

FOOD	USUAL PRESERVATION SYSTEM
Raw Meat	Chilling reduces microbial growth rate. Vacuum/modified atmosphere (MAP) packaging can extend shelf life but increases risk of anaerobic pathogen growth (e.g. Clostridium botulinum).
Raw Vegetables/ Salad/Sprouted Seeds	Chilled storage will extend the shelf life. Sometimes, in order to extend shelf life, MAP is the packaging for these products, but this increases the risk of anaerobic pathogen growth (e.g. Clostridium botulinum).
Fruit and Fruit Juices	The low pH of these product types will extend shelf life in combination with chilled storage.
Dairy Products	Pasteurization and chilling extends the shelf life of dairy products, UHT ultra-high temperature processing) will give a long ambient shelf life.
Processed Foods (RTE or to be re-heated)	Chilling is usually the method for extending shelf life in this product grouping. It acts in concert with other factors such as salt levels, pH, preservatives and packaging atmosphere to give a unique though short, shelf life. Safety validation is required for each product.
Heat treated, low pH (< 4.5) or intermediate moisture foods (cured meats, products in oil, pickles, sauces, jams)	A combination of low pH, high sugar, salt and the thermal process will give some shelf life extension. This needs validation for being safe.
Intermediate Moisture Foods (examples include jams, some bakery items or granola bars, dried fruit, soy sauce)	Water activities between 0.60 and 0.85, do not require refrigeration or another barrier to control the growth of pathogens but have a limited shelf life because of spoilage mainly from yeasts and molds. A mild heat treatment immediately before packing (jams and jellies), as well as the addition of preservatives can prevent spoilage.
Canned, pouched or bottled food	Heat process will give an extended ambient shelf life through destruction of resident microbiological flora. This requires safety validation.
Bakery Products	Baking will reduce the water activity (Aw) and give a short, ambient shelf life. Packing baked products in MAP can further extend shelf life but this increases the risk of anaerobic pathogen growth (e.g. Clostridium botulinum).
Dried Food (including raw, heat processed and those to be cooked, examples are nuts, fruit, rice/pasta, breakfast cereals, confectionery, herbs/spices)	Low Aw will limit the growth of microbes therefore, a long ambient shelf life is usually achievable.
Non-Dairy fats and oils	If properly processed, packaged and stored then a long ambient shelf life is achievable.
Soft and alcoholic drinks	Low pH is the primary method of soft drink preservation in combination with carbonation and preservatives such as benzoates and sorbates. Preservation of alcoholic drinks occurs through the presence of alcohol and other preservative compounds. Pasteurization can also improve safety and extend shelf life.

Adapted from:

[https://myhaccp.food.gov.uk/sites/default/files/resources/a\\_table\\_of\\_food\\_types\\_microorganisms\\_of\\_concern\\_to\\_food\\_safety.pdf](https://myhaccp.food.gov.uk/sites/default/files/resources/a_table_of_food_types_microorganisms_of_concern_to_food_safety.pdf), and  
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