



GRAPES

Eliminate Botrytis Rot, maintain quality and extend storage life

Grapes in storage are susceptible to decay, particularly Botrytis Rot, from airborne and surface microorganisms that are often present in high humidity storage facilities. With Purfresh's cold storage solution, packers and processors are able to extend product life and marketability by decreasing 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. 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 Rot
 - Kill surface and airborne microorganisms
 - Stop nesting of decay in stored bins

Reduce/eliminate post-harvest chemicals

Reduce post-harvest fungicides

- Ideal for organic and conventional

Increase storage and shelf life

- Maintain stem quality and color

USDA and FDA approved

Certified organic

SUCCESS STORY

Problem

- Botrytis Rot
- SO2 Usage

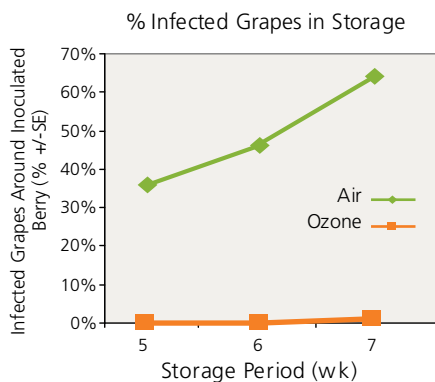
Solution

- Purfresh Cold Storage

Results

- Reduced Botrytis Rot
- Eliminated spread of surface and airborne microorganisms
- Improved product quality including greener stems
- Increased shelf life by several weeks

TABLE GRAPE TEST SHOWS REDUCTION IN INFECTION



Source: 2002 study by UC Davis, UC Riverside

"With the deployment of Purfresh's ozone-based cold storage solution, we've materially enhanced storage life of grapes, kiwifruit and Asian pears."

— Kool Kountry

PURFRESH COLD STORAGE: GRAPES

COMPARE THE VALUE

	SULFUR DIOXIDE	SULFUR DIOXIDE & OZONE	OZONE
TYPICAL STORAGE PERIODS	8 - 12 weeks	12+ weeks	12+ weeks
CORROSIVENESS	Very high	Ozone water scrubbing reduces SO ₂ damage	Minimal at monitored levels
RESIDUE ON FRUIT	White spots	Ozone air minimizes SO ₂ spots	No
TASTE	Flavors reduced by SO ₂	Flavors may improve with less SO ₂	Natural flavors maintained
DOSAGE AND MOLD SPORE CONTROL	Because of toxicity, SO ₂ is normally applied once a week	Ozone is applied continuously - controlling mold constantly	Ozone is applied continuously - controlling mold constantly
REGULATORY COMPLIANCE	Restricted emissions and detailed recordkeeping	Ozone reduces SO ₂ levels	No recordkeeping w/EPA
ORGANICALLY APPROVED	No	No	Yes

EXAMPLE SYSTEM

