



ONIONS

Reduce decay, extend storage life and eliminate odor crossover

Onions in storage are susceptible to decay, particularly Botrytis neck rot, and black and blue mold rot, from airborne and surface microorganisms and odors can cause unwanted contamination of other commodities. With Purfresh's cold storage solution, packers and processors are able to control odor crossover, extend product life and marketability, and decrease decay losses naturally. Ozone can be used as a complementary measure with various post-harvest techniques.

SCIENCE-BASED SOLUTION

Purfresh's patented science-based cold storage solution generates ozone from the oxygen in the air on-site and delivers defined, low-dose specific concentrations of gaseous ozone into the atmosphere, for use as a powerful but safe disinfectant. The solution kills airborne and surface microorganisms and effectively controls Botrytis neck rot, black and blue mold rot. After killing decay causing microorganisms, ozone immediately reverts to pure oxygen, leaving no residue and maintaining product taste, color, texture and smell characteristics in its natural state.

OPTIMUM SAFETY AND EFFICACY

Purfresh's unique closed-loop concentration control and remote monitoring capabilities provide optimum safety and efficacy. Its measurement sensors and on-board computer maintains ozone concentrations to within +/- 10 ppb of a desired set point. The solution includes fail-safe ambient air sensors, which constantly ensure work areas maintain ozone concentrations well within OSHA standards. Its remote monitoring service constantly tracks system performance and provides detailed reports and automated alerts.



Ozone



No Ozone

KEY FACTS

- Reduce and control decay
 - Eliminate Botrytis neck rot
 - Control black and blue mold rot
 - Kill surface and airborne microorganisms

Increase storage and shelf life

- Control odors/crossover
 - Kill volatile organic compounds (VOCs)

USDA and FDA approved

Certified organic

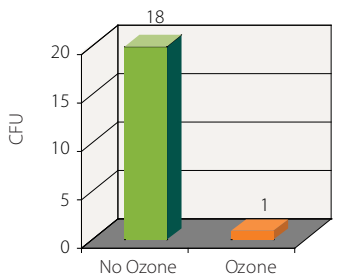
OZONE ADVANTAGES

Ozone is the safest and most natural purification and disinfection agent for fresh produce. It is approved by the FDA and USDA as a food contact substance and is certified organic.

Ozone's method of action is to destroy the cell wall of the organism upon contact. Because it works instantly, ozone does not enable the development of resistant pathogen strains, an increasing problem for the produce industry.

Generated from the oxygen in air, ozone reverts to pure oxygen after doing its job, leaving no residue on produce. Ozone is made on-site; no delivery or storage of toxic chemicals required. At the levels Purfresh recommends, ozone is safe for people, product, equipment and the environment.

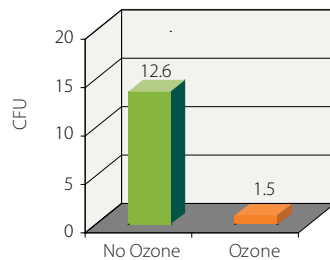
AIRBORNE MOLD COUNT



Ozone reduced airborne mold by 94%

Source: 2006 Production Onion Customer

ASPERGILLUS MOLD COUNT ON ROOM WALLS



Ozone reduced Aspergillus mold by 88%

Source: 2006 Production Onion Customer

PURFRESH COLD STORAGE: ONIONS

PURFRESH BENEFITS

PURFRESH COLD STORAGE	
MOLD CONTROL	All types of mold; mold is oxidized and cannot become resistant to ozone.
CROSSOVER CONTROL	Kills volatile organic compounds (VOC), preventing unwanted odor contamination
ETHYLENE CONTROL	Converts ethylene to water and carbon dioxide (process is outside the fruit)
RESIDUE ON FRUIT	No
TASTE	Natural flavors maintained
DOSAGE / APPLICATION	Ozone is applied continuously thus controlling mold, odor and ethylene constantly
REGULATORY COMPLIANCE	No EPA record keeping required. Requires fire code compliance
CORROSION TO EQUIPMENT	None at typical application levels

EXAMPLE SYSTEM

