Evaluation of turmeric genotypes for quality traits

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Introduction

- *Curcuma longa* L. is domesticated crop in India is widely cultivated for the production of turmeric powder.
- Widely used as spice and food colouring agent and as the resource for curcumin the main phenolic compound in turmeric.
- Curcumin has proven properties of antioxidant and anti-inflammatory agent and induces apoptosis in a variety of cancer cells (Kunnumakkara *et al.* 2008)
- Recently curcumin has been found to be ant depressive and hypolipidimic

Materials and Methods

- 200 Genotypes (Turmeric Samples), TNAU, Coimbatore
- Curing percentage (Natarajan and Lewis, 1980)
- Curcumin quantification (ASTA, 1968)
- Oleoresin content (ASTA, 1968)
- Essential oil content (ASTA, 1968).

Result and Discussion

Quality Traits	Range	Maximum
Curing percentage (%)	14.67 to 25.93	Erode local
Curcumin (%)	0.47 to 5.79	Salem local
Oleoresin content (%)	0.39 to 11.58	Erode local
Essential oil content (%)	0.17 to 2.17	Thamaraipalayam – Erode

- Method of extraction to have influence on the percentage of oleoresin, curcumin and essential oil content.

Reference

Asta, A. S. T. A.-. (1968). Official analytical methods of the American Spice Trade Association: Englewood Cliffs.

Kunnumakkara A B, Anand P and Aggarwal B B Curcumin inhibits proliferation, invasion, angiogenesis and metastasis of different cancers through interaction with multiple cell signaling proteins *Cancer Lett* **269** (2008) 199-225

Natarajan,C., & Lewis, Y. (1980). *Technology of ginger and turmeric.* Paper presented at the Procceding of the Nasional Seminar on Ginger. Turmeric. Central Plantation Corps Research Institute. Krala. India.