



# GEORGOFILI WORLD

Newsletter of the Georgofili Accademy

## A SAFE REFRIGERATOR

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October 17 2016

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The refrigerator today has almost become a synonym for food pantry because it is an important appliance for preserving the freshness of foods which can last longer if kept at a low temperature or protected against from the oxygen that causes oxidation. Frozen and deep frozen food is not considered fresh.

A refrigerator must be at the right temperature, neither too low nor too high, ranging between 4-6°C on the various shelves. Nor should it also be too full, especially if it is not ventilated. For this reason, it is best to choose a refrigerator model with a control thermometer and an external display.

If the temperature in the refrigerator is too low, foods freeze and lose their freshness. With temperatures above 7°C, foods not only lose their freshness, but the microbes that alter foodstuffs can also multiply dangerously, even causing severe food infections and poisoning. In industrialized countries, where almost all families have a refrigerator, it is estimated that only 3% of food accidents result from production whereas the remaining 97% originate in the kitchen during food handling, and is mainly due to improper storage in the refrigerator.

Checking home fridge temperatures has yielded unexpected surprises. In a survey carried out in Holland of 125 fridges, their temperatures ranged from -5°C to over 13°C. Of these, 74% had a temperature above the safety level of 7°C. Another survey involving 334 refrigerators showed that their temperatures varied from -1°C to 17.9°C, with an average of 7.4°C, above the 7°C safety level. In more than half of them (57%), the temperatures were higher, up to almost 18°C (but what kind of refrigerator was that?).

Concerned about providing high-quality fresh foods, the food industry and distribution chains use techniques to make freshness last longer. For example, if a food with low and very low bacterial loads, packaged in a special atmosphere, is stored at a suitable temperature, (the previously mentioned 4-6°C), it preserves its freshness characteristics for a relatively long period. On the other hand, if the temperature is above 7°C and even reaches 10-15°C or more, all the care and precautions taken by the producers and distributors are undermined and the risks of food-borne infections rise. It is certainly no accident that an episode of food-borne botulism, which took place one summer a few years ago in southern Italy, was attributed to the shop's almost criminal practice of unplugging at night refrigeration units used for cheese storage that had no temperature displays in order to save money.

For this reason, it is essential that the temperature inside the refrigerator be adjusted and regularly checked in order to maintain it at around 4-5°C. Moreover, if the refrigerator lacks an integrated display, a maximum and minimum thermometer placed on the middle shelf must be used. In addition, the refrigerator must be kept far from heat sources, opened only when needed and closed quickly in order to maintain a constant temperature. It is also important to place the foods in the right place remembering that each shelf has a different temperature, with the coldest on the lower shelf above the vegetable drawer (about 2°C) and the door being the least cold. For more specific information, also see the instruction booklet.

Each food has its own storage temperature. Meat and fish must be preserved in the coldest part. Fish must be preserved gutted, washed, and eaten within 24 hours. Meat must be consumed within a day if it is minced, within two days if it is chicken or turkey, and within

three days if it is unpackaged cold cuts or a whole piece of fresh meat. Eggs, dairy products, and cream-based desserts after having been opened must be stored at 4-5°C in the central part of the refrigerator. Fruit and vegetables that can be damaged if the temperature is too low must be kept in the bottom drawer, where the temperature is higher. However, it is always advisable to consume them in a short time to avoid spoilage. Soft drinks, butter, and all the products that need only light refrigeration are kept in the door, the least cold area. A refrigerator is not advisable for all foodstuffs. Exotic fruit, citrus fruits, tomatoes, French beans, cucumber, zucchini, bread as well as fruit and vegetables that are not mature yet may even be damaged by the cold.

A greater focus on our refrigerators, through proper food storage and by not overfilling them, is necessary for food safety as well as to preserve the freshness from which the many organoleptic characteristics that are the basis for good food and haute cuisine arise.