conferencia Nacional sobre la Producción de Trigo en México*. Cd. Obregón, Sonora, Mexico: SARH/INIFAP/CIFAP.

- Pandey, S., and Knapp, E.B. 1992. El maíz en las tierras altas andinas. In *Diagnóstico participativo de limitantes relacionados con la producción y uso de semillas de maíz mejorado en tierras altas andinas*. 26-33. Ibarra, Ecuador: INIAP, CIMMYT, CIAT.
- Payne, T.S. 1992. Facultative and winter durum wheat breeding in West Asia and North Africa (WANA). In *Durum Wheats: Challenges and Opportunities*. Rajaram, S., Saari, E.E., and Hettel, G.P., eds., 63-65. Mexico, D.F.: CIMMYT.
- Peña, R.J., Amaya-Celis, A., and del Toro, E. 1992. Effect of grain washing and storage of wheat samples (cv. Seri 82) with different infection levels of Karnal bunt (*Neovossia indica*) on quality parameters. In *Update on Karnal Bunt Research in Mexico*. Fuentes-Dávila, G., and Hettel, G.P., eds., 21-28. Mexico, D.F.: CIMMYT.
- Peña, R.J., Amaya-Celis, A., and Toro, E. del. 1992. Efecto del almacenamiento y del lavado del grano en las características de calidad de muestras de trigo (var. SERI 82) con diferentes niveles de carbón parcial (*Neovossia indica*). In *I Conferencia Nacional sobre la Producción de Trigo en México*. Cd. Obregón, Sonora, Mexico: SARH/INIFAP/CIFAP.
- Pfeiffer, W.H. 1992. Triticale improvement strategies at CIMMYT: Exploiting adaptive patterns and end use orientation. In *VII Regional Wheat Workshop for Eastern, Central and Southern Africa*. Tanner, D.G., and Mwangi, W., eds., 73-85. Nakuru, Kenya: CIMMYT.
- Rajaram, S., Fuentes-Dávila, G., Ginkel, M. van, Getinet, G., Camacho, M., Montoya, J., Amaya-Celis, A.A., Peña, R.J., He Shong Hu and Tianyou, C. 1992. Breeding bread wheat resistance to Karnal bunt (*Tilletia indica*). In *Update on Karnal Bunt Research in Mexico*. Fuentes-Dávila, G., and Hettel, G.P., eds., 14-15. Mexico, D.F.: CIMMYT.
- Rajaram, S., Pfeiffer, W.H., Singh, R.P., and Briceño, G.A. 1992. Futuras actividades de mejoramiento de trigo harinero del CIMMYT para las regiones de México que cuentan con riego. In *I Conferencia Nacional sobre la Producción de Trigo en México*. Cd. Obregón, Sonora, Mexico: SARH/INIFAP/CIFAP.
- Reynolds, M.P., and Acevedo, E. 1992. Problems of wheat cultivation at high temperature: A research perspective. In *VII Regional Wheat Workshop for Eastern, Central and Southern Africa*. Tanner, D.G., and Mwangi, W., eds., 345-352. Nakuru, Kenya: CIMMYT.
- Sahile, G., Tanner, D.G., and Zewdie, L. 1992. A study of weed emergence patterns in the bread wheat producing agro-ecological zones of southeastern Ethiopia. In *VII Regional Wheat Workshop for Eastern, Central and Southern Africa*. Tanner, D.G., and Mwangi, W., eds., 503-509. Nakuru, Kenya: CIMMYT.
- Sain, G., and Acosta, M.A. 1992. Recomendaciones condicionadas de fertilización con nitrógeno y fósforo para maíz usando un modelo cuadrático en la provincia de Chiriquí, Panamá. In *Programa Regional de Maíz, Centro América y El Caribe (PRM): Síntesis de Resultados Experimentales 1991*. Barreto, H.J., Bolaños, J.A., and Sain, G., eds., 161-173. Guatemala: CIMMYT.
- Rajaram, S., Fuentes-Dávila, G., Ginkel, M. van, Getinet, G., Camacho, M., Montoya, J., Amaya-Celis, A.A., Peña, R.J., He

- Sain, G., Nuila, A.S., and Pereira, A. 1992. La factibilidad económica del maíz de calidad proteínica en la industria de alimentos balanceados para aves en Panamá y El Salvador. In *Programa Regional de Maíz, Centroamérica y el Caribe (PRM): Síntesis de resultados experimentales 1991*. Barreto, H.J., Bolaños, J.A., and Sain, G., eds., 77-96. Guatemala: CIMMYT.
- Sayre, K.D. 1992. Durum wheat yield potential in mega-environment 1. In *Durum Wheats: Challenges and Opportunities*. Rajaram, S., Saari, E.E., and Hettel, G.P., eds., 149-159. Mexico, D.F.: CIMMYT.
- Singh, R.P., and Rajaram, S. 1992. Durable resistance to *Puccinia recondita* f. sp. *tritici* in CIMMYT bread wheats: Genetic basis and breeding approaches. In *Cereal Rusts and Mildews*. Zeller, F.J., and Fischbeck, G., eds., 239-241. Bonn, Germany: Vortrage fur Pflanzenzuchung.
- Singh, R.P., and Rajaram, S. 1992. Genes for resistance to *Puccinia recondita* f. sp. *tritici* in 73 Mexican bread wheat (*Triticum aestivum* L.) cultivars. In *Cereal Rusts and Mildews*. Zeller, F.J., and Fischbeck, G., eds., 211-213. Bonn, Germany: Vortrage fur Pflanzenzuchung.
- Skovmand, B., and Varughese, G. 1992. Utilization of genetic resources in durum wheat improvement. In *Durum Wheats: Challenges and Opportunities*. Rajaram, S., Saari, E.E., and Hettel, G.P., eds., 66-69. Mexico, D.F.: CIMMYT.
- Skovmand, B. 1992. Wheat Germplasm Bank: Seed introduction, multiplication, and distribution. In *Update on Karnal Bunt Research in Mexico*. Fuentes-Dávila, G., and Hettel, G.P. eds., 32-35. Mexico, D.F.: CIMMYT.
- Taa, A., Tanner, D.G., and Gorfu, A. 1992. The effects of tillage practice on bread wheat in three different cropping sequences in Ethiopia. In *VII Regional Wheat Workshop for Eastern, Central and Southern Africa*. Tanner, D.G., and Mwangi, W., eds., 376-386. Nakuru, Kenya: CIMMYT.
- Tanner, D.G., and Mwangi, W.M. 1992. Current issues in wheat research and production in Eastern, Central and Southern Africa: Constraints and achievements. In *VII Regional Wheat Workshop for Eastern, Central and Southern Africa*. Tanner, D.G., and Mwangi, W., eds., 17-36. Nakuru, Kenya: CIMMYT.
- Tanner, D.G., Taa, A., and Gorfu, A. 1992. The effects of nitrogen and phosphorus fertilizers on several crop and soil parameters of small-holder bread wheat in Ethiopia. In *VII Regional Wheat Workshop for Eastern, Central and Southern Africa*. Tanner, D.G., and Mwangi, W., eds., 422-432. Nakuru, Kenya: CIMMYT.
- Varughese, G., and Fischer, R.A. 1992. Twenty-five years of wheat research at CIMMYT: An historic assessment and future directions. In *VII Regional Wheat Workshop for Eastern, Central and Southern Africa*. Tanner, D.G., and Mwangi, W., eds., 4-16. Nakuru, Kenya: CIMMYT.
- Varughese, G., and Martínez S., J. de J. 1992. Triticale breeding in Mexico. In *I Conferencia Nacional sobre la Producción de Trigo en México*. Cd. Obregón, Sonora, Mexico: SARH/INIFAP/CIFAP.

- Villareal, R.L., Singh, R.P., and Mujeeb-Kazi, A. 1992. Expression of resistance to *Puccinia recondita* f. sp. *tritici* in synthetic hexaploid wheats. In *Cereal Rusts and Mildews*. Zeller, F.J., and Fischbeck, G., eds., 253-255. Bonn, Germany: Vortrage fur Pflanzenzuchung.
- Villegas, E., Vasal, S.K., and Bjarnason, M.S. 1992. Quality protein maize: What is it and how was it developed. In *Quality Protein Maize*. Mertz, E.T., ed., 27-48. St. Paul, MN: American Association of Cereal Chemists.
- Yilma, Z., Zewdie, L., and Tanner, D.G. 1992. A study of several factors limiting wheat yields on farmers' fields and on-station in Bale Region of Ethiopia. In *VII Regional Wheat Workshop for Eastern, Central and Southern Africa*. Tanner, D.G., and Mwangi, W., eds., 510-516. Nakuru, Kenya: CIMMYT.
- Zewdie, L., Yilma, Z., Tanner, D.G., and Elias, E. 1992. The effects of nitrogen fertilizer rates and application timing on bread wheat in Bale Region of Ethiopia. In *VII Regional Wheat Workshop for Eastern, Central and Southern Africa*. Tanner, D.G., and Mwangi, W., eds., 494-502. Nakuru, Kenya: CIMMYT.
- ## Research Reports
- Córdova, H.S., Quemé de León, J.L., and Rosado, P. 1992. Producción artesanal de semilla de maíz para el pequeño agricultor en Guatemala. 2a. ed. Guatemala: ICTA.
- García, J.C., and López Pereira, M.A. 1992. Production and use of white quality protein maize (QPM) BR-451 by farmers in Alto Paranaiba, Minas Gerais, Brazil. Sete Lagoas, Minas Gerais, Brazil: EMBRAPA, CIMMYT.
- Harrington, L.W. 1992. Interpreting and measuring sustainability: Issues and options. Bangkok, Thailand: CIMMYT.
- Harrington, L.W., Krisdiana, R., and Herianto. 1992. On-farm research and farmer adoption of new maize technology in Malang District, Indonesia. Bangkok, Thailand: MARIF, CIMMYT.
- Harrington, L.W., Hobbs, P.R., Tamang, D.B., Adhikari, C., Gyawali, B.K., Pradhan, G., Batsa, B.K., Ranjit, J.D., Ruckstuhl, M., Khadka, Y.G., and Baidya, M.L., eds. 1992. Wheat and rice in the hills: Farming systems, production techniques and research issues for rice-wheat cropping patterns in the mid-hills of Nepal. Bangkok, Thailand: National Agricultural Research Center (Nepal) and CIMMYT.
- Harrington, L.W., Morris, M.L., Hobbs, P.R., Singh, V.P., Sharma, H.C., Singh, R.P., Chaudhary, M.K., and Dhiman, S.D., eds. 1992. Wheat and rice in Karnal and Kurukshetra Districts, Haryana, India: Practices, problems and an agenda for action. Bangkok, Thailand: Haryana Agricultural University, Indian Council of Agricultural Research, CIMMYT, IRRI.
- Hobbs, P.R., Hettel, G.P., Singh, R.K., Singh, R.P., Harrington, L.W., Singh, V.P., and Pillai, K.G., eds. 1992. Rice wheat cropping systems in Faizabad district of Uttar Pradesh, India: Exploratory surveys of farmers' practices and problems and needs for Further Research. Mexico, D.F.: NDUAT, ICAR, CIMMYT, IRRI.
- Janssen, W., Crissman, C., Henry, G., López Pereira, M.A., Sanint, L., and Walker, T. 1992. CIAT, CIMMYT, and CIP: Their role in agricultural research in Latin America and the Caribbean. Cali, Colombia: CIAT, CIMMYT, CIP.

- Ngo Huu Thinh, Phan Xuan Hao, Harrington, L.W., and Read, M. 1992. Winter Maize in the Red River Delta of Northern Vietnam: Problems and Prospects. Bangkok, Thailand: International Maize Research Program (Vietnam) and CIMMYT.
- Nieuwkoop, M. van, López Baez, W., Zamarripa Morán, A., Cadena Iñiguez, P., Villar Sánchez, B., and Piedra Constantino, R. de la. 1992. El uso y conservación de los recursos naturales en la Fraylesca, Chiapas: Un diagnóstico. México, D.F.: INIFAP, CIMMYT.
- Programa Regional de Maíz para Centro América, Panamá y El Caribe. 1991. Desarrollo y mejoramiento de germoplasma para resistencia a factores adversos bióticos y abióticos 1990. Guatemala: CIMMYT Central American Regional Program.
- Tiravatnaprasert, B., Vesdapunt, K., Soratana, N., Harrington, L.W., and Connell, J. 1992. Wheat in Thailand: A Subsector Study. Bangkok, Thailand: Kasetsart University and CIMMYT.
- Waddington, S.R. 1992. Summary of preliminary results from monitoring of maize fields in Chiwundura and Gutu communal areas, 1991/92 season. Harare, Zimbabwe: Agronomy Institute.
- Aguiluz, A., Urbina, R.J., Celado, M.R., and Córdova, H.S. 1991. Efecto del mejoramiento para resistencia al achaparramiento sobre el rendimiento de cultivares de maíz evaluados en siete ambientes de Centroamérica y El Caribe. XXXVII Reunión Anual del PCCMCA, 6.
- Banziger, M., Feil, B., and Stamp, P. 1992. Does an increased N accumulation of wheat during grain-filling penalize carbohydrate metabolism? Agronomy Abstracts, 121.
- Barreto, H.J., Raun, W.R., and Sain, G. 1991. Metodología de organización de datos experimentales para el análisis de ensayos a través de múltiples localidades. XXXVII Reunión Anual del PCCMCA, 74.
- Barré, M., and Berthaud, J. 1992. Progress in the study of *Tripsacum* diversity using RFLPs. Apomixis Newsletter (4):18-19.
- Bell, M.A., Lafitte, H.R., and Edmeades, G.O. 1992. What has continuous maize cultivation done to this tropical vertisol? Agronomy Abstracts, 273.
- Berthaud, J., Savidan, Y.H., and Barre, M. 1992. *Tripsacum*: Genetic resources for maize improvement. I International Crop Science Congress. July, Ames, IA, USA.
- Bertschinger, L., Gessler, C., Reller, E.R., Ezeta, F.E., Vitorelli, C., and Franco, E. 1992. Some lessons from the investigation of potato virus epidemics in contrasting environments in Peru. V International Plant Virus Epidemiology Symposium. July, Bari, Italy.
- Bogado, S.F., and Wall, P.C. 1992. Effect of zero tillage and previous crop on yields of wheat, soybeans and maize in Southern Paraguay. I International Crop Science Congress. July, Ames, IA, USA.

## Abstracts/Newsletters/ Presentations

Acevedo, E. 1992. Potential of carbon isotope discrimination as a selection criterion in barley breeding. All India Research Workers Workshop. August, New Delhi, India.

- Bohorova, N.E., Hoisington, D.A., Luna Garrido, B., and Brito, R.M. 1992. Plant regeneration from immature embryos of tropical maize inbreds. XIV Congreso Nacional de Fitogenética. October, Tuxtla Gutierrez, Chis., Mexico.
- Bohorova, N.E., Spirova, M., and Atanassov, A. 1992. New source of cytoplasmic male sterility (CMS) in sunflower from interspecific hybridization *Helianthus annuus* X *H. hirsutus* and *in vitro* methods. XIII International Sunflower Conference. September, Pisa, Italy.
- Bolaños, J.A. 1991. Marco conceptual sobre limitaciones fisiológicas y genéticas al rendimiento de maíz (*Zea mays* L.). XXXVII Reunión Anual del PCCMCA, 43.
- Bolaños, J.A., Edmeades, G.O., and Ceballos, H. 1992. Mejoramiento del maíz para su tolerancia a la sequía. V Congreso Nacional de Maíz y II Reunión Sudamericana. November, Pergamino, Argentina.
- Bolaños, J.A., and Barreto, H.J. 1992. Variability in maize components across uniform trials in Central America. I International Crop Science Congress. July, Ames, IA, USA.
- Braun, H.J., and Payne, T.S. 1992. Item from Turkey. Annual Wheat Newsletter 38:181-183.
- Brizuela, L., Maradiaga, N., Zea, J.L., Aguiuz, A., and Córdova, H.S. 1991. Respuestas a selección recurrente de familias de medios hermanos de maíz (*Zea mays* L.) adaptadas a ambientes de humedad limitada. XXXVII Reunión Anual del PCCMCA, 8.
- Broers, L.H.M. 1992. Breeding for partial resistance in wheat to yellow rust. Symposium on Durability of Disease Resistance. February, Wageningen, Netherlands.
- Buckles, D. 1992. Farmer-based experimentation with velvet bean in the Mexican tropics. Rockefeller Foundation Social Science Fellows Workshop. November, Mexico, D.F., Mexico.
- Buckles, D. 1992. Hearing the mucuna story. ILEIA Newsletter 8(3) 30-31.
- Buckles, D. 1992. La revolución de abonos verdes en el trópico húmedo de Honduras. I Congreso Nacional sobre Manejo y Conservación del Suelo y Agua. August, Montecillo, Estado de Mexico, Mexico.
- Buckles, D., and Perales Rivera, H. 1992. Experimentación de campesinos indígenas con abonos verdes en la Sierra de Santa Marta, Veracruz. Seminario Estatal sobre Sierras y Laderas de Veracruz: Situación actual y alternativas de manejo. November, Xalapa, Veracruz, Mexico.
- Buckles, D., Ponce, I., Sain, G., and Medina, G. 1992. Cowardly land becomes brave: The use and diffusion of fertilizer bean (*Mucuna deeringianum*) on the hillsides of Atlantic Honduras. Workshop on Slash/Mulch Practices. October, Turrialba, Costa Rica.
- Burnett, P.A., Ranieri, R., and Robinson, J. 1991. Barley yellow dwarf and Russian wheat aphid research. Annual Wheat Newsletter 37:81-82.

- Byerlee, D. 1992. Technical change, productivity, and sustainability in irrigated cropping systems of South Asia. Emerging issues in the post-Green Revolution era. International Rice Research Conference. April, Los Baños, Philippines.
- Byerlee, D., Diallo, A.O., Heisey, P.W., Gelaw, B., Mwangi, W.M., Smale, M., Tripp, R.B., and Waddington, S.R. 1992. Maize research in Sub-Saharan Africa: An overview of past impacts and future prospects. Symposium on the Impact of Technology on Agricultural Transformation in Africa. October, Washington, D.C.
- Byerlee, D., and Heisey, P.W. 1992. Strategies for technical change in small-farm agriculture: Lessons and challenges, with particular reference to maize seed-fertilizer technology in Sub-Saharan Africa. Sasakwa Global 2000 Conference on Agricultural Development and Policy Options for Sub-Saharan Africa. August, Arlie House, VA, USA.
- Byerlee, D., 1992. Issues and options for social scientists in germplasm-oriented research. Meeting of CGIAR Social Scientists. August, The Hague, Netherlands.
- Ceballos, H., and Pandey, S. 1992. Mejoramiento del maíz a diversas enfermedades. V Congreso Nacional de Maíz y II Reunión Sudamericana. November, Pergamino, Argentina.
- Ceballos, H., Pandey, S., Knapp, E.B., and Duque, J. 1992. Respuesta de la selección para tolerancia a suelos ácidos en cinco poblaciones tropicales de maíz. V Congreso Nacional de Maíz y II Reunión Sudamericana. November, Pergamino, Argentina.
- Chapman, S.C., and Edmeades, G.O. 1992. Leaf area development of diverse maize genotypes. *Agronomy Abstracts*, 123.
- Chiduza, C., Waddington, S.R., and Rukuni, M. 1992. Production practices, problems, and research opportunities for smallholder sorghum production in Siabuwa, Zimbabwe. *Farming Systems Bulletin (Eastern and Southern Africa)* (10):11-18.
- Chiduza, C., Waddington, S.R., and Rukuni, M. 1992. On-farm evaluation of short-season sorghum and fertilizer for smallholder farmers in a semi-arid region of Zimbabwe. *Farming Systems Bulletin (Eastern and Southern Africa)* (11):25-33.
- Collins, M.P. 1992. Productivity maintenance research and research deterioration: Concepts and evidence. Annual Meeting of the American Agricultural Economics Association. August, Baltimore, MD, USA.
- Corbett, J.C., Chapman, S.C., and Edmeades, G.O. 1992. Agronomic interpretation of climate data across space: Using crop models at field and continental scales. *Agronomy Abstracts*, 14.
- Córdova, H.S., Aguiluz Aguiluz, A., and Urbina Algasas, R.J. 1992. Removing the menace of maize diseases through breeding: The case of corn stunt in Central America and the Caribbean. *Agronomy Abstracts*, 67.
- Córdova, H.S. 1992. La investigación científica y tecnológica en semillas: Estrategias, objetivos y prioridades. III Simposio Mexicano sobre Semillas Agrícolas. May, Torreón, Coahuila, Mexico.

- Córdova, H.S. 1991. Respuestas diferenciales para rendimiento en híbridos de maíz evaluados en ambientes contrastantes de Centroamérica y México. XXXVII Reunión Anual del PCCMCA, 13.
- Córdova, H.S., and Navarro, E. 1992. Biotecnología y sus implicaciones paralelas al mejoramiento convencional de plantas. II. Métodos, logros y perspectivas en granos básicos. I Seminario 1992 de Actualización para Alumnos y Maestros del Programa de Graduados. January, Saltillo, Coahuila, Mexico.
- Crossa, J., and Cornelius, P.L. 1992. Recent developments in multiplicative models for cultivar trials. I International Crop Science Congress. July, Ames, IA, USA.
- Dorregaray Llerena, F. de M., Hoisington, D.A., and Robinson, J. 1992. RFLP mapping of Russian wheat aphid resistance in barley. Agronomy Abstracts, 94.
- Dubin, H.J., and Bomb, H.P. 1992. Soil solarization as a means of determining cereal yield losses due to soilborne diseases in lowland Nepal. Proceedings of the American Phytopathology Society. Abstract A644.
- Edmeades, G.O., Ellis, R.H., and Lafitte, H.R. 1992. Photothermal responses of tropically adapted maize. Agronomy Abstracts, 124.
- Edmeades, G.O., Bolaños, J.A., Lafitte, H.R., and Chapman, S.C. 1992. Progress toward drought tolerance in tropical maize. I International Crop Science Congress. July, Ames, IA, USA.
- Edmeades, G.O., Bolaños, J.A., and Lafitte, H.R. 1992. Progress in breeding for drought tolerance in maize. 47th Corn and Sorghum Research Conference. December, Chicago, IL, USA.
- Eskridge, K.M., Smith, O.S., and Byrne, P.F. 1992. Comparing test cultivars using reliability functions of test check differences from on-farm trials. Agronomy Abstracts, 95.
- Escobar, J.C., Aguiluz, A., Guerra, F., and Córdova, H.S. 1991. Evaluación de germoplasma de maíz por su resistencia al gusano cogollero *Spodoptera frugiperda* (Smith). XXXVII Reunión Anual del PCCMCA, 11.
- Ess, K.R., and Deutsch, J.A. 1992. Selection for erect leaves in a tropical maize population. VI Interregional Corn Conference. February, Williamsburg, VA, USA.
- Feingold, S.E., Hoisington, D.A., Duveiller, E., and Ginkel, M. van. 1992. Bacterial leaf streak of wheat: RFLP mapping of resistance. Agronomy Abstracts, 96.
- Fischer, R.A. 1992. Cereal breeding for developing countries: Progress and prospects. I International Crop Science Congress. July, Ames, IA, USA.
- Fischer, R.A., and Varughese, G. 1992. Developments in CIMMYT Wheat Program in 1991. Annual Wheat Newsletter 38:153-155.
- Fuentes-Dávila, G. 1992. Efecto del número de semillas de trigo infectadas con *Tilletia indica* Mitra para siembra en la incidencia de carbon parcial bajo condiciones naturales. XIX Congreso Nacional de Fitopatología. August, Saltillo, Coahuila, Mexico.

- Fuentes-Dávila, G., Rajaram, S., Pfeiffer, W.H., and Abdalla, O.S. 1992. Results of artificial inoculation of the 4th Karnal Bunt Screening Nursery (KBSN). Annual Wheat Newsletter 38:157-162.
- Furman, B.J., Qualset, C.O., Heaton, J., Skovmand, B., and Wesenberg, D.M. 1992. Characterization and analysis of a North American triticale genetic resources collection. Agronomy Abstracts, 201-202.
- Ginkel, M. van, and Rajaram, S. 1992. Breeding for durable resistance to diseases in wheat: An international perspective. Symposium on Durability of Disease Resistance. February, Wageningen, Netherlands.
- González C., F., Vasal, S.K., Srinivasan, G., and Vergara A., N. 1992. Desarrollo de poblaciones tropicales de maíz con resistencia a la mancha de asfalto en CIMMYT. XXXVIII Reunión Anual del PCCMCA. March, Managua, Nicaragua.
- González Rey, D., López Pereira, M.A., and Sanders, J.H. 1992. The impacts of new sorghum cultivars and other associated technologies in Honduras. INTSORMIL International Conference. July, Corpus Christi, TX, USA.
- González C., F., Vasal, S.K., Srinivasan, G., and Eaton, D.L. 1992. Progress from selection for tar spot resistance in four CIMMYT maize populations. I International Crop Science Congress. July, Ames, IA, USA.
- González C., F., Vasal, S.K., and Srinivasan, G. 1992. Performance of intersynthetic maize hybrids identified through modified reciprocal recurrent selection. Agronomy Abstracts, 97.
- Granados, G., Pandey, S., and Ceballos, H. 1992. Gains through selection in a tropical maize population tolerant to acid high aluminum soils. I International Crop Science Congress. July, Ames, IA, USA.
- Haro Arias, E.S., Snijders, C.H.A., Ginkel, M. van, Hoogendoorn, J., Sanbrink, J.M., Denninjns, A.P.M., Rajaram, S., Hoisington, D.A., and Fischer, R.A. 1992. Breeding for escape from drought and salt stress in wheat adapted to low altitude environments. I International Crop Science Congress. July, Ames, IA, USA.
- Harrington, L.W. 1992. Assessing the effects of FSRE: The impact of impact studies. Asian Farming Systems Symposium. November, Colombo, Sri Lanka.
- Harrington, L.W. 1992. Sustainability in perspective: Strengths and limitations of FSRE in contributing to a sustainable agriculture. XII Annual Farming Systems Symposium. September, East Lansing, MI, USA.
- Harrington, L.W. 1992. Interpreting and measuring sustainability: Issues and options. Workshop on Measuring Sustainability through Farmer Monitoring. May, Kathmandu, Nepal.
- He Zhong-Hu 1991. Application of distance analysis to the choice of parents in wheat breeding. Annual Wheat Newsletter 37:82.
- He Zhong-Hu, Peña, R.J., and Rajaram, S. 1992. HMW glutening subunit composition Chinese bread wheat. Annual Wheat Newsletter 38:156.
- He Zhong-Hu, and Rajaram, S. 1992. Screening of heat tolerance in CIMMYT advanced lines. Annual Wheat Newsletter 38:155.

- Heisey, P.W. 1992. Nutrition and household food security in farming systems research: The development of a policy dialogue. Workshop on Nutrition and Household Food Security in Farming Systems Research. August, Mansa, Zambia.
- Heisey, P.W., and Waddington, S.R. 1992. CIMMYT's experience with on-farm research in Southern and Eastern Africa. SADCC/ICRISAT Sorghum and Millet Improvement Programme Research Planning Meeting. September, Bulawayo, Zimbabwe.
- Hobbs, P.R. 1992. Measuring sustainability: Long-term agronomic trials versus farmer monitoring. Workshop on Measuring Sustainability through Farmer Monitoring. May, Kathmandu, Nepal.
- Hobbs, P.R. 1991. Crop management research. Annual Wheat Newsletter 36:86.
- Kawonga, W.T., and Heisey, P.W. 1992. Response of four maize varieties to nitrogen at Lisungwi extension planning area, Mwanza, Malawi. Farming Systems Bulletin (Eastern and Southern Africa) 11:18-24.
- Khairallah, M.M., Tohme, J., Kelly, J.D., and Hoisington, D.A. 1992. Analysis of mitochondrial DNA diversity in wild and cultivated *Phaseolus vulgaris*. XIV Congreso Nacional de Fitogenética. October, Tuxtla Gutiérrez, Chiapas, Mexico.
- Khairallah, M.M., Tohme, J.M., Kelly, J.D., and Hoisington, D.A. 1992. Mitochondrial DNA diversity in wild and cultivated *Phaseolus vulgaris*. Agronomy Abstracts, 203.
- Khan, A., Khan, B.M., Khan, B.R., Razzaq, A., and Hobbs, P.R. 1992. Grain yield and economic response of wheat raised under two tillage systems. I International Crop Science Congress. July, Ames, IA, USA.
- Knapp, E.B., Ceballos, H., and Pandey, S. 1992. Uso del análisis espacial en viveros de mejoramiento de maíz en condiciones de estrés por nutrientes. XXXVIII Reunión Anual del PCCMCA. March, Managua, Nicaragua.
- Knapp, E.B., Pandey, S., and Ceballos, H. 1992. The use of spatial analysis in nutrient stress maize breeding. International Symposium for Environmental Stress Maize in Perspective. March, Belo Horizonte, Brazil.
- Kohli, M.M., and Schwartzman, J., eds. 1992. Resultados del décimo vivero de líneas avanzadas del Cono Sur (LACOS) 1990-1991. Asunción, Paraguay: MAG, CIMMYT.
- Kohli, M.M. 1992. Líneas avanzadas del Cono Sur. LACOS: Diez años de experiencia. Reunión Regional de PROCISUR sobre Viveros Regionales. April, Asunción, Paraguay.
- Kohli, M.M. 1992. Mejoramiento de trigo en Paraguay. Curso de Capacitación sobre el Cultivo de Trigo. August, Capitán Miranda, Paraguay.
- Listman, G.M., and Pineda Estrada, F. 1992. Mexican prize for the giant maize of Jala. Source of community pride and genetic resources conservation. Diversity 8(1):14-15.

- López Pereira, M.A., and Saunders, J.H. 1992. Impacts of erosion control and seed fertilizer technologies on small-scale hillside farmers in southern Honduras. XLVII Annual Meeting of the Soil and Water Conservation Society. August, Baltimore, MD, USA.
- Mann, C.E., and Comwong, S. 1992. Thai national wheat and barley nurseries 1991/92. XIII National Barley and Wheat Conference. August, Pattaya Chunburi, Thailand.
- Matthews, B.C., and Winkelmann, D.L. 1992. CIMMYT's 1992 International Centers' Week Presentation. October, Washington, D.C.
- Meisner, C.A., Acevedo, E., Flores, D., Sayre, K.D., Ortiz-Monasterio, I., and Byerlee, D. 1992. Wheat production and grower practices in the Yaqui Valley, NW Mexico. I International Crop Science Congress. July, Ames, IA, USA.
- Meisner, C.A., Acevedo, E., Flores, D., Sayre, K., Ortiz-Monasterio, I., Byerlee, D., and Limón, A. 1992. Wheat production and farmers' practices in the Yaqui Valley, Sonora, Mexico. Workshop on Measuring Sustainability through Farmer Monitoring. May, Kathmandu, Nepal.
- Morris, M.L., Dubin, H.J., and Pokhrel, T.P. 1992. Item from Nepal, comments of the returns to wheat research in Nepal. Annual Wheat Newsletter 38:163.
- Morris, M.L., Dubin, H.J., and Pokhrel, T.P. 1992. Returns to wheat breeding in Nepal: The case of a small country with research spillovers. Annual Meeting of the American Agricultural Economics Association. August, Baltimore, MD, USA.
- Mujeeb-Kazi, A., Gorham, J., and López-Cesati, J. Use of wild Triticeae relatives for stress tolerance. I International Crop Science Congress. July, Ames, IA, USA.
- Mujeeb-Kazi, A., and Delgado, R., 1992. Maize mediated polyhaploid production in the Triticeae. International Symposium on New Genetical Approaches to Crop Improvement. February, Karachi, Pakistan.
- Mujeeb-Kazi, A. 1992. Interspecific and intergeneric hybridization in the Triticeae for wheat improvement. Workshop on Biodiversity in wild relatives and primitive forms for wheat improvement. October, Aleppo, Syria.
- Mujeeb-Kazi, A., William, M.D.H.M., Roldan, S., and Cano, S. 1992. The genetic diversity of synthetic hexaploids derived from *Triticum turgidum* x *T. tauschii* (*Aegilops squarrosa*). International Symposium on New Genetical Approaches to Crop Improvement. February, Karachi, Pakistan.
- Mwangi, W.M., Negassa, A., and Beyene, H. 1992. Impacts of on-farm research on farmers and their adoption of technologies around Bako, Ethiopia: Selected cases. Impact of On-Farm Research Networkshop. June, Harare, Zimbabwe.
- Mwangi, W.M., Seyoum, K., and Beyene, H. 1992. The impact of on-farm research in the Institute of Agricultural Research of Ethiopia. Impacts of On-Farm Research Networkshop. June, Harare, Zimbabwe.
- Ngo Huu Thinh, Phan Xuan Hao, Harrington, L.W., and Read, M. 1992. Winter maize in the Red River Delta of northern Vietnam: Problems and prospects. Asian Farming Systems Symposium. November, Colombo, Sri Lanka.

- Odhambo, G.D., and Ransom, J.K. 1992. Components of an integrated striga control program. I International Crop Science Congress. July, Ames, IA, USA.
- Ortiz-Monasterio, I., Sayre, K.D., and Abdalla, O.S. 1992. Genetic progress in CIMMYT's Durum Wheat Program in the last 39 years. I International Crop Science Congress. July, Ames, IA, USA.
- Pandey, S., Ceballos, H., Knapp, E.B., and Vargas, J.D. 1992. Genetic variability in maize adaptation to acid soils. International Symposium for Environmental Stress Maize in Perspective. March, Belo Horizonte, Brazil.
- Peña, R.J., Skovmand, B., and Amaya-Celis, A.A. 1992. Variation in protein content, SDS-sedimentation, grain hardness, and LMW-glutenin in *Triticum dicoccum* grown in two environments. Agronomy Abstracts, 203-204.
- Pfeiffer, W.H., Amaya-Celis, A.A., and Peña, R.J. 1992. Triticale improvement strategies at CIMMYT: End-use orientation. Triticale Topics (8):14-18.
- Pierre, R., Torres A., J., Barreto, H.J., and Raun, W.R. 1991. Efecto del nitrógeno y el azufre en el rendimiento del maíz (*Zea mays* L.) en la labranza de conservación. XXXVII Reunión Anual del PCCMCA, 47.
- Pixley, K.V., and Bjarnason, M.S. 1992. Stability of yield and protein quality for hybrids and open-pollinated cultivars of improved opaque-2 maize. I International Crop Science Congress. July, Ames, IA, USA.
- Programa Regional de Maíz para Centro América, Panamá y El Caribe: Análisis de los ensayos regionales de agronomía. Taller Latinoamericano de Manejo de Suelos Tropicales, 2; July, San José, Costa Rica.
- Quemé de León, J.L., Larios, L., Pérez, C., Soto, N., and Córdova, H.S. 1991. Aptitud combinatoria de líneas de maíz (*Zea mays* L.) en diferente grado de endogamia, derivadas de cuatro familias de hermanos completos progenitores de un híbrido doble. Guatemala, 1991. XXXVII Reunión Anual del PCCMCA, 5.
- Rajaram, S., and Ginkel, M. van. 1991. Bread wheat breeding at CIMMYT: A global perspective. Golden Jubilee Celebration. February, New Delhi, India.
- Rajaram, S., and Singh, R.P. 1992. Wheat breeding perspectives: Challenges in the 1990s and beyond. Silver Jubilee Symposium on Crop Breeding in India: Current Status and Future Strategy. November, Pantnagar, India.
- Ranieri, R., Mezzalama, M., Burnett, P.A., and Lister, R.M. 1992. The seasonal occurrence of barley yellow dwarf virus serotypes in small grain cereals in the Valley of Mexico. V International Plant Virus Epidemiology Symposium. July, Bari, Italy.
- Ransom, J.K., and Odhambo, G.D. 1992. Development of *Striga hermonthica* on maize and sorghum in Western Kenya. I International Weed Control Congress. February, Melbourne, Australia.
- Ransom, J.K., Short, K.E., Waddington, S.R., and Palmer, A.F.E. 1992. Improving productivity of maize in stress environments. I National Maize Workshop. May, Addis Ababa, Ethiopia.

- Ransom, J.K., and Tanner, D.G. 1992. Activities of the International Maize and Wheat Improvement Center (CIMMYT) in Eastern and Southern Africa. International Federation of Agricultural Producers. December, Nairobi, Kenya.
- Reynolds, M.P., and Sayre, K.D. 1992. Comparison of line-source and gravity irrigation methodologies in simulating low rainfall environments to evaluate drought tolerance in wheat. *Agronomy Abstracts*, 130.
- Reynolds, M.P., Sayre, K.D., and Vivar, H.E. 1992. Use of N-fixing legume species intercropped with spring wheat (*Triticum aestivum*) to produce a green manure crop with low levels of inorganic nitrogen input. II Congress of the European Society of Agronomy. August, Coventry, United Kingdom.
- Robinson, J. 1992. Russian wheat aphid: A growing problem for small-grain farmers. *Outlook on Agriculture* 21(1):57-62.
- Robinson, J. 1992. Predators and parasitoids of Russian wheat aphid in Central Mexico. *Southwestern Entomologist Scientific Note* 17(2):185-186.
- Robinson, J., Burnett, P.A., Vivar, H.E., and Delgado, F. 1992. Russian wheat aphid in barley: Inheritance of resistance and yield loss. V Russian Wheat Aphid Conference. January, Fort Worth, TX, USA.
- Saade, M.E. 1992. Triticale production and utilization by Tunisian farmers: Preliminary results of a farm survey. Rockefeller Foundation Social Science Fellows Meeting. November, Mexico, D.F., Mexico.
- Sain, G., Ponce, I., and Borbón, E. 1992. Rentabilidad del sistema de abonera en el Litoral Atlántico de Honduras. Workshop on Slash/Mulch Practices. October, Turrialba, Costa Rica.
- Sain, G., Borbón Castro, E., Barreto, H.J., and Raun, W.R. 1991. El análisis económico de los resultados experimentales cuando existen efectos residuales. XXXVII Reunión Anual del PCCMCA, 78.
- Salem, M.T., Hobbs, P.R., and Zia, M.S. 1992. Review of advances in high yield crop production technology in Pakistan. III International Symposium on Maximum Yield Research. September, Beijing, China.
- Savidan, Y.H. 1992. Genetic control and screening tools for apomixis. *Apomixis Newsletter* (5):16-19.
- Savidan, Y.H. 1992. IWAR International Workshop on Apomixis in Rice: Notes and comments. *Apomixis Newsletter* (4):8-10.
- Savidan, Y.H. 1992. New maize x *Tripsacum* hybridizations and the feasibility of apomixis transfer. *Apomixis Newsletter* (4):16-18.
- Savidan, Y.H. 1992. Apomixie et complexes agamiques: de la théorie à la pratique. Colloque International en Hommage à Jean Pernàs. January, Paris, France.
- Savidan, Y.H., and Dujardin, M. 1992. Apomixie: La prochaine révolution verte? *La Recherche* 23(241):326-334.
- Sharma, R.C., and Dubin, H.J. 1992. Performance of wheat cultivar mixtures. I International Crop Science Congress. July, Ames, IA, USA.

- Shumba, E.M., and Waddington, S.R. 1992. On-farm research for smallholder agriculture: The Zimbabwe experience. Sorghum and Pearl Millet Research Planning Meeting. September, Bulawayo, Zimbabwe.
- Shumba, E.M., and Waddington, S.R. 1992. Zimbabwe's experience with agricultural research for smallholder farmers. South African Society of Crop Production Congress. January, Bloemfontein, Republic of South Africa.
- Singh, R.P., Hobbs, P.R., and Harrington, L.W. 1992. Rice-wheat diagnostic surveys for sustainable agriculture: A case study in India. Asian Farming System Symposium. November, Colombo, Sri Lanka.
- Skovmand, B., Varughese, G., and Mujeeb-Kazi, A. 1992. International activities in wheat germplasm: CIMMYT's Perspective. Agronomy Abstracts, 206.
- Skovmand, B., and Robinson, J. 1992. Inheritance of Russian wheat aphid resistance in *Triticum dicoccum* and *T. aestivum* collections from Turkey. Agronomy Abstracts, 114-115.
- Smale, M., Kaunda, Z.H.W., Makina, H.L., Mkandawire, M.M.M.K., Msowoya, M.N.S., Mwale, D.J.E.K., and Heisey, P.W. 1992. Chimanga cha makolo, hybrids and composites: Farmers' adoption of maize technology in Malawi, 1989-90. Farming Systems Bulletin (Eastern and Southern Africa) (11):14-17.
- Sosa, H., Mendoza, V.M., Alvarado, A.G., Bonilla, S., Raun, W.R., and Barreto, H.J. 1991. Evaluación de fuentes, niveles y métodos de aplicación de fósforo y respuesta al azufre, en los sistemas maíz-frijol y maíz-sorgo en laderas El Salvador, 1990. XXXVII Reunión Anual del PCCMCA, 64.
- Sosa, H., Mendoza, V.M., Alvarado, A.G., Bonilla, S., Raun, W.R., and Barreto, H.J. 1991. Efecto del azufre, ante un nivel de nitrógeno y fósforo en el sistema maíz-frijol, en laderas, El Salvador, 1990. XXXVII Reunión Anual del PCCMCA, 63.
- Souza, E.C.A., Fox, P.N., Byerlee, D., Skovmand, B., Rajaram, S., and Crossa, J. 1992. Changes in spring wheat diversity in Pakistan and Northern Mexico estimated from coefficients of parentage. I International Crop Science Congress. July, Ames, IA, USA.
- Srinivasan, G., Vasal, S.K., González C., F., Córdova, H.S., Pandey, S., and Vergara A., N. 1992. Rendimiento y estabilidad de híbridos de maíz de cruzas simples evaluadas en Colombia, México y Centroamérica. XXXVIII Reunión Anual del PCCMCA. March, Managua, Nicaragua.
- Srinivasan, G., and Brewbaker, J.L. 1992. Spreadsheet approach to genetic analyses (SAGA). Agronomy Abstracts, 83.
- Srinivasan, G., Pham, H.N., Vasal, S.K., González C., F., and Diallo, A.O. 1992. Combining ability of various Tuxpeño maize germplasm developed at CIMMYT. I International Crop Science Congress. July, Ames, IA, USA.
- Srinivasan, G., Vasal, S.K., and González C., F. 1992. Combining ability of different versions of Tuxpeño-based maize germplasm developed at CIMMYT. Maize Genetics Cooperation Newsletter 66:73-74.

- Srinivasan, G., Vasal, S.K., González C., F., Córdova, H.S., Pandey, S., and Vergara A., N. 1992. Rendimiento y estabilidad de híbridos de maíz de cruzas simples evaluadas en Colombia, México y Centroamérica. XIV Congreso Nacional de Fitogenética. October, Tuxtla Gutiérrez, Chiapas, Mexico.
- Taba, S., Pineda Estrada, F., and Crossa, J. 1992. Forming core subsets from Tuxpeño race complex. I International Crop Science Congress. July, Ames, IA, USA.
- Tasistro, A.S., and Sumner, M.E. 1992. Spatial variability of crop growth and soil properties at Tlaltizapan Experiment Station. Agronomy Abstracts, 339-340.
- Traxler, G., and Byerlee, D. 1992. A joint-product analysis of the evolution and adoption of modern cereal varieties in developing countries. Annual Meeting of the American Agricultural Economics Association. August, Baltimore, MD, USA.
- Tripp, R.B. 1992. Expectations and realities in on-farm research. Farming Systems Bulletin (Eastern and Southern Africa) 11:1-13.
- Tripp, R.B. 1992. Invisible hands, indigenous knowledge, and inevitable fads: Challenges to public sector agricultural research in Ghana. Rockefeller Foundation Social Science Fellows Workshop. November, Mexico, D.F., Mexico.
- Urbina, R.J., Obando, M., Hsiang, C., and Córdova, H.S. 1991. Reacción al achaparramiento de híbridos simples, dobles y trilineales de maíz (*Zea mays* L.). XXXVII Reunión Anual del PCCMCA, 23.
- Varughese, G. 1992. Wheat germplasm exchange: Its impact and its future. Symposium of the National Plant Breeding Station, Portugal. May, Elvas, Portugal.
- Vasal, S.K., González C., F., and Srinivasan, G. 1992. Genetic variation and inheritance of resistance to the "Tar Spot" disease complex. Maize Genetics Cooperation Newsletter 66:74.
- Vasal, S.K., González C., F., Srinivasan, G., and Vergara A., N. 1992. Estrategias para integrar mejoramiento poblacional con desarrollo de híbridos en el germoplasma tropical del CIMMYT. XXXVIII Reunión Anual del PCCMCA. March, Managua, Nicaragua.
- Vasal, S.K., Srinivasan, G., and González C., F. 1992. Lodging resistant tropical maize inbred lines from Tuxpeño. Maize Genetics Cooperation Newsletter 66:73-74.
- Vasal, S.K., Srinivasan, G., and González C., F. 1992. Progress from two cycles of selection for inbreeding tolerance in some CIMMYT's subtropical maize populations. Agronomy Abstracts, 177.
- Vasal, S.K., Srinivasan, G., and González C., F. 1992. Progress in improving inbreeding tolerance in some CIMMYT maize populations. I International Crop Science Congress. July, Ames, IA, USA.

- Vasal, S.K., Srinivasan, G., and Vergara, N. 1992. Comportamiento de híbridos intra e interpoblacionales entre líneas endocriadas e implicaciones de estos resultados en el desarrollo de híbridos. XXXVII Reunión Anual del PCCMCA, 2.
- Vásquez V., F.J., Wilkes, H.G., and Taba, S. 1991. Hacia dónde va el teosinte, Guatemala, 1990. XXXVII Reunión Anual del PCCMCA, 302.
- Velázquez H., E., Buckles, D., and Pare, L. 1992. La participación campesina en la conservación de los recursos naturales: Tres experiencias en el sur de Veracruz. I Coloquio de las Selvas Tropicales de México. December, San Cristobal de las Casas, Chiapas, Mexico.
- Villareal, R.L., Rajaram, S., Gilchrist, L., and Mujeeb-Kazi, A. 1992. Advanced lines derived from wheat (*Triticum aestivum* L.) and *Thynopyrum curvifolium* resistant to *Helminthosporium sativum*. I Internationa! Crop Science Congress. July, Ames, IA, USA.
- Waddington, S.R., and Shumba, E.M. 1992. Late planted maize: A source of low productivity for farmers in subhumid areas of Zimbabwe. VI Australian Agronomy Conference. February, Armidale, New South Wales.
- Wall, P.C. 1992. Perspectivas para siembra directa en el Cono Sur de América. Jornadas Técnicas de Labranza Conservacionista. November, Río Negro, Argentina.
- Wall, P.C. 1992. Siembra directa en América Latina: Futuro y perspectivas. I Congreso Interamericano de Siembra Directa y II Jornadas Binacionales de Cero Labranza. March, Villa Giardino, Córdoba, Argentina.
- Wall, P.C. 1992. Aspectos importantes para la conservación de suelos agrícolas en el Departamento de Itapúa. Jornada de Diversificación de la Producción Agroforestal en el Contexto de la Conservación de los Recursos Naturales y Medio Ambiente. June, Obligado, Itapúa, Paraguay.
- Webby, G.N., Lister, R.M., and Burnett, P.A. 1992. Barley yellow dwarf virus occurrence in CIMMYT bread wheat nurseries and associated small grain crops during 1988-1990. V International Plant Virus Epidemiology Symposium. July, Bari, Italy.
- William, M.D.H.M., Vahidy, A.A., Jahan, Q., and Mujeeb-Kazi, A. 1992. The IB/IR translocation chromosome in wheat improvement: Biochemical diagnostics and their application in the development of near isogenic lines. International Symposium on New Genetical Approaches to Crop Improvement. February, Karachi, Pakistan.
- Woolley, J.N. 1992. Teaching the planning: Execution and analysis of on-farm research in resource management. I International Crop Science Congress. July, Ames, IA, USA.

