

FRESH



Innovators in Modified and Controlled Atmosphere Technology

Sealed at the Source with Fresh ProTech®

Leading Edge Technology

FTS is a leading provider of modified and controlled atmosphere systems for palletized products and other master shipping units such as bins. We deliver science-based solutions that are integrated into the normal operations of produce, food & industrial companies.



Protecting Quality

Fresh ProTech™ systems and atmospheres help to protect and preserve the quality of produce and other perishable products. Utilizing unique, state-of-the-art technology, these systems allow for improved accuracy and effectiveness of each treatment.



Patented Process

Our patented process also improves efficiency and productivity through the use of automation and computers that save labor and improve accuracy. In addition to equipment and systems, we provide complete technical support, supplies and service.



Gas N' Go™ Systems for Palletized Produce

Fresh Tech Solutions LLC
Fresh Tech Systems LLC

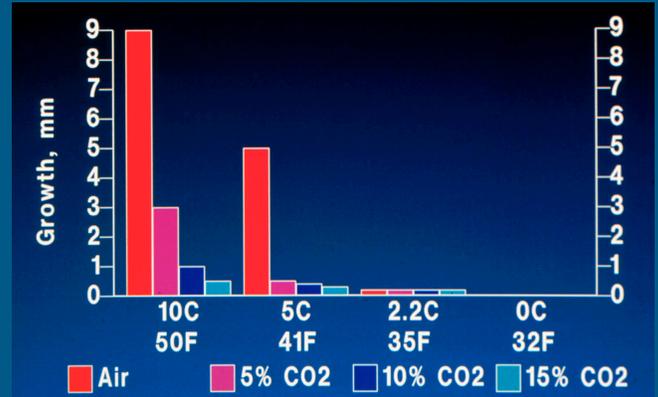
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Modified Atmosphere (MA) is a method in which the proportions of carbon dioxide, nitrogen, and oxygen in a sealed container or package are different from those in the normal (ambient) air to enhance the product's shelf life.

Beneficial effects of MA can be obtained only if the product is stored within a specific O₂/CO₂ mix within the range for that commodity, which is also temperature dependent.

(CO₂ atmospheres of > 5% for Strawberries held at the normal storage temperature were effective at reducing decay. Fresh ProTech™ CO₂ treatments for strawberries are in excess of 12% and most experts recommend greater than 10% CO₂.)



Inhibition of Botrytis growth on strawberries at different temperatures and CO₂ concentrations (UC Davis)

PROVEN SOLUTIONS FOR PERISHABLE PRODUCTS

Extending shelf life and controlling decay of perishable goods has always been a concern for growers, shippers as well as retailers. As products are transported farther with longer travel times, the need for a better solution becomes even greater. The Fresh ProTech™ Gas N' Go™ Modified Atmosphere system addresses that need with state of the art processes and equipment that can be seamlessly integrated into existing operations. Science has proven that CO₂ can inhibit the growth of Botrytis on perishable goods, if held at the proper temperature. The Fresh ProTech™ process is a patented and proprietary technology designed to deliver CO₂ and other gases, into palletized enclosures with superior results.

Fresh ProTech™ Plus combines the use of MAP with Ozone, a highly effective sanitizer that is generated on-site from oxygen in the air. This requires no toxic chemicals and is safe for people, products and the environment. There are other companies who can deliver CO₂, N₂ or Ozone, but we are the only one that has a patented delivery system to accurately dispense all of them in one application.



Fresh ProTech™ technical service personnel are available to work with customers on both ends of the supply chain to help assure quality arrivals.

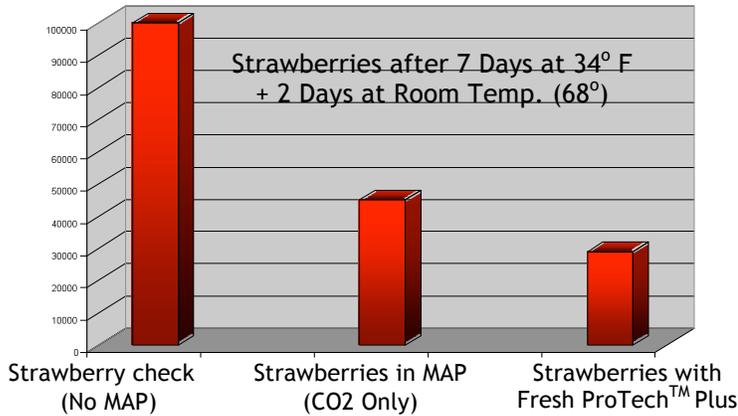
TECHNOLOGY AND BENEFITS

Fresh Tech Solutions has incorporated modern gas analyzing technology into each of the Fresh ProTech™ modified atmosphere controllers. Unlike other systems that use timers to inject an approximated amount of CO₂ into a pallet enclosure, the optimum product-specific gas percentage and sanitizer level can be set on the Fresh ProTech™ controller and is injected into the enclosure quickly and precisely. Our patented process also improves efficiency and productivity through the use of automation and computers that save labor and improve accuracy. These automated systems are proven to save labor over competitors' methods without sacrificing the quality or benefits of the Fresh ProTech™ MAP.

Comparison of Benefits				
	No MAP	Tectrol (CO ₂ only)	Fresh ProTech Gas N' Go (CO ₂ only)	Fresh ProTech Plus (w/Ozone)
Kills surface and airborne microorganisms	NA	No	No	✓
No chemical residue from sanitizer	NA	NA	NA	✓
FDA + USDA approved sanitizer	NA	No	No	✓
Gas application is measured and confirmed	NA	No	✓✓	✓✓
System alarms when gas injection is faulty	NA	No	✓✓	✓✓
Pallet stability during transit	NA	✓	✓✓	✓✓
Enhances Food Security (tamper evident)	NA	✓	✓✓	✓✓
Increases product shelf life	NA	✓	✓	✓✓
Reduces decay	NA	✓	✓	✓✓
Controls odor cross-contamination	NA	✓	✓	✓
Ideal for organic foods	NA	✓	✓	✓
Helps maintain firmness of fruit	NA	✓	✓	✓
FDA + USDA approved atmosphere	NA	✓	✓	✓
Reduces moisture loss	NA	✓	✓	✓
Helps maintain nutritional quality	NA	✓	✓	✓
Slows/retards ripening	NA	✓	✓	✓
Slows microbial growth	NA	✓	✓	✓

(✓ = good, ✓✓ = very good)

Potential Benefits of Fresh ProTech™ Plus:
Shows Reduction in Mold (CFU/gm)



Triple replicate test comparing postharvest treatment of strawberries (ABC Labs)

“Fresh ProTech™ Modified Atmosphere Packaging has been scientifically proven to reduce shrink.”



Fresh ProTech™ Plus is an innovative process that combines modified atmosphere packaging, a proven science-based solution for protecting perishable products, and a highly effective sanitizer treatment. This patented process uses Ozone, a safe and powerful sanitizing agent that destroys microorganisms on contact, leaving no chemical residue.



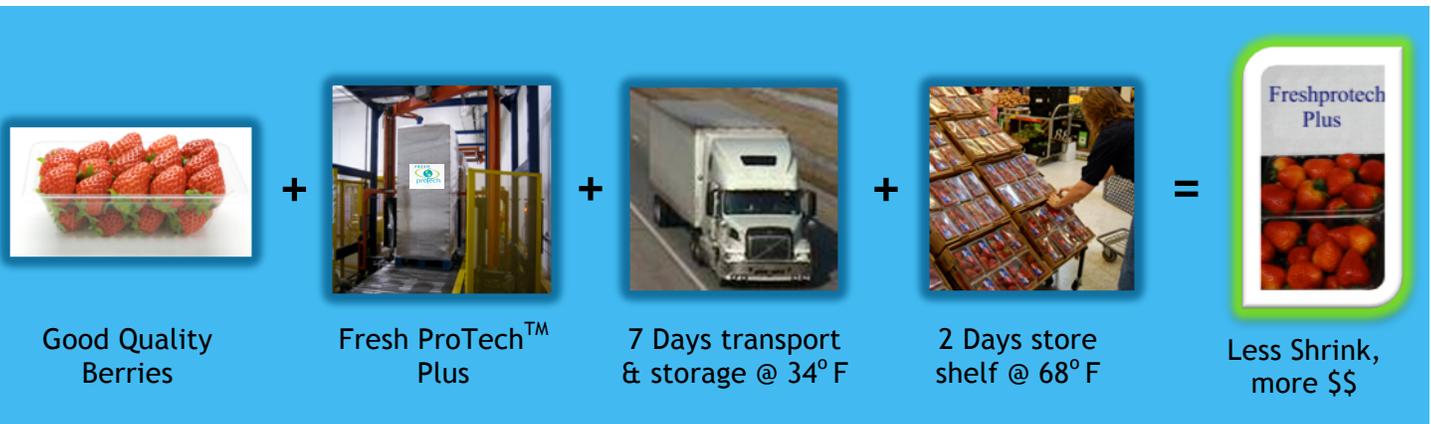
The check samples had more than three times the mold growth (cfu) as strawberries in Fresh ProTech™ Plus MAP after 7 days at 34° and 2 days at room temperature (68°F), based on a triple replicate study.



Fresh ProTech™ with CO₂ is a more effective alternative to Tectrol for the establishment of Modified Atmosphere.



Fresh ProTech™ Plus with Ozone is an even more effective Modified Atmosphere treatment than CO₂ alone.



Success with Fresh ProTech™ MAP

- Properly pre-cool product (32°F for strawberries) prior to beginning the Fresh ProTech™ MAP process.
- Maintain the cold-chain throughout the transportation and distribution of all treated pallets.
- Sealed pallet enclosures must not be punctured or damaged during handling, loading or transport.
- Fresh ProTech™ plastic pallet enclosures should be removed upon arrival for product inspection and use, or if the cold chain is broken.



QUALITY, QUALITY, QUALITY:

Fresh ProTech® Gas N' Go™ provides the highest quality systematic approach to post harvest treatment of product that is truly sealed at the source. Modified atmosphere is applied automatically into each wrapped pallet, based on sensors monitoring the atmosphere of each load, which results in a more precise application of atmosphere.



TAMPER EVIDENT:

The multi-layer application of the specially designed and manufactured stretch film material on each pallet provides a complete seal for tamper evident packaging and food protection. Upon arrival, portions can be cut away for inspection without requiring full removal of the material if cold chain is maintained.



STABLE FOR THE LONG HAUL:

Each sealed pallet with the modified atmosphere is fully enclosed with super stretch wrap, which provides complete stability for each pallet. The end result is a more stable ride and improved quality to the consumer. The wrap is extremely secure, and no corner boards are required on the load. The clear plastic also allows for full visibility of the packaging inside.



LONGER SHELF-LIFE, LESS SHRINK:

Our patented Fresh ProTech™ Plus process is now commercially available for berries and other produce. Fresh ProTech™ Plus includes a safe and effective sanitizer treatment that is injected along with CO₂ that is scientifically proven to reduce decay and improve shelf-life more effectively than CO₂ alone.



Produce that Benefits from Fresh ProTech™ MA and CA Technology

- Apples
- Avocados
- Asparagus
- Bananas
- Berries
- Broccoli
- Cabbage
- Cherries
- Cucumbers
- Grapes
- Kiwifruit
- Lettuce
- Lychee
- Mangos
- Melons
- Nuts
- Olives
- Onions
- Papayas
- Pears
- Persimmons
- Peppers
- Pomegranate
- Rambutan
- Stone Fruit
- Sweet Corn
- Tomatoes