



#### MIRACLE In Mushroom!!!



#### Miracle Everyday L-44 F

is effective against microbial growth at these 3 stages providing a premium quality of mushrooms to consumers.

- ❖ Shelf life Enhancement <u>Up to 12 days</u>
- ❖ Disease Control <u>Blotch spread controlled</u>
- ❖ Colour Development *More Whiter in color*

Miracle Everyday L-44 F ensure consumer's safety with a clean cultivation setup for mushrooms growers.



# MUSHROOM Preharvest misting







Control

**Treated** 

Control

Treated

Day 1

**Day 11** 



## MUSHROOM WASHING Postharvest











AFTER 30 HRS OF TREATMENT WITH CHEMICAL

AFTER 48 HRS OF TREATMENT WITH L-44 F



### **INTRODUCTION**



➤ Miracle Everyday L-44 F is a product based on a BIOFLAVONOID extracted from bitter orange peel, hence is FOOD SAFE

L-44 F has potent:

Mnti-microbial properties – Eliminate all harmful pathogens

Anti-oxidant properties - Prevents oxidation

Anti-inflammatory properties - Reduces inflammation

These enable use of L-44 F as a Food Safe sanitizer and a Shelf Life Enhancer.

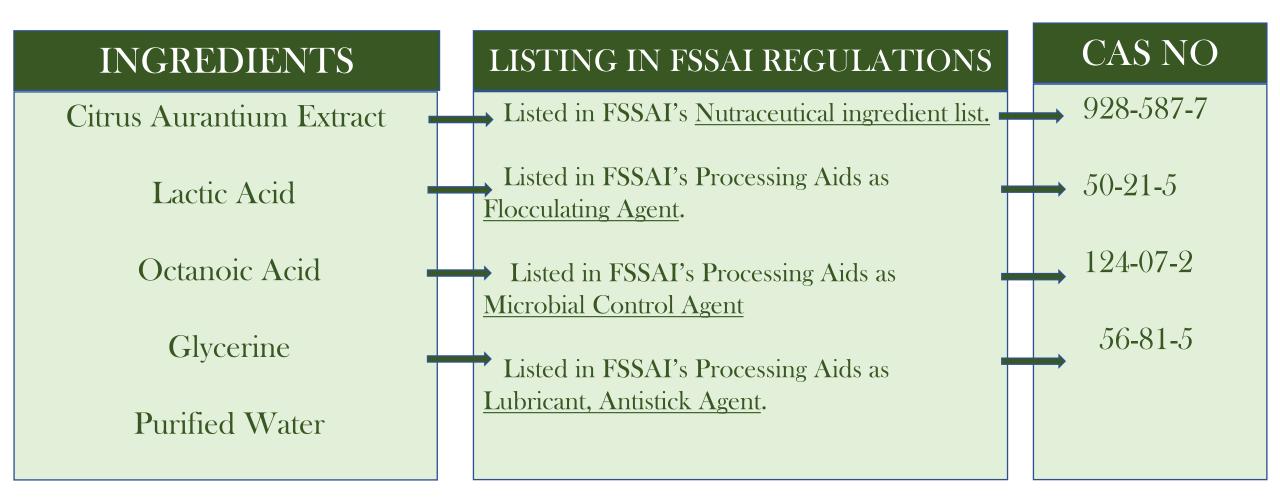
➤ Miracle Everyday L-44 F has varied applications in Dairy, Hotels / Catering (HORECA) Confectionary, Agricultural produce, and many more.



#### COMPOSITION of L-44 F



100 % ORGANIC CERTIFIED



NOTE:- All the ingredients in L-44 are 100% organic and are naturally derived.



#### **CERTIFICATIONS**





FSSAI approved food stabilizer enhancing shelf life of foods.



Organically
Certified by
NASAA





Tested Chemical residues free



All ingredients of the product are listed on the USFDA 'Food Additive Status List'



Tested Pesticidal residues free



### Wechanism of Microcidal ACTION aussan



Miracle Everyday L-44 F kills Spoilage organisms and Pathogens of concern in Food Safety and Shelf life.

- > Broad spectrum disinfectant effective against bacteria, fungi and certain RNA and DNA viruses.
- ➤ Works by causing cell-wall intrusion, complexation of key cations and disruption of protein functioning which affects cellular as well as non-cellular microbes.
- Since it is mechanical killing action, resistance development by microbes is prevented.



## TESTED AND EFFECTIVE AGAINST



#### **BACTERIA**

- Staphylococcus aureus
- Escherichia coli
- Proteus vulgaris
- Methicillin-resistant
   Staphylococcus aureus
- Pseudomonas aeruginosa
- Legionella pneumophila
- Salmonella spp.
- Lysteria monocytogens
- Food spoilage bacteria

#### **VIRUS**

- > H1N1 virus
- > SARS-CoV 19
- Lumpy Skin Disease Virus

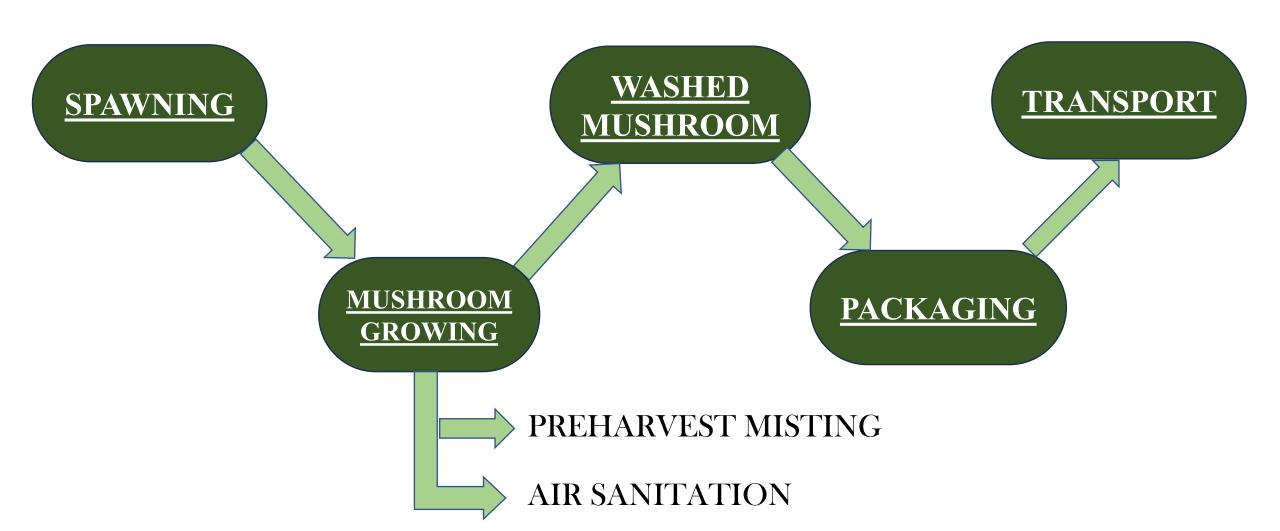
#### FUNGI AND SPORES

- Aspergillus niger
- Aspergillus brasiliensis
- o Brettanomyces
- Candida albicans
- Food spoilage fungi



### **MUSHROOM PRODUCTION**







#### **SPAWNING**



Spawning in mushroom production requires meticulous sanitation.



Spawning tools, baskets, and equipment should be thoroughly cleaned with a strong stream of water, and disinfected with Miracle Everyday L-44 F before each use.

Miracle Everyday L-44 F is effective in sanitation of Incubation and Inoculation rooms in Spawn Lab.





#### **MUSHROOM GROWING**



Casing Inoculum → Pins → Young mushrooms → Harvestable mushrooms in 18 to 21 days.



Misting Miracle Everyday L-44 F on mushrooms from Pinning stage to Harvesting stage will ensure : -

- ✓ Disease control
- ✓ Color development
- ✓ Shelf life enhancement



# MUSHROOM Preharvest misting







Control

Treated

Control

Treated



# AIR SANITATION - Mushroom Growing



- A ventilation fan in a mushroom grower's window or roof causes rapid environmental changes inside the growing room, contributing to disease growth and mushroom spoilage.
- To prevent this, passing Miracle Everyday L-44 F through air filters sanitizes the entire growing environment for mushrooms.
- This helps in increasing yield and productivity by producing a better quality mushroom, with reduced spoilage rate.



### **MUSHROOM WASHING**





Mushrooms Dipped in Miracle Everyday L-44 F







Freshly Harvested Mushrooms





Air drying washed mushrooms



### **MUSHROOM WASHING -**Postharvest





Day 1

Treated

Control

**Treated** 

Day 7



#### **PACKAGING**



- ➤ Plastic punnets are the primary source of microbes invasion post harvesting, leading to food poisoning upon consumption.
- All primary and secondary packaging of mushrooms can be sprayed/fogged/dipped with **Miracle Everyday L-44 F** to ensure sanitized packs.



L-44 F solution in RTU bottle

L-44 F misting on punnets.

Mushrooms Packing in Sanitized Punnets



#### TRANSPORTATION





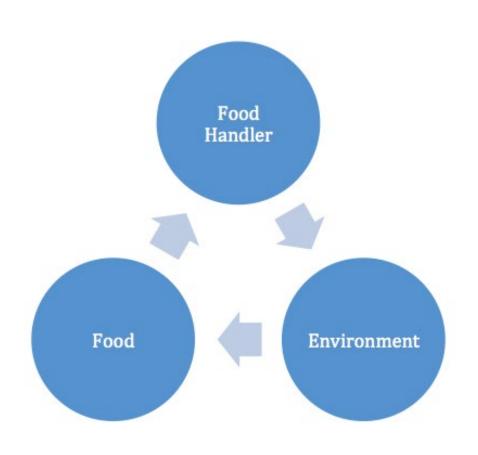
Transport vehicles possess high risk by carrying spoilage microbes that threaten packed mushrooms leading to reduced shelf life.

➤ Miracle Everyday L-44 F, an ORGANIC and FOOD- SAFE sanitizer is effective in organically killing pathogens and spoilage microbes in transport vehicles.



### PERSONAL HYGIENE





The cycle of bacterial transmission

- ➤ It is highly likely that bacterial transfer occurs from these three areas.
- ➤ One of the basic principles is to break the cycle by avoiding cross-contamination.
- Miracle Everyday L-44 F, a 100% ORGANIC and FOOD SAFE Sanitizer can be confidently utilized in mushroom cultivation areas by workers to produce contamination free mushrooms.



#### **CONCLUSION**



- ➤ Mushrooms need specific growth conditions, but these conditions also favour competing microorganisms like bacteria and molds.
- ➤ Without proper sanitation, these organisms can outcompete mushrooms, risking contamination and crop failure.
- ➤ Ranging from sanitation of mushroom production areas to increasing the shelf life of mushrooms, Miracle Everyday exhibit very good effects in Mushroom Spawning, Growing, Washing, Packaging, Transport.