

## DEVELOPMENT OF A METHOD TO REDUCE THE PUNGENCY OF CHILLI SEEDS

(*Capsicum annum*)

T.W.Jayasekara<sup>1</sup>, Gamunu Jayasundara<sup>2</sup> and P.H.P.Prasanna <sup>1</sup>

<sup>1</sup>*Faculty of Agriculture, University of Rajarata, Anuradhapura, Sri Lanka*

<sup>2</sup>*Business Manager-Seed, Lankem Ceylon Limited, No 98, Sri Sangaraja Mawatha, Colombo 10, Sri Lanka*

Chilli is one of the most important cash crops grown in Sri Lanka. It has become an essential ingredient in Sri Lankan meals. Hot flavor or pungency is one of the key characteristics of chilli. A unique group of mouth-warming, amide-type alkaloids containing a small vanilloid structural component known as [capsaicin](#) act directly on the pain receptors of the mouth and throat to produce the burning sensation associated with chilli. Chilli seed packaging become tedious process due to seed pungency. This study based on KA-2 as well as MI-2 chilli varieties, because they have higher demand in market among other recommended chilli varieties commonly used for cultivation in Sri Lanka. Three treatments were used to reduce chilli seed pungency. Chilli seed was treated with absorbent (charcoal), detergent (Teepol) and solvent (water), because they are easily available and cheapest materials. Fifty gram of seed samples were treated with above materials and one sample was kept as a control sample. Pungency level was determined by using a sensory evaluation with untrained panel which comprise 30 individual panelists from Agro chemical laboratory of Lankem Ceylon Limited in Ekala and smell of the pungency was used to detect sensory property and by using 1 to 5 point scale. Non-parametric Friedman test was used to determine the best treatment for reducing pungency of chilli seed by using MINITAB statistical package. Germination percentage and moisture content of the treated seeds were determined to evaluate the storage quality. Germination tray method and oven-dry method were used to determine the germination percentage and moisture content of treated seeds respectively. The statistical results proved that, water is the best treatment in reducing the seed pungency of both chilli varieties among three treatments of seeds. Overall

germination percentage was 87% to 88% of control sample of both KA-2 and MI-2 chilli varieties and water and charcoal treated samples also had 80% and 88% respectively. There was no significant difference between them. Although, overall germination percentage of Teepol treated sample was 70% and 80% respectively (germination percentage is loss by 5 %) indicating that, Teepol was some extent useful to the germination process of seeds. This overall result implies, water treatment is the best that can reduce the seed pungency and it does not affect to the germination of seed considerably before or after storage.

*Key words: Chill seed, Pungency, Water, Teepol, Charcoal*