

REFERENCES

REFERENCES

- Abe T. (1969). On the sampling variance of the genetic correlation estimates from analysis of variance and co-variance. *Jap. Poult. Sci.* 6 : 209-214.
- Acharya R.M. and Bhat P.M. (1983). Genetical researches in live stock. In: "Genetical research in India" IARI. 307-358.
- Aggarwal C.K., Mohapatra S.C., Sinha S.P., Sharma P.N. and Ahuja S.D. (1979). Estimation of cross breeding ability in broiler from a full diallel cross. *Br. Poult. Sci.* 20 : 185-190.
- Aguade M., Cuello J. and Prevosti A (1981). Correlated responses to selection for wing length in Allozyme system of *D. melanogaster*. *Theor. appl. Genet.* 60 : 317-327.
- Allard R.W. (1956). The analysis of genetic environmental interaction of diallel cross. *Genetics.* 3 : 305-318.
- Allard R.W. (1960). Principles of plant breeding. John Willey and sons., New York, USA : 485.
- Anantha Raman K.V. Magadum S.B., Datta R.K. (1994). Feed efficiency of the silkworm, *B. mori* L. Hybrid - NB4 D2 x KA. *Insect. Science applic.* 15 (2) : 111-116.
- Anonymous (1992) Silk mans' Companion. Central Silk Board, pub. by CSB., Bangalore. Edited by J.Sampath.
- Anonymous (1995). Annual report. Central Silk Board, 1993-94 Pub. by CSB, Bangalore, Pub. in : Feb. '95. Edited by J.Sampath -3
- Anonymous (1996). Annual report, NSSP. 1993-94. Pub. by CSB, Bangalore, Edited by J.Sampath.

* = Not seen in original.

** = Seen only abstract.

- Arunachalam V.(1974). The falacy behind the use of modified line x tester design. *Indian J. Genet.* 34 (2) : 280-287.
- Arunachalam V.(1977). Heterosis for characters governed by two genes. *Indian J. Genet.* 34 : 280-287.
- Arunachalam V. and Bandyopadhyay A. (1984). Limits to genetic divergence for occurrence of heterosis - Experimental evidence from crop plants. *Indian J. Genet.* 44 (3) : 548-554.
- Arunachalam V., Bandyopadhyay A., Nigam S.M. and Gibbons, R.W. (1984). Heterosis in relation to genetic divergence and specific combining ability in ground nut *Arachis lypogea*. *Euphytica* 33 : 33-39.
- Ashoka J. and Govindan R.(1990). Heterosis for pupal and related traits in single and double cross hybrids of bivoltine silkworm, *Bombyx mori* L. *Entomon* 15 (2) & (3): 203-206.
- Ayyagari V., Mohapatra S.C., Venkataramaiah A., Thiagasundaram T.S., Chaudhyury D. and Shyam Sunder G (1979). Results of diallel cross with alternative analysis for egg production in chickens. *Indian J. Poult. Sci.* 14 : (supplement.).
- Bandhyopadhyay A.(1990). Utility of diallel mating designs in breeding. *Proc. workshop on biometrical genetics* 7-8 Sept.1990 CSR&TI, Mysore. 22-27.
- Barah A. and Sengupta A. K. (1991). Correlation studies between pupal weight and fecundity of Muga silkworm, *A. assama* W., on four different food plants . *Acta Physiologica .Hungarica* : 78 : (3) : 261-264.
- Bardaiyar V.N., Jolly M.S., Benchamin K.V. and Sinha B.R.R.Pd.(1976). Heterosis in relation to single, three way and double crosses in *Antheraea mylitta* D. *Indian J. Seri.* 15 : 3-8.

- Batra M.L., Krishna S.T. and Chaudhury R.P. (1973). Diallel crossing of WL strains for the estimation of general and specific combining ability variances for the growth and production traits. 3rd All India Poultry Science Symposium, Izatnagan, U.P., India.
- Benchamin K.V., Jolly M.S. and Benzamin D.A. (1988). Studies on the reciprocal crosses of multivoltine and bivoltine breeds in silkworm B. mori L., with special reference to the use of bivoltine hybrid as a male parents. Indian J. Seric. 27 : 27-34.
- **Benchamin K.V. and Krishnaswami S. (1981,b). Studies on the egg production efficiency in silkworm, Bombyx mori L. (ii) Egg production efficiency in hybrid parents and its effective application. "Proc. symp. & seminar" TNAU., Coimbatore. 7-14.
- Bowman C John (1977). Inbreeding and crossbreeding. In. Introduction to animal breeding. second Edition. Edward Arnold. 64.
- **Brandes C. and Moritz R.F.A. (1983). Evolution of the heritability of learning behaviour in Apis mellifera using the proboscis extension reflex. Verh. Dtsch. Zool. Ges. 1983 : 258.
- Brieger F.G. (1950). The genetic basis of heterosis in Maize. Genetics. 35 : 420-445.
- Bruce A.B. (1910). The Mendelian theory of heredity and the augment of vigor. Science. 32 : 627-628.
- Brussard P.F. and Vawater A.T. (1975). Population structure, gene flow and natural selection in populations of Euphydrias phaeton. Heredity. 34 : 407-415.
- Bulmer M.G. (1971). The effect of selection on genetic variability. Am. Nat. 105 : 201-211.

*Burton G.W.(1952). Quantitative inheritance in grasses. Proceedings of the sixth international grassland congress. 1 : 277-283.

Burton G.W. and Devane E.M.(1953). Estimating heritability in tall fescue, Festuca arundinacea, from replicated clonal material. Agron. J. 45 : 478-481.

*Cavalli sforza L.L. and Feldman M.W.(1976). Evolution of continuous variation, direct approach through joint distribution of genotypes and phenotypes. Proc. Natl. Acad. Sci. 73 : 1689-1692.

*Cavalli sforza L.L. and Feldman M.W.(1978). The evolution of continuous variation. III. joint transmission of genotype, phenotype and environment. Genetics. 90 : 391-425.

Chatterjee S.N.(1993). Silkworm breeding in India. Sericologia 33 (3) : 427-447.

Chattopadhyay S., Ghosh B., Rao P.R.T., Sen Sudip, Gupta S.K., Roy G.C., Sen S.K.(1992) Analysis of quantitative traits in some evolved multivoltine silkworm breeds of Bombyx miri L., under two environments. Envi. & ecol. 10 : (4) : 845-848.

Cheverud J.M.(1984). Quantitative genetics and developmental constrains on evolution by selection J. theor. Biol. 110 : 155-171.

Cockerhan C.C.(1954). An extension of the concept of partitioning heredity variance for analysis of covariance among relatives when epistesis in present. Genetics. 39 : 859-882.

Collins A.M., Rinderer T.E., Harbo J.R. and Brown M.A.(1984). Heritabilities and correlations for several characters in the honey bee. J. Hered. 75 : 135-140.

Constock R.F., Kellel T. and Morrow E.B.(1958). Genetic variation in an asexual species, the garded straw berry. Genetics 43 : 634-646.

Comstock R.E. and Robinson H.F.(1948). The concept of genetic variance in populations of biparental progenies and their use in estimating the average degree of dominance. *Biometrics*. 4 : 254-266.

Comstock R.E. and Robinson H.F.(1952). Estimates of average dominance of genes. "Heterosis". IOWA state college press. 495-516.

#

Daly K. and Robson D.S.(1969). Estimates of genetic parameters from hybrid derivative in *Nicotiana*. *Genetics*. 62 : 201-203.

*Dang Din Dan(1982). Vlijanie na chibridizacijata V"vchu osnovnite biologi c ni pokazateli na bubite i osnovnite technologicni kacestva na paskulite i greza pri cernicevata koprinena pe peruda *Bombyx mori* L. *Agricult. Univ. V.Kolorov.Plovdiv*.

Das B.K., Sarkar J., Das C., Das N.K. and Sen S.K.(1995). Seasonal effects on the relative performance of five bivoltine breeds of silkworm, *B. mori* L. in Malda. *Uttar Pradesh J. Zool.* 15 (2) : 91-96.

Das K. and Kumar Hriday(1974). Genetic analysis of total protein content in pea. *Indian J. Genet* : 34 (A) : 777-783.

Das .S.K., S.S. Sinha and Sen S. K. (1993) Bivoltine Silkworm rearing in the plains of West Bengal. *Indian Silk* : 5 : 44-46.

Das S.K., Pattnaik S., Ghosh B., Singh T., Nair B.P., Sen S.K. and Subbarao G.(1994). Heterosis analysis in some three-way crosses of *Bombyx mori* L. *sericologia*. 34 (1) : 51-56.

Datta R.K.(1984). Improvement of silkworm races, *Bombyx mori* L., in India. *Sericologia*. 24 (3) : 393-415.

Datta R.K., and Chatterjee S.N.(1991). Sericulture research and its impact in India. *Sericologia*. 31 (4) : 605-615.

Cunnighum E P (1984). Present and future prospects in animal breeding - In : *Genetics : New frontier proc. XV Int. Cong. Genet.* 4 : 169 - 180. pub. by Oxford & IBH, New Delhi.

- Datta R.K., Das S.K., Pal D.C. and Sengupta K.(1980). Evolution of superior multivoltine breeds through mutation breeding technique. Proc.symp.sericultural Sci. Coimbatore University. 39-42.
- Datta R.K. and Pershad G.D.(1988). Combining ability among multivoltine and bivoltine silkworms Bombyx mori L., hybrids. Sericologia. 28 (1) : 21-29.
- *Davenport C.B.(1908). Degeneration, albinism and inbreeding. Science. 28 : 454-455.
- Debnath S.C. and Sarkar K.R.(1990). Combining ability analysis of grain yield and some of its attributes in maize, Zea mays L. Indian J. Genet. 50 (1) : 57-61.
- Dewey D.R. and Lu K.H.(1959). A correlation and path coefficient analysis of components of crested wheat grass seed production. Agron. J. 51 : 15-518.
- Dickinson A.G and Jinks J.L.(1956). A generalised analysis of diallel crosses. Genetics. 41 : 65-78.
- Dobzhansky Th.(1952). Nature and origin of heterosis. In:Heterosis. IOWA State college press : 330-335.
- Dobzhansky Th.(1953). The genetics of homeostasis in Drosophila Proc. Nat. Acad. Sci. Wash. 39 : 586-591.
- East E.M.(1908). "Inbreeding in Corn". Rept. Connecticut. Agric. Expt. Sta. for 1907 : 419-428.
- East E.M.(1936). Heterosis. Genetics. 21 : 375-397.
- East E.M., Hayes H.K.(1912). Heterosis in evolution and plant breeding. USDA, Bur.Plant Ind.Bull.243, 1-58. In.the relationship of heterosis and genetic divergence in Maiz. R.H.Moll, J.H.Lonnquist, J.velez Fortuno and E.C.Johnson.(1965). Genetics. 52 : 139-144.

- Ehiobu N.G. and Goddar M.E.(1989). Heterosis in crosses between geographically separated populations of Drosophila melanogaster. Theor. Appl. Genet. 80 : 569-575.
- Falconer D.S.(1981). "Introduction to quantitative genetics" second Edition, Longman., New York : 281.
- Fisher R.A.(1918). The correlation between relatives on the supposition of Mendelian Inheritance. Trans. Roy. Soc., Edinb. 52 : 399-433.
- Fisher R.A.(1930). "The genetical theory of natural selection". Clarendon press, Oxford.
- Fisher R.A.(1958). "The genetical theory of natural selection" second Edition. Dover publication, New York.
- Fisher R.A.(1958). Polymorphism and natural selection. J. Ecol. 46 : 289-293.
- Fisher R.A., Immer F.R. and Tedin O.(1932). The genetic interpretation of statistics of the 3rd degree in the study of quantitative inheritance. Genetics. 17 : 107-124.
- **Friars G.W., McLeod D.L. and Lin C.Y.(1983). Pilot organism test of selection systems used in animal breeding. Abstract of contributed papers of XV International Congress of genetics. Part 1.30.
- Gamo Takuma (1981). Recent concepts and trends in silkworm breeding. "Farming Japan. 11-22.
- Gamo T and Hirabayashi T.(1983). Genetic analysis of growth rate, population rate and some quantitative characters by diallel cross in the silkworm, Bombyx mori L. Jap. J. Breed. 33 : 178-190.

- Ghosh B., Chattopadhyay S., Rao P.R.T., Das S.K., Roy G.C., Sen S.K. and Sinha S.S.(1993). Analysis of quantitative traits of multivoltine silkworm, Bombyx mori L. (Lepidoptera : Bombycidae) in varied environments. Uttar Pradesh J. Zool. 13 (1) : 47-51.
- Ghosh B., Das S.K., Nair B.P., Chattopadhyay S., Sen S.K. and Sengupta K.(1994). Some genetic parameters of multivoltine silkworms, Bombyx mori L. Entomon. 19 (3) : 91-93.
- Ghosh B., Das S.K., Nair B.P. and Sen S.K.(1995). Studies on the combining ability by line x tester mating design of mulberry silkworm, Bombyx mori L. Perspectives in Cytology and Genetics (Eds.G.K. manna & S.C. Roy). 8 : 311-319.
- Ghosh B., Das S.K., Rao P.R.T., Sen S.K. and Sinha S.S.(1993). Heterosis effect on multivoltine silkworm hybrids B. mori L suitable to tropics of Eastern India. Environment and Ecology. 11 (3) : 548-552.
- Ghosh B., Rao P.R.T., Sengupta A.K., Sen S.K. and Saratchandra B.(1996). Utilisation of hybrid vigour - An approach. Indian Silk. 4 : 9-12.
- *Giesel J.T., Murphy P.A. and Manlove M.N.(1982). The influence of temperature on genetic inter-relationship of life history traits in a population of Drosophila melanogaster :What tangled data sets we weave. Am. Nat. 119 : 464-479.
- Giridhar Kshama, Nirmal Kumar S., Jula S. Nair and Datta R.K.(1995). Heritability genetic and phenotypic correlation studies on fitness and quantitative traits of bivoltine silkworm, Bombyx mori L. Indian J. Seric. 34 (1) : 122-27.
- Griffing B. (1956, b). Concept of general and specific combining ability in relation to diallel crossing system. Aus. J. Biological Sci. 9 : 463-493.
- Griffing B., Zsiros E.(1971). Heterosis associated with genotype environmental interaction. Genetics. 68.

- Grossman M.(1970). Sampling variance of the correlation coefficient estimated from analysis of variance and covariance. *Theoret. Appl. Genet.* 40 : 357-359.
- Gupta B.K., Deb B., Gupta Y.K. and Sen S.K.(1996). Contribution of silkworm hybrids on commercial cocoon production in West Bengal "Indian Farming", ICAR, New Delhi.7 : 29-30.
- Gupta S.K., Ghosh B., Debnath A.K., Das S.K., Roy G.C., and Sen S.K.(1994). Evaluation of genotypic variation in bivoltine silkworm, Bombyx mori L., in the tropical plains of West Bengal. *Uttar Pradesh J. Zool.* 14 (2) : 143-146.
- Gupta B.K., Kharoo V.K., Sahni M.K. and Singh K.(1992). Superior multi x Bi huybrids of silkworm (Bombyx mori L) for adverse rearing seasons. *Sericologia.* 32 (2) : 209-214.
- Gupta B.K., Verma M., Kharoo V.K., and Singh K.(1992). Promising bi x bi hybrids of silkworm, Bombyx mori L. *Sericologia.* 32 (2) : 197-203.
- Guznov Yu.(1989). *Genetics and Plant breeding for agriculture.* Translated from the Russian by V.Vopyan. MIR Pub. MOSCO.
- Hagberg A.(1952). Heterosis in F1 combinations in galeopsis I and II. *Hereditas. Lund.* 38 : 33-38 & 221-225.
- Hammond K. and Nicholas F.W.(1972). The sampling variance of the correlation coefficients estimated from two fold nested and offspring parent regression analysis. *Theoret. Appl. Genet.* 42 : 97-100.
- Harada C. (1941). On the hybrid effect of economic characters in silkworm. *J. Sericult. Sci., Japan.* 18.
- Harada C., Kumar K., Aoki H. (1961). On the effect of hybrid vigour on the quantitative characters concerned with reeling cocoons. *Acta Sericologia.* 37 : 42-45.

- Harada C.(1952). On the double cross of the silkworm. Japan J. Breed. 2.
- Harada C., Kumar k., Aoki H.,(1961). On the effect of hybrid vigour on the quantitative characters concerned with reeling of cocoons. Acta Sericologia. 37 : 42-45.
- Harada C.(1954). On the three way cross of the silkworms. Japan J. Breed. 3 : 99.
- Harada C.(1961). Heterosis of quantitative characters in the silkworm. Bull. Seric. Expt. Stn. Tokyo. 17 (1) : 50-52.
- Hayman B.I.(1954,a). The analysis of variance and diallel tables. Biometrics. 10 : 235-244.
- Hayman B.I.(1954,b). The theory and analysis of diallel crosses. I. Genetics. 39 : 789-809.
- Hayman B.I.(1958). The theory and analysis of diallel crosses II. Genetics. 43 : 63-85.
- Hazel L.N.(1943). The genetic basis for constructing selection Indexes. Genetics. 28 : 476-490.
- Hirobe T.(1956). An analysis of heterosis made with the silkworm. Proc. Internat. Genet. sympo. suppl. Cytologia : 357-361.
- Hirobe T.(1968). Evolution, differentiation and breeding of the silkworm - the silk road past and present, "Genetics in Asian countries". XII Inter. Cong. Genetics. (Tokyo) : 25-36.
- Hirobe T. and OI H.(1954). On the studies of heterosis in Bombyx mori L. Cytologia. 4 : 1.
- **Hossain M.(1987). Main tenance of local and exotic strains of mulberry silkworm and their cross breeding to develop improved strains/races. Proc. workshop on Bangladesh Agric. Univ. Res. progress : 294-317.

- Hull F.H.(1945). Recurrent selection and specific combining ability in corn. Jour.of Ameri. soci. Agron. 37 : 137-145.
- Jain, J.P.,(1982)Genetic parameters-Heritability, correlation and repeatability. In :Statistical techniques in quantitative genetics. Tata Mc Graw-Hill pub. corp. Ltd.
- Jayaswal K.P., Dash B.D., Sen Sudip K. and Subbarao G.(1990). Genotype x Environment interaction for economic traits in hybrid combinations of silkworm , B. mori L. Recent Trends in sericulture: 103-116.
- Jayaswal K.P., Singh Tribhuvan, Subbarao G.(1991). Effect of female pupal weight on fecundity in mulberry silkworm, B. mori L. Indian J. Seric.: 30 : (2) : 141-143.
- Jeong W.B., Chang K.Y., Han K.S., Kim J.H., Ryu K.D., Chung H.Y. and Ryu S.C.(1986). Genetic analysis by diallel crosses in F1 generation of silkworm , B. mori L. Korean J. Seric. Sci. 28 (1) : 24-29.
- Jinks J.L.(1954).The analysis of continuous variation in a diallel cross of Nicotiana rustica.Genetics. 39 : 767-788.
- Jinks J.L. and Hayman B.I.(1953). The analysis of diallel crosses. Maize Genet. coop. News Lett. 27 : 48-54.
- Johnson L.P.V., Aksel R.(1959). Inheritance of yielding capacity in a fifteen parent diallel cross o of barley. Canad. J. Genet. Cytol. : 1 : 208-265.
- Johnson H.W., Robinson H.F. and Comstock R.E.(1955). Estimates of genetic and environmental variability in soybeans. Agron. J. 47 : 314-318.
- Jolly M.S.(1983). Silkworm breeding in India. Lead paper: In:Silkworm genetics and breeding session at Nat.seminar Silk research. Dev.,Bangalore. 1-9.

- Jolly M.S.(1987). Why three-way crosses ? Indian silk. 26 (5) : 78.
- Jolly M.S., Bardaiyar V.N., Narasimhanna M.N. and Rajdan J.L.(1969). Diallel cross analysis of quantitative characters of four races of Indian tasar silkworm, A. mylitta D. Indian J. Seric. 8 : 25-33.
- Jolly M.S., Bardaiyar v.N., Sinha S.S. and Rajan J.L.(1972). Performance of the four races of A. mylitta D. in relation to triallel crossing system. Indian J. Seric. 11 : 58-62.
- Jolly M.S., Sen S.K. and Ahsan M.M.(1974). "Tasar culture". Bombay, Ambika Publisher. : 252.
- Jolly M.S., Subba Rao S. and Krishnaswami S.(1965). Effect of genetic diversity on hybrid performance in multivoltine Indian Silkworm. Indian J. Seric. 4 : 9-12.
- Kadapa S.N., prajapati R.M. and Abraham E.S.(1989). Heterosis and line tester analysis in Gossypium barbadense cotton II. Fibre quality. Indian J. Genet. 49 (3) : 369-374.
- Kadapa S.N. and Prajapati R.M.(1990). Heterosis and line x tester analysis of intra - Gossypium barbadense hybrids I. yield, plant carnopy and Earliness. Indian. J. Genetc. 50 (4) : 320-328.
- Kamili A.S., Trag A.R. and Masoodi M.A.(1995). Cause & effect relationship of various quantitative traits in bivoltine silkworm, B. mori L. In: Proceedings for training course in sericulture. Vol.III. part-2 by UGC, New Delhi:603-607.
- Kantaratanakul S., Tharvornanukerlkit C., Wonthong S., Chareonging S., Campiranon A. and Saksoong P.(1987). Combining ability of single cocoon filament length in F1 multivoltine and bivoltine silkworm hybrids. Sericologia. 27 (3) : 463-470.

- Kearsey M.J. and Jinks J.K.(1968). A general method of detecting additive, dominance epistatic variation for metric traits.I. theory, Heredity.23 : 403-410.
- Keeble F. and Pellew C.(1910). The mode of inheritance of stature and time of flowering in peas, Pisum sativum. J. Genet. 1 : 47-56.
- *Kempthorne O.(1954). The correlations between relatives in a random mating population. Proc.Roy Soc.London B. 143 : 103-113.
- Kempthorne O.(1956). The theory of diallel cross.Genet. 41 : 103-113.
- Kempthorne O. (1957). An Introduction to genetic statistics. New York. John wiley & sons, Inc; London : Chapman & Hall, Ltd.
- knight R.(1973). The relation between hybrid vigour and genotype and environmental interaction. Theo. Appli. Genet. 43 : 311-318.
- Kotikal Y.K., Reddy D.N.R., Prabhu A.S., Bhat G.G. and Pushpalatha S.(1989). Relationship between pupal size and egg production in eri silkworm, Samia cynthia ricini Lepidoptera : Saturniidae. Indian J. Seric. XXVIII.(1) : 80-82.
- Krishnaswami S.(1978). New technology of silkworm rearing. Bulletin 2, CSR&TI, Mysore : i-10.
- Krishnaswami S.(1979). Improved method of rearing young aged (Chawki) silkworm. Bulletin 3.,CSR&TI, Mysore : 23.
- Krishnaswami S., Jolly M.S. and Subbarao G.(1964). Diallel analysis of quantitative characters in multivoltine races of silkworm. Indian J. Genet. 24 (3) : 213-222.
- Kumar P., Bhutia R. and Ahsan M.M.(1994). Combining ability analysis for filament length and some quantitative traits in bivoltine mulberry silkworm, B. moriL. Indian J. Genet. 54 (3) : 253-257.

- Kumar P., Kapoor R.L., Das S. and Chandra S. (1977). Genetic analysis for yield components in pearl millet. Indian J. Agric. Res. 11 : 210-214.
- Kumar Ajay, Singh D.P. and Singh B.B. (1994). Combining ability and heterosis for protein and methionine content in lenticeal, Lens culinaris. Indian J. Genet. 54 (2) : 197-204.
- Lal Shridhar and Seth Jitendranath (1981). Studies on combining ability in straw berry, *Fragaria x ananassa*. I. No. of inflorescence, No. of flowers, days to maturity and number of fruits. Can. J. Genet. Cytol. 23 : 373-378.
- Lal Shridhar and Seth Jitendranath (1982). Studies on combining ability in straw berry, *Fragaria x ananassa*. II Fruit length fruit diameter, fruit weight, ascorbic acid, total soluble solids and fruit yield. Can. J. Genet. Cytol. 24 : 479-483.
- Lande R. (1982). A quantitative genetic theory of life history evolution. Ecology. 63 : 607-615.
- Legay J.M. (1961). Etude de la stabilite' d' une correlation entre deux caracteres quantitatifs. Ann. Epiphytics. 12 (4) : 381-391.
- Lerner I.M. (1954, a). The genotype in Mendelian populations Proc. 9th Int. Congr. Genetics : 124-128.
- Lerner I.M. (1954, b). "Genetic homeostasis" Oliver and Boyd, Edinburgh.
- Li W. (1992). Genetic path network among quantitative characters in Bombyx mori L., Sericologia. 32 (4) : 543-548.
- Long Daun Jia. (1987) Studies on the combining ability of some quantitative characters of B. mori L., J. Agr. College, (4) : 42-48.
- Long N.V. and Petkov N. (1987). Breeding genetic studies in some silkworm breeds. I variability and correlations of quantitative characters. Genet. Sel. 20 (1) : 58-62.

- Lush J.L.(1935). Progeny test and individual performance as indicators of an individual's breeding value. *J. Dairy Sci.* 18 : 1-19.
- *Lush J.L.(1940). Intrasire correlations or regressions of offspring on dam as a method of estimating heritability of characteristic. *Proc. Amer. Soc. Anim. Prod* : 293-301.
- Lush J.L.(1947). Family merit and individual merit as basis of selection. *Amer. Natur.* 81 : 241-261.
- *Lush J.L.(1949). Heritability of quantitative characters in farm animals "Proc. 8th Int.Cong. Genet". *Suppl.Vol.Hereditas* : 356-375.
- Lush J.L.(1949). *Animal breeding plans*. 3rd edn. The Collegiate Press., IOWA, USA.
- Mackay T.F.C.(1981). Genetic variation in varying environments. *Genet. Res.* 37 : 79-93.
- Masilamani S., Thiagarajan V., Chauhan, T.P.S. and Lakshmanan V.(1995). Variation and association of quantitative traits in silkworm *B. mori* L. In: proceedings for training course in sericulture.Vol.III Part-2 by UGC, New Delhi : 593-602.
- Mather K.(1949). "Biometrical genetics" Dover Publication, New York.
- Mather K.(1956). Response to selection cold spring Harbor symposia on quant.Biology. 20 : 158-165.
- Mather K. and Jinks J.L.(1971). *Biometrical genetics.*" 3rd Edition, chapman and Hall Ltd., London.
- Midarikawa, E. and Yokozuka S.(1988). On the breeding and characteristics of a silkworm hybrid "Honen x Kenpaku" for summer and autumn rearing. *Reports Silk Sci. Res. Inst. Jpn.* 36 : 27-40.

- Miller A.T., Cooper W.J. and Highfill J.W.(1982). Relationship between pupal size and egg production in regard female Antheraea polyphemus. Ann. Entomol. Soc. Am. 75 : 107-108.
- Mode C.J. and Robinson H.F.(1959). Pleiotropism and the genetic variance and covariance. Biometrics. 15 : 518-537.
- More T.A. and Wallace D.H.(1987). Combining ability and heterosis studies using self-in-compatible lines in cabbage Brassica oleracea var. capitata L. Indian J. Genetc. 47 (1) : 20-27.
- *Moritz R.F.(1985). Heritability of the post capping stage in Apis mellifera and its relation to varroaosis resistance J. Herd. 76 : 267-270.
- Mousseau T.A. and Roff D.A.(1987). Natural selection and the heritability of fitness comports. Heridity 59 : 181-197.
- Mukherjee P., Raina S.K., Purohit C.K. and Sumbli S.N.(1994). Gene action studies in the multivoltine silkworm, Bombyx mori L. Sericologia. 34 (4) : 653-661.
- *Murphy P.A., Giesel J.T. and Manlove M.N.(1983). Temperature effects on life history variation in Drosophila simulans. Evolution. 37 : 1181-1192.
- Nacheva I.(1980). Heterosis effect on some technological qualities of cocoon and silk fibre of Bombyx mori L. newly evolved hybrids. Zhivotonov. Nanki. 17 : 88-94.
- **Nagaraj J., Basavraj H.K., Iyengar M.N.S., Kshamarani, Naseema Begam (1983). Combining ability studies in bivoltine strains of silkworms, Bombyx mori L. National seminar on silk research and development. 10-13th. March. Bangalore. 65-67.
- Nagaraja M. and Govindan R.(1994). Genetic analysis of seed technological traits by diallel cross in the Eri silkworm, Samia cynthiaricini, Biosdural. Sericologia. 34 (2) : 333-337.

- Nagaraju J. Urs Raje and Datta R.K.(1996). Cross breeding and heterosis in the silkworm, Bombyx mori L., - A review. Sericologia. 36 (1) : 1-20.
- Nanavaty, Mahesh M.(1965). World trade in raw silk. In: Silk from Grub to Glamour. Paramount Publishing house, Bombay : 3 :129 - 131.
- Narasimharaju R., Govindan R., Asokan J. and Rayer S.G.(1990). Genetic variability for quantitative traits in silkworm Bombyx mori L. Entomon. 15 : 197-201.
- Nassirillaev U.N. and Abbasov B.G.(1980). Ocenka additivnoi i neadditivnoi nasleduyemosti khozyaystve nno - cennykh prizna kovto tovogo shelko - pryada ma osnove polyallelnykh sparivanyi shelk. 91 (4) : 10-11.
- Nataraj N. and Ganesh N.K.(1969). Variability and inter relationship between cocoon weight and shell weight in different breeds of silkworm, B. mori L. Silkworm information Bull. 1 : 85-94.
- *O'Donald, P.(1967).On the evolution of dominance overdominance band balanced polimorphism . Proc. Roy Soc. B.,168 : 216 - 228.
- **Ol droyd, B.P. and Moran, C.(1983) weight gain of a 9 x 9 partial diallel cross of Honey bee, Apis mellifera colonies. Abstracts of contributed papers of "XV International congress of genetics".Delhi. part 1. : 39.
- Orozco(1976). Heterosis and genotype-environment interaction. Theo.& Expt.aspects. Bull. technique, department de genetique animale. INRA. 24 : 43-52.
- Osawa, K. and Harada, C.(1944). Studies of the F1 hybrids of the silkworm. III. On the effect of heterosis. Bull.seric. Expt. stn., Japan. 2 : 183 - 211.
- Oshiki, T. and Sato, Y.(1986). Relationship between egg size and menifestation of quantitative characters in Bombyx mori L. J. Seric. Sci.Jpn. 55 (5) : 410 - 414.

- Ozdzenska B. and Krenky J.(1987). Estimation of heritability and genetic, phenotypic and environmental correlations in outbred population of mulberry silkworm, Bombyx mori L. Sericologia : 27 : (4) : 633-638.
- Panse V.G.(1957). Genetics of quantitative characters in relation to plant breeding. Indian J. Genet. 17 : 318-328.
- Pati S.K., Mohapatra S.C., Sinha P.S., Ahuja S.D., Saxena S.C. and Sharma R.P.(1975). Gene effects influencing the broiler traits in chicken as estimated from diallel mating system. Indian J. Poult. Sci. 10 : 225-234.
- Pathak H.C. Dixit S.K. and Patel P.G.(1989). Line x tester analysis for seed yield and its components in castor, Ricinus communis L. Indian J. Genet. 49 (1) : 125-129.
- Pershad G.D., Datta R.K., Bhargava S.K., Vijay Kumar H.V. and Jolly M.S.(1986). Combining ability analysis in multivoltine races of Bombyx mori L. Sericologia. 26 : 307-315.
- Petkov N.C.(1980). A new highly productive hybrid silkworm, Bombyx mori L. for Summer fall feedings. Animal Sci. 17 (6) : 107-111.
- Petkov N.(1981,a). Variability and correlations between some characteristic features of silkworm, Bombyx mori L. Thivotnov Dnauki. 18 (3) : 83-86.
- Petkov N.(1981,b). Variability and correlations between some characteristic features of silkworm, Bombyx mori L., Genet.Sel. 12 (4) : 286-291.
- Petkov N and Yolov A.(1979). The problem of genotyp - environment interaction and inheritance of some characters of Bombyx mori,L. I. Effect of nutrition. Genet. & Plant breed. 12 (2) : 136-139.
- Petkov and Yolove A.(1979). Influence of cocoon size and weight on heterosis effect in silkworm Bombyx mori L., Genet.Sel. 12 286-291.

- Petkov N and Yolov A.(1980). The problem of genotype environment interaction and inheritance of some characteristic of *B.mori* L. II. Effects of the seasons of silkworm feedings. *Genet. & Plant Breed* .13 (1) : 62-66.
- Price G.R.(1970). Selection and covariance. *Nature*. 227 : 520-521.
- *Pyle D.W. and Gromko M.H.(1981). Genetic basis for repeated mating in *Drosophila melanogaster*. *Am. Nat.* 117 : 133-146.
- Rajanna G.S. and Srerama Reddy G.(1990). Studies on the variability and inter-relationship between some quantitative characters in different breeds of the silkworm, *Bombyx mori* L. *Sericologia*. 30 (1) : 67-73.
- Rajan J. L., Siddiqui A. A., Bali R. K. & Mukherjee P.(1994) Identification of region specific silkworm, *Bombyx mori* L., hybrids. *Sericologia*. 34 (4) : 641-648.
- Raju R.N., Govindan R., Rayer S.G. and Ashoka J.(1958). Heterosis for larval traits in single and three-way cross hybrids of silkworms. *Environ. Ecol.* 6 (4) : 799-801.
- Ramanujan S. and Rohewal S.S. and Singh S.P.(1964). Potentials of heterosis breeding cicev. *Indian. J.Genet.* 24 : 122-129.
- Ramesh M.S., Patil S.J., Gond J.V., Patil S.S.(1990). Correlation, combining ability and heterosis studies on husk number and shank length in maize. *Indian J. Genet.* 50 (4) : 338-341.
- Rao P.R.T., Ghosh B., Chattopadhyay, Nair B.P., Das S.K., Roy G.C. and Sen S.K.(1992). Variation in the performance of some indigenous multivoltine mulberry silkworm breeds of *Bombyx mori* L. in two environments. *Uttar Pradesh J. Zoo.* 12 (2) : 133-139.
- Rayar S.G. and Govindan R.(1990). Performance of some single and three-way cross hybrids of silkworm, *Bombyx mori* L. for larval traits. *Entomon.* 15 (3) & (4) : 183-186.

- Rayar S.G., Govindan R., Narashimharaju. R. and Ashoka J.(1988). Comparative performance of silkworm single and three-way cross hybrids for pupal traits Environ. Ecol. 6 (4) : 840-842.
- **Reddy K.A. and Mohapatra S.C.(1975). General combining ability specific combining ability and reciprocal effects for egg production traits in chickens. 4th All India Poultry Science Symposium, Bhubaneswar, Orissa.
- Reeve E.C.R.(1953). Studies in quantitative inheritance.III Heritability and genetic correlation in progeny tests during different mating systems. J. Genet. 51 : 520-542.
- Robinson P.(1966). Quantitative genetics in relation to breeding on the centennial of Mendelism. Proc.Symposium.Impact of Mendelism. Indian J. Genet. 26A : ICAR : 171-187.
- Robinson H.F., Comstock R.E. and Harvey P.H.(1949). Estimates of heritability and the degree of dominance in corn. Agron. J. 41 : 353-359.
- Roff D.A. and Mosseau T.A. (1987). Quantitative genetics and fitness. Lessons from Drosophila. Heridity. 58 : 103-118.
- Rose M.R.(1984). Genetic covariation in Drosophila life history. Untangling the data. Am. Natu. 123 : 565-569.
- Rose M.R. and Charlesworth B.(1981). Genetics of life history in Drosophila melanogaster. I. Sib analysis of adult females. Genetics. 97 : 173-186.
- Roy T.C., Kumar J. and Pant K.P.(1980). Genetic variability in growth rate of broiler chickens in a 3x3 diallel cross. J. Res. Assam. Agri. Univ. 1 (2) : 129-133.
- Ruban P.S., Cunningham E.P., Sharp P.M.(1988). Heterosis and nutrition interaction in Drosophila. Theo.Appl.Genet. 76 : 136-142.
- Safuji (1983). Monogram . Silkworm breeding in China. Sen. Trng. Centre Guyango chan, China.

- Samachary, Samson M.V. and Krishnaswami S. (1980). Some useful correlation studies of silkworm and its products such as cocoon, pupa shell and egg wt. *Ind. J. Seric.* XIX. 4-8.
- Sang J.H. (1964). Nutritional requirements of inbreed lines and crosses of Drosophila melanogaster. *Genet. Res.*, 5 : 50-67.
- Sanjeev Gupta, Ahmed Ziauddin and Gupta R.B. (1989). Combining ability in bread wheat. *Indian J. Genet.* 49 (1) : 25-28.
- Santiago E. Diminguez A., Albornoz J., Pineiro R., Izouierdo J.I. (1989). Environmental sensitivity and heterosis for egg laying in Drosophila melanogaster. *Theor. Appl. Genet.* 78 : 243-248.
- Sarkar D.C. (1977). Sericulture and silk industry in India. Published in the "Bulletin of Indian Museum", Calcutta.
- Sarkar A. Das N.K. and Das B.C. (1991). A diallel cross analysis of the cocoon weight in the silkworm, Bombyx mori L. *Sericologia.* 31 (2) : 301-306.
- Satenahalli, S.B. Govindan R. and Goud J.V. (1989). Genetic analysis of some quantitative traits by diallel cross in silkworm, Bombyx mori L. *Sericologia.* 29 (3) : 333-342.
- Satenahalli S.B., Govindan R. and Govd. J.V. (1990). Studies on gene action for some quantitative traits in Silkworm, Bombyx mori L. *Entomon.* 15 (3) : 227-230.
- Sen S.K., Das S.K., Rao P.R.T., Ghosh B., Das N.K. Chattopadhyay, S., Roy G.C. and Sinha S.S. (1995). Studies on some important genetic parameters in silkworm Bombyx mori L. *Indian J. Genet.* 55 (3) : 238-242.
- Sen S.K., Nair B.P., Das, S.K., Roy G.C., Ghosh G., Rao P.R.T., and Sinha S.S. (1996). Relationship between the degree of heterosis and genetic divergence in the silkworm, Bombyx mori L. *Sericologia.* 36 (2) : 215-221.
- @Sen S K (1993). On some aspects of improvement of mulberry silkworm, Bombyx mori L. Ph. D. Thesis. Ranchi University, Ranchi (Bihar), India.

- Sen S.K., Sengupta A.K., Das M.G. Jolly, M.S.(1976). Studies on the genetic variability, correlations, path co-efficient analysis and discriminant functions in Antheraea mylitta D. Indian J. Serc. 15 : 9-14.
- Sengupta K.(1987). Mulberry sericulture in the Eastern and North Eastern Region problems and prospects. Seminar on: Prospect of mulberry sericulture in the Eastern region of India. held between 5th & 6th May, '87. Berhampore : 1-18.
- Sengupta K.(1991). Silkworm breeds Bombyx mori L. under maintenance in India - their characterization and analysis with regard to genetic uniformity stability and problems of deterioration faced, if any. (A technical report). prepared on behalf of FAO.
- Sengupta A. K. (1991). Population variability and genetic architecture of A. mylittaD. Ph.D. thesis. Ranchi University Ranchi.
- Sengupta K. Datta R.K., and Biswas S.N.(1974). Effect of multiple crossing on the population pattern of the progeny in silkworm. Indian J.Genet. 34A (Sabrao Proc) : 241-248.
- Sengupta K., Datta R.K., Biswas S.N. and Singh B.D.(1971). Studies on the heterosis in multivoltine silkworm, Bombyx mori L. I.Yield performance of F₁ hybrids of Nistari and four evolved multivoltine breeds. Indian J. Seri. 10 : 6-13.
- Sengupta A. K., Siddiqui A.A., Dasmohapatra D.P., Kumar P. and Sengupta K.(1987). Studies on the potentials of heterosis in tropical tasar Antheraea mylitta D. Sericologia. 27 (3) : 519-524.
- Sengupta K., Yusuf M.R. and Grover S.P.(1974). Hybrid vigour and genetic analysis of quantitative traits in silkworm. Indian J. of Genet. 34 (A) : 249-256.
- Sercice, P.M. and Rose M. R.(1985). Genetic covariation among life history components : the effect of novel environments. Evolution. 39 : 943-945.

- Sharma G.S. and Singh R.B.(1975). Genetic of adult plant leaf-rust reaction in bread wheat. *Indian J. Genet.* 35 (1) : 139-145.
- Shaheen afifa A., Trag Rashid, Nabi GH. and Ahamad Fayal(1992). Correlation between femal pupal weight and fecundity in bivoltine silkworm, *Bombyx mori* L. *Entomon.* 17 : (1) : (2) : 109-111.
- Sheridan A.K.(1988). Agreement between estimated and realised genetic parameters. *Animal breeding abstracts. CAB International.* 56(II) : 877-889.
- Shull G.H.(1909). A pure line method of corn breeding. *Rept. Amer.,Breeder's Assoc.* 4 : 296-301.
- Siddiqui A.A. and Sengupta A.K.(1993). Hybrid performance of Tasar in field. *Indian Silk* : 39-42.
- Siddiqui A.A. and Sengupta A.K.(1994). Genetic variavility in technological characters - First report in *A. mylitta* D. *Sericologia* : 34: (1) : 149-154.
- Siddiqui A.A., Debnath A.K. and Sengupta A.K.(1983). A study of genetic variability of some economic traits in *A.mylitta* D. *Proc. National Seminar on Silk Res. & Development* : 40
- Siddiqui A.A., Sengupta A.K. and Sengupta K.(1985). Variability and correlation studies of shell weight and their contributing traits in *A. mylitta* D. *Sericologia.* 25 : 45-50.
- Siddiqui A.A., Sengupta A.K., Kumar A. and Sengupta K.(1988,b). Genotypic and phenotypic variability of some quantitative characters in *Antheraea mylitta* D. *Sericologia.* 28 : 187-192.
- Siddiqui A.A., Sengupta A.K., Dasmahapatra D.P., Ajit Kumar and Goel A.K.(1989). Direct and indirect effect of some quantitative traits on silk yield in *A. mylitta* D. *Sericologia.* 29 (2) : 205-207.

- Siddiqui A.A., Sengupta A.K., Kumar A., Dasmohapatra D.P. and Sengupta K.(1988, a). Studies on the genetic architecture and gene actions involving yield and yield components in diallel population of tropical tasar Silkworm, A. mylitta D. Sericologia. 28 (1) : 107-113.
- Siddiqui A.A., Sengupta A.K., Dasmahapatra D.P., Kumar A. and Sengupta K.(1988, b). Genetic analysis of yield and yield components in Antheraea mylitta D. Indian J. Seric. XXVII. No. 2 : 78-84.
- Siddiqui A.A., Sengupta A.K., Dasmahapatra D.P. and Sengupta K.(1989). Coheritability and correlation of different quantitative characters of A. mylitta D. Sericologia. 29 (2) : 211-214.
- Siddiqui A.A., Sinha M.K. and Dasmahapatra D.P.(1996). Genetical traits of cocoon quality in Antheraea mylitta D. Sericologia 36 (2) : 271-278.
- Singh Tribhuwan, Chandrashekharaiiah and Samson M. V. (1994). Selection stratigies in relation to correlation and heritability in silkworm, B. mori L. Bull. Sericulture. Res. 5 : 37-41.
- Singh R.K., Chaudhury B.D.(1979). Line x tester analysis In: Biometrical method, in quantitative Genetic analysis. Kalyani Publishers, New Delhi. India. : 191-200.
- Singh C.P., Hirobe T.(1964). Studies on the hybrid vigour of back crosses in the silkworm with special reference to the corsses (Tropical x Japanese) under different rearing temperatures. Bull. Fact. Agric. (Tamagawa Univ.). 12 : 45-53.
- Singh K.B. and Jain R.P.(1971). Analysis of diallel cross in Phaseolus aureus.Roxb. Theor. Appl. Genet.,41 : 279-281.
- Singh R.P., Kumar J. and Balaine D.S. (1980). A study on the combining ability of four egg laying chickens. Haryana Argr. Univ. J. Res. 10: 303-308.

- Singh Ravindra, Nagarajan J. Rammoan Rao P., Premlatha V., Vijayaragavan K. and Gupta S.K.(1990). Heterosis analysis in the silkworm, Bombyx mori L. *Sericologia*. 30 (3) : 293-300.
- Singh R.Y. and Prasad B.(1987). Correlation among body weight pupal weight and fecundity in Eri silkworm Philosamia ricini Hutt.(Lepidep. Saturniidae). *Sericologia*. 27 (1) : 49-60.
- Singh R.B. and Sharma G.S.(1976). Induced polygenic variations in relation to gene action for yield and yield components in spring wheat. *Cand. J. Genet. Cytol.* 18 : 217-223.
- Singh M.N. and Singh R.B.(1990). Estimation of additive, dominance and digenic epistatic interaction effects for certain yield characters in pea. *Indian J. Genet.* 50 (4) : 348-353.
- Singh O.P. and Singh R.B.(1980). Combining ability of yield and some quality traits in peas Pisum sativum L. *Z. pflanzenzuchtg.*, 84 : 133-138.
- Singh F., Singh R.K. and Singh V.P.(1974). Combining ability studies in pearl millet, Pennisetum typhoides. *Theor. Appl. Genet.* 44 : 106-110.
- Sinha Ajit Kumar, Siddiqui A.A., Sengupta A.K., Sharma K.K. and Sinha B.R.R.Pd.(1993). Genetic variability in Tasar silkworm Antheraea mylitta D. J. *Cytol. Genet.* 28 : 77-80.
- *Slatkin M.(1970). Selection and polygenic characters. *Proc.Natl. Acad. Sci.* 66 : 87-93.
- *Slatkin M.(1982). Pleiotropy and parapatric speciation. *Evolution* 36 : 263-270.
- Sohn K.W.(1987). The genetic analysis of quantitative characters in the silkworm by diallel cross of four inbreed lines differing in silk yield. *Korean. J. Seri. Sci.* 29 (2) : 7-14.

*Sorenson D.A. and Hill W.G.(1982). Effect of short term direction selection on genetic variability : Experiments with Drosophila melanogaster. Heredity. 48 : 27-33.

Sorenson D.A. and Hill W.G.(1983). Effects of disruptive selection on genetic variance. Theor. Appl. Genet. 65 : 173-180.

Sprague G.F. and Tatum L.R.(1942). General vs specific combining ability in single cross of corn. J. Amer. Soc. Agron. 34 : 923-932.

Strunnikov V.A.(1986). Nature of heterosis and combining ability in the silkworm. Theor. Appl. Genet. 72 : 503-512.

**Subbarao G.(1983). Line x tester analysis of some characters in bivoltine silkworm. National Seminar on Silk research & dev.. 10-13 march, Bangalore. Abs.15.

Subba Reddy B.V. & Gangaprasad Rao N.(1971). Genetic analysis of some exotic Indian crosses in sorghum V. character association and response to selection in advanced generation progenies. Indian J. Genet. 31 (3) : 510-520.

Subbarao G. and Sahai V.(1989). Combining ability and heterosis in bivoltine strains of silkworm, Bombyx mori L. Uttar Pradesh J. Zool. 9 (2) : 150-164.

Subbarao G. Das S.K. and Ghosh B.(1989). Heterosis effect on some new silkworm hybrids evolved by three-way cross. Perspective in Cytology and genetics. eds.G.K.Manna and U.Sinha. 6 : 373-378.

Subbarao G., Das N.K., Das S.K.(1991). Genetic divergence among fifteen multivoltine genetic stocks of silkworms, Bombyx mori L. Indian J. Seric. 30 (1) : 72-74.

Subbarao G., Sen S.K., Ghosh B., and Das S.K.(1992). Heterosis in some hybrids of indigenous and bivoltine races of mulberry silkworm, B. mori L. Perspective in Cytology and Genetics. 7 : 1043-1054.

- Suryanarayana N., Sengupta K., and Brahmachari B.N.(1987). Heterosis and combining ability in Indian Tasar silkworm. Antheraea mylitta D. Sericologia. 27 (4) : 701-709.
- *Tallis G.M. 1959). Sampling errors of genetic correlation coefficients calculated from analysis of variance and covariance. Aust. J. statis. 1 : 35-43.
- *Tantawy A.O. and El - Helw M.R.(1966). Studies on natural populations of Drosophila melanogaster. Genetics. 53 : 97-110.
- *Tantawy A. O. and Rakha F.A.(1964). Studies on the natural populations of Drosophila. IV Genetic variance of correlations between four characters in D. medianogaster and D. simulans. Genetics. 50 : 1349-1355.
- Tayade, D.S.(1987). Heterosis effect on economic traits of new hybrids of silkworm, Bombyx mori L. under Marathwada conditions. Sericologia. 27 (2) : 301-307.
- Tayade D.S.(1987). Performance of different races of silkworm Bombyx mori L. under Marathnada conditions. Sericologia. 27 (3) : 381-389.
- Tayade D.S.(1989). Genetic architecture of economic traits in some strains of mulberry silkworms, Bombyx mori L. 1. Combining ability analysis. Sericologia. 29 (1) : 43-60.
- Toyama K.(1920). Studies on hybridology of insects on some crosses with special reference to mendel's law of heridity. Bull. Coll. Agri. Tokyo Univ. 7 : 259-393.
- Tomar S.K. and Singh S.P.(1992). Combining ability analysis over environments in Asiatic cotton, Gossypinu arboreum L. Indian J. Genet. 52 (3) : 264-269.
- Isocheva K.(1931). Genetic structure of out breeding and in breeding Bombyx populations concerning the index of the cocoon. Genet. and Plant Breed : 379-385.

- Tyagi C.S., Paroda R.S., Arora N.D. and Singh K.P. (1975). Heterosis and combining ability in pearl millet. *Indian J. Genet.* 35 : 403-408.
- Tyagi C.S., Paroda R.S., Arora N.D. and Singh K.P. (1978). Combining ability analysis in pearl millet *Pennisetum typhoides* S & H. *J. Res. Haryana. Agri. Univ.* 8 : 147-153.
- Tysdal H.M., Kiesselbach T.A. and Westover H.L. (1943). Alfa alfa breeding. *Nebr. Agric. Exp. Sta. Res. Bull.* 124 : 1-46
- Tzenov P., Petcov, N. and Natcheva Y. (1992). Studies on heterosis expression and degree of dominance displayed for some quantitative traits charactering the food utilization in F₁ crosses between Japanese & chinese Bivoltine races of silkworm. *Sericologia.* 34 (2) : 421-429.
- Verhalen L.M and Murray J.C. (1969). A diallel analysis of several fibre property traits in upland cotton. *Gossipum hirsutum*. *Crop. Sci.* 9 : 311-315.
- Verma V.S. (1974). Genetic analysis of forage yield in pearl millet, *Pennisetum typhoides* Burm S & H. Ph.D. Thesis. IARI, New Delhi.
- Vijay Raghavan K. and Das P.K. (1992). Studies on heterosis and combining ability in some multivoltine and bivoltine breeds of the silkworm, *Bombyx mori* L. *Indian J. Seric.* 31 (1) : 77-80.
- Weiguang wu and Shixian Liu (1992). The present status and development of the tropical and subtropical sericulture. Proceedings of XIX. International congress of Entomology, Beijing : 1-4.
- Whaley, W.A (1952). Physiology of gene action in hybrids. In: "Heterosis." IOWA. State College Press : 98-113.
- Williams W. and Gilbert N. (1960). Heterosis and inheritance of yield in tomato. *Heridity.* 14 : 133-151.

- Wood D. and Ringo J. M. (1982). Artificial selection for male wing display in Drosophila simulans. Behav. Genet. 12 : 449-458.
- Wright S. (1921). Correlation and causation. J. Agric. Res. 20 : 557-585.
- Wright S. (1935). The analysis of variance and correlation relatives with respect to deviations from an optimum. J. Genet. 30:243-256.
- Yan L.L. (1983). Estimates of heritability and genetic correlation of pupal weight, cocoon shell weight and egg number and path analysis in silkworm, Bombyx mori L. Sci. of Seric. 9 (3) : 149- 155.
- Yan X. (1989). Path analysis of some quantitative characters in silkworm, Bombyx mori L. Canye Kexue. 14 (1) : 21-24.
- Yang M. (1987). A network of genetic path of some quantitative characters in the silkworm, Bombyx mori L. Canye Kexue. 13 (4) : 213.
- Yokoyama Tadao (1956). On the application of heterosis in Japanese sericulture. Proceedings of the International Genetics Pub. in Suppl. Volume of Cytologia.: 526- 531.
- Yokoyama T. (1973). Utilization of heterosis in Japan sericulture. Indian J. Genet. 34A : 206-210.
- Yokoyama T. (1974). Utilization of heterosis in Japanese Sericulture. Indian J. Genet. Sabrao. 34A : 206-210.
- Zhu S. (1986). Studies on the utilization of the hybrid vigour of Eri silkworm. Canye. Kexue. 12 (1) : 52.