

MYTHS & FACTS ABOUT FOOD IRRADIATION

Myth

“All foods should be irradiated.”

Reality:

This notion is ill-conceived. Irradiation is a useful tool that can be used to improve the safety, quality and/or distribution of many foods. Irradiation should be used by food companies when the benefits of its use are greater than the associated costs.



Both heating and irradiation have chemical, physical and/or biological effects on different materials. We can, and do, employ both of these forms of energy to provide specific improvements to various food products.

Heat can be used to pasteurize certain foods. But all foods do not need pasteurization to be safe to eat. It can be used to cook food, but many of our foods are preferred uncooked. It can be used to bake bread, but we do not survive on bread alone. There is no reason to use heat processing on all food.

The irradiation process can be used to pasteurize certain foods. It can be used to delay ripening in certain foods. It can be used to kill insect pests in certain foods. For some foods it can be used to decrease flatulence. However, the specific effects are for certain foods and not common to all food. Similar to heat, there is no reason to irradiate all food.

Irradiation is a tool that can be employed on certain foods for certain advantages. Often there are competitive techniques that may be employed. For example, both heat and radiation can be used to kill microorganisms in food. However there are technical differences between the two processes. Irradiation is a cold process allowing product to be disinfected without cooking. The heat process also cooks the product.

Often this cooking is viewed as a benefit such as with canned peaches. For some foods the side effect of cooking might be viewed as a negative. Spinach salad uses raw spinach. Personally, it makes me a bit queasy imagining a spinach salad made from canned spinach. And yet, there is a separate market for canned spinach. By using a different process, the same vegetable is made into two different products. To reduce the threat of pathogens in spinach, we think of heat for canned...irradiation for fresh. For the record, I like fresh spinach and canned spinach, fresh peaches and canned peaches. Heck, I even like fresh, cooked succotash, but I love eating succotash right out of the can...cold!

The individual companies of the food industry determine if there is an advantage for each of their products to be heated, or irradiated, or processed in any other way. They weigh the advantages of each process against the costs of using that process. And the market determines if there is a willingness to accept, and pay for, these advantages.

The only process common to all food is that of digestion.

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