## EFFECT OF IRON ON SENESCENCE IN DELONIX REGIA, LINN.

## Vandana Singhal & Ashok K. Bhargava

Botany Department, M.S. College, Saharanpur – 247001(U.P.)

**Abstract:** The effect of different concentration of Iron on senescence of cut flowers of *Delonix regia* (Gulmohr) in light, both in terms of total anthocyanin and dry weight levels were investigated, It was found that the heavy metal Iron show concentration dependent effects. The lower concentration delay senescence and higher concentration accelerate the petal senescence in light. Control along with the higher concentrations of Iron accelerates petal senescence.

Keywords: Iron, Senescence, Anthocyanin

## REFERENCES

- Banargi, D. (1966). Studies in protein metabolism in plants with particulars reference to Kinetin effects. D.Phil. Thesis, University of Allahabad, Alld. India.
- Bhargava A.K. (1990). Retardation and acceleration of *Ricinus Comunis*, L. cotyledonary leaf senescence. *Biosphere:* **2**(2): 22-25
- Bhargava, A.K. (1984). Physiological aspects of heavy metals pollution with particulars reference to Zinc. Ph.D. Thesis Meerut University, Meerut, India.
- Bhargava, A.K. and Singh, S.N.(1982). Twin action of growth promotion and inhibition of certain cucurbits and legumes by the heavy metals Ni and Zn. *J. Indian Bot. Soc.* 61 (3), 97.
- Foy, C.D.; Chaney, R.L. and White, M.C. (1978). The physiology of metal toxicity in plants, *Ann. Rev. Plant physiol.* 29: 511-566.
- Fuleki, T. and Francies, F.J.(1968). Quantitative methods for anthocyanin I. extraction and determination of anthocyanin in Canberries, *J. Food Sci.*, 33. 72-77

- Kikkawa, H. Ogita, Z. and Fujito, S. (1955). Relation of plant pigment and metals, *Kagaku* (Science), **25**: 139.
- Laloraya, M.M., Banerji, D and Rauf. A. (1979). Importance of varietal differences and proteolysis in the Kinetin effect on senescence, *The plant Biochem. J.* 6: 89-95.
- Madvedeva, E.A. (1968). Effect of nickel on catalase activity in cut flowers and buds of maiden pink and Petunia, *Biol. Nauki* No. **10:** 66-70
- Mancinelli, A.L. Yang, C.H. Rabino, I. & Kuzmanoff, K.M. (1976). Photocontrol of anthocyanin synthesis: V. Further evidence against envolvement of photosynthesis in high irradiance anthocyanin young synthesis of seedling. Plant physiol. 58: (21), 214-214.
- Rai, L.C.; Gaur, J.P. and Kumar, H.D. (1998). Phycology and Heavy metal pollution, *Biological Reviews* (Cambridge), 56, 99-151.
- Rao, G.N. (1982). Delaying of *Rosa damascene* petal senescence by certain plant growth regulators, *Current Science*, **51**: (19), 939-940.
- Sharma, S.S. (1982). Studies on heavy metal pollution : Effect of Hg on the physiology of plants, Ph.D. Thesis, Meerut University, Meerut, India.

Journal of Plant Development Sciences Vol.3 (1 & 2): 213-216. 2011

- Sharma, V. (1981). Studies on flavonoids with particular reference to anthocyanin pattern in developing plant part, Ph.D. Thesis, Meerut University, Meerut, India.
- Singh, S.N. (1984). Physiological studies on heavy metal pollutant – Nickel, Ph.D. Thesis, Meerut University, Meerut, India.