

The World's Largest Open Access Agricultural & Applied Economics Digital Library

# This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search http://ageconsearch.umn.edu aesearch@umn.edu

Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.

## FOOD ADDITIVES - WHY?

by

Al B. Wagner, Jr. Department of Horticultural Science Texas A&M University

Even though food additives have been part of man's civilization for hundreds of years, there is increasing alarm and confusion on the part of today's consumer. Much of this confusion is a result of half-truths and misinformation as to what food additives are and why we use them.

With this nation's population increasing at such an alarming rate and only 5% of it producing food, the importance of food additives becomes even more apparent. Additives help the food supply to be palatable, convenient and safe with a long shelf life and pleasing flavor.

There are many types of food additives which serve particular functions. A brief description of each follows:

Preservatives are used to maintain appearance, palatability and wholesomeness by delaying deterioration of food due to microbial growth or chemical reaction. Food spoilage caused by mold, bacteria and yeast is prevented or slowed by certain additives. Antioxidants help keep fat containing foods from turning rancid.

Flavoring agents can be natural or synthetic and include ingredients such as sugar, spices, salt and essential oils. The synthetic flavorings have greater stability throughout processing and provide uniform as well as economical additions to food products. Coloring agents impart a desired and characteristic color to foods in order to increase attractiveness and acceptability.

Stabilizers and thickeners give desired smoothness of texture and uniformity to confectioneries, ice creams, chocolate milk and artificially sweetened beverages just to name a few.

Emulsifiers act to improve the texture of commercially baked goods as well as to keep oils blended in foods such as ice cream, frozen desserts, pourable salad dressings and chocolate.

Nutrient supplements are the vitamins and minerals added to foods to improve nutritive value and sometimes replace those that are lost during processing.

Acidulants and alkalies are used to control acidity or alkalinity to aid in the production of consistently uniform products.

Firming agents are important for maintaining texture in processed fruits and vegetables.

Anticaking agents keep many salts and powders free-flowing.

Leavening agents are used in the baking industry in order to produce products with a light texture.

Maturing and bleaching agents improve the baking characteristics and color of flour. Humectants act to retain moisture in foods such as shredded coconut and marshmallows.

The proper use of food additives is pertinent to the quality and variety of our nation's food supply. Research on additives and how they work will continue to play a vital role in the food industry. In order to avoid the public outcry experienced by the food industry in the past, consumers must be informed about food additives by competent persons and not amateurs just looking for headlines.

\*\*\*\*\*

## BACTERIOLOGICAL STANDARDS AND FOOD QUALITY/SAFETY

by

Lawrence E. Wyatt & Ranzell Nickelson Food Quality Advisory Laboratory Texas A&M University

Definition: A regulated standard of bacteriological tolerances (number of bacteria per food sample) designed to indicate the degree of quality and/or food safety.

#### Advantages

1. Low bacterial counts indicate higher quality food.

2. Foods within limits will be assured of being high quality.

3. Increased quality will decrease food-borne illness.

4. Increased hygienic control in the handling of preparation of food.

5. Increased shelf life, less waste, higher consumer acceptance.

6. Modern technology can supply food within tolerances of most standards.

### **Dis**advantages

1. High counts do not always indicate unwholesome food.

2. Arbitrary numbers can't be utilized to determine quality.

3. Low-hazard foods do not need to be regulated.

4. GMP's and public health inspection are used in most areas of food distributio

5. Increased cost because of testing, and reduced price of foods that are not within lmits.