

LITERATURE CITED

- Abou El- Magd, M.M.; El-Bassiony, A.M.; Fawzy, Z.F. (2006). Effect of organic manures with or chemical fertilizers on growth, yield and quality of some varieties of broccoli plants. *Journal of Applied Sciences Research*, **2**(10): 791-798.
- Babik, I.; Elkner, K. and Booij, R. (ed.) and Neeteson, J. (2002). The effect of nitrogen fertilization and irrigation on yield and quality of broccoli. *Acta horticulturae*, **571**: 33-43.
- Bahadur, A.; Singh, j.; Singh, K.P. (2004). Response of cabbage to organic manures and bio-fertilisers. *Indian J. of Hort.*; **61**(3): 278-279.
- Balyan, D.S. and Singh, R. (1994). Uptake studies on nitrogen, phosphorus and zinc in cauliflower. *Crop Research Hisar*, **7**(1): 54-58.
- Balyan, D.S.; Dhankar, B.S.; Ruhal, D.S. and Singh, K.P. (1998). Growth and yield of cauliflower variety Snowball-16 as influenced by nitrogen, phosphorus and zinc. *Haryana Journal of Horticultural Sciences*, **17** (3-4): 247-254.
- Bhardwaj, A.K.; Kumar, P.; Singh, R.K. (2007). Response of nitrogen and pre planting treatment of seedlings with the azotobacter on growth and productivity of broccoli (*Brassica oleracea* var. *italica*). *Asian Journal of Horticultural Society*, **2**(1): 15-17.
- Bocek, S.; Maly, I.; Patockova, S. (2008). The possibility of using dried organic and organomineral fertilizers as an alternative to farmyard manure in early maturing cauliflower. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, **56**(2): 21-30.

- Bracy, R.P.; Parish, R.L.; Bergeron, P.E. (1995). Sidedress N application methods for broccoli production. *Journal of vegetable crop production*, **1**(1): 63-71.
- Brahma, S. and Phookan, D.B. (2006). Effect of nitrogen, phosphorus and potassium on yield and economics of broccoli (*Brassica oleracea* L. var. *italic*) cv. Pusa Broccoli KTS 1. *Research on crops*, **7**(1): 261-262.
- Brahma, S.; Phookan, D.B.; Gautam, B.P. and Bora, D.K. (2002). Effect of nitrogen, phosphorus and potassium on production of broccoli (*Brassica oleracea* L. var. *italic*) cv. KTS-1. *Vegetable Science*, **29**(2): 154-156.
- Chatterjee, B.; Ghanti, P.; Thapa, U. and Tripathy, P. (2005). Effect of organic nutrition in sprouting broccoli (*Brassica oleracea* L. var. *italic* Plenck). *Vegetable Sci.*, **32**(1): 51-54.
- Chatterjee, B.; Ghanti, P.; Thapa, U.; Tripathy, P. (2005). Effect of organic nutrition in sprouting broccoli (*Brassica oleracea* L. var. *italica* Plenck). *Veg. Sci.*, **32** (1): 51-54.
- Chaurasia, S.N.S.; Singh, Rakesh; Rai, Mathura. (2009) effect of integrated nutrient management and spacing on yield, quality and economics of broccoli. *Veg sci.* **36**(1): 51-54
- Choudhury, M.R.; Saikia, A.; Talukdar, N.C. (2004). Response of cauliflower to integrated nutrient management practices. *Bioved*, **15**(1/2): 83-87.
- Decoteau, D.R., (2000). *Vegetable crops*. Upper River Company. New Jersey, U.S.A
- Du-Caiyan; Duan-ZongYan; Hu-WanLi; Chen-BaoHong; Chen-ShiHua; Kong-LingMing (2008). Study of different NPK treatments on head yield and nutrient uptake of cauliflower. *Southwest China Journal of Agricultural Sciences*, **21**(3): 714-717.

- Dufault, R.J.; Korkmaz, A.; Ward, B. (2001). Potential of biosolids from shrimp aquaculture as a fertilizer for broccoli production. *Compost Science and Utilization*, **9**(2): 107-114.
- Everaarts, A.P.; Moel, C. P.De.; and Willigen, P.De.; Moel, C.P.De and Willigen, P.De. (1997). Nitrogen fertilizing and nutrient uptake of broccoli. *PAV Bulletin Vollegroundsgroenteteelt*, February, pp. 16-17.
- Everaarts, A.P.; Willigen, P.De. and Willigen, P.De. (2000). The effect of the rate and method of nitrogen application on nitrogen uptake and utilization by broccoli (*Brassica oleracea* var. *italica*). *Netherlands Journal of Agricultural Science*, **48**(3-4): 201-214.
- Everaarts, A.P.; Willigen, P.De. and Willigen, P.De. (1999). The effect of nitrogen and the method of application on yield and quality of broccoli. *Netherlands Journal of Agriculture Science*, **47** (2) : 123-133.
- Feller, C. and Fink, M.(2005). Growth and yield of broccoli as affected by the nitrogen content of transplants and the timing of nitrogen fertilization. *Hort. Science*, **40**(5): 1320-1323.
- Gomez, K.A. and Gomez, A.A. 1976. Statistical procedure for agricultural research, 2nd edition, John Wiley and Sons, New York, pp.328.
- Jackson, M.L. (1973) Soil Chemical Analysis , prentice hall of India Pvt. Ltd., New Delhi pp 498
- Jana, S.C. and Mukhopadhyay, T.P.(2001). Effect of nitrogen and phosphorus on growth and curd yield of cauliflower var. Aghani in terai zone of West Bengal. *Vegetable Sci.*, **28**(2):133-136.
- Jing, Y.; Hong, L.; Jiang, L.; wei, M.J. Qiang, W.; JianMei, W. and JianRong, F.(2005). Nutrient uptake characteristics of broccoli and selection of specialized compound fertilizer. *Acta Agriculture Zhejiangensis*, **17**(5): 330-333.

- Kadam, U.S.; Deshmukh, M.R.; Takte, R.L.; Daund, V.P. (2006). Fertigation management in cauliflower. *Journal of Maharashtra Agricultural Universities*, **31**(3): 252-255.
- Karitonas, R.; Horst, W.J. (ed.); Schenk, M.K. (ed.); Burkert, A. (ed.); Claassen, N. (ed.); Flessa, H. (ed.); Frommer, W.B. (ed.); Goldbach, H. (ed.); Olf, H.W. (ed.) and Romheld, V. (2001). Effect of nitrogen supply on yield and quality of broccoli. *Plant nutrition: Food security and sustainability of agro-ecosystems through basic applied research. Fourteenth International Plant Nutrition Colloquium*, Hannover, Germany, p. 298-299.
- Katyal, J.C. (1989) *In. proceedings Indian National Science Academy B* 59 (3 & 4) : 183
- Khurana, D.S.; Singh, H.; Singh, J. and Cheema, D.S. (1990). Effect of N, P and plant population on yield and its components in cauliflower. *Indian Journal of Horticulture*, **47** (1): 70-74.
- Kumar, R. (2004). Effect of nitrogen, phosphorus and boron on growth and quality of mid-season cauliflower. *Journal of Applied Biology*, **14**(2): 97-101.
- Lisiewska, Z. and Kmiecik, W. (1996). Effects of level of nitrogen fertilizer, processing conditions and period of storage of frozen broccoli and cauliflower on vitamin C retention. *Food Chemistry*, **57**(2): 267-270.
- Magd, E.I.M.M.A.; Mohamed, H.A. and Fawzy, Z.F. (2005). Relationship growth, yield of broccoli with increasing N, P or K ratio in a mixture of NPK fertilizers (*Brassica oleracea* var. *italica* Plenck.). *Annals of Agricultural Science, Moshtohor*, **43**(2): 791-805.
- Mahmud, S.; Haider, J.; Moniruzzaman, M. and Islam, M.R. (2007). Optimization of fertilizer requirement for broccoli under field condition. *Bangladesh J. agric. Res.*, **32** (3): 487-491.
- Manivannan, M.I.; Singh, J. (2004). Effect of biofertilizers on the growth and yield of sprouting broccoli (*Brassica oleracea* var. *italica* Plenck) under Allahabad agro climatic conditions. *Allahabad, India: Bioed Research Society*. **15**(1/2): 33-36.

- Maurya, A.K.; Singh, M.P.; Srivastav, B.K.; Singh, Y.V.; Singh, D.K.; Singh, S.; Singh, P.K. (2008). Effect of organic manures and inorganic fertilizers on growth characters, yield and economics of sprouting broccoli cv. Fiesta. *Indian Journal of Horticulture*, **65**(1): 116-118.
- Maurya, A.K.; Singh, M.P.; Srivastava, B.K.; Singh, Y.V.; Singh, D.K.; Singh, S.; Singh, P.K. (2008). Effect of organic manures and inorganic fertilizers on growth characters, yield and economics of sprouting broccoli cv. Fiesta. *Indian J. of Horticulture*. **65**(1): 116-118.
- Moll, R.H., Kamprath, E.J. and Jackson, W.A. (1982) Analysis and interpretation of factors which contribute to efficiency of nitrogen utilization. *Agronomy Journal* **74**(3): 562-564
- Mourao, I.; Brito, M.; Rahn, C. (ed.) and Fink, M. (2001). Effects of direct film crop cover and top dress nitrogen on earliness and yield of broccoli crop (*Brassica oleracea* var. *Italica* Plenck). *International Journal of Agriculture and Biology*, **10**(6): 627-632.
- Narayanamma, M.; Chiranjeevi, C.H.; Reddy, I.P.; Ahmed, S.R. (2005). Integrated nutrient management in cauliflower (*Brassica oleracea* var. *botrytis* L.). *Vegetable Science*, **32**(1): 62-64.
- Olsen, S.R., Cole, C.W., Watanabe, F.S. and Dean, L.A. (1954) Estimation of available phosphorus in soils by extraction with sodium bicarbonate USDA circular No 939.
- Ouda, B.A. and Mahadeen, A.Y. (2008). Effect of fertilizers on growth, yield, yield components, quality and certain nutrient contents in broccoli (*Brassica oleracea* var. *Italica* Plenck). *International Journal of Agriculture and Biology*, **10** (6): 627-632.
- Page, A.L., Miller, R.h., and Kenney, D.R. (1982) *Method of soil analysis (part-2) chemical and microbiological properties. Second edition*, Number-9 in the series, American Society of Agronomy and Soil Science Society of America, Time publisher Madison, Wisconsin, USA.

- Panse, V.G. and Sukhatme, P.V. 1985. *Statistical Methods for Agricultural Workers* (4th Ed.) Indian Council of Agricultural Research, New Delhi.
- Pandey, R.P.; Ganeshe, R.K.; Naidu, A.K. and Mehta, A.K. (1998). Biofertilizer. The economic, viable and cheap alternative to chemical fertilizers for vegetable production. Abstract of Silver Jubilee National Symposium on Emerging Scenario in Vegetable Research and Development; III.
- Pattanayak, S.K., Mohanty, S., Mishra, K.N., Nayak, R.K., Mohanty, G.P. (2008) Technical Bulletin in "*Biofertilizers for Tropical vegetables*" AINP on Biofertilizers, OUAT, Bhubaneswar, Orissa.
- Piper, C.S., 1966. Soil and Plant Analysis, Hans publishers, Bombay, India, pp 47-69
- Raghav, M. and kamal, S.(2007). Effect of VAM and inorganic fertilizers on growth, yield and quality of sprouting broccoli (*Brassica oleracea* var. *italic* Plenck) cv. Hybrid-1. *The Hort.J.* **21**(2): 60-61.
- Randhawa, N.S. and Velayutham, M.(1989) In. *Proceeding of a colloquium on soil fertility and fertilizer management in semiarid Tropical India* (Christienson C. Bruce od.) pp. 129-135. International fertilizer Development Center, Muscle Shouls ALA, USA
- Ranganna, S. (1977) Manual of Analysis of fruit and vegetable products. *Tata Mc Graw Hill publishing Co. Ltd.*, New delhi, pp 36-39
- Ranwat, R.; Shukla, A.K. and Srolia, D.K. (2008). Effect of nitrogen, phosphorus and potassium on growth and yield of sprouting broccoli (*Brassica oleracea* var. *italic* Plenck) cv. Hybrid-1. *The Hort. J.*, **21**(2): 60-61.
- Sable, P. B.; Bhamare, V.K. (2007). Effect of biofertilizers (*Azotobacter* and *Azospirillum*) alone and in combination with reduced levels of nitrogen on quality of cauliflower cv. Snowball-16. *Asian Journal of Horticulture*, **2**(1): 215-217.

- Sanderson, K.R. and Ivany, J.A. (1999). Cole crop yield response to reduced nitrogen rates. *Canadian Journal of Plant Science*, **79**(1): 149-151.
- Sanwal, S.K.; Rai, N.; Yadav, D.S.; Yadav, R.K. (2005). Compositional differences of stem and floral portions of broccoli under different organic manures and natural growth promoters. *Vegetable Science*, **32**(1): 73-75.
- Schuphan, W. (1974). Nutritional value of crops as influenced by organic and inorganic fertilizer treatment. Results of 12 years experiments with vegetables (1960-1972). *Qual, Plant-P.L. Fds Hum. Nutr.*, **23**(4): 333-358.
- Sharma, A. ; Parmar, D.K.; Pradeep, Kumar. Singh, Yudhvir.; Sharma, R.P. (2008). *Azotobacter* soil amendment integrated with cow manure reduces need for NPK fertilizers in sprouting broccoli. *International Journal of Vegetable Science*, **14**(3): 273-285.
- Sharma, A. and Chandra, A. (2004). Effect of plant density and nitrogen levels on physico-chemical parameters of cauliflower. *Haryana Journal of Horticultural Science*, **33**(1/2): 148-149.
- Sharma, A., Kumar, P., Parmar, D.K., Singh, Y. and Sharma, K.C. (2009). Effect of bio-inoculants and graded level of fertilizers on growth, yield and nutrient uptake in cauliflower (*Brassica oleracea* L. Var. *Botrytis* L.). *Vegetable Science*, **36**(3 Suppl.): 344-348.
- Sharma, K. C. (2000). Influence of integrated nutrient management on yield and economics in broccoli (*Brassica oleracea* L. var. *Italica*) plenck under cold temperate conditions. *Vegetable Science*. **27**(1): 62-63.
- Sharma, R. P.; Sharma, Akhilesh.; Sharma, J.K. (2005). Productivity, nutrient uptake, soil fertility and economics as affected by chemical fertilizers and farmyard manure in broccoli (*Brassica oleracea* var. *italic*) in an Entisol. *Indian J. of Agricultural Sciences*. **75**(9): 576-579.

- Sharma, S.K. and Sharma, R. (1999). *Proceeding of 4th Agri. Sci. Congress held at Jaipur, w.e.f. Feb. 21-24.*
- Sidhu, A.S. (2008). Role of vegetables in food and nutritional security. *Crop Care*, **33**(4): 21-28.
- Singh, A.K. (2004). Effect of nitrogen and phosphorus on growth and curd yield of cauliflower var. Snowball-16 under Cold Arid region of Ladakh. *Haryana Journal of Horticultural Sciences*, **33**(1/2): 127-129.
- Singh, Anjana; Singh, T.; Singh, B.N. (2009) Influence of integrated nutrient management on growth, yield and economics of cauliflower. *Veg. Sci.* **36** (3 suppl.): 340-343.
- Singh, Balraj.; Walia, Shweta.; Chaturvedi, Shivani.; Tomar, B.S. and Thakur, Shailja. (2011). Exploring goldmine of nutrients from broccoli wastes. *Indian Horticulture*. January- February. pp 27-29
- Singh, R. V. and Naik, L.B. (1993). Response of cauliflower (cv. Early Kunwari) to plant density, nitrogen and phosphorus levels. *Progressive Horticulture*, **26**(1/2): 53-56.
- Singh, R.V. (2005). Response of late cauliflower to plant spacing nitrogen and phosphorus fertilization. *Journal of Research*, Birsa Agricultural University, **17**(2): 223-226.
- Singh, Rakesh.; Chaurasia, S.N.S.; Singh,S.N. (2006). Response of nutrient sources and spacing on growth and yield of broccoli (*Brassica oleracea* var. *Italica* Plenck). *Vegetable Science*. **33**(2): 198-200.
- Singh, V. N.; Singh, S.S. (2005). Effect of inorganic and biofertilizers on production of cauliflower (*Brassica oleracea* L. var. *botrytis*). *Vegetable Science*, **32**(2): 146-149.
- Subbiah, B.V. and Asija, G.L. 1956. A rapid procedure for determination of available nitrogen in soils. *Current Science* 25:259-260.

- Supe, V.S.; Marbhal, S.K. (2008). Effect of organic manures with graded levels of nitrogen on growth and yield of cabbage (*Brassica oleracea* var. *capitata* L.). *Asian Journal of Horticulture*, **3**(1): 48-50.
- Swain, A.K., Pattanayak, S.K., Jena, M.K. and Nayak, R.K. (2003) Effect of integrated use of bio inoculants and fertilizer N on growth yield and N economy of okra. *Journal of the Indian Society of Soil Science*. **52** (2): 145-150.
- Swaroop, K.; Suryanarayana, M.A. and Sharma, T.V.R.S. (1999). Effect of nitrogen and phosphorus on growth and curd yield of cauliflower (*Brassica oleracea* L. var. *botrytis*). *Vegetable Science*, **26**(1): 85-86
- Thakur, O.P., Sharma, P.P. and Singh, K.K.(1991). Effect of nitrogen and phosphorus with and without boron on curd yield and stalk rot incidence in cauliflower. *Vegetable Science*, **18**(2): 115-121.
- Velmurugan, M.; Balakrishnamoorthy, G.; Rajamani, K.; Shanmugasunderam, P.; Gnanam, R. (2008). Effect of organic manures, biofertilizers and biostimulants on growth and yield of cauliflower (*Brassica oleracea* var. *botrytis*) cv. Indam 2435. *Crop Research Hisar*, **35**(1/2): 42-45.
- Wang, G.; Ying, Z.C.Z. H.; FuShan, Z.; Wang, G.Y.; Zhang, C.Z. and Zhang, F.S. (1997). Effect of nitrogen, phosphorus and potassium fertilizer on the yield and physiology target of broccoli. *China Vegetables*, **(1)**: 14-17
- Wange, S.S.; Kale, R.H. (2004). Effects of microbial inoculants with graded levels of inorganic nitrogen on broccoli and lettuce. *Journal of Soils and Crops*, **14**(1): 18-21.
- Whistler, R.L. and Wolfrom, M.L. (1962). Methods in carbohydrate chemistry. Academic press, vol. 1, pp. 389-390
- Yoldas F., S. Ceylan, B. Yagmur and N. Mordogan (2008). Effect of nitrogen fertilizer on yield quality and nutrient content in broccoli. *J. Plant Nutr.*, **31**: 33-43.

