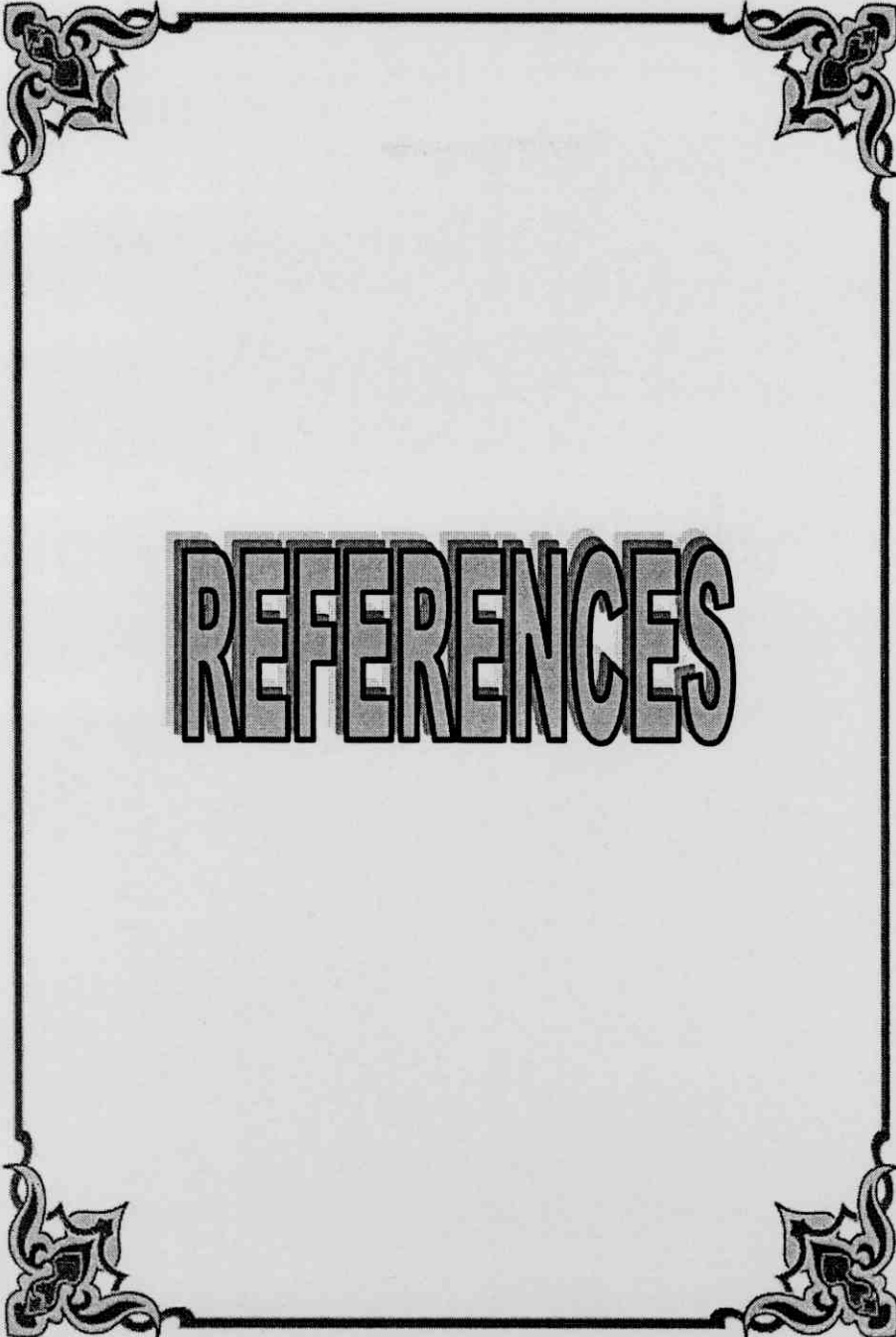




REFERENCES

REFERENCES

- Abd El-Fattah, M. M.; Algauhari, A. E. I.; and Rostom, Z. M. F. (1972):**"Some enzymes in the hemolymph of pectino *Phora gossypiedda* during Induction and Termination of diapause". *J. comp. Physiol.* 7 (1):20-24.
- Ahmed, S. (1993):**"Effect of nitrogen, phosphorus and potassium treated mulberry leaves on larval development and silk yield of *Bombyx mori* L". M.Sc. Thesis, Dept. Agric. Entomol., Univ. Agric., Faisalabad, Pakistan. (132).
- Alagumalai, K.; Romaraj, R.; Thiuvalluvan, M., Nagendran, N. and Ranjaly, R. (1991):** "Effect of antibiotics on larval, cocoon characters and fecundity of silkworm, *Bombyx mori* L.". *Environ, Ecology*, 9 (3): 795-796.
- Alvarez, R. J. A. (1993):** "Biology of silkworm *Bombyx mori* L. (Lepidoptera; Bombycidae)". *Revista colombiana de Entomologia*, 19 (4):119-122.
- Anderson, B. A.; Holman, R. T.; Lundgren, L. and Stenhagen, G. (1980):** "Capillary gas chromatography of leaf volatiles. A possible aid to breeders for pest and disease resistance". *J. Agric, Food Chem.*, 28: 985-989.
- Anonymous (1992):** "Principles and practices in sericulture". sericulture Experiment Station, Rural Development administration (RDA), Republic of Korea.

- Babu, M.; Swamy, M.; Rao, P. and Rao, M. (1992):** "Effect of ascorbic acid- enriched mulberry leaves on rearing of *Bombyx mori*, L.". *India J. Seric.* 31: 11-114.
- Banerjee, S. and Khan, A. (1992):** "Effect of vitamin B₆ on the fecundity of *Bacillus Thuringiensis* var. Kurstaki treated *Bombyx mori* L." *Bangladesh J. Zool.* 20: 361-362.
- Bhattacharya, A. and Kaliwal, B. B. (2005):** "Synergetic effects of potassium and magnesium chloride biochemical contents of the silkworm, *Bombyx mori* L." *Cyprian J. Env. Sci.* 3 (1): 15-21.
- Bheemanna, C.; Govindan, R.; Ashoka, J. and Narayanaswamy, T. K. (1990):** "Growth indices for NB7 breed of silkworm *Bombyx mori* L. on some Mulberry varieties". *Environment and Ecology*, 8 (3): 816-888.
- Bohidar, K.; Choubey, M. and Sahoo, B. (2004):** "Preliminary studies on the effect of the medicinal plant extracts on Eri silkworm, *Samia Cynthia ricini* (Boisd)." *Insect. Environment.* 10 (1): 33-34.
- Chauhatn, T. and Singh, K. (1992):** Studies on the effect of ascorbic acid on the fecundity in the mulberry silkworm *Sericologia* 32: 567-574.
- Chinnaswamy, K.; Chozhan, V.; Hangovan, K. S. and Radha, N. V. (1986):** "Effect of paraformaldehyde, benzoic acid with lime as bed disinfectants for prevention of diseases". National Seminar on Prospects and Problems of Sericulture in India, March 27-30, Bangalore, India.

- Choi, J. S. (1987):** "Studies on the Effect of cadmium on the physiology of silkworm, *Bombyx mori* L". *Korean Medical Database* (29): 38-43.
- Choi, M.Y.; Lee, H.; Paik, C. H. and Lee, J. J. (2000):** "Development of artificial diets for green lacewing, *chrysopa pallens* (Rambur), by addition of natural products". *Korean Journal of Applied Entomology*. 39 (2): 99-103.
- Dabbah, R. V. M. and Moats, W. A. (1970):** "Antimicrobial action of some citrus oils on selected food- born bacteria". *App. Microbiol.*, 19 (1): 27-31.
- Das, S. and Medda, A. (1998):** "Effect of cyanocobalamine on protein and nucleic acid contents of ovary of silkworm, *Bombyx mori* L., during larval, pupal and adult stages of development." *Insect Sci. Appl.* 9: 641-646.
- Dechu, P. S.; Govindon, R.; Devaiah, M. C. and Swamy, T. K. N. (1997):** "Effect of antibiotics on growth and cocoon parameters of silkworm *Bombyx mori* L. mysore". *J. of Agriculture science*, 31 (1): 41-46.
- Desuky, W. M. H.; Khedr, M. M. A.; Khalil, S. I. Y. and El-Shakaa S. M. A. (2006):** Effect of some plant extracts on some biological aspects of *Spodoptera littoralis* Boisd. Under laboratory conditions. *J. So. Res En* 5 (5): 97-112.
- El-Deeb, M. A.; Khalil, S. I. Y.; Mohsen, A. M. A. and Saad, M. I. (2007):** "Effect of feeding silkworm, *Bombyx mori* L. on fresh and stored mulberry leaves on some biological morphometrical and reeled filament characters". *J. Agric. Sci. Mansoura Univ.*, 32 (11): 9567-9580.

- El-Hattab, S. (2002):** " Evaluation of various kinds of dietary proteins in semi-artificial diets on the mulberry silkworm *Bombyx mori* L.". The 2nd International conference on (Integrated Pest management in Relation to Safe Agricultural Products and Healthy Environment) Giza-Egypt December 21- 24/2002.
- El-Karakasy, I. A. and Idriss, M. (1990):** " Ascorbic acid enhances the silk yield of the mulberry silkworm *Bombyx mori* L". *Journal of Applied Entomology* 109: 1, 81-86; ref.
- El-Sheakh, A. A.; Zannoon, A. A. and El-Sayed, M. F. (1994):** " Biochemical effect of stored mulberry leaves on some enzymes activities in the haemolymph of *Bombyx mori* L.". *Egypt. Jour. Agric. Res.* 72 (3): 721-727.
- El-Zohairy, M.; Megahed, E.; Kotaby, F.; Hosny, A.; and Zannoon, A. A. (1990):** " Protection of young and grown larvae of *Bombyx mori* L. against diseases by bed-disinfectants." *Egypt, J. App. Sci.*, 5 (7): 32-42.
- Etebri, K. and Matindost, L. (2005):** "Application of multi-vitamins as nutrients on biological and economical characteristics of silkworm, *Bombyx mori* L." *J. Asia-pacific Entomol.* 8: 1-6.
- Faruki, S. I. (2005):** " Effect of pyridoxine on the reproduction of the mulberry silkworm, *Bombyx mori* L. (Lepidoptera: Bombycidae) " *Univ. J. Zool. Rajshahi Univ.* 2: 28-31.

- Gabriel, B. P. and Rapusas, H. R. (1976):**" The growth and development of *Bombyx mori*, L. at different leaf maturity and variety of mulberry". *Philippine Agricultural*, 60 (3-4): 129-146.
- Gormall, A. G.; Bardawil, C. D. and David, M. M. (1949):** Determination of serum protein by means of bruit reaction. *J. Biological Chem.* 177: 751- 766.
- Govindan, R.; Magadum, S. B.; Magadum, V. B.; Devaiah, M. C. and Narayanaswamy, T. K. (1990):**" Effect of fortification of streptomycin and procaine penicillim on economic traits of eri silkworm." *Current Research, University of Agricultural Sciences, Bangalore*, 19:11, 196-197.
- Gupta, B. K.; Verma, M. and Rao, V. K. (1990):** "Oral administration of lime-water on silkworm (*Bombyx mori* L.) rearing Bioved". *Journal-article* 1(1): 85-86.
- Hafiz, I. A. (1992):**" Effect of mulberry varieties on the development and cocoon shell of Japanese variety of *Bombyx mori* L.". *Pakistan Journal of Forestry* 42 (4): 228-235.
- Hanif, M. A. and Islam, B. N. (1987):** Nutrient contents of mulberry leaves and their effect on silk production by *Bombyx mori* L. *Bangladesh Journal of zoology*, 15(2): 131-136.
- Haq, K. and Saleem, M. (1985):**" Quantitative and qualitative feeding effects on silkworm (*Bombyx mori* L.)". *J. Agric. Res.*, 23:43-46.

- Hosney, A. S. and Megalla, A. F. H. (1986):** "Effect of four supplementary component on the biology and silk yield of the eri-silkworm *philosamia ricini* (Boisd) fed on semi artificial diet". *Ann. Agric. Sc. Moshtohor*, 24 (2): 1137-1145.
- Hosney, A.; Rizk, M. A.; Mariy, F. M. and Megalla, A. H. (1986):** "Effect of four supplementary components on the biology and silkworm, *Philosamia ricini* Boisd. Fed on semi-artificial diet." *Ann. Agric. Sc. Moshtohor*, 24 (2): 1137-1145.
- Hussein, K.T. (1995):** " Effect of some plant extracts in the control of non-biting Muscoid fly". Ph.D. Thesis Fac. Sci. Zagazig Univ. Egypt.
- Javaid, M. A. (1991):** " Effect of feeding potassium and nitrogen treated mulberry leaves on the development of silkworm, *Bombyx mori* L. and silk yield". M.Sc. (Hons.) thesis, Deptt. Agric. Entomol., Univ. Agric., Faisalabad, Pakistan.
- Jawale, M. D. and Tayade (1987):** " Effect of certain bed-disinfectants on the growth and disease control of silkworm, *Bombyx mori* L.". 15th *International Sericulture Congress, (Thailand)*, 2-6 March.
- Jayaswal, K. P.; Singh, T. and Rao, G.S. (1991):** " Effect of female pupal weight on fecundity in mulberry silkworm *Bombyx mori* L.". *Indian Journal of Sericulture*. 30(2): 141-143.

- Jeyasankar, A.; Raja, N.; Elumalai, K.; Jayakumar, M; Thangamani, A. and Ignacimuthu, S. (2001):** "Bioenergetics of silkworm *Bombyx mori* L. reared on fortified mulberry leaves". *Journal of Interacademia* 5 (3): 240-345.
- Khalaf, A. A. and Hussien, K. T. (1997):** Biocidal activity of selected volatile oils of plant origin on *Muscina stabulans* (Diptera-Muscidae). *Ain Shams, Fac. Sci. Bull.* 35: 307- 329.
- Khalil, M.; Tammam, A. A. and Okasha, E. (2006):** "Influence of nutrient supplements on silkworm production of *Bombyx mori* L.". Tishreen University. *Journal of Scientific Biological Science Series*, (22) No (1).
- Kotby. F.; Megahed, F.; El-Zohairy, M.; Hosny, A. and Zannoon, (1990):**" Effect of significant dosages of bed-Disinfectants applied at different intervals to the grown larvae of the silkworm *Bombyx mori* L.". *Egypt J. App. Sci.*, 5 (7): 32-42.
- Krishnaswami, S. (1978):** "New technology of silkworm rearing" Central Sericulture Researchs and Training, Inst., Mysore Bull., 2:1-10.
- Kumarilalita, A. K. and Tripathisinha, D. P. (1992):**"Effect using some food adjuncts with the larval diet on moth weight, fecundity and egg hatchability in *Antheraea mylitta* (Saturnidae: Lepidoptera)". *Sericologia*, 32 (3): 507- 509.

- Kuntamalla, S. U. and Rao, A. P. (2004):** "Effect of botanical extract on post cocoon characters and in management of flaccherie disease in silkworm, *Bombyx mori*." *Biochemical and cellular Archives* 4 (2): 135-142.
- Li, R. and Sang, Q. (1984):** "The relationship between quality of mulberry leaves and some economic characters during the later larval stage". *Science of Sericulture Canyekexue* 10 (4): 197-201.
- Madhuri, D. and Saha, B. C. (1998):** "Effect of fortification of mulberry leaves with medicinal plant-extract of *Equisetum arvense* on the growth and development of the larva and cocoon of silkworm *Bombyx mori*. L.". *Environment and Ecology. Journal article.* 16 (4): 875-877.
- Madhuri, D.; Ramjee, P.; Datta, M. and Prasad, R. (1999):** "Effect of phyto-extract based medicines on the development of silkworm, *Bombyx mori* L.". *Environment-and-Ecology.* 17 (3): 717-720.
- Mahmoud, S. (2000):** "Feeding effect of different mulberry varieties on Silkworm *Bombyx mori* L.". *Egypt J. Appl. Sci.* 15 (6): 253-261.
- Mahmood, R. (1989):** "Effect of nitrogen on the larval development and silk yield of *Bombyx mori* L.". M.Sc. thesis, *Dept. Agric., Faisalabad, Pakistan*, 133.
- Megalla, A. H. (1984):** "Efect of certain dietary constituents on silkworms ".M.Sc. Thesis, Plant Protection department, Faculty of Agriculture Ain-Shams University, 126.

- Miao, Y. G. and Jiang, L. J. (2001):**" Studies on the minor elements and the antiseptics of artificial diet for silkworm *Bombyx mori* L.". *Sericologia* 41 (3) 439-444.
- Miranda, J. E.; Takahashi, R. and Silva, A. F. (1998):**" Ascorbic acid supplement in the food of *Bombyx mori* L. (Bombycidae: Lepidoptera)." *Revista-de-Agricultura-Piracicaba*, 73:3,367-372; 7 ref.
- Mohsen, A. M. A.; Khalil, S. I. Y.; El-Deeb, M. A. and Saad, M. S. (2007):**" Effect of with different of mulberry leaves on morpho-physiological and productivity characters of silkworm, (*Bombyx mori* L.) Breeds". *J. Agric. Sci. mansoura Univ.*, 32 (11): 9581-9592.
- Morsi, S. M. (1988):** "Activation of silk secretion by silkworms *Philosamia ricini* and *Bombyx mori* L. after applying antibiotics". Ph. D. Thesis, Fac. Agric, Cairo Univ, 189.
- Mostafa, S. M. and Nagda E.S. (1993):**" Cold storage of mulberry leaves and its effect on silkworm *Bombyx mori* L.". *Alex. Sci. Exch.* 14(1) 153-161.
- Mubasir, H. and Humayun, J. (2002):**" Effect of 0.2% N with various combinations of Ascorbic acid on growth and silk production of silkworm (*Bombyx mori* L.)". *Asian Journal of plant Sciences.* 1(6): 650-651.
- Murthy, M. R. V.; San Roranarayana, D. S. and Sreenivasaya, M. (1954):** Role of chloromycetin in nutrition of the silkworm *Bombyx mori* L. *J. Sci. Ind. Res. (B)*, 13(5): 331-335.

- Murugan, K.; Jeyabalan, D.; Kumar, N. S.; Nathan, S. S.; Sivaprakasam, N.; Pandey, A.; Soccol, C. R. and Josh, V. K. (1998):** "Growth promoting effects of plant products on silkworm biotechnological approach ". *J. Sci. Ind. Res.* 57: 10-11,740-745.
- Murugappan, R. M.; Balamurugan, N. and Manonmani, P. (1996):** "Effect of fortification of mulberry leaves with Jaggery on silkworm, *Bombyx mori*.". Environmental Monitoring. *Journal of Ecotoxicology*, 6 (2): 153-155.
- Nadeem, S. (1996):**" Collaborative effect of optimum dosages of N, K, Ca,P. and Mg on larval development and silk yield of *Bombyx mori* L." M.Sc. thesis, Dept. Agric. Entomol., Univ. Agric., Faisalabad, Pakistan, 117.
- Nair, K.; Trivedy, K.; Rele, S.; Chattopadhyay, S. and Banerji, A. (2002):**" Ecdysteroid from *Sesuvium Portulacastum* for synchronization of cocoon spinning in silkworm, *Bombyx mori*, L." *In Advance in Indian Seric, Res. Eds, S.B. Dandin and V.P.Gupta, CSRTI, Mysore*, 247-251.
- Narayanswamy, T. K. and Gowda, B. L. (1989):** Influnuecnce of pupal weight on performance of fecundity rearing and reeling in the silkgland B. mori L. *Mysore Journal of Agricultural Science*, 23(1): 27-61.
- Nirwani, R. B. and Kaliwal, B. B. (1998):** "Effect of Thiamine on commercial traits and biochemical contents of the body and haemolymph in the silkworm, *Bomyx mori* L." *Sericologia* 38 (4): 639-646.

- Nour, M. E.; El-Maasarawy, S. A. and Mahmoud, S. (1997):**
 "Propolis in the Nutrition of the silkworm *Bombyx mori* L.: influence on biology, silk yield and biochemical Changes in heamolymph ". *Proc. 1st, Int. Conf. of silk "ICSAI"*.
- Nripendra, L.; Madhuri, D.; Laskar, N. and Datta, M. (2000):** "Deterrant effect of petroleum ether extract of ageratum conzoides Linn on the larva of mulberry silkworm, *Bombyx mori* L.". *Journal of Interacademia*. 4 (4): 570-572.
- Parra, J. R. P. (1991):**" Consumoe utilização de alimentos por insetos. In: PANIZZI, A.R., Parra, J.R.P.". *Ecologia nutricional de Insetose suas Implicações no manejo de pragas*. 359 P. Manole, São Paulo.
- Pillai, S. V. and M. S. Jolly, (1985).**" An evaluation on the quality of mulberry varieties raised under hill conditions and the crop results of *Bombyx mori* L.". *Indian Journal of Sericulture*, 24 (2): 48-52.
- Prasad, N.; Sannappa, B.; Reshma, T. and Prasad, P. (2001):**"Effect of solanaceous leaf extracts on growth, development and cocoon traits of PMXNB4D² silkworm, (*Bombyx mori* L.)". *Bulletin-of-Indian-Academy-of-Sericulture*. 5 (2): 42-47.
- Qader, M. A.; R. Haque and Asbar, N. (1992).**" Nutritive effects of different types of mulberry leaves on larval growth and cocoon characters of *Bombyx mori* L. ". *Pakistan Journal of Zoology* 24 (4): 341-345.

- Rai, M. M.; Rathod, M. K. and Khurad, A. M. (2002):**
 "Improvement In economic characters of silkworm *Bombyx mori* L. by Folic acid administration". *Entomon*; 27:1, 99-104; 8 ref.
- Rajabi, R.; Ebadi, R.; Fazilati, M. and Mirhose, S. (2006):**
 "Nutritive effects of mulberry leaves enrichment with riboflavin vitamin on bio-economic characters of silkworm, *Bombyx mori*." 9th arab congress of plant prodection 19-23 November, Damascus, Syria.
- Raj, S.S.; Chinraswamy, K. P. and Sannappa, B. (2000):**
 Effect of feeding mulberry leaves fortified with protein supplements on the productivity of silkworm, *Bombyx mori* L." *Bulletin-of-Indian-Academy-of-Sericulture*. 4 (2): 34-40.
- Raman, K. V.; Mala, V. R.; Magadum, S. B. and Datta, R. K. (1995):**
 "Effect of seasons and mulberry varieties on the feed conversion efficiencies of different silkworm hybrids of *Bombyx mori* L." *Uttar Pradesh Journal of Zoology*, 15(3): 157-161.
- Reddy, B. M. S.; Devaiah, M. C.; Naryanaswamy, T. K.; Govindan, R. and Shyamala, M. B. (1991):**
 Comparative efficacy of Some rearing tray disinfectants caused by *Beauveria bassiana*(Bals.) Vuil". *Sericologia*, 31(2): 533-535.
- Reiteman, S. and Frankel, F. (1957):** "Colourimetric method for aspartate and alanine transaminase". *Amer. J. Clin. Pathol.* 28- 56.

- Saha, A. K.; Rahaman, M. S.; Saha, B. N.; Rahman, M. and Das, D. K. (1995):** "Effect of antibiotics on the growth and rearing performance of silkworm *Bombyx mori* L.". *J. Asiatic Soc. Bangladesh Sci.*, 21 (2): 289-292.
- Sarker, A.; Haque, M.; Rab, M. and Absar, N. (1995):** "Effect of feeding mulberry (*Morus sp.*) leaves supplemented with different nutrients to silkworm (*Bombyx mori*L.)." *CURR. SCI.* 1 (69) 2: 185-188.
- Schmidt, E.L. and Williams, C. M. (1953):** Physiology of Insect diapause V. Assay of the growth and differentiation hormone of Lepidoptera by the Method of tissue culture Biol. Bull. Woods hols. (105):174- 187.
- Sengupta, K.; Singh, B. D. and Mustafi, J. C. (1992):** "Role of Vitamins in silkworm nutrition." *Indian J. Seric.*, 11(1), 11-19.
- Shafique, M. (1993):** "Effect of feeding phosphorus and nitrogen treated mulberry leaves on the development of silkworm, *Bombyx mori* L. and silk yield". M.Sc. (Hons.) thesis, Deptt. Agric. Entomol., Univ. Agric., Faisalabad, Pakistan, 138.
- Shaheen, A.; Trag, A.; Nabi, G. and Ahmed, F. (1992):** "Correlation between female pupal weight and fecundity in bivoltine silkworm *Bombyx mori* L." *Entomon.* 17(1-2): 109-111.

- Shivakumar, G.; Anantha, R. K.; Reddy, K.; Magadum, S.; Datta, R.; Hussain, S. and Banerji, A.(1995):**" Effect of phytoecdysteriod on Larval maturation and economic parameters of the silkworm, *Bombyx mori* L." *Indian J. Seric.* 34 (1):46-49.
- Shoukry, I. F. I. (1996):**" Morphogenic and histopathological effects induced by two natural volatile oils on the house fly *Musca domestica* L." (Diptera-Muscidae). Proc. The first. Conf. on the role of Society and Environment, Benha Branch of Zagazig Univ. 21-23 October: 1-21.
- Shoukry, I. F. I.; Zannoon, A. A. I.; Khalaf, A. A. and Eman, H. (1998):**" Effect of some antibiotics and plant volatile oils on bacterial infection in mulberry silkworm *Bombyx mori* L." *J. Union Arab Biol. Cairo.* 9(A), Zoology, 327-336.
- Silayach, U. S. and Khokhar, K. S. (1995):**" The biology of silkworm, *Bombyx mori*, L. on various cultivars of mulberry." *Annals of Biology Ludhiana* 11 (1-2): 145-148.
- Snedecor, G. W. and Cochran, W. J. (1967):** Statistical methods. Iowa State University Press, Iowa, USA.
- Somia, S. E.; Hassan, E.M., Ismail, M. A.; Zannoon, A. A. and Samy, M. Z. (2008):** The effect of mulberry varaites and natural additives on the protein patterns of silkworm, *Bombyx mori*. L. *Egyptian Journal of Biology.* (10): 11-19.

- Spallholz, J. E.; Boylan, L. M. and Driskel, J. A. (1999):** "Nutrition chemistry and biology". (Canada: CRC)
- Sridevi, G.; Bhaskar, R. N.; Devaiah, M. C. and Govindan, R. (2004):** "Effect of mulberry leaves enriched with medicinal plant extract on grain age parameters of silkworm, *Bombyx mori*. L. *Environment, Environment & Ecology*. 22 (3): 701-703.
- Subba, M. S.; Soumithri, T. C. and Rao, S. (1967):** "Antimicrobial action of citrus oils.". *J. food Sci.*, 32 (2): 225-227.
- Sujatha, K. and Rao, A. (2003):** "Effect of fortification of mulberry leaf with phytochemicals on the commercial traits of silkworm, *Bombyx mori*.L ". *Journal- of- Experimental-Zoology,-India*.6 (2): 321-323.
- Suprakash, P. and Pal, S. (2002):** "Effect of vitamin B-complex supplementation on the growth and development of mulberry silkworm, *Bombyx mori* L." *Insect- Environment*. 84,150.
- Tanaka, Y. (1964):** Sericology. Central Silk Board, Bombay (95). B. Megdoot Marine Drive, 216-220.
- Thangavelu, A. K.; Bausal, R. M.; Shukla, N. N.; Saxena, J.; Jayaswad, and Goel, A. K. (1995):** "Evaluation of some chemicals for prevention of diseases in Tasar silkworm *Antheraea mylitta*. (Lepidoptera, Saturniidae)". *Indian J. Seric.*, 34(2): 142-144.
- Wiggelsworth, V. B. (1984):** "Nutrition and Metabolism". *Insect Physiology*, 90-91.

- Xu, L. G.; Chen, L. P.; You, S. P.; Wang, W. Y.; Li, J. R.; Yao, L.S. and Schmidt, J. O. (1992): "Stated that the effects of Pollen and royal jelly on growth, development and cocooning of silkworms". *Entomological Knowledge*, 29 (4):223-226.
- Zannoon, A. A. (1994): "Effect of feeding *Bombyx mori* L. larvae on cool stored mulberry leaves on some biological and productivity characters.". *Egypt. Journal. Appl. Sci.*, 9 (4): 325-322.
- Zannoon, A. A. I.; Hassan, M. M. E.; El-Akkad, S. S.; Ismail, M. A. and Samy, M. Z. (2008): "Biological effects of mulberry varieties and nutritional additives on silkworm *Bombyx mori* development *Egyptian Journal of Biology*, (10):1-10.