ENGAGED CHEFS LINK COOLING TO NUTRITIONAL DIETS FOR OUR HEALTH AND THE PLANET

www.coolingfood.com  #coolingfood
Cooling Keeps Food Fresh is a global campaign launched by United Nations Environment Programme OzonAction, Chefs4thePlanet and Global Food Cold Chain Council to celebrate World Refrigeration Day. The campaign aims to raise awareness of cooling technologies that reduce food loss and promote climate security.

World Refrigeration Day is an international initiative that raises awareness of cooling’s benefits and inspires development and adoption of innovative and sustainable cooling solutions by the public, governments, industry, and practitioners for the wellbeing of future generations. It is celebrated on and around June 26.

“Cooling matters. And keeping food safe is one example of that. Cooling is at the very heart of modern life. And the importance of cooling to the global food chain and sustaining human life on our planet cannot be overestimated.”

Stephen Gill, Founder, World Refrigeration Day

“The cold warms me up... The emotion provided by an ice cream abandoning itself in melting and fresh texture on the tip of the tongue. I like this cold feeling. To quote well-known French writer Victor Hugo, I would say that the cold is, like the form, the bottom that rises to the surface. The cold warms my heart and soul up!”

Bruno Verjus, Two stars Michelin Chef at Restaurant Table, French Loire Inspired Cuisine
COOLING KEEPS FOOD SAFE

Keep the fridge and freezer in a safe temperature range. Bacteria grow most rapidly between 4.4 and 60°C (40 and 140 °F), some doubling in as little as 20 minutes. Cooling slows bacteria growth.

Frezer Setting

<table>
<thead>
<tr>
<th>FREEZER SETTING</th>
<th>SAFE ZONE:</th>
<th>DANGER ZONE:</th>
</tr>
</thead>
<tbody>
<tr>
<td>-18°C</td>
<td>1°C - 3°C</td>
<td>4°C - 60°C</td>
</tr>
<tr>
<td>-20°C</td>
<td>0°C</td>
<td>20°C</td>
</tr>
<tr>
<td>0°F</td>
<td>34°F - 38°F</td>
<td>39°F - 140°F</td>
</tr>
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Based on recommendations of government agencies including the US Department of Agriculture.

YOUR FRIDGE AND FOOD SAFETY

COOKED LEFTOVERS
Safe 3 to 4 days

RAW MEAT
Prevent juices from leaking by wrapping or using sealed container

SEALED DRAWERS
Best option for fruits and vegetables

DOORS
Temperature changes frequently. Good for nonperishable foods

MAIN COMPARTMENT
Perishable foods like raw meat, dairy, eggs

FREEZER
Set to freezing or below

“Cold storage is essential because it allows me to keep my ingredients longer and above all avoid the risk of food poisoning! Increased temperatures cause and accelerate microbial growth and reduce product shelf life. I maintain my ingredient quality thanks to the cold.”

Denny Imbroisi, Chef at IDA, Italian Cuisine with Transalpine Roots and Mediterranean Generosity

“Cold is important to maintain the temperature of ingredients and give the best products to our customers. The cold declines in several temperatures. Fish require a temperature between 0 and -2, meat between 0 and +4. And when you want to have fun and make pastries, we need a cooling cell with ingredients at -40 degrees, for example, for nitrogen with which I make minute sorbets.”

Alan Geaam, One Star Michelin Chef at Alan Geaam, Combining France’s rich culinary heritage with a Touch of Lebanon

“Cold storage is essential in the kitchen to keep food fresh, make it last longer and avoid food waste. Cold contributes to food safety.”

Dina Nikolaou, Chef at Evi Evane, Greek Inspired Cuisine

Photo credits: Crédit photo du baba ganoush: Saik Saini Vajape, Crédit portrait du chef: Maki Manoukian

Instagram @dennyimbrosi

Instagram @Alan_geaam

Instagram @dina.nikolaou
COOLING PROMOTES NUTRITIOUS DIETS BY PROLONGING SHELF-LIFE

- Transporting fresh and frozen food supports nutritious diets.
- A one-hour cooling delay after picking reduces shelf life of fresh produce by one day or more.
- Quick freezing fruits and vegetables enables them to picked at peak ripeness.
- Freezing processes do not require adding chemical preservatives.
- Frozen seafood retains peak flavor and nutritional value.

“To fight food waste, we work with products close to their expiry date – therefore impossible to sell – but that are still perfectly healthy. This requires quick preparation and careful collection. Mastering cold extends the life of certain ingredients and lets us offer fresh and healthy meals that we deliver to charities that fight food insecurity and the economic and ecological impacts that food waste generates.

“This also allows us to offer local and seasonal products throughout the year on our restaurant’s menu without importing products from the other side of the world.”

Elliott Van de Velde, Chef at Entropy Restaurant, Belgian inspired Cuisine

HOW YOU CAN REDUCE YOUR FOOD WASTE?

- Make sure that food is stored at the right temperature
- Monitor expiry dates of food products
- Buy only the necessary quantities
- Reduce time between purchase and storage
COOLING CAN HELP FEED THE UNDERNOURISHED

FOOD LOSS DUE TO LACK OF REFRIGERATION


 developments

950 Million People
People who could be fed from food loss due to lack of refrigeration

821 Million People
Estimated undernourished people in the world in 2018 with world population expected to grow by 2 billion by 2050

“Morocco is hot. We depend on cooling to preserve food and food preparations such as meats, drinks and sometimes vegetables. My recipe for Tiramisu, Honey and Orange Flowers and “Cornes de Gazelle” (a Moroccan biscuit) needs hours of cooling.”

Mohammed Baya, Chef at Restaurant La Table Clandestine, Belgian-Moroccan Inspired Cuisine

Instagram @baya.moe

“What causes malnutrition is lack of accessibility. The cold chain is a vital element for food safety. Each stage is intertwined with another, from collection to storage, packaging, warehousing, transport to point of sale, and storage at point of consumption. The cold chain protects against the proliferation of bacteria.”

Mercedes Ahumada, Chef of Traditional Mexican Cuisine

Instagram @mercedes.ahumada

Developed countries
Developing countries

Food Produced
Food That Should Be Refrigerated
Food Actually Refrigerated
Food Loss Due to Lack of Refrigeration

1885
1101
663
115
175
300

1745
560
175
300

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ENERGY-EFFICIENT COOLING EQUIPMENT SAVES MONEY

REFRIGERATOR ENERGY USE CHECKLIST

1. When buying, match size with family needs and look for an energy use label.
2. Keep coils free of dust.
3. Clean and check the door gasket.
4. Change filters in ice makers and water dispensers.
5. Close door as quickly as possible.
6. Keep unit level.
7. Leave at least 2.5 cm (1 in.) around the unit for airflow and place away from heating sources.

Regular maintenance of cooling equipment should be carried by certified technicians to eliminate refrigerants emissions and to keep the unit performing at a high level.

“Cooling extends the shelf life of foods without altering taste, appearance nor nutrient value. Many families do not have time to cook every day. This is why I defend the practice of Batch Cooking. We cook several dishes at once for the whole week. With this technique, we eat homemade food every night. Cold is our ally provided you know how to use it. Some preparations should be kept high in the fridge, others lower, and yet others in the freezer. Some will be better in the fridge’s airtight box and others with damp paper. But all need cold. Cold is life!”

Justine Piluso, Chef at justinepiluso.com, Participant of Top Chef France 2020, French Cuisine Inspired by the Mediterranean Sea

Instagram @justine_piluso

“Thanks to our fridges and our cooling systems, we have fresh products everyday like our fish and vegetables. Cooling takes good care of our products.”

Henrik Andersson, Chef at Le Fumoir, Swedish Inspired Cuisine

Instagram @handersson33
COOLING CHOICES HELP PROTECT THE ENVIRONMENT

To have minimal impact on climate and the environment, match the appropriate cooling equipment to the application and select equipment that use ozone and climate-friendly refrigerants and have high energy efficiency ratings.

WHAT CAN COLD CHAIN PROFESSIONALS DO?

- Consider most efficient and lower-GWP technologies when purchasing or replacing equipment or components
- Ensure that operation and servicing of equipment is professionally conducted and logged
- Monitor temperatures of storage, transport, and retail equipment

SUSTAINABLE COOLING REDUCES ONE OF THE LARGEST CONTRIBUTORS TO CLIMATE CHANGE

Eliminating food waste and spoilage could reduce global greenhouse gas emissions by 8%.

GREENHOUSE GAS EMISSIONS RELATED TO FOOD

26% Greenhouse Gas Emissions from Food Production
24% Of Which from Uneaten Food
Of which 63% is Loss in Supply Chain and 37% is Consumer Waste

Data source: World Resources Institute CAIT Climate Data Explorer based on 2011 assessment of food wastage volumes.

“With the fridge, we have food that can be kept longer with the same freshness. We can transport food from one place to another without risk of deterioration. In the past ice cubes were used to keep fish fresh. Nowadays, there is good technology to keep food fresher with less impact on the environment.”

Gregory Cohen, Chef of French Inspired Cuisine

Instagram @gregorycohenoff

“Cooling, whether refrigerated or frozen, allows us to maintain the optimum quality of products from harvest to final use in the kitchen.”

Laurent Pichaureaux, Chef at Esens’ALL, French Inspired Cuisine

Instagram @laurent.pichaureaux
Global Food Cold Chain Council is an independent not-for-profit industry organization that seeks to simultaneously reduce food waste and related greenhouse gas emissions in the processing, transportation, storage, and retail display of cold food by expanding and improving access to energy-efficient low-global warming potential technology.

“Industry can facilitate the reduction of food loss and waste and its negative environmental impact by promoting greater access to food preservation technology and promoting the development and utilization of cost-effective, energy-efficient equipment with reduced environmental impact. A sustainable cold food cold chain will be an economic, social and environmental net-positive.”

Juergen Goeller, Co-Chair, Global Food Cold Chain Council

Chefs4thePlanet, the global network of information and solutions for sustainable gastronomy, is an international coalition dedicated to climate action, biodiversity and environmental protection, and the fight against food waste. It brings together food lovers throughout the world who are concerned about our planet and our health, chefs and those who act, on a daily basis, to promote a healthy and responsible cuisine accessible to the greatest number - from the fork to the plate.

“At a time when each day we increasingly exceed our planetary boundaries, and our intensive agriculture and food practices produces about one third of global greenhouse emissions, feeding ten billion people in 2050 is requiring the systemic transformation of our food system. Chefs as role models and influencers have a key role to play. Alternative proteins, seasonal, local and plant-based ingredients as well as fighting food waste are becoming more and more important in gastronomy, and cooling will continue to be essential.”

Anne Le More and Sebastien Ripari, Co-Founders, Chefs4thePlanet

Distributed by:

This brochure is available in English at www.coolingfood.com. The organizers of the Cooling Keeps Food Fresh campaign are not responsible for accuracy if the brochure has been translated into another language.