

GOVERNMENT REGULATIONS

- ▶ Starting August 2015, the Health Department for the City of New York requires all restaurants to freeze all fish (with few exceptions).
- ▶ Due to recent outbreak of various diseases in many restaurants, it is becoming a national trend to freeze all fish in restaurants across the country.
- ▶ When you Green Freeze your products, the process maintains the quality of fish after defrosted - especially "white fish" – Hiramé / Fluke.

BREATHE EASY



OBEY THE LAW!



GREEN FREEZER LEASING PROGRAM

- ▶ Plug & "Play".
- ▶ Maintenance Free: Freezers are expensive and even more expensive to maintain. Let us provide you with worry-free maintenance.
- ▶ Space is expensive. Green Freezer dimension is only 10" x 8.6" x 14".
- ▶ No Large Upfront Cost for an Expensive Equipment.
- ▶ Set Monthly fee: No long term obligation except for the first 3 month minimum leasing period – month-to-month service contract.



Please contact your local TWF sales manager if you are interested in leasing a Green Freezer.

SAVING
WHILE PROVIDING
BETTER



Green Freezer



EXTENDING SHELF LIFE: No more waste and No more Down- grading High Quality Products



- ▶ According to EPA, 10% of the food purchased by a restaurant ends up in landfills.
- ▶ What percentages of sashimi grade products are being sent to kitchen to be cooked at your establishment?
- ▶ What happens to the quality of sashimi grade products when frozen and defrosted?
- ▶ With Green Freezer, you can extend the shelf life much longer (up to 2 years).



SAVING DEFROSTING TIME

How long does it take to defrost your product?
Are customers waiting while your products are being defrosted on a busy night?

TIME = \$

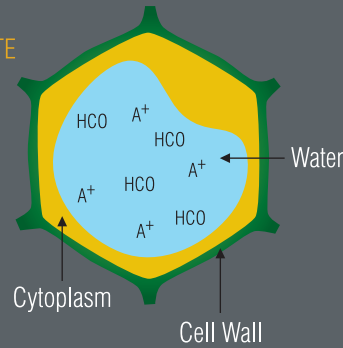


Green Freezer (left) vs.
Super Freezer (right)
defrosted after 30 minutes

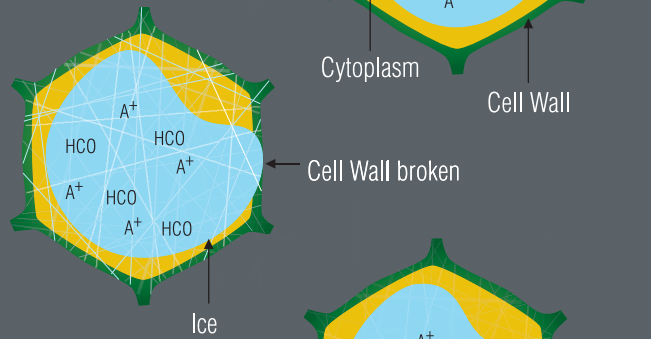
HOW DOES GREEN FREEZER WORK?

- ▶ Fish is largely water (Figure 1).
- ▶ Water expands when it crystallizes (Figure B).
- ▶ The formation of large ice crystals break the walls of the fish cells (Figure 2 and Figure E).
- ▶ This results in a considerable loss of fluid when the fish is thawed (drip) (Figure 3).
- ▶ This implies that the original flavor, aroma, texture and color are not maintained.
- ▶ Smaller the ice crystals, lesser the damage to the cell walls. As a result, very little fluid is lost during thawing if ice crystals are small.
- ▶ Super cooling the water well below its freezing point of 0°C (down to -14°C) allows water to stay in liquid form (Figure C).
- ▶ Super cooling in addition to various methods to vibrate the water molecule allows much smaller ice crystals to be formed – thus limiting the damage to cell walls (Figure F).

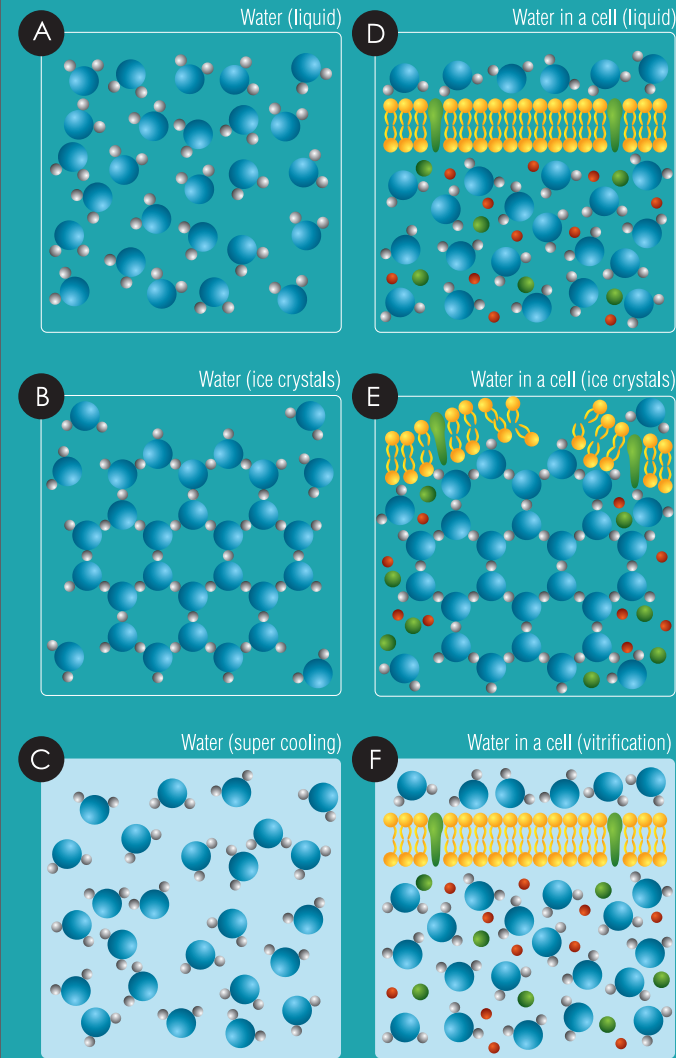
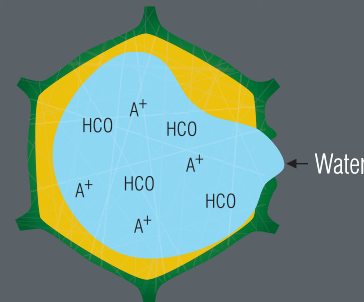
1. CELL IN ITS NATURAL STATE



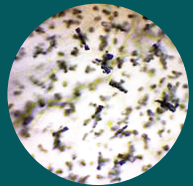
2. FROZEN CELL



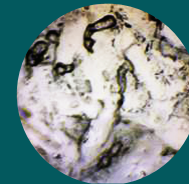
3. CELL AFTER THAWING



Water crystals frozen in Green Freezer.



Water crystals frozen in regular freezer.



Intact cell wall structure after Green Frozen.

