

# Effect of Moisture, drying Conditions and Storage on the Quality of Dried Sweet Pepper Powder

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**Abstract**—In this study effect of initial moisture content, drying conditions (40°C, 50°C, 60°C) and storage (6 months) on the chemical and bioactive attributes of sweet pepper (var. Indira) were evaluated.

Fresh and dried sweet pepper were analysed for chemical (total solids, non-enzymatic browning, acidity, total carotenoids, lycopene, chlorophyll content and vitamin C) and bioactive parameters (total phenols, antioxidant activity and flavonoids). For shelf life, powdered samples were stored in HDPE packaging material under refrigeration conditions. Stored samples were analysed for chemical and bioactive parameters at the interval of one month for 6 months. Significant ( $p < 0.5$ ) effect of moisture content on the retention of nutrients was observed. Significant ( $p < 0.5$ ) decrease was found in total carotenoids and chlorophyll in the samples which dried at 40 °c. However, more retention of total phenols, antioxidant activity and flavonoids were observed at sample dried at 60°C whereas reverse was observed in vitamin C content. It was concluded that the samples which had high moisture content significantly affected the quality of powder. Therefore sample dried at 60°C was found best in terms of bioactive retention and storagibility.