Cedar Restore

Post Harvest Disinfection Treatment

POST HARVEST DISINFECTION TREATMENT

FRUIT AND VEGETABLE HANDLING

More than one third of the perishable food crops produced in the world is lost after harvest. Horticultural crops are perishable products that are harvested seasonally and are subsequently subject to ripening, senescence, microbial and pests infestation, water loss, anatomical, morphological and compositional changes. Therefore, the development of adequate post harvest treatments for fresh horticultural food crops, and their optimum use are of great necessity and economic importance. Adequate post harvest treatments should reduce losses, and preserve perishable foods to meet consumer demands for constant availability and good quality throughout the year.

Various treatments and techniques can be employed in order to control metabolic changes, prevent spoilage and preserve quality in perishable food crops. The objective of this review is to briefly describe some of the unique characteristics of our development based on green technology to minimise post harvest losses and to preserve perishable food crops.

PRODUCT DESCRIPTION

Cedar Restore is a white free flowing granular, highly soluble in water containing **no Chlorine or any halogen based product, including bromine, iodine etc.** It is totally environmentally friendly and does not form any disinfectant by-products (DBP's) such as THM's, HAA's, MX-Factor or DCA's. The product decomposes to oxygen and water. It has been approved by the Dept. of Health in South Africa and India as fit for human consumption. All disinfection claims have been scientifically substantiated by the most reputable research institutions worldwide.

It is a proprietary blend of various inorganic persulphate salts, acting as a powerful oxidizer and a natural anti-microbial substance composed of a combination of food approved natural amino acids salts, monosodium L-glutamate complexes with a powerful and safe algaecide and coagulant/flocculant, acting as a potent sanitizer against gram + and gram – bacteria. The product has an excellent residual value ensuring continuous killing abilities. Some of the most common pathogens, such as E-coli, Legionella, Salmonella sp., Pseudomonas aeruginosa, Staphylococcus aureus, Vibrio cholera, etc. have no tolerance against Cedar Restore. One of the ingredients of Cedar Restore breaks down biofilm that clings to surfaces which house large quantities of bacteria and the additional powerful anti-bacterial component of Rubicon destroys the bacteria through membrane changes or damage due to penetration of the cell walls.

Cedar Restore can be used to oxidize hydrogen sulfide (H2S) and other reduced sulfur compounds such as mercaptans, sulfides, disulfides and sulfites, in waste water.

Cedar Restore is:

- Odorless and Tasteless
- Fast dissolving with excellent residual values.
- A powerful oxidizer and sanitizer (high oxidation and sanitizing potential)
- Oxygen-based, containing **no Chlorine, Bromine,Iodine**
- Unaffected by photo-de-composition, temperature and aeration
- No THM, HAA, MX-Factor or DCA will be produced
- Will not damage vinyl lines or bleach surfaces
- Safe, harmless and non-toxic

PHYSIOGNOMY OF ACTIVE COMPONENT "A" IN CEDAR RESTORE

THEORY

After a chain reaction in the water, the Active Component "A" (AC) produces nascent oxygen continuously and sustains while at the same oxidizes the minim chloride ion to yield stable hypochlorous acid, which oxidizes and kills the pathogen. The AC interferes with the synthesis of a pathogen's DNA and RNA to solidify the denaturalisation of the pathogen protein. Furthermore, the AC inhibits the systematic activity of the pathogen's enzyme and affects its metabolism, increase the permeability of the epicyte (cell membrane), and as a result, the pathogen will dissolve (soften) and burst. The AC has a powerful killing function upon all infectious viruses to human being and animals, germs, spores, mycoplasma, epiphyte and coccidian oocyst, especially on aphtho viruses, doughnut-shaped viruses, corona viruses, herpes viruses, adenovirus, respiratory syncytial virus, enterovirus, herpes of mouth virus, epidemic haemorrhagic fever virus.

FEATURE

1. High speed: 1% solution – 5mins - 10mins: kill all germ and epiphyte, 10mins: kill all viruses;

2. High active: 1: 800 kill Bird Flu H5N1 virus;

   1:1400 kill aphthovirus;

   1:500 kill swine fever virus;

   1:200 kill doughnut-shaped viruses;

   1:250 kill bursal viruses;

   1:200 kill corona virus.

3. High safety: not corrosive and non-irritant to skin, mouth, eyes, absolute safe to the human being and animal.

Item	Diluted Times	Effect Time, Min	Killing Rate, %
Colon bacillus (8099)	1 : 120	5	100
Golden Staphylococcus (ATCC 6538)	1 : 120	5	100
Hay bacillus Spore (ATCC) 9372)	1 : 100 (II)/1:50(I)	10	100
Bird Flu Virus (H5N1)	1 : 800	10	100
Aphthovirus	1 : 1400	10	100
Swine Fever Virus	1 : 500	10	100
Doughnut-shaped virus	1 : 200	10	100
Bursal virus	1 : 250	10	100
Corona Virus	1 : 200	10	100

5. Applications variety: one step for cleaning, sterilization, disinfection; apply for environmental control, sterilization of apparatus, stain cleaning, personal hygiene, animal periphery, disinfection of air and drinking water, further to fish and shrimp and prevention and cure of germ disease.

FUNCTION AND TREATMENT

RANGE OF ADDITIONAL USES

Widely for poultry farm, fish pool, veterinary surgery, food processing manufacturer.

DOSAGE

Environment Air Disinfection: 1:200 - 400
Drinking water disinfection: 1:1000 - 2000
Animal Body Surface Disinfection: 1:1000 – 1500

PHYSICAL PROPERTIES:

Appearance	White salt, crystalline, free flowing
Melting point/range	(>70℃ decomposition)
Boiling point/range	not applicable
Flashpoint	not applicable
Inflammability	not applicable
Ignition temperature	not applicable
Spontaneous ignition	not applicable
Explosion limits	not applicable
Dust explosion	not applicable
Vapor pressure	not applicable
Bulk density	950 — 1250 kg/m^3
Active oxygen content	approx. 4.5%
Solubility	approx. 250g/l (20°C)
	approx. 330g/l (70°C)
pH value	approx. 2,5 (30g/l)

Cedar Water Tech

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