

SMARTcare

(Regulated Atmosphere)

SMARTcare+

(Controlled Atmosphere)



Due to short shelf life and high sensitivity to atmospheric changes, lettuce is traditionally transported via air freight despite its high cost. APL's strong expertise in preserving the freshness and quality of perishable cargoes, however, has now made it possible to ship it via the more cost-effective option of ocean freight.

SMARTcare, one of APL's atmosphere management solutions that

- Controls the percentage level of oxygen (O₂) and carbon dioxide (CO₂)
- Suppresses decay and mold formation
- Maintain optimal condition
- Arrives destination in perfect condition

Via our technologically advanced **SMARTcare** application, APL achieved an optimal quality and composition of air that the lettuce was exposed to throughout its voyage with total control. In particular, our **SMARTcare** solution was able to accurately attain the reefer container's required atmospheric and low temperature set-points, while maintaining it with the necessary oxygen and carbon dioxide levels. This enabled the harvested lettuce to slow down respiration and ethylene production, a gaseous by-product produced by fruits and vegetables that accelerates their ripening process.

For longer voyages, **SMARTcare+** is able to prolong shelf-life even further by gas flushing with food grade nitrogen to achieve optimum atmosphere.

APL has successfully used **SMARTcare** and **SMARTcare+** to transport lettuce from Lebanon to the United Arab Emirates in pristine condition after 9 days.