# Banana

Carrier Transicold's EverFRESH® active controlled atmosphere (CA) system for refrigerated containers now offers a new carbon dioxide ($CO_2$) injection option to better preserve the full range of perishable cargo, including low-respiring cargo. The new option allows the container to be pre-charged with $CO_2$ at the start of a voyage and automatically adds more as needed over the course of the trip.

**Optimum Temperature:** 13.3-14.5°C
**Optimum CA levels:** $O_2$: 3.0-5.0%, $CO_2$: 5.0-6.0%
**Weeks in Air:** 2-4
**Weeks in CA:** 4-6
**Relative Humidity:** 85-95%

**Benefits of CA:**
Low $O_2$ and/or elevated $CO_2$ can delay ripening, retard decay, maintain firmness, and reduce peel split.

**Ethylene:**
Bananas produce low amounts of ethylene but are quite sensitive to it. Ethylene accelerates ripening, color changes, softening, and decay. Avoiding ethylene in transit will help prevent premature ripening and can extend transit life potential*.

**Special Treatments Before Shipping:**
Only effective control against anthracnose is adequate sanitation in the field and the packing plant, and careful handling during harvest, hauling to packing plant, and processing to avoid wounding to the peel. Fungicide application to the crown will delay development of crown mold.

**Varietal Differences:**
There are no more than a handful commercial varieties for export but there might be slight differences in chilling sensitivity to the minimum safe temperature of 13.3°C, and tolerance to the recommended $O_2$/$CO_2$ indicated settings. Plantains have CA requirements similar to bananas.


**Mixed Loads:**
Should not be shipped with ethylene producing or ethylene sensitive commodities.

**Cautions:**
$O_2$ <1.5% can cause dull brown black peel discoloration, failure to ripen properly and off-flavors. $CO_2$ >7% can cause the fruit to soften while still green, confer undesirable texture and flavor, and prevent adequate ripening at destination.