

# SALT TOLERANCE PROTEINS IN DEVELOPING CHILLI FRUIT

Shalini<sup>1</sup>, Neeru<sup>2</sup> and Vipin Kumar<sup>3</sup>

1. Faculty of Bioscience, Shri Ram college, Muzaffarnagar (UP)

2. Department of Botany, CCRD College, Muzaffarnagar (UP)

3. Directorate of Research, SVPUA & T, Meerut (UP)

E-mail : [shalinisingh333@gmail.com](mailto:shalinisingh333@gmail.com)

**Abstract:** The influence of NaCl on different quality attributes such as protein and protease of the Chilli Fruits were investigated during the developmental stages. Electrophoresis analysis of total soluble protein (SDS-PAGE) profile was carried out in order to evaluate the response of chilli fruits to salt stress. Protein content increased with attainment of fruit maturity SDS-PAGE analysis has revealed that plant grown under NaCl (50 and 100mM) showed induction or repression in the synthesis of few polypeptides in green and red fruits. This increase in protein content with increase in fruit maturity indicates that these concentrations of NaCl enhance protein synthesis which increases the ability to cope with salinity.

**Keywords:** Chilli Fruit, NaCl, Protein Analysis

## REFERENCES

- Annonymus**, (1994). Area and production of spices. In Agricultural situation in India, 49:387.
- Dubey, R.S. and Pessaraki, M.** (1995). Physiological mechanisms of nitrogen absorption and assimilation in plants under stressful conditions. In : Pessaraki M.(ed.): Handbook of Plant and Crop Physiology Marcel Dekker, New York: pp: 605-625.
- Green, N.M., and Neurath, H.** (1954), In The Proteins, vol.II ,pt. B, Neurath, H., and Bailey, K., editors, New York, Academic Press, Inc. , P.1057.
- Habib, H. and Fazili, K.M.** (2007). Plant Protease inhibitors: a defense strategy in plants. *Biotechnology and Molecular Biology Review*. 2(3). 068-085.
- Lowry, O.N., Rosebrough, N.J., Farr, A.L. and Randall, R.J.** (1951). Protein measurement with folin reagent. *Journal of Biol. Chem.* 193:265-275
- Laemmli, U.K.** (1970). Cleavage of structural proteins during the assembly of the head of bacteriophage tu. *Nature*. 227: 680-685.
- Mangal J.L., Singh, R.K., Yadav, A.C., Lal, S. and Pandey, U.C.** (1990). Evaluation of garlic cultivars for salinity tolerance. *J.Hort. Sci.* 65: 657-8.
- Pruvot, G., Luine, S., Peltier, G. and Rey, P.** (1996a). Characterization of a novel drought-induced 34-kDa protein located in the thylakoids of *Solanum tuberosum* L. *Plants Planta* 198:471-479.
- Singh, N.K., Bracker, C.A., Hasegawa, P.M., Handa, A.K., Buckel, S., Hermodson, M.A., pfankoch, E., Regnier, F.E. and Bressan, R.A.** (1987). Characterization of osmotin. A thaumatin like protein associated with osmotic adaptation in plant cells. *Plant Physiol.* 85. 529-536.