Laussan
Laboratories India Pvt. Ltd.

Miracle EVERYDAY™

SHELF LIFE ENHANCING TRIAL

TOMATO

Trials on laboratory scale were taken up for checking the efficacy of Miracle L44 in increasing the shelf life of the vegetables, fruits and other products like chilies. The products were dipped in 2 % Miracle L44 treated potable water and product dried and kept for observation for the above mentioned parameters. Most important characters that were checked periodically were :

- Appearance of microbial infection of the surface: Blemish, darkening of the skin, cracks developed on the surface, any other factor that will reduce the possibility of the fruit being not accepted by the customer due to appearance
- Loss in weight over 5 % from the initial recorded weight at the start of the experiment . the experiment was terminated once the weight loss exceeded or neared 5 %
- DEBELE formula was applied to check integrity of the post harvest treatment but as this were only the initial experiments mire stress was given to the loss of weight as per point no 2 for checking the success of the treatment.

Results have been tabulated for reference and record along with the photographs of the products tested at various stages.

PRODUCT
COMMON NAME : TOMATOES
BOTANICAL NAME : SOLANUM LYCOPERSICUM
VARIETY:
DATE OF START OF EXPERIMENT :

Procedure: AS Per Miracle S.O.P. No 001, products dipped in 2 ml miracle L44 in 1 liter potable water. Time for treatment app. 2 minute of dipping. Product fully covered with treatment mixture, no swirling or stirring allowed to rest. Removed placed on a clean non lint paper/cloth to absorb the water and let it drain off to ensure minimal moisture during the storage period. Designated as (T)

Equal amount of Control sample was observed for comparison. Control samples dipped in clean potable water. Treated in the same way as the experiment but without the addition of Miracle L44.
Designated as(C)
Storage Temperature post treatment & Control: Ambient, app. 32 to 35 C
Wight recorded / Appearance:

Day 1	400 g (T) 400 g (C)	Appearance good, product cleaned post treatment and appears to be lustrous and visually appealing (T)	Equal amounts of tomatoes taken for control 400 g (C)
Day 7	400 g (T) 389 g (C)		
Day 14	392 g (T) 370 g (C)		Experiment terminated for control samples. Control developed black spots of Microbial infection on the 8th day of storage.
Day 21	390 g (T)		
Day 28	390 g (T)		
Day 35	378 g (T)	Loss of weight greater than 5% experiment terminated. Treated produce shows minimal surface contamination or microbial infection. Start of shrivelling is observed.	
Day 42	Experiment terminated		

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