Case study: food expiration dates



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If the "best before" date stamped on your milk carton says "January 1, 2011", does that mean it's not safe to drink it anymore on January 2? How long can raw meat last inside the fridge before it goes bad? Is there a difference between "Use by", "Best before", "Sell by", and all the other date labels?

Questions like these continue to boggle many Filipino homemakers today. With the constant struggle to stretch every peso for their family, throwing away unconsumed food just because a date says so is something that isn't fun to do at all. What do these dates really mean and should they be followed with utmost strictness?

Food Product Dating

Placing dates on food products is a practice being followed by the food industry to let the retail store know how long a product for sale should be put on display. Food product dating also helps consumers like us determine until when we can buy or use the product at its best quality, provided it has been

properly stored. Do note that these dates are not to be confused as a safety date, as there are many factors that determine food safety.

There are basically two types of food product dating: "closed" or "coded" dating and "open" dating. "Closed" or "coded" dating may be seen on shelf-stable products like canned goods and boxes of food. Coded dates can be in "MMDDYY" format, while some manufacturers use the Julian calendar wherein January would be 001 to 0031 (1st to the 31st day of the year) and December would be 334 to 365 (334th to the 365th day of the year). These are packing numbers meant to be used by the food manufacturers to track production.

The dates that most consumers see on the grocery shelves, on the other hand, like those stamped on packed meat, eggs and dairy products, is called "open" dating. This uses the standard calendar date format such as "date month year" or "dd/mm/yy".

According to the Food and Drug Administration (FDA) Regulation No. 001 Series of 1982 (Subject: Guidelines for Open-Date Marking of Prepackaged Foods), open date markings should be "indicated on food packages using indelible ink or embossed on cans or any other acceptable manner". The same guidelines also specify that the date marking should "appear in a conspicuous place such as in the front panel of the label or on top of packages like box, bottles or cans".

Putting open-date markings on packaged food products is routinely done by food producers and manufacturers, but not all of them are required to do so.

According to the BFAD Memorandum Circular No. 6 s. 1993 (Subject:

https://assignbuster.com/case-study-food-expiration-dates/

Monitoring of Food Products Requiring an Open Date Marking), the food products that are required to indicate their "best before" date are the following:

Liquid Milk Products – which include filled, recombined or reconstituted evaporated milk, sweetened condensed milk, and UHT sterilized milk.

Whole Milk Powder

Dried Dairy Milk Powder

Filled Milk Powder

Skimmed Milk Powder

Bakery Products (those sold in supermarkets, not in bakeries) – which include loaf bread and buns

Infant Food and Infant Formula

Vitamin C-enriched liquid fruit drinks – because after some time, vitamin C content may not be as much as what the label declares. According to FDA Regulation No. 001-D s. 1982 (Subject: Guidelines for the Open-date marking of Vitamin C enriched liquid fruit drinks), before its "best before" date, these fruit drinks should at any time contain 80% of the label claim of Vitamin C, but not lower than 30 mg/250 mg sample.

The memorandum also mentions the directive that requires retailers to remove from their sales counters all products above that do not bear the required open date markings.

The open dates are based on the average shelf life of the food item being packed before it loses its optimal quality or nutritional content. This doesn't mean that after the date you cannot consume the products anymore, it simply means that the quality of food is no longer assured. Once the date passes, food products should still be safe for consumption, as long as it's handled and stored properly (i. e. kept at 40 degrees F or below). You may continue to consume food past its "best before" date up to a certain extent, depending on the recommended storage times that will be discussed further down this article.

Open Date terminology

Locally, the Bureau of Food and Drugs (which was later renamed Food and Drug Administration or FDA in August 2009), enforces guidelines that cover open-date marking and labeling of packaged food. The FDA defines the different types of open date terminology as the following:

Consume Before Date – also known as "Use by date" or "Expiry date". This is the date which gives you the last day of the product's estimated shelf life. This is only guaranteed if certain storage conditions are met, of course, such as storage temperature and handling. Beyond this date, the food product in not considered marketable anymore or is "expired" and must be discarded. The consume before date must be indicated in labels of packed fresh food products like fruit juices, chocolate drinks, fresh milk, butter, yogurt, cream, cheese, cured or frozen meat and fish, bakery products, and baby food. Products that have no preservatives are highly perishable therefore indelible markings must be indicated visibly in these labels.

Best Before Date – also called "Best if used by date". The keyword here is using the word "best" beside the date, meaning it is the date which signifies the end of the period where the product's best quality is guaranteed. Again, the guarantee assumes a stated storage condition. Beyond this date, the product's quality attributes will be expected to deteriorate but may still be satisfactory for human consumption. After a few days or weeks of the indicated date, though, changes in color or texture and decrease in nutritional content may is expected.

Other products, especially those imported from overseas, may have different open date markings compared to locally distributed food. The following are some of the more popular open date terms used:

Sell-By Date – this is actually meant for the store owners more than the consumers. This date gives an approximation on how long the store should display a product for sale before it should be pulled out of the shelves. Consumers are also advised to buy the product before the sell-by date because, according to senior faculty member Paul VanLandingham of the Johnson & Wales University Center for Food and Beverage Management, this is the last date wherein freshness is at highest level of quality in terms of taste, freshness and consistency. After the sell-by date, the food product should still be edible for some time after.

Born-On Date – this is equivalent to the "date of manufacture" and is often used to date beer. VanLandingham explains that beer quality is affected by how much sunlight it is exposed to. Since sunlight can reactivate microorganisms in the beer, store owners are advised to be careful with

handling beer in clear bottles more than those in dark brown or clean bottles.

Generally, commercialized beer can go sub-par after three months from the born on date.

Guaranteed Fresh Date – this is usually used by bakeries and is similar to "best before date". As the name suggests, the guarantee is given that the baked product is at peak freshness before the date indicated. After the guaranteed fresh date, food will still be edible and may still be consumed, but taste, texture and nutritional value may not be the same anymore.

Storage Times

Keeping food at 40° F or below inside a refrigerator is usually good s for food as the common food-borne bacteria usually grow in much higher temperatures (41 degrees F and above). Did you know that if you freeze perishable food like meat cuts, you're actually extending your food's shelf life by as much as several days?

The US Department of Agriculture (USDA) Food Safety and Inspection Service website gives a food storage chart on food that bears a "sell by" or no date marking. Assuming you're storing food at 40 degrees Fahrenheit or below, cook or freeze the following food products by the times mentioned below:

Raw poultry, ground meat, variety meats (like heart, tongue, liver, brain, etc), uncooked beef or pork sausages: 1 or 2 days

Raw pork, beef, lamb, veal: 3 to 5 days

Cured meat (like ham, tocino, etc): 5 to 7 days

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Eggs: 3 to 5 weeks

Cooked poultry and sausages: 3 to 4 days

Hotdogs and bacon: 2 weeks if sealed, 1 week if opened

Luncheon meat: 2 weeks if sealed, 3 to 5 days if opened

Cooked ham: 7 days if sealed; if opened, 3 days for slices, 7 days if kept

whole

Canned ham (with "keep refrigerated" label): 9 months if unopened, 3-4

days if opened

Canned meat and poultry: 2-5 years if unopened; if opened, 3-4 days

Life after food product dates

According to experts, the average American family disposes of over 120 lbs

of food monthly - food that could have still been perfectly okay to eat! Talk

about wasted money on what should have been spent on other basic needs

of the family. Well, good thing that a USDA research has reported how

packed foods can last several days (some, even weeks) after the "sell-by"

date printed on packages. This is certainly good news for the Filipino

household budgeters.

As recommended by the Center of Consumer Research at University of

California, Davis, here's a list of foodproducts that are okay to consume (if

properly handled and stored) even after open date markings:

Milk – if pasteurized, milk usually remains fresh for about 5-7 days after the "sell-by" date. Make sure that it's not exposed too long to sunlight, though, as it can lose some essential vitamins. This is why most milk cartons come in opaque containers.

Eggs – can be stored up to 5 weeks after taking them home. This is because most egg processing plants coat their eggs in mineral oil, which essentially blocks bacteria from entering any of the approximately 17, 000 egg shell pores. Keeping eggs refrigerated also keeps bacteria away. Its best to keep them in their original carton and place them in the colder parts of your ref, not on the egg tray placed at the door (this is actually the warmest part of the fridge)

Poultry, beef, pork and seafood – cooking before storing in the fridge doubles the original shelf life of meats (3 to 5 days instead of 1 to 2 days). Once completely frozen, meat can last up to several weeks, even months.

According to the USDA Food Safety and Inspection Service, freezing meat at 0°F (which is equivalent to -17. 78°C) is best for safety reasons. Keeping meat frozen at 0°F won't kill bacteria that can cause food-borne illnesses, but it sure can slow down growth by forcing them into a state of dormancy. Some parasites can be killed at this temperature. Theoretically, keeping food frozen at this temperature can make meat last forever. Attempting to achieve this at home, however, is an extremely difficult task since your refrigerator is opened several times a day (causing fluctuation in temperature every time). Taking this into consideration, here's a list of recommended storage times of frozen products in home refrigerators:

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Bacon, sausage, raw poultry: 1 to 2 months

Ham, cooked meat, hot dogs or cold cuts: 2 to 3 months

Raw ground meat: 3 to 4 months

Cooked poultry: 4 months

Raw steaks, roasts or chops: 4 months to a year

Raw poultry parts: 9 months

Canned goods – normally, canned goods are great refrigerator-free foods that last long if stored in the right conditions. If you can't find an expiry date printed on the label, here are some easy reminders on how long they usually last: highly acidic canned food like pineapple or tomato sauce can last about 18 months or more. Canned goods that are low in acid content like canned veggies or meat can be kept up to 5 years. Texas A&M University professor of food and nutrition Peggy VanLaanen strongly recommends keeping canned goods at 50-70 degrees Fahrenheit in a dry, dark place for optimal shelf life. Humidity can speed-up deterioration, so this should be avoided. Do not buy dented cans or those that are swelling or bulging since these may easily be harboring harmful bacteria already (if you have bulging cans in your shelves, throw them out now even if expiration date isn't due yet)

Yogurt - this can last up to 5 days beyond the "use by" date, for as long as you keep them refrigerated. You may lose the friendly bacteria after this, but it should still be safe to eat. To keep yogurt fresh longer, place it upside

down in your refrigerator as this creates a seal that can keep harmful bacteria from seeping in its packaging.

Fruit juice – this can last up to 6 days beyond the "use by" date, for as long as you keep them refrigerated. The sugars and acids added to your fruit juice already lengthen the shelf life and those in concentrate form can also last longer because air has been removed prior to packing. Keeping juices in the refrigerator after purchasing them will surely lengthen shelf life in general.

Mishandled food can breed bacteria even before its labeled date, so it is important that you follow storage instructions mentioned in product packaging. For example, if you bought a pack of hotdogs that say they'll expire next month and you forgot to refrigerate the pack for several days, bacteria could have already contaminated your food even before the expiration date. If food is already contaminated by harmful bacteria like Listeria, E. coli or Salmonella, they can multiply and build colonies within days, even if you decide to throw the forgotten pack of hotdogs back in the refrigerator.

According to food safety advocate, Bill Marler of Marler Clark (a Seattle law firm that represents victims of food poisoning), when bacteria are already present in food, the use-by date becomes irrelevant since it can cause harm even before the date indicated. In this case, it will be safer for you and your family to just throw away unconsumed food instead of risking the possibility of getting sick.

Trust your nose and tongue

For food that are not packed for commercial distribution (like cooked viands bought from a local carinderia or made to order baked goodies), the best way to find out if food is still edible or not is if we use our God-given sense of smell and taste. These are actually what our ancestors used back when food dating was not discovered yet.

In general, you should not eat food that gives off a repulsive smell or taste, as it most likely isn't fit for consumption anymore. In the absence of an expiry date – sniffing and tasting is the way to go!

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