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RESEARCH PAPER

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Effect of post harvest treatments on quality and shelf-life of dehydrated ginger (*Zingiber officinale* Rosc.)

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SUMMARY :

Ginger (*Zingiber officinale* Rosc.) is one of the important high value crop, cultivated widely in the North Eastern Region of India. Of the total ginger production, around 93.4 per cent becomes a marketable surplus. This huge amount of marketable surplus is sold by the farmers at a very low price. The ginger producers of the region have not been benefited to the desired extent due to absence of proper processing units and storage facility locally. The traditional ginger drying methods used by the farmers are varied, haphazard and risky, resulting in mould growth and destruction of some heat sensitive pungent properties. Considering the huge production, potentiality, market demand and its agro-climatic suitability in the region, an experiment on post harvest treatments on shelf-life and quality of dehydrated ginger var. 'Bhola' was conducted in the Quality Control and PHT Laboratory of Department of Horticulture, Assam Agricultural University, Jorhat. The freshly harvested ginger rhizomes were washed, peeled and cut into small shreds. The ginger shreds were pretreated with different combinations of salt solutions *viz*., 4 per cent,6 per cent, 8 per cent and 10 per cent, citric acid *viz*., 1 per cent, 2 per cent,3 per cent and 4 per cent and ascorbic acid 2 per cent in general. The treated samples were dried in oven for 7 hours at 60°C and stored in plastic containers at ambient conditions. The dehydrated ginger shreds treated with 10 per cent salt solution + 4 per cent citric acid + 2 per cent ascorbic acid recorded the highest crude protein (5.73%), oleoresin (4.31%), total soluble carbohydrate (12.89%) and overall sensory score (7.93%) without microbial growth till 180 days of storage. The dehydrated ginger shreds could be safely stored upto 180 days.

KEY WORDS : Post harvest treatments, Dehydrated ginger,

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