B-116: Effect of storage conditions on the preservation of fat soluble pigments and the pungency compounds of dried chillies

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Chillies (*Capsicum annuum* L) are used as a table vegetable or as a food additive in dried forms. The quality of dried chillies is determined by several factors like brilliant red colour and specific pungency. A study was carried out to investigate the effect of storage conditions on the retention of fat soluble pigments and pungency compounds.

All the samples used were 500 g and were kept for 3 months before analysis, control samples were kept in open paper bags. Some samples were stored in poly sacks, jute bags, in crates of different sizes, and paper bags under pressure

with a 25 kg weight. Samples were also treated with 1 % citric acid at 65°C for 1 min and some were blanched at 65°C for 1 min in paper bags. The other samples were stored under direct light without keeping them in bags. Contents of fat soluble pigments in chilli samples were determined by a colorimetric method with relation to standard solutions of $K_2Cr_2O_7$. Degree of pungency was detected by a sensory evaluation method.

Dried chillies stored in plastic crates (18, 10 and 5 cm dimension) and poly sacks retained the maxium amount of pigments and pungency compounds being 70 to 72 % and 50000 to 55000 SHU units respectively. Jute bags also had a positive effect next to the above 2 storage methods. Storage of chillies under direct light had a negative effect on preservation of both pigments and pungency compounds.