

Chapter 6

REFERENCES

- Abebe, A., Wolde, L. and Gebreselassie, W. 2020. Standard heterosis and trait association of maize inbred lines using line x tester mating design in Ethiopia. *African J. of Plant Science*, 14 (5), 192-204.
- Acharya, S. K., Kaushik, R. A., Ameta, K. D., Dubey, R. B. and Upadhyay, B. 2019. Heterosis and combining ability in bitter melon (*Momordica charantia* L.). *International J. of Bioassays*, 8(1S), 537-544.
- Adjoumani, K., Kouonon, L. C., Koffi, G. K., Bony, B. S., Brou, K. F., Akaffou, D. S. and Sie, R. S. 2016. Analysis on genetic variability and heritability of fruit characters in *Citrullus lanatus* (Thunb.) Matsumura and Nakai (Cucurbitaceae) cultivars. *J. of Animal and Plant Sci.*, 28(1), 4340 - 4355.
- Ahamed, F., Rahman, S. and Mohsin, G. M. 2014. Germplasm collection, evaluation and development of bitter melon in Bangladesh. Bitter melon conference 2014, Hyderabad, India. 20-21 March, 2014. (Abstract). PP. 34(T1-006).
- Ali, M. and Hauk, V. T. B. 2012. Vegetables in Bangladesh. Technical Bulletin No. 25. Shanhuai, Taiwan: Asian Vegetable Research and Development Center.
- Allard, R. W. 1960. Principles of Plant Breeding. John Wiley and Sons, Inc., New York. pp. 227- 228.
- Ananthan, M. and Krishnamoorthy, V. 2017. Genetic variability, correlation and path analysis in ridge melon (*Luffa acutangula* L.). *International J. of Current Microbiology and Applied Sci.*, 6(6), 3022 - 3026.
- Anderson, A. P. 1984. The grand period of growth in fruit of *Cucurbita pepo* determined by weight. *Minnesota Botanical series*, 1, 238-279.
- Anjali, G., Maurya, S. K., Yadav, H. and Pooja. 2017. Genetic divergence and character association studies in indigenous ridge melon (*Luffa acutangula* L. Roxb.). Genotypes *J. of Pharmacognosy and Phytochemistry*, 6(4), 1769 - 1774.
- Aruah, C. B., Uguru, M. I. and Oyiga, B. C. 2012. Genetic Variability and inter-relationship among some Nigerian Pumpkin Accessions (*Cucurbita* spp.) *International J. of Plant Breedin*, 6(1), 34-41.

- Ayensu, E. S. 1984. Medicinal plants of West Tropical Africa. *Economic Bot.*, 38(3), 350-357.
- AVRDC. 2011. Inception workshop on improving incomes, nutrition and health in Bangladesh through potato, sweet potato and vegetables, 17-18 January. P 1.
- Azad, A. K. 2014. Evaluation and improvement of developed inbred lines for the production of hybrid maize (*Zea mays* L.). Ph.D. Dissertation. Dept. Genetics Plant Breeding, HSTU, Dinajpur, Bangladesh.
- Banik, B. R. 2003. Variability, gene action and heterosis in snake gourd (*Trichosanthes anguina* L.). Ph. D. Dissertation. Dept. Genet. Pl. Breed., BSMRAU, Salna, Gazipur.
- BARC. 2012. Fertilizer Recommendation Guide. Bangladesh Agril. Research Council (BARC). Farm gate, New Airport Road, Dhaka, Bangladesh. p. 78.
- BARI, 2017. Bangladesh Agril. Research Institute Annual Research Review Workshop 2016-17.
- BBS. 2018. Year book of Agril. Statistics of Bangladesh, 2017-2018. Bangladesh Bureau Statistics. Ministry of Planning. Govt. of the people's Republic of Bangladesh, Dhaka.
- Bhagowati, R. R. and Saikia, M. 2003. Character association and path coefficient analysis for yield attributes in open pollinated and hybrid true potato seed populations. *Crop Res.*, 26(2), 286–290.
- Bhatt, L., Singh, S. P., Soni, A. K. and Samota, M. K. 2017. Combining Ability Studies in Bitter Gourd (*Momordica charantia* L.) for Quantitative Characters. *International J. Curr. Microbiol. App. Sci.*, 6(7), 4471-4478.
- Bimal, C. K. 2008. Morpho-Biochemical Diversity and Heterosis in Bitter gourd (*Momordica charantia* L.). Ph.D Dissertation. Dept. of Hort. BSMRAU, Salna, Gazipur. Bangladesh.
- Bleasdale, J. K. A. 1984. *Plant Physiology in Relation to Hort.* McMillan Press Ltd., London. pp 120-126.

- Bulmer, G. 1980. The mathematical theory of quantitative genetics. Clarendon Press, Oxford.
- Burow, M. D. and Coors, J. 1993. Diallel analysis and simulation. University of Wisconsin, Wisconsin.
- Burton, G.W. 1952. Quantitative inheritance in grasses. 6th Int. Grass Land Cong. 1: 277-283.
- Chandra, A, Verma, B. K. and Satpute, R. G. 1990. Evaluation of related chilli lines (*Capsicum annuum* L.) Vegetable Sci., 7, 47-48.
- Chaudhari, S. M. and Kale, P. N. 1991. Combining ability studies in bitter gourd. J. Maharashtra Agric. University, 16(1), 34-36.
- Chaudhary, S. M. 1987. Studies heterosis, combining ability and correlation in bitter gourd (*Momordica charantia* L.). Ph.D. Thesis. Mahatma Phule Agril. University, Rahuri, Maharashtra, India.
- Chhonkar, V.S. 1977. Genotypic and phenotypic variability in water melon (*Citrullus lanatus* Thumb. Mansf). Bangladesh Hort., 5(2), 7-14.
- Choudhary, M. L., Joshi, S. and Singh, A. 1985. Genetic studies in cucumber (*Cucumis sativus* L.). Progressive Hort., 17(3), 236-240.
- Christie, B. R. and Shattuck, V. I. 1992. The diallel cross: design, analysis and use for plant breeders. Plant Breed Rev., 9, 9-36.
- Cockerham, C. C. 1959. Partitions of hereditary variance for various genetic models. Genetics, 44, 1141-1148.
- Comstock, R. E. and Robinson, H. F. 1952. Genetic parameters, their estimation and significance. Proc. 6th International Grassland Cong. I: 284-291.
- Cruz, C. D., & Carneiro, P. C. S. 2003. Modelos biométricos aplicados ao melhoramento de plantas. Viçosa: UFV, 2.
- Cruz, C. D. and Regazzi, A. J. 1997. Modelos biometricos aplicados ao melhoramento genético. segunda edicion. editora UFV. Brazil. 390.

- Dabholkar, A. R. 1992. Elements of biometrical genetics. Concept publishing company, New Delhi. P 187-214.
- Dalziel, J. M. 1984. The useful plants of West Tropical Africa. Economic Bot., 38(3), 350-357.
- Daleep, K. and Mamta, P. 2018. Estimation of heterosis and combining ability for biochemical traits in bitter gourd (*Momordica charantia* L.) IJCS, 6(2), 2579-2585.
- Dewey, D. R. and Lu, K. H. 1959. A correlation and path analysis coefficient analysis of components of crested wheat-grass seed production. Agron. J., 51, 515-518.
- Dhillon, N. P. S. and Sharma, B. R. 1987. Genetics of earliness in summer squash. J. Maharashtra Agril. University, 12(3), 392-393.
- Dias, L., Picoli, E., Rocha, R. B. and Alfenas, A. C. 2004. A priori choice of hybrid parents in plants. Genet Mol Res., 3, 256-368.
- Doloi, N., Patel, J. N., & Acharya, R. R. 2018. Heterosis studies in bottle gourd [*Lagenaria siceraria* (Mol.) Standl.]. Vegetos-An Int. J. Pl. Res, 31(1), 1-3.
- Durga P. M., Syamal, M. M. and Singh, A. K. 2017. Interrelationship studies for yield and yield attributing traits in elite genotypes of bitter gourd (*Momordica charantia* L.). Vegetos, 30 (Special).
- East, E. M. and Hayes, H. K. 1912. Heterosis in evolution and in plant breeding. United Department of Agriculture Bulletin: 243.
- Falconer, D. S. 1960. Introduction to quantitative genetics. New York: The Ronald Press Company.
- Falconer, D. S. 1981. Introduction to quantitative genetics. 2nd ed. Longman, New York.
- Falconer, D. S. and Mackay, T. F. C. 1996. Introduction to quantitative genetics, Ed 4. Longmans Green, Harlow, Essex, UK.
- FAO. 2015. Statistical Year Book 2013/2014, vol.2, FAO. Rome. Retrieval from www.fao.org.

- Fehr, W. R. 1987. Heterosis. *In: Principles of cultivar Development: Theory and Technique* (Vol.1). Macmillan Publishing Company, New York. P.115.
- Fellahi, Z. E. A., Hannachi, A., Bouzerzour, H., & Boutekrabt, A. 2013. Line× tester mating design analysis for grain yield and yield related traits in bread wheat (*Triticum aestivum* L.). *International J. of Agronomy*, 1-2.
- Gardner, C. O. and Eberhart, S. A. 1966. Analysis and interpretation of the variety cross diallel and related populations. *Biometrics* 22, 439-452.
- Ghosh, H. and Das, A. 2003. Optimal diallel cross designs for estimation of heritability. *J. Stat Planning Inference*, 116, 185-196.
- Gilbert, N. E. G. 1958. Diallel cross in plant breeding. *Heredity* 12, 477-492.
- Gopal, J., Gaur, P. C. and Rana, M. S. 1994. Heritability and intra- and inter- generation associations between tuber yield and its components in potato (*Solanum tuberosum* L.). *Plant Breed* 112, 80–83.
- Grafius, J. E. 1959. Heterosis in Barley. *Agronomy J.*, 51(9), 551-554.
- Gravois, K. A., & Helms, R. S. 1992. Path analysis of rice yield and yield components as affected by seeding rate. *Agronomy J.*, 84(1), 1-4.
- Griffing, B. 1956a. A generalized treatment of the use of diallel crosses in quantitative inheritance, *Heredity*, 10, 31-50.
- Griffing, B. 1956b. Concept of general combining and specific combining ability in relation to diallel crossing systems. *Aust. J. Biol. Sci.*, 9, 463-493.
- Griffing, B and Lindstone, E. W. 1954. A study of combining abilities of corn inbreds having varying proportion of corn bekt and non-corn bekt germplasm. *Agron. J.*, 46, 545-552.
- Guerra, E. P., Destro, D., Miranda L. A. and Montalván, R. 1999. Parent selection for intercrossing in food type soybean through multivariate genetic divergence. *Acta scientiarum*, 21(3), 429-437.
- Gunel, E., Oral, E. and Karadogan, T. 1991. Relationships between some agronomic and technologic characters in potatoes (In Turkish). *J. Ataturk University*, 22, 46–53.

- Hallauer, A. R. and Miranda, J. B. 1982. Quantitative genetics in maize breeding, Iowa State University Press, Ames, Iowa: 432-480.
- Hallauer, A. R. and Miranda, J. B. 1981. Quantitative genetics in maize breeding, Iowa State University Press, Ames, Iowa: 468.
- Hamid, M.N., Saha, M. C. and Begum, R.A. 1989. Physio-morphology and yield of different ash gourd lines. Bangladesh J. Agric., 14(1), 51-55.
- Hasanuzzaman, M. 2010. Inheritance of quantitative characters in Chilli (*Capsicum annum* L.). Ph.D. Dissertation. Dept. Genet. Pl. Breed., HSTU, Dinajpur, Bangladesh.
- Hayes, H. K. 1952. Development of the heterosis concept. Heterosis, 49-65.
- Hayman, B.I. 1954 a. The theory and analysis of diallel crosses. Genetics, 39, 789-809.
- Hayman, B.I. 1954b. The analysis of variance of diallel tables. Biometrics, 10, 235-244.
- Hayman, B. I. 1960a. The theory and analysis of diallel crosses. III. Genetics, 45, 155- 172.
- Hayman, B. I. and Mather, K. 1955. The description of genic interactions in continuous variation. Biometrics, 11, 31-50.
- Hays, H. K. and Jones, D. F. 1916. First generation crosses in cucumber. Conn Storrs Agric. Stat. Ref., 40, 319-322.
- Hayes, J. D. and Foster, C. A. 1976. Heterosis in self-pollinated crops with particular reference to barley, Heterosis in plant breeding. In Proc of 7th Congress EUCARPIA (pp. 239-256).
- Hill, J., Ortiz, R., Wagoire, W. W. and Stolen, O. 1999. Effectiveness of indirect selection for wheat yield in a stress environment. Theory Apply Genetics, 98, 305–309.
- Hill, W. G. 1971. Investment appraisal for national breeding programmes. Animal Science, 13(1), 37-50.
- Horner, T. W., Comstock, R. E. and Robinson, H. F. 1955. Non allelic gene interactions and the interpretation of quantitative genetic data. N. C. Agric. Tech. Bull. 118.

- Hossain, M.F., Rabbani, M.G., Hakim, M.A., Amanullah, A.S.M. and Ahsanullah, A.S.M. 2010. Study on variability character association and yield performance of cucumber (*Cucumis sativus* L.). Bangladesh Res. Pub. J., 4(3), 297-311.
- Islam, M. R., Hossain, M. S., Bhuiyan, M. S.R., Hasan, G.N. and Syed, A. 2010. Multivariate analysis of bitter gourd (*Momordica charantia* L.). Middle-East J. of Scientific Research, 5(2), 86-90.
- Islam, M.R., Hossain, M.S., Bhuiyan, M.S.R., Husna, A., Syed, M.A. 2009. Genetic variability and path coefficient analysis of bitter gourd (*Momordica charantia* L.). International J. of Sustainable Agriculture, 1(3), 53-57.
- Jatav, V., Singh, D. K. and Panchbhaiya, A. 2016. Character association and path co-efficient analysis for yield and yield related traits in bitter gourd (*Momordica charantia* L.). The Bioscan(Supplement on Genetics and Plant Breeding),11(4), 2975-2980.
- Jat, R. K., Ameta, K. D. and Choudhary. 2014. Genetic variability, heritability and genetic advance for yield and yield contributing traits in valan kakri (*Cucumis sativas* var.*utilismus* L.).The Ecoscan, Special Issue, VI, 317-322.
- Jeffrey, C. 1990. Systematic of the Cucurbitaceae. In: Bates, D.M., Robinson, R.W. and Jeffrey, C., Eds, Biology and Utilization of the Cucurbitaceae, Cornell University Press, Ithaca, 3-9.
- Jinks, J. L. and Hayman, B. I. 1953. The analysis of diallel crosses. Maize Genet Coop Newsletter, 27, 48-54.
- Jinks, J.L. 1954. The analysis of continuous variation in diallel cross of *Nicotiana rustica* varieties. Genetics, 39, 767-788.
- Johnson, H.W., Rabinson, H. F.and Comstock, R.E. 1955. Estimation of genetic and environmental variability in soybean. Agron. J., 47, 314-318.
- Joseph, S. 1978. Genetic variability and correlation studies in snake gourd (*Trichosanthes anguina* L). M.Sc. Thesis. Kerala Agril. University. Trissur, Kerala. India.

- Kalidas, P., Munshi A.D., Behera, T.K. and Amish, K.S. 2015. Gynoecious inbred improves yield and earliness in cucumber (*Cucumis sativus*). Indian J. of Agril. Sci., 85(2), 1609-1613.
- Kaloo, J. and Sidhu, A. S. 1982. Genetic divergence in muskmelon (*Cucumis melo* L.). Genetica Agaria., 36, 1-8.
- Kandasamy, R. (2015). Heterosis in bitter gourd (*Momordica charantia* L.). Asian J. Hort., 10(1), 158-160.
- Kearsey, M. J. and Pooni, H. S. 1996. The genetic analysis of quantitative traits. Chapman & Hall, London.
- Kempthorne, O. 1957. An Introduction to Genetic Statistics. J. Wiley and Sons, New York. pp. 408-711.
- Kempthorne, O. 1956. Theory of the diallel cross. Genetics 41:451-459.
- Khairwal, I. S., Rai, K. N., Andrew, D. J. and Harinarayana, G. 1999. Pearl millet Breeding. Oxford and IBH Publishing Co., New Delhi.
- Kichenaradjoui, M. and Shakila, A. 2017. Genetic divergence, heritability and yield traits of different ashgourd accessions (*Benincasa hispida*). International J. of Agril. sci. and research (IJASR) issn (p): 2250-0057; issn (e): 2321-0087, vol. 7.
- Kornegay, J. L. and Temple, S. R. 1986. Inheritance and combining ability of leaf hopper defense mechanism in common bean. Crop Sci., 26, 1153-1158.
- Kumara, B. S., Puttaraju, T. B., Shivanand, H., Prakash, K., Jainag, K. and Sudheesh, N.K. 2011. Combining ability studies in bitter gourd (*Momordica charantia* L.) for quantitative characters. Asian J. Hort., 6(1), 135-140.
- Kumar, D., Kumar, S., Meena, M. L., Meena, R. K. and Kumar, P. 2018. Correlation and characters association studies in bitter gourd (*Momordica charantia* L.). J. of Pharmacognosy and Phytochemistry (JPP), 7(2), 3510-3514.
- Kumar, R. 2000. Effect of seasonal variation on the performance of various inbreds and their hybrids of bottle gourd [*Lagenaria Siceraria* (Molina) Standl.] (Doctoral dissertation, Narendra Deva University of Agriculture and Technology; Faizabad).

- Kumar, R., Amita, K. D., Dubey, R. B., and Pareek, S. 2013. Genetic variability and path analysis in sponge gourd (*Luffa cylidrica* Roem.). African J. of Bitechology, 12(6), 539-543.
- Kupper, R. S. and Staub, J. E. 1988. Combining ability between lines of *Cucumis sativus* L. and *Cucumis sativus* var. *hardwickii* (R.). Euphytica, 38, 197-210.
- Latif, M. A. 1993. Heterosis and combining ability in ribbed gourd (*Luffa acuttangula* L.) M.Sc. Thesis, Dept. of Genet. and Pl. Breed., Bangladesh Agril. University, Mymensingh.
- Laxuman, 2005. Studies on diversity, heterosis and combining ability in bitter gourd (*Momordica charantia* L.). M.Sc.(Ag) Thesis, Dept. of Genet. and Plant Breed., College of Agriculture, Dharwad University of Agril. Sci., Dharwad – 580 005, India.
- Laxuman, S. A., Patil, P. M., Salimath, P. R, Dharmati, A. S., Byadgi and Nirmalayengi. 2012. Heterosis and combining ability analysis for productivity traits in bitter gourd (*Momordica charantia* L.). Karnataka J. Agric. Sci., 25(1), 9-13.
- Lorenz, O. A. and Maynard, D. N. 1980. Knott's Handbook for Vegetable Growers. 2nd edn, J. Wiley, NY. pp. 42-68.
- Mahbubur, A. S. M., Khan, R., Eyasmin, R., Rashid, M. H., Ishtiaque, S. and Chaki, A. K. 2016. Variability, heritability, character association, path analysis and morphological diversity in snake gourd. Agriculture and Natural Resources, 50, 483-489.
- Mangal, J. L. Dixit, J. Pandita, and Sidhu, A. S. 1981. Genetic variability and correlation studies in bitter gourd (*Momordica charantia* L.) Indian J. Hort., 38, 94-98.
- Marani, A. and Avieli, E. 1973. Heterosis during the early phases of growth in intra-specific and inter-specific crosses of cotton. Crop Sci., 13, 15-18.
- Masud, M. A. T. 1995. Variability, association and genetic diversity in pumpkin (*Cucurbita moschata* Duch ex Poir.). MS Thesis. Dept. of Hort., Bangladesh Agril. University, Mymensingh. pp. 37-71.

- Masud, M. A. T., Chowdhury, M. A. Z., Hossain, M. A. and Hossain, S. M. M. 1995. Multivariate analysis in pumpkin (*Cucurbita moschata* Duch. Ex Poir.). Bangladesh J. Pl. Breed. Genet., 8(1&2), 45-50.
- Maurya, D. Singh, V. B., Yadav, G. C., Kumar, V., Dubey, S. and Pandey, A. K. 2019. Study the correlation coefficient and path coefficient for the yield and yield component of bitter gourd (*Momordica charantia* L.). International J. of Current Microbiology and Applied Sci., 8(02), 952-960.
- Maurya, D., Singh, V. B., Yadav, G. C. and Kumar, V. 2018. Studies on genetic variability, heritability and genetic advance in bitter gourd (*Momordica charantia* L.). J. of Pharmacognosy and Phytochemistry, 7(5), 1925-1928.
- Maurya, I. B., Singh S. P., Singh, N. K. 1993. Heterosis and combining ability in bottle gourd [*Lageneria seceraria* (Molina) Standl.]. Vegetable Sci., 20(1), 77-81.
- Miller, P. A., Williams, J. C., Robinson, H. F. and Comstock, R. F. 1958. Estimates of genotypic and environmental variances and covariances in upland cotton and their implication in selection. Agron. J., 50, 126-131.
- Milligan, S. B., Gravois, K. A., Bischoff, K. P. and Martin, F. A. 1990. Crop effects on genetic relationships among sugarcane traits. Crop Sci., 30, 927-931.
- Moll, R. H. and Stuber, C. W. 1974. Quantitative genetics empirical results relevant to plant breeding. Advance Agron., 26, 277-313.
- Munshi, A. D. and Sirohi, P. S. 1993. Studies on heterosis in bitter gourd (*Momordica charantia* L.) Veg. Sci., 20(2), 147-151.
- Murty, B. R. and Arunachalam, V. 1966. The nature of genetic divergence in relation to breeding system in crop plants. Theor. Appl. Genet., 44(5), 211-214.
- Naik, B. P. K., Dalai, S., Mallikarjunarao, K. and Kumar, P. 2020. Heterosis studies in bitter gourd (*Momordica charantia* L.) for yield and yield attributes. International J. of Chemical Studies, 8(5), 2615-2618.

- Narasannavar, A. R., Gasti, V. D., Shantappa, T., Mulge, R., Allolli, T. B. and Thammaiah, N. 2014. Heterosis studies in ridge gourd [*Luffa acutangula* L.) Roxb.]. Karnataka J. Agric. Sci., 27(1), 47-51.
- Naliyadhara, M. V., Dhakur, L. K., Barad, A. V. and Mehta, D. R. 2010. Combining ability analysis in sponge gourd (*Luffa cylindrical* Roem L.). Veg. Sci., 37(1), 21-24.
- Nienhuis, J. and Singh, S. P. 1986. Combining ability analyses and relationships among yield, yield components, and architectural traits in dry beans. Crop Sci., 26, 21-27.
- Oliver, B. 1960. Medicinal plants of Nigeria. Nigerian College of Arts, Sci. and Technology, Ibadan, Nigeria. Abstract in Economic Bot., 38(3), 350-357.
- Pal, A. B., Sivanandappa, D. T. and Vani, A. 1984. Manifestation of heterosis in bitter gourd. South Indian Hort., 32, 33-38.
- Pal, A. B., Doijode, S. D. and Biswas, S.R. 1983. Line x Tester analysis of combining ability in bitter gourd (*Momordica charantia* L.). South Indian Hort., 31(2 and 3), 72-76.
- Pandey, P., Ansari, W., Kashyap, A., Bhardwaj A. D. R., Tiwari, S. K. and Sing, B. 2019. Genetic diversity of Indian bitter gourd (*Momordica charantia*) by ISSR and morphological markers. Indian J. of Agril. Sci., 89(12), 2037-42.
- Panse, V. G. 1957. Genetics of quantitative characters in relation to plant breeding. Indian J. of Genet. 17(2), 318-328.
- Pathak, M., Manpreet and Kanchan, P. 2014. Genetic variability, correlation and path coefficient analysis in bitter gourd (*Momordica charantia* L.). International J. of Advance Research, 2(8), 179-184.
- Pitchaimuthu, M. and Sirohi, P.S. 1994. Studies on heterosis in bottle gourd. South Indian Hort., 42, 18-21.
- Prasad, V. S. R. K. and Singh, D. P. 1989. Studies on heritability, genetic advance and correlations in ridge gourd (*Luffa acutangula* Roxb.). Indian J. Hort., 46(3), 390-394.
- Prasad, V. S. R. K., Singh, D. P. and Singh, R.P. 1993. Biological divergence in the land races of Indian cucumber (*Cucumis sativus* L.). Indian J. Hort., 50(1), 57-63.

- Rahman, S. M. H. E. 2006. Genetic diversity, combining ability and interrelationships among yield components in sweet gourd (*Cucurbita moschata*). Ph.D Dissertation. Dept. of Hort. BAU, Mymensingh, Bangladesh.
- Rajendran, R. 1961. Studies on the exploitation of hybrid vigor in bottle gourd (*Lagenaria siceraria*). M. Sc. Thesis, IARI, New Delhi.
- Rambabu, E. Mandal, A.R., Hazral, P., Senapati, B. K. and Thapa, U. 2017. Morphological characterization and genetic variability studies in bottle gourd [*Lagenaria siceraria* (Mol.) Standl]. International J. of Current Microbiology and Applied Sci., 6(9), 3585-3592.
- Rani, K. R. 2012. Heterosis, combining ability and gene action studies in bitter gourd (*Momordica charantia* L.). <http://krishikosh.egranth.ac.in/handle/1/69149>.
- Rani, R. K. 2014. Diallel analysis for different horticultural traits in bitter gourd (*Momordica charantia* L.) using hayman's numerical and graphical approach. Tropical Plant Research, 1(2), 60–64.
- Rao, G. P., Behera, T. K., Munshi, A. D. and Brihama, D. 2017. Estimation of genetic components of variation and heterosis studies in bitter gourd for horticultural traits. Indian J. Hort., 74(2), 227-232.
- Rao, D. S. R. M., Singh, H., Singh, B., khola, O. P. S., and Faroda, A. S. 1990. Correlation and path coefficient analysis of seed yield and its components in sesame (*Sesamum indicum* L.). Haryana Agril. University J. of Research, 20, 273-276.
- Rashid, M. A., Cheema, A. and Ashraf, M. 2007. Line x Tester analysis in basmati rice. Pakistan J.of Botany, 39(6), 2035-2042.
- Rashid, M. M., Haque, M. M., Moniruzzaman, M. A. and Jamal, H. M. 2014. Characterizations and correlation coefficient analysis of snake gourd (*Trichosanthes anguina* L.). J. of Research in Agriculture and Animal Sci., 2(9), 01-06.
- Rashid, M.M. 1999. Sabjibiggan (In Bangla), Rashid Publishing House, 94, old DOHS, Dhaka-1206, Bangladesh, 279-369.
- Rawlings, J. O., & Cockerham, C. C. 1962. Triallel Analysis 1. Crop Science, 2(3), 228-231.

- Resmi, J. and Sreelathakumary, I. 2017. Genetic variability of bitter gourd (*Momordica Charantia* L.). genotypes in India. *Acta Scientific Agriculture*, 1(1), 33-37.
- Richey, F. D. and Mayer, L. A. 1925. Effect of selection on yield of cross between varieties of corn. *United State Development Authority Bulletin*, 135, 18.
- Riggs, T. J. 1988. Breeding F1 hybrid varieties. *J. of Hort. Sci.*, 63, 362-369.
- Robertson, A. 1957. Optimum group size in progeny testing and family selection. *Biometrics*, 13, 442-450.
- Robinson, H. I., Comstock, R. E. and Harvey, P. H. 1949. Estimation of heritability and degree of dominance in corn. *Agron. J.*, 41, 353-359.
- Robinson, R. W. and Walters, D.S. D. 1997. *Cucurbits*. University Press, Cambridge London, UK., 226.
- Rojas, B. A. and Sprague, G. F. 1952. A comparison of variance components in corn yield trials: III. General and specific combining ability and their interaction with locations and years. *Agron. J.*, 44, 462-466.
- Sahoo, T. R. and Singh, D. K. 2020. Estimation of genetic variability, heritability and genetic advance in Cucumber (*Cucumis sativus* L.) for yield and its components under protected structure. *International J. of Current Microbiology and Applied Sci.*, 9(4), 2756-2764.
- Sarkar, S., Pranava, M. and Morita, R. 1996. Demonstration of the hypoglycemic action of *Momordica charantia* L. in a validated animal model of diabetes. *Pharmacol. Res.*, 33, 1-4.
- Sharma, A. and Sengupta, S.K. 2013. Genetic diversity, heritability, and morphological characterization in bottle gourd (*Lagenaria siceraria*). *The Bioscan*, 8(4), 1461-1465.
- Sharma, A.K., Vidyasagar and Pathania, N. K. 2001. Studies on combining ability for earliness and marketable fruit yield in cucumber (*Cucumis sativus* L.). *Himachal J. Agric. Res.*, 26(1-2), 54-61.

- Shashikumar, K. T., & Pitchaimuthu, M. 2016. Heterosis and combining ability analysis of quantitative and qualitative traits in muskmelon (*Cucumis melo* L.). *International J. of Agricultural Science*, 6, 341-348.
- Shivanand, B., Koppad, Mukesh, L., Chavan and Rekha, H. 2015. Line \times Tester analysis of physiological traits for fruit yield and related characters in *Luffa acutangula* (Roxb) *The Bioscan*, 10(2), 527-534.
- Shukla, A.K. and Gautam, N.C. 1990. Heterosis and inbreeding depression in okra (*Abelmoschus esculentus* L. Moench.). *Indian J. Hort.*, 47(1), 85-88.
- Shull, G. H. 1914. Duplicate genes for capsule-form in *Bursa bursa-pastoris*. *Z Indukt Abstamm Vererbungsl*, 12(1), 97-149.
- Shull, G. H. 1910. Hybridization methods in corn breeding. *Journal of Heredity*, 1(2), 98-107.
- Shull, G. H. 1948. What is heterosis? *Genetica*, 33: 430-446.
- Singh, A. K., Pan, R. S. and Bhavana, P. 2013. Heterosis and combining ability analysis in bitter gourd (*Momordica charantia* L.). *The Bioscan*, 8(4), 1533-1536.
- Singh, B. and Joshi, S. 1979. Heterosis and combining ability in bitter gourd. *Ind. J. Agric. Sci.*, 50, 127-136.
- Singh, B. D. 1990. *Plant breeding, principles and methods*. Kalyani Publishers, New Delhi, India.
- Singh, J., Kumar, J.C. and Sharma, J. R. 1992. Correlation and path coefficient analysis in pumpkin. *J. Res. Punjab Agric. University*, 29(2), 207-212.
- Singh, M. J. and Randhawa, K. S. 1990. Assessment of heterosis and combining ability for quality traits in muskmelon. *Indian J. Hort.*, 47(2), 228-232.
- Singh, M. K., Bhardwaj, D. R and Upadhyay, D.K. 2014. Genetic architecture and association analysis in bitter gourd (*Momordica charantia* L.) landraces. *The Bioscan*, 9(2), 707-711.
- Singh, N. J., Khattra, A. S. and Thakur, J. C. 1997. Heterobeltiosis studies in bitter gourd. *Haryana J. of Hort. Sci.*, 26 (3-4), 291-296.

- Singh, N. K. and Kumar, A. 2004. Combining ability analysis to identify suitable parents for heterotic rice hybrid breeding. *IRRN*, 29(1), 21-22.
- Singh, P. and Narayanam, S. S. 2006. Biometrical techniques in plant breeding. pp. 99-107.
- Singh, R.K. and Chaudhary, B.D. 1977. Biometrical methods in quantitative genetic analysis, Kalyani Publishers, New Delhi. pp. 215-218.
- Singh, R. K. and Chaudhary, B. D. 1985. Biometrical methods in quantitative genetic analysis. Kalyani Publishers, N. D. India. pp. 79-85.
- Singh, R. V., Verma, T. S. and Thakur, P. C. 2002. Characters association in cucumber. *Haryana J. Hort. Sci.*, 31(1-2), 91-93.
- Singh, S.K., Singh, B., Kumar, U. and Kai, M. 2007. Heterosis analysis in bitter gourd through line x tester design. *Veg. Sci.*, 34(1), 95.
- Sirohi, P. S. and Chaudhary, B. 1978. Heterosis in bitter gourd (*Momordica charantia* L.). *Veg. Sci.*, 5, 15-22.
- Sirohi, P. S., Kumar, T. S. and Choudhury, B. 1986. Diallel analysis for variability in *Cucurbita moschata* (Duch. ExPoir) *Indian J. Agric. Sci.*, 56(3), 171-173.
- Sivakami, N., Sirohi, P. S., Choudhary, B. 1987. Combining ability analysis in long fruited bottle gourd. *Indian J. of Hort.*, 44, 213-219.
- Sivasubramaniam, S. and Madhavamenon, P. M. 1973. Genotypic and phenotypic variability in rice. *Madras Agril. J.*, 60(9-12), 1093-1096.
- Sokol, M. J. and Baker, R. J. 1977. Evaluation of the assumptions required for the genetic analysis interpretation of diallel experiments in self-pollinated crops. *Can. J. Plant Sci.*, 57, 1185-1191.
- Sprague, G. F and Tatum, L. A. 1942. General vs specific combining ability in single crosses of corn. *J. of American Soc. of Agro.*, 34, 923-932.
- Srivastava, V.K. and Nath, P. 1983. Studies on combining ability in *Momordica charantia* L., *Egyptian Journal of Genetics Cytology* 12 (1), 207-224.

- Sundaram, V. 2008. Studies on combining ability in bitter gourd. *Crop Research*, 35(1/2), 46-51.
- Sundharaiya, K. and Venkatesan, K. 2007. Studies on combining ability in bitter gourd (*Momordica charantia* L.). *J. Hort. Sci.*, 2(1), 63-66.
- Sureshababu, V. 1989. Divergence studies in pumpkin. M.Sc. Thesis, Kerala Agril. Uni. Thrissure, Kerala.
- Sureshkumara, B., Puttaraju, T.B. and Pavithra, H.B. 2017. Evaluation of bitter gourd (*Momordica charantia* L.) hybrids under eastern dry zone of karnataka, India. *International J. Curr. Microbiol. App. Sci.*, 6(11), 1931-1939.
- Talekar, N. S, Vaddoria, M.A. and Kulkarani, G.U. 2013. Heterosis studies for quantitative traits in bitter gourd (*Momordica charantia* L.). *Society for Sci. Dev. in Agric. and Tech. Progressive Research*, 8(Special), 650-653.
- The Daily Star. 2020. <https://epaper.thedailystar.net/Home/Index>, Wednesday 13 May
- Tindall, H.D. 1983. Vegetable in the tropics. English Language Book Society/Macmillan, Hong Kong. 190-191.
- Tyagi, N., Singh, V. B. and Maurya, P. K. 2018. Studies on genetic variability, heritability and genetic advance in bitter gourd (*Momordica charantia* L.) for yield and yield contributing traits. *International J. Curr. Microbiol. App. Sci.*, 7(3), 1788-1794.
- Tysdal, H. M., Kiesselback, T. A., Westover, H. L. 1942. Alfa-alfa breeding. *Neber Agriculture Experiment Statistics. Research Bulletin*. pp.124.
- Uddin, M. N. 2008. Morpho-molecular characterization, diversity and heterosis in cucumber (*Cucumis sativus* L.). Ph.D Dissertation. Dept. of Hort. BSMRAU, Salna, Gazipur.: 1-190.
- Vahab, M. A. 1989. Homeostatic analysis of components of genetic variance and inheritance of fruit colour, fruit shape and bitterness in bitter gourd. Ph. D. thesis. Kerala Agricultural University.

- Vencovsky, R., & Barriga, P. 1992. Genética biométrica no fitomelhoramento. Ribeirão Preto. Revista Brasileira de Genética, 496p.
- Vegad, P. M., Vaddoria, M. A., Meheta, D. R. and Naghera, Y. V. 2011. Combining ability analysis in bottle gourd. Ind. J. Com., 38(1), 13-17.
- Verma,R.S., Pratap, N. D., Dubey, K. and Singh, S.S. 2013. Combining ability and gene action in indigenous bitter gourd (*Momordica charantia* L.). SAARC J. Agri., 11(2), 117-127.
- Yadav, M., Singh, D. B., Chaudhary, R. and Singh, D. 2008. Genetic variability in bitter gourd (*Momordica charantia* L.). J. Hort. Sci., 3 (1), 35-38.
- Yadav, Y. C., Sanjay, K., & Raghvendra, S. 2012. Studies on genetic variability, heritability and genetic advance in cucumber (*Cucumis sativus* L.). Hort Flora Research Spectrum, 1(1), 34-37.
- Yildirim, M. B., Çali°kan, C. F., Çaylak, Ö. and Budak, N. 1997. Multivariate relationships in potatoes (In Turkish). Second Turkish Field Crops Symposium, 22–25 September. Samsun, Turkey.
- Wassami, N. N., Isleib, T. G. and Hosfield, G. L. 1986. Fixed effects genetic analysis of a diallel cross in dry beans (*Phaseolus vulgaris* L.). Theoretical and applied genetics, 72(4), 449-454.
- Wricke, G. and Weber, W. E. 1986. Quantitative genetics and selection in plant breeding. Walter de Gruyter. New York, N.Y.
- Wright, S. 1921. Systems of mating. I. The biometric relations between parent and offspring. Genetics, 6(2), 111.
- Wright, A. J. 1985. Diallel designs, analyses, and reference populations. Heredity, 54(3), 307-311.
- Zary, K. W. 1980. The Genetics and heritability of quantitative differences in N₂ fixation in cowpea, *Vigna unguiculata* (L.) walp (Doctoral dissertation, Texas A & M University).