

BIBLIOGRAPHY

- Agarwal, N. and J. P. Bhanot. 2000. Effect of seed treatment with different insecticides on the germination and vigour of okra seeds. *Pestology*. **24** (10) : 46-48.
- Agnihotri, N.P. 2000. Pesticide consumption in agriculture in India- an update. *Pesticide Research Journal*. **12** (1) :150-155.
- Ahmed, S. and Z. S.Siddiqui. 1995. Effect of Topsin - M (Methyl thiophanate) on Chlorophyll, protein and phenolic content of *Capsicum annuum*. *Pak. J. Bot.* **26** (2) : 175-178.
- Anusuya, D. 1986. Effect of seed treatment with fungicides on nodulation and growth of. Groundnut (*Arachis hypogea*. L.) plants. *Pesticides*. **6** :21-22.
- Arnon,D.I. 1949. Copper enzymes in isolated chloroplasts: Polyphenol oxidase in *Buta vulgaris*. *Plant Physiol.* **24**: 1-15.
- Arnold, P.W. 1969. 'Ecological aspects of Plant Nutrition' (I.H. Rolson,ed.) 115-125. Blackwell, Oxford.
- Asirselin, R.; S. Kumar ; B. Saravana and T.Nagrajan. 1998. A study on the effect of bavistin and parryfos. Abstracts of National Symposium on future goals of physiological research for the improvement of plant resources. pp. 26.
- Bandopadhyay, S. ; P.Bhattacharjii and Mukherjee. 1983. Effects of some seed treating fungicides on nodulation of five legumes. *Pesticides*. **3** : 27-28.
- Bansal, R.O., O.P. Sharma and S.D. Behar. 1982.Effect of fungicides on the chlorophyll Synthesis in tomato. *J. Res. India*.**19**(3) :224 -226.
- Beaumont, G.; R.Bastin and H.R. Therrien.1979. Physiological effects of sublethal doses of atrazine on *Lemna minor* L. Influence on photosynthesis and respiration .*Nat. can.* **10**: 535-541.
- Benjamini,L.1986.Effect of Carbofuran on the germination and initial development of seedlings of caraway, fenugreek, wheat, sugarbeet, sunflower vetch. and chickpea. *Phytoparasitica*. **14** (3) : 219-230 .
- Bhatnagar, S.P. and S. P. Tiwari. 1995. Technology for increasing soybean production in India. *Pb. NRC. for soybean*. ICAR, Indore.
- Bhattacharya, A.; G. K. Pandit ; O. Chakraborty and D. Roy. 2001. Effect of carbofuran, butachlor and carbendazin on chlorophyll and carbohydrate contents of two summer rice (*Oryza sativa* L.) cultivars at panicle emergence. *Crop Res.* **21** (1) :

15-19.

- Bose, B. ; H.S. Srivastava and S. N. Mathur. 1982. Effect of antibiotics on the germination and activity of maize seeds. *India J. Pl. Physiol.* **25** (3) : 271-275.
- Brooks, G.T. and Roberts, T.R. 1999. *Pesticide Chemistry and Bioscience : The Food-Environment Challenge*. Royal Society of Chemistry. London, U.K. 438.
- Burstorm, H.G. 1968. Calcium and plant growth. *Biol. Rev.* **43**: 287-317.
- Buta, J.G. 1991. Effect of paclobutrazol on abscisic acid levels in wheat seedlings. *J. Plant Growth Reg.* **10** : 59-61.
- Chakravarty, S.K. 1986. Effect of Bavistin 25 Ds on germination and seedling growth of wheat. *Pesticides.* **3** : 23-24.
- Chakravarty, S.K.; B.K. Jana and D.C. Khatua. 1985. Effect of fungicides on Rhizobia nodulation and seedling pathogen of legumes. *Pesticides.* **8** : 74-77.
- Chakravarty, D. and B.B.L. Thakore. 1997. Effect of metalaxyl spray on nitrogen, phosphorus, potassium and chlorophyll contents of cucurbits. *J. Mycol. Pl. Pathol.* **27** (1) : 72 - 74.
- Chandra, G. and S.N. Mathur. 1985. Responses of *Vigna mungo* (L.) Hepper to treatments of malathion and of carbendazim and effect on germination physiology and seedling growth. *Pestology.* **9** (5) : 27 - 31.
- Chapman, H.D. 1966. Diagnostic criteria for plants and soils. *Publ. Div. Agri. Sci. Univ. California, Berkeley*, pp 793.
- Chauhan, R. K. and V. K. Jain. 1989. Effect of insecticides on germination, seedling growth and chlorophyll content of pea. *Indian J. Ecol.* **16** : 72-74.
- Cheniae, G. and H.J. Evans. 1960. Physiological studies on nodule nitrate reductase. *Plant Physiol.* **35**: 454-462.
- Chinoy, J.J.; O.P. Saxena ; P.G. Abraham ; R.B. Pandya ; I.C. Dave ; K. Gurumurti and K. Sastri. 1969. Physiology of seed germination in relation to early production of ascorbic acid oxidase in wheat (*Triticum*) and peanut (*Arachis*) PL - 480. Final report No. F.G.In 182 (Ay -CR - 87) : 1 - 350.
- Chou, C.H. and C.H. Muller. 1972. Allelopathic mechanism of *Archtothaphous gladiolosa* Var. Zazaerisis. *Am. Mid. Nat.* **88** : 324-347.
- Clark, R.B. 1984. Physiological aspects of calcium, magnesium and molybdenum

- deficiencies in plants. Agronomy monograph (2nd Edition) Madison. U.S.A. pp. 99-168.
- Clarkson, D.T. and J.B. Hanson. 1980. The mineral nutrition of higher plants. *Annu. Rev. Plant. Physiol.* **31** : 239-298.
- DeLeo, P. and J. Sacher. 1970. Association of synthesis of acid phosphatase with banana Ripening. *Plant Physiol.* **46** : 208-211.
- Dhaliwal, G.S.; B. Singh and M. D. Pathak. 2000. Pesticides in developing countries: Retrospectand Prospect. 'Pesticide and Environment.' Ed. Dhaliwal and Singh. 1-33.
- Dhopte, A.M.; V.R. Zade and B.N. Patil. 1995. Effect of paclobutrazole spray on growth And yield of peanut and further anomalies in seed germination. *Ann. Plant Physiol.* **9**(2) : 99-101.
- Dogra, J.V.V.; S.K.P.Sinha and M. Tiwari. 1986. Effect of benzimidazole on growth and accumulation of certain metabolites in *Phyllanthus urinaria*. *J. Indian Bot. Soc.* **65** : 175 - 177.
- Domonick, S.J. and M. Mohanasundharam. 1992. Effect of insecticides on the biochemical nature of the host plant and its relation to resurgence of the whitefly, *Bemesia tabaci* on cotton. *Pestology.* **16** : 7-10.
- Evans, H.J. and G..L. Sorger. 1966. Role of mineral elements with emphasis on univalent cations. *Ann. Rev. Plant Physiol.* **17** : 47-76.
- Folin, O. and W. Denis. 1915. A colorimetric method for determination of phenol derivatives in urine. *J. Biol. Chem.* **22** : 305-308.
- Fletcher, R., A.Gilley, N. Sankhla and T. Davis. 2000. Triazoles as plant growth regulators and stress protectants. *Hort. Rev.* **24** : 0-471-33374-3.
- Ganam, C. R. and A. Indrani. 1999. Effects of fungicides on growth, nodulation and metabolism in *Glycine max.*(L.) Merr. Var. Co.1. *Geobios.* **26**: 191-194.
- Gautam, S.R. and P.N.Thapliyal. 1981. Effect of bayleton and Bayton on chlorophyll content, and photosynthetic rate in soybean plant. Paper presented in annual meeting of Indian Phytopathological Society held at R.C.A.Udaipur.
- Gautam, S.R.; P.N.Thapliyal and R.K. Tripathi. 1984. Effects of fungicides on physiology of soybean plants. VII Effects of triadimefon on physiology of soybean plants. *Indian Phytopath.* **37**: 600

- Ghosh, M. K. and R. C. Srivastava. 1994. The effect of bavistin on chlorophyll, total sugars, soluble proteins and in vivo nitrate reductase activity in leaves of *Quercus serrata*. *Geobios*. **21**. (4): 237-242.
- Gilbert, F.A. 1957. Mineral nutrition and the balance of life. Univ. of Dklahoma Press, Norman, Dklahoma.
- Glass, A.D.M. and J. Dunlap. 1974. Influence of phenolic acids on ion uptake IV. Depolarization of membrane potentials. *Plant Physiol*. **56**: 801-806.
- Godara, S.L. and B. B. Lal Thakore. 1987. Some physiological changes in groundnut leaf due to spraying of triadimefon and triadimenol. *Indian J. Mycol. Pl. Pathol.* **17**(2) : 179-181.
- Grianafreda, L.; F. Sannio ; M. T. Filazzola and A. Violante. 1993. Influence of pesticide on the activity of kinetics of invertase, urease and acid phosphatase enzyme.. *Pesticide Science*. **39** (3) : 237-244.
- Grinberg, A.A. 1971. Physiological basis of protective function of catalase. *Nat.Akd. Veslis*. **2**: 60-62.
- Gupta, R. C., M.U.Beg and P.S.Chandel. 1983. Effect of endosulfan on the seed germination and seedling growth of *Vigna radiata* (Linn.) Wilzeck and *Triticum vulgare* (Linn.) **8** : 25 - 28.
- Gupta, B. M. and C.P.S. Yadava. 1985. Effect of BHC dust on germination of groundnut and moth bean. *Indian J. of Agric. Sci.* **55** (12) : 754-755
- Gupta, R. C. and M. U. Beg. 1987. Influence of endosulfan spray on mineral status in mungbean plants and pods. *Pestology*. **11** (5) : 11-16.
- Gupta, G. P.; N. P. Agnihotri ; K. Sharma and V. T. Gajbhiy. 1998. Bioefficacy and residue of Imidacloprid in cotton. *Pesticide Research Journal* Vol. **10** (2) : 149-154.
- Gurrero, M. G.; J. M. Vega and M. Losada. 1981. The assimilatory nitrate reducing system and its regulation. *Ann. Rev. Physiol*. **32**: 169-204.
- Hatch, M.D.; Shaio-Lim Mau and T. Kagawa. 1974. Properties of leaf NAD-malic enzyme from plants with C4 pathway photosynthesis. *Arch. Biochem. Biophys*. **165** (1): 188-200.
- Hatch, M.D.; T. Kagawa and I.S. Craig. 1975. A survey of C₄ decarboxylating systems in

- C₄ pathway leaves and the subclassification of these species. *Aust. J. Plant Physiol.* **2** : 111-128.
- Harborne, J.B. 1986. The role of phytoalexins in natural plant resistance. *Amer. Chem. Soc. Symp. Ser.* **296**: 22-25.
- Henriques, F. 1989. Effects of copper deficiency on the photosynthetic apparatus of sugarbeet (*Beta vulgaris* L.) . *J. Plant Physiol.* **135** : 453-458.
- Herbert, D. 1955. Catalase from bacteria, In : *Methods in enzymology* II (ed. Colwick, S. P. and Kaplan, N.O.) Academic press, INC. New York. pp. 724-726.
- Hertel, Cornelia and D. Marme. 1983. Herbicides and fungicides inhibit calcium uptake by plant mitochondria ;A possible mechanism of action.*Pestic. Biochem. Physiol.* **19** (3) 282-290.
- Jaworski, E. G. 1971. Nitrate reductase assay in intact plant tissues. *Biochem. Biophys. Res. Commun.* **43** : 1274- 1279.
- Jones, R.L.; S.Gilroy and S.Hillmer. 1993. The role of calcium in the hormonal regulation of enzyme synthesis and secretion in barley aleurone. *J. Exp. Bot.* **44** : 207.
- Kalebere, S. and A. B. Sabale. 2000. Influence of foliar sprays of Carbendazim on some biochemical parameters in *Allium cepa* (L) Varieties. *Ann. Plant Physiol.* **14** (2) : 144-150.
- Kamble A.B.and A.B. Sabale.1995.Effect of Bavistin and Monocrotophos on germination physiology of fenugreek(*Trigonella foenum -graecum* L.) *Ann. Plant Physiol.* **9**(2) : 79-84.
- Kamble, A. B. and A.B. Sabale. 1999. Influence of Bavistin and Monocrotophos on seed germination and seedling growth of *Trigonella foenum - graecum* L. *Poll. Res.* **18** (1) : 61-65.
- Kamble,A.B. and A.B.Sabale. 2002. Effect of pesticides on the physiology of *Trigonella foenum - graecum* L. Thesis submitted to Shivaji University for Ph.D.
- Kannaiyan, S and N.N. Prasad. 1982. Effect of seed treatment of sheath blight pathogen infected seed of rice with fungicide on germination, growth and vigour of rice seedlings. *Madras Agric. J.* **69** : 585-589.
- Kar,C. and K.Gupta. 1993. Effect of triazole type plant growth regulators on morphology, anatomy, stomatal opening and certain biochemical parameters of sunflower

- (*Helianthus annuus* L. cv. Morden) seedlings. *Indian J. of Expt. Biol.* **31** : 623-626.
- Karadge, B.A. and A.V.Karne. 1995. Influence of systemic fungicides Bavistin and calixin on *Lycopersicum esculentum* Mill. leaves. *Bloviyanum*. **11** (2) : 166 -168.
- Khan,S.; J.Khan ; and J.Shigufta. 2000. Effect of endosulfan on the seed germination, growth and nutrient uptake of fenugreek plant. *J. Ind. Poll Contrl.* **16** (2) : 225-230.
- Kirkby, E.A. and K.Mengel. 1967. Ionic balance in different tissues of tomato in relation to nitrate, urea and ammonium nutrition. *Plant Physiol.* **42** : 6-14.
- Kollmorgan, J. F. and D. J. Ballinger. 2005. Supression of emergence of wheat and barley by Mancozeb. *Plants Foods For Human Nutrition.* **58** (3) : 1-11
- Kotasthane, A. 1994. Effect of fungicides on chlorophyll and nutrient status of mustard plant. *Ad. Plant Sci.* **7** (2) :410-412.
- Krik, J.O.T. R.L. Allen. 1965. Dependence of chloroplast pigment synthesis on protein synthesis. Effect of Actidione. *Arch. Biochem. Biophys. Res. Commun.* **21** : 523-530.
- Krishnamurthy, P. and D. Rao. 1980. Effect of two fungicides on germination and growth in *Brassica nigra*. *Geobios.* **7**: 160-161.
- Kulkarni, K.K.1989.Physiological effects of pesticides and residue analysis in some vegetables. M. Phil. Dissertation. Shivaji University, kolhapur.
- Kumar, K.B. and P.A. Khan. 1982. Effect of insecticides oxydematon - methyl and dimethoate on chlorophyll retention and hydrogen peroxide utilization in ragi (*Eleusine coracana* Gaerth PR 202) leaves during senescence. *Indian J. Environ.. Biol.* **20** (12) : 889 - 893
- Kumar, C. N. and A. Visalakshi. 1983. Effect of different placements of systemic granular insecticides on growth and yield of cowpea. *Pestology.* **7** (4) : 7-9.
- Kumar, K. and J. Singh. 1986.Effect of seed treatment of sesame upon germination and seedling emergence. *Pesticides.* **4** : 30-31.
- Levitt, J.1972. Response of plants to Environmental stresses .Academic Press, New York.
- Logiswaran, G. and M. Gopalan. 1991. Effect of seed with endosulfan and acephate on the germiability of blackgram and cholam. *Madras Agric. J.* **73** (1-4) : 110-112.
- Lowry,O. H. ; N. J. Rosebrough ;A. L.Farr and R.J. Randall.1951. Protein measurement

- with the Folin phenol reagent. *J. Biol. Chem.* **193** : 262-275.
- Machold, O. and U.W. Stephan. 1969. The function of iron in porphyrin and chlorophyll biosynthesis. *Phytochem.* **8** : 2189-2192.
- Marme, D. 1989. The role of calcium and calmodulin in signal transduction. In : Second messangers in Plant Growth and Development (Eds. W.F. Boss and D.J. Moore) Allan R. Liss., New York. pp. 57-60.
- Marschner, H. 1986. Mineral nutrition of higher plants. Academic press, New York.
- Marshall, H. F. Jr. ; L. F. Ross ; E. J. Conkerton ; D. C. Chapital and C. K. Kvien. 1991. Effect of Diniconazole on the free amino acids and carbohydrates of peanut. *Oleagineux.* **46** (8-9) : 329- 332.
- Mathre, D.E. 1972. Effects of oxithiins systemic fungicides on various biological systems. *Bull. Environ. Contom. Toxicol.* **8**: 311.
- Mathur, A.; M.H. Siddiqui ; D. Mukherji and S.N. Mathur. 1982. Influence of Rogor (30E) on seed germination physiology of *Vigna mungo*. *Phytophylacitica.* **14** (2): 57-60.
- Mathur, S.N.; V.K. Singh; M. Mathur and R.C. Shrivastava. 1989. studies with phorate an organophosphate insecticide on some enzymes of nitrogen metabolism in *Vigna mungo* (L.) Hepper. *Biol. Plant.* **31** (5) : 363-369.
- Mathur, S.C. 1998. Pesticide industry in India. *Pestic. Inf.* **22**(1) : 17-29.
- Mclachlam, K. D. 1980. Acid phosphatase activity of intact roots and acid phosphorous nutrition in plants. I. assay condition and phosphatase acivity. *Aust. j. Agric. Res.* **21** : 429- 440.
- Mehrotra, K.N. 1991. Current status of pesticide resistance in insect pests in India. *J. Insect. Sci.* **4** : 1-4.
- Mengel, K. and E.A. Krikby. 1980. Potassium in crop production. In Advances in agronomy. **33** : 59-103. Academic press, New York.
- Mitra, J. and K. Raghu. 1989. Effect of DDT on the growth of crop plants. *Environ. Poll.* **61** (2) : 157- 170.
- Mitra, J. ; V. Ramchandran and A.S. Nirale. 1991. Effect of DDT on plant mineral nutrition. *Enviro. Poll.* **61** (2) : 157-170.
- Mohamed, H.A.; A.M. EI - Fahl Shaota and H. M. EI - Shehaby. 1988. Effect of treating onion plants with fungicides on the pre- deposition of the produced seed to smut

- infection. *Agricultural Res. Rev.* **61** (2) : 55-57.
- Moly, T. 1986. Studies on the effects of benzimidazoles and dithiocarbamate fungicides on nutritional status of groundnut. Ph.D. thesis submitted to J.N. Agricultural University, Jabalpur.
- Monfort, F. 1996. Effects of two triazole seed treatments on growth and development of wheat. *Pesticide Science.* **46** : 315-322.
- Moore, D.P. ; R. Overstreet and L. Jacobson. 1961. Uptake of Magnesium and its interaction with Calcium in excised barley roots. *Plant Physiol.* **36** : 290-295.
- Mukerji, S.K. 1974. Corn leaf phosphoenol pyruvate carboxylases : Activation by Magnesium ions. *Plant Sci. Lett.* **2** (4) : 243-248.
- Murthy, G.P. and S. Leelavathi. 2001. Effect of Gaucho and apron on seedling morphology, chlorophyll degradation and percent phytotoxicity of *Sorghum bicolor*, L. cv. BS- 7707 during seed germination. Abstracts of papers presented in the ICCE. pp.38.
- Mumford, F.E. ; H.M. Stark and D.H. Smith. 1962. A naturally occurring cofactor for indol acetic acid oxidase. *Plant Physiol.* **37** : 14.
- Narasimhudu and K. A. Balsubramanian. 2001. Effect of fungicides on growth and vigour of Turmeric. *Pestology.* **25**(5) : 20 -21.
- Narsaiah, L. D. Sambaiah and Jaganmohan Reddi K. 1994. Effect of some pesticides on seedlings of *Vigna radiata* Var. PS - 16. *Acta Botanica, India.* **22** : 288-291.
- Neelamegam, R. and S. Sreelaja. 2006. Effect of Bavistin - WP on germination and early seedling growth of Blackgram (*Phaseolus mungo*) *J. Ecobiol.* **19** (3) 225-228.
- Nelson, N. 1944. A photometric adaptation of the Somogyi method for the determination of glucose. *J. Biol. Chem.* **153** : 375-380.
- Ortiz, A.; V. Martinez and A. Cerda. 1994. Effects of osmotic shock and calcium on growth and solute composition of *Phaseolus vulgaris* plants. *Physiol. Plant.* **91**: 468-476.
- Pardeshi, V. F. ; V. G. Reddy and P.K. Nalwandikar. 1989. Effect of fungicide on seedling vigour and seed viability in soybean. *J. Maharashtra Agric. Univ.* **15** (1) : 33-36.
- Pathak, B.K. and S. Mukherji. 1986. Sevin induced stimulation of growth and metabolism of mungbean (*Vigna radiata* L. Wilzeck) seedlings. *Curr. Sci.* **55** (17) : 866-867.
- Patil, T.M. and V.S. Shirshyad. 1989. Effect of methyl parathion and phosphomidon and

- the activity of peroxidase and alpha amylase in some vegetable seeds. *Geobios.* **16** (2 - 3) : 57 - 60.
- Patil, V. 1995. Kharip soybean cultivation. *Shetkari*. 29-34.
- Patil, S.A. 1997. Studies in Nitrogen fixing ability of soybean in response to organophosphorus pesticide. Thesis submitted to Shivaji University for M.Phil.
- Patil, C.S. and A.B. Sabale. 2005. Effect of presowing seed treatment on growth and performance of some crop plants. Dess. submitted to Shivaji University for Degree of Master of Science. Theory and Dissertation in Botany.
- Paul, P.K., V. Varshane and P.D. Sharma. 1995. Monocrotophos induced changes in amino acid and nonsaccharide contents of tobacco leaves. *Indian J. Expe. Biol.* **33** : 449 - 455.
- Pennel, D. and Ashton. 1967. Hormonal control of protease activities in squash cotyledons. *Plant Physiol.* **42** : 791-796.
- Prasad, B.N. and S.N. Mathur. 1983. Effect of metasystox and cuman - L on seed germination, reducing sugar content and amylase activity in *Vigna mungo* (L.) Hepper. *Indian J. Plant Physiol.* **26**(2) : 209 -213.
- Pratibha and R. K. Gupta. 2006. Interactive effect of pesticides and SO₂ on maize plants. *Indian J. Plant Physiol.* **11** (4) : 397-400.
- Pulver, E.L. and S. K. Ries. 1973. Action of simazine in increasing protein content. *Weed Sci.* **21**: 233-237.
- Rains, D.W. ; W.E. Schmid and E. Epstein. 1964. Absorption of cations by roots. Effect of hydrogen ions and essential role of Calcium. *Plant Physiol.* **39** : 274-278.
- Rains, D.W. 1972. Salt transport by plants in relation to salinity. *Ann. Rev. Plant Physiol.* **23** : 367-388.
- Ramulu, C.A. and D. Rao. 1987. Effect of monocrotophos on seed germination, growth and chlorophyll content of clustard bean *Comp. Physiol. Ecol.* **12** : 102 - 105.
- Randhawa, H.S.; H.L. Sharma; J. Kaur and A.S. Dhaliwal. 1985. Effects of fungicides on seed germination and seed mycoflora on wheat under different storage conditions. *Pesticides.* **2** : 36-38.
- Reddy, K. and Vidyavati. 1983. Effect of fungicides on the growth and seedling metabolism of *Dolichos biflorus* L. *Geobios.* **10** : 174-178.

- Reddy, M. T.; A.K.Gupta and M. L. Varshiney. 1986. The effect of pesticides on plant growth ,nodulation, N2- fixation and protein content in fresh peas (*Pisum sativum*) *Pesticides*. **20** (7) : 36-38.
- Reily,J.J. and W.L.Klarman.1972. The soybean phytoalexin hydroxy phaseollin, induced by fungicides. *Phytopathology*. **62** : 1113-1115.
- Reis and R. Melo. 1982. Effect of soil treatment with fungicides on seedling emergence. *Plant growth summa. Phytopathol.* **8** (1/2) : 107-115.
- Rice, E.A. 1979. Allelopathy- An uptake. *Bot. Rev.* **45** : 15-109.
- Roucaud, J.C.; Moons and J.A. Meyer.1985.The effect of selected herbicides and fungicide treatments on the carotenes and xanthophylls in lettuce. *J. Hortic. Sci.* **60** (2) : 245 -250.
- Rozeck,S. and R.Wojciechowska. 1988. The effect of benomyl and captan on the contents of Ca, k, Mg in leaves and on some storage compounds of seeds of dwarf beans (*Phaseolus vulgaris* L.). *Agaria et Silverstria Agaria*. **27** : 75-86.
- Sabale, A.B. and A. B. Misal. 1993. Effect of endosulfan and methyl parathion on germination and seedling growth of Jowar. *Geobios*. **20** : 166-171.
- Sahoo, B.C. and A. D. Das. 1992. Effect of pesticides on carbohydrate, protein and trace element content of some rice varieties. *Poll.Res.* **11** (4) : 197-202.
- Sairam,R.K. ; R.S.Deshmukh; D.S. Shukla; K.G. Wasnik and S.R. Kushwaha.1989. Effect of abscisic acid and triadimefon on photosynthesis and Nitrate Reductase activity during water stress in wheat. *Indian J. Plant. Physiol.* **32**(1) : 51-56.
- Sharma,B.L. ; P. Chandra and S.B.Singh.1997. Effect of granular insecticides on the growth and yield of sugarcane. *Pestology*. **23** (11) : 26-28.
- Shinde, S.R.; M.P. Deshmukh.2008. *Baliraja*.47-52.
- Shivankar, S.K.; R.S. Shivankar and A.H.Nagone. 2000. Effects of fungicidal seed treatment on the germination, shoot and root length of wheat seed infected by black point disease. *Agric.Sci Digest*. **20** (3) : 205-206.
- Sandmann,G. and P. Boger.1983. The enzymatological function of heavy metals and their role in electron transfer process of plants. In : Encyclopedia of plant physiology, New series.(Eds. A. Lauchli and R. Bielecki). Vol. 15A. Springer-Verlag, Berlin and New York. pp.563-569.

- Santhaguru, M. ; Santhi and P. Thamizhchelvan. 1990. Effect of rogor on seed germination and biochemical changes in *Cyamopsis tetragonoloba* Taub. *J. Ecobiol.* **2** (2) : 107 - 112.
- Sankhla, D., A Upadhyaya, T.D. Davis, N. Sankhla and B. N. Smith. 1990. Activities of enzymes of amino acid metabolism senescing *Glycine max* leaves as influenced by paclobutrazol. *J. Curr. Biosci.* **7**(4) : 119-125.
- Saraswathi, V.; M. Jaypragasam and N. Sulochana. 1996. Effect of some pesticides on germinating soybean seeds. *Pestology.* **20** (6) : 10-15.
- Sengupta, P. K. ; A. Chakraborty and B. K. Banerjee. 1986. Biochemical changes induced by toxic concentration of malathion in germinating wheat seeds. *Cur. Sci.* **55** (10) 492-494.
- Sharma, S.S ; M.P. Sharma and G. Rajamani. 1990. Effect of carbendazim on chlorophylls, Phenols and mineral contents in chilli plants (*Capsicum annum* L.). *Indian J. Mycol. Pl. Pathol.* **20** : 229-233.
- Sharma, B.L.; P. Chandra and S.B. Singh. 1997. Effect of granular insecticides on sugarcane. *Pestology.* **23** (11) : 26-28.
- Sharma, Y. K. and B. B. L. Thakore. 2004. Influence of systemic fungicides on physiological and biochemical constituents of chilli crop. *J. Mycol. Pl. Pathol.* **34** (3) : 917-919.
- Siddiqui, Z. S. 1997. Effect of systemic fungicides on total protein, carbohydrate and phenolic contents of *Solanum melanogena* and *Avina sativa*. *Appl. Ent. Phytopath.* **64**. (1 and 2) : 17-22.
- Siddiqui, Z.S.; S. Ahmed and S.S. Shaukat. 1997. Effect of systemic fungicide (Topsin M) and insecticide (Dimecron) on seedling growth and phenolic contents of *Pennisetum americanum*. *Pak.J. Biol. Sci.* **2**(1) : 182-184.
- Siddiqui, Z.S. and S. Khan. 2001. Effect of systemic fungicides on absorption spectra, chlorophyll, protein and phenolic content of *Vigna radiata* *Pak.J. Biol. Sci.* **4**(7) : 812-814.
- Singh P. and M.S. Kang. 1978. Physiological responses of groundnut to bavistin application for the control of tikka disease. *Symptom problem*, Udaypur (Raj.) : 13 -14.

- Singh, P.P. and M.S. Kang. 1983. Effect of Bavistin on biochemical composition of groundnut. *Res. J. Punjab Agri. Univ.* 20 : 479.
- Singh, S. P. and P.K. Agarwal. 1991. Effect of BHC on germination, seedling growth and enzymatic activity of *Linum usitatissimum* Linn. and *Brassica campestris* Linn. *J. Natcon.* 3 (2) : 179 -186.
- Singh, H. 1994. Photosynthetic productivity and partitioning in some important plants growing under suboptimal environment . Ph.D. thesis, J.N.V. University, Jodhapur (India).
- Singh, R. and B.B. L. Thakore. 1996. Effect of fungicide hexaconazole on chlorophyll and NPK contents of bottleguard leaves. *Pestology.* 20 (6) : 8-9.
- Singh, S. P.; P.K. Agarwal ; M. Agarwal. 1997. Effect of aldrin on germination, seedling growth and enzymatic activities in the seedlings of Linseed and mustard. *J. Natcon.* 9 (1) : 91-96.
- Singh, N. K. 1998. Effects of organophosphates as insecticides on germination of wheat and Rice. Abs. AG 57. International Conference on Environment and Agriculture. Nov. 1-3. 1998, Kathmandu, Nepal Abstracts.
- Soam, S.K. 1990. Evaluation of enzymes in dimethoate treated seedlings of gram Var.C. 235. *Natil. Sci. Lett.* 13(5) : 165-166.
- Somashaker, A. and D. Rao. 1984. Pesticides induced germination physiology of *Raphanus sativus* L. *Geobios.* 11 (2) : 75-76.
- Somashekar, R. K. and K. P. Sreenath. 1986. Effect of carbamate pesticides, dithane M - 45 on crop plants. *Pesticides.* 4 : 44-46.
- Somashekar, R.K. and K.P. Sreenath. 1987. Effect of fungicide benalate on germination and seedling growth of the plants. *Geobios.* 14 : 93 - 96.
- Soni, M.; R.R. Bisht ; J. Chauhan and S. P. Bohra. 2006. Sensitivity of Sesame to triazoles at various growth stages. *J. Ecobiol.* 19 (4). 321-329.
- Srivastava, A.K.; S. Azhar and C.R. Krishnamurty. 1972. Inhibition of germination in. *Cicer arietinum.* *Phytochem.* 11 : 3181-3185.
- Srivastava, H.S. and R.S. Fletcher. 1992. Triadimenol increase nitrate level and nitrate Reductase activity in canola leaves. *J. Expt. Bot.* 434 : 1267-1271.
- Sugavanam, V. 1992. Mancozeb induced biochemical changes in the seedlings of bengal

- gram. *Ad. Pl. Sci.* **10** : 262-263..
- Sukul, P. and S. K. Handa. 1989. Effect of systemic pyrethroids on the chlorophyll, nutrition and protein content of chickpea. *Indian J. Agric. Chem.* **22** (1) : 23-27.
- Sundararaj, R.; C.Tamilselvan ; K. Regu and B. V. David. 1993. Influence of certain insecticides on the biology of whitefly *Bemisia Tabacii*(*Gennadius*). *J. Ecobiol.* **5** (5) : 31-33.
- Sundarvelu, S.; T. Muthukrishna and S. Arumugan. 1998.Effect of fungicides on the growth, chlorophyll content and yield of okra (*Abelemoschus esculentus* L. Maench.) *Ad. Plant Sci.* **11** (1) : 33-36.
- Surichandraselvan, S. and P. Narayanswamy. 1991. Effect of systemic fungicides on physiology of potato virus Y infected chilli plants. *Indian Phytopathol.* **44** : 1-4.
- Teichler- Zallen, D. 1969. *Plant Physiol.* **44**: 701. Cf. Rains D.W. 1976. 'Mineral Metabolism'. In *Plant Biochemistry*. J. Bonner and J. Varner (eds.) pp. 561-597. Academic press, New York.
- Thirumaran, D. and A. Xavier. 1987. Effect of methyl parathion on growth, proteins, free amino acid and total polyphenol content of blackgram (*Vigna mungo* L.) seedlings. *Indian J. Plant Physiol.* **30** (3) : 289-292.
- Thomas, ;M. Rajiv and V.P. Singh. 1995.Effect of three triazol derivatives on mercury induced inhibition of chlorophyll and carotenoid accumulation in cucumber cotyledons. *Indian J. Plant Physiol.* **38** (4) 313-316.
- Toth, S.J.; A.L. Prince; A.Wallace and B.Mikkelseen.1948. Rapid quantitative determination of eight mineral elements in plant tissue by systematic procedure involving use of flame photometer. *Soil Sci.* **66** : 459-466.
- Tripathi, R.K. ; K.Tandon; E. Schlosser and W.M. Hess. 1982. Effect of fungicides on the physiology of plants. Part IV. Protection of cellular organelles of senescent wheat leaves by carbendazim. *Pestic. Sci.* **13**: 395-400.
- Upadhyaya, H. and Panda, S.K. 2004. Pesticide induced alterations in physiological responses in *Camellia sinesis*. *Indian J. Plant Physiol.* **9** (1) : 82-85.
- Utpalnath and M. Jayapragasam. 1993. Effect of pesticides on germination of Rice IR-50.*J. Ecobiol.* **5**(4) : 285-288.
- Van Steveninck, R.F.M. 1965. The significance of calcium on the apparent permeability

- of cell membranes and the effects of substitution with other divalent ions.
Physiol. Plant. **18** : 54-69.
- Verma, Neeta and Purnima. 1994. Malathion induced phytotoxicity on seed germination and seedling growth of mustard. *Proc. Natl. Acad. Sci. India, Section B (Biological Sciences)* **64** (2) : 181-187.
- Vyas, S.C. ; M.Thormal and G.R.Gajendragadkar. 1985. Effect of fungicide treatment on nodulation of pea cultivars. *Pesticides*. **8** : 53-60.
- Wallace, J.W. and R.L. Mansell. 1975. Biochemical interactions between plants and Insects. Palenum, New York.
- Wang,D. 1961. The nature of starch accumulation at the rust infection site in the leaves of Pinto bean plants. *Can. J. Bot.* **39** . 1595-1608.

