Quality Changes of the Green, Culinary Herb, Shado Beni (Eryngium foetidum LINN) During Dehydration

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Abstract

The green, food flavouring/seasoning herb Eryngium foetidum Linn. also called "shado beni" or "bhandhanya" in Trinidad and Tobago and "cilantro" or "culantro" in Latin America was dried at temperatures ranging from 35 - 65°C and under both natural and forced convection conditions. A dehydrated product is seen as a convenient alternative for using the fresh, green herb. The effects of various blanching pre-treatments on the quality of the herb at 55°C were also studied viz: steam, water and alkali. Drying of fresh herb under natural convection at high temperatures of 55°C and 65°C resulted in an undesirable colour change from the green, typical of the fresh herb to olive brown or brown with sporadic greening. This paralleled an almost complete loss of the herb's volatile oil constituent which is over 82%. Chlorophyll and oil losses were reduced under forced convection drying conditions. Irrespective of drying conditions, loss of green colour was reduced by blanching in water or magnesium carbonate prior to drying at 55°C. Compared to the unbalanced herb, oil yield was unaffected by the blanching pre-treatments investigated.