

Food Processing and Manufacturing

Food processing is the treatment of food substances by changing their properties to preserve it, improve its quality or make it functionally more useful. Food processors take raw animal, vegetable, or marine materials and transform them into edible products through the application of labor, machinery, energy, and scientific knowledge. Chemical, biological, and mechanical processes are used to convert relatively bulky, perishable, and typically inedible food materials into shelf-stable, convenient, and palatable foods and beverages. Food processing is one of the largest manufacturing industries in the United States. According to the FDA, there are approximately 44,000 food processors and 113,000 food warehouses in the U.S. that provide processed foods to our country, and exports throughout the world. The processors include canners, producers, wineries, and other food and beverage manufacturers and distributors. There are more than 1.2 million retail food facilities (restaurants, grocery stores, and others) that serve or sell foods directly to consumers. Benefits of food processing include toxin removal, preservation, easing marketing and distribution tasks, and increasing food consistency. In addition, it increases yearly availability of many foods, enables transportation of delicate perishable foods across long distances and makes many kinds of foods safe to eat by de-activating spoilage and pathogenic micro-organisms. Modern supermarkets would not exist without modern food processing techniques, and long voyages would not be possible. Processed foods are usually less susceptible to early spoilage than fresh foods and are better suited for long-distance transportation from the source to the consumer.[3] When they were first introduced, some processed foods helped to alleviate food shortages and improved the overall nutrition of populations as it made many new foods available to the masses