THE FOOD AND DRUG LAWS AND THE CITRUS INDUSTRY* **

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Sunkist Growers has an interesting history going back to 1893 when, believe it or not, there was over-production—a familiar word in agriculture today—in oranges and lemons. During these 61 years it has been regarded as the outstanding example of a grower-owned cooperative marketing organization and the name Sunkist has come to be the best-known trademark in the fruit and produce business. Some 14,500 citrus growers of California and Arizona have spent $75 million since 1908 to advertise Sunkist oranges, lemons, and grapefruit, and, more recently, Sunkist frozen and canned juice products. In 1953, Sunkist sold $172 million worth of these fruits and juices in the United States and throughout the world. Of this total, 76% were derived from the sale of fresh fruit. The spirit and policy of innovation both in product and marketing have been vital factors in the Sunkist Story. For example, the idea of drinking the juice of several oranges each day to provide the necessary amount of Vitamin C for good health and to furnish other food values as well as refreshment and enjoyment was originated by Sunkist in 1916.

PRODUCTS

The Products Department of Sunkist Growers was established as the sales organization for products produced from the surplus oranges, lemons, and grapefruit of its grower-members some 25 years ago. The products are produced by two affiliated corporations, The Exchange Orange Products Company and Exchange Lemon Products Company, and are classified in two general groups, industrial products and consumer products. The industrial products include concentrated juices, bottlers' soft-drink concentrates, essential oils, pectin, citric acid, dried pulp for cattle feeding, and some very interesting pharmaceutical products. All of us are familiar with Du Pont's slogan "Better Things for Better Living through Chemistry." That statement is particularly applicable also to the Sunkist citrus products business because our processing involves careful and oftentimes intricate chemical procedures with the consumer constantly in mind, that is, his health and his economic interest in being able to buy citrus fruit products at reasonable prices and packaged and labeled in such a way that he is not misled.

In the consumer goods category there are at present twelve Sunkist frozen, canned, and bottled juices which are sold through the 376,000 food stores of the nation. All are processed to precise specifications established by Sunkist which in some instances are more rigid and exacting than the accepted grade standards of the industry. From a dollar volume of sales standpoint, industrial and consumer products are about of equal importance at the present time in Sunkist's citrus products activities. As producers both of food products and ingredients for food products sold to manufacturers we have always advocated a strong food and drug law soundly administered and adequately enforced both for the protection of the consumer and for the maintenance of high standards of quality in the industry. The Federal Food and Drug Act of 1906, the Federal Food, Drug, and Cosmetic Act of 1938, and the food laws of the states have had a most beneficial and valuable influence on the development of the citrus business both at the local and national level. Furthermore, the industry has a moral and practical interest in promoting and safeguarding the health and welfare of the consumer, realizing that when the food laws are uniform and properly enforced there is a good measure of protection from unfair competition resulting from the distribution of debased or fraudulent products.

As indicated previously, the


This is a good practical manual for teaching students "how" to make the important tests on dairy products. Detailed descriptions, illustrations, and problem-solving are within the comprehension of the average student, even an intelligent high-schooler.


Experimental work is presented on the researches conducted at the National Institute for Research in Dairying (England) to develop instruments and measuring techniques for determining the proper physical properties of cheese and butter. Much progress is reported, but the work needs additional research to correlate better the subjective tests of the experienced cheesemaker with the instrumental record.


This is a revision of and supersedes Department Bulletin 608 "Varieties of Cheese: Description and Analyses."


The Federal Food and Drug Act is discussed from the standpoint of its historical background and article coverage, infractions, definition and standardization, enforcement practices, both administrative and judicial.

*An address delivered at the Public Conference on the Food and Drug Law, held in Los Angeles on May 15, 1954, under the joint auspices of the University of Southern California School of Law and The Food Law Institute.

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distribution and sale of fresh oranges, lemons, and grapefruit are the principal Sunkist activities. These citrus fruits are natural products of agriculture which are moved unaltered and unchanged from the groves to the consumer.

Paul S. Armstrong, General Manager of Sunkist Growers, has stated very appropriately the importance of the food and drug laws to our business: "Both as citizens and as producers and distributors of a major fruit crop, Sunkist Growers applaud the high purpose of Food and Drug laws and regulations. We shall support in every way the fair administration of these laws."

If all foods were supplied to the ultimate consumer in the form of the raw agricultural commodity, the regulations and their enforcement would be difficult enough. In that instance we in the citrus business would be spared many of the problems of the deciduous fruit grower and the vegetable producer because the durable protective skin of citrus fruits is never eaten in the raw state and affords ample protection to the edible part of the fruit itself. However, with all the many variations of form and kinds of preparation, compounding, and blending that the consuming public desires and demands, the problems of manufacturing, advertising and selling are multiplied many times. To even a great degree this is true of the problems of food law enforcement for the protection of the public. Certainly, the producers of the crops which are starting materials for the production of all foods will and should be ever thankful for the basic principles being constantly applied and enforced by the food law enforcement agencies, both federal and state.

Cooperation Between Officials and Industry

Sunkist recognizes the importance of this necessary alliance of the agricultural producer, those who promulgate food law legislation, and food law enforcement agencies for the long range mutual good of producers and consumers. We realize also the continuing need of standardization and improvement of methods along the course from farm or orchard to factory, to warehouses, to food stores, and of the importance of food law enforcement at each particular stage of this distribution process. We have been very much aware of the complexities of these problems because of our extensive marketing activities in many of the related sub-divisions of the food industries such as fruit flavoring and extract groups, jam and jelly manufacturers, confectionery, the bakery trade, dairy and ice-cream producers, soft-drink bottlers, pharmaceutical manufacturers, other grocery manufacturing groups, and the stock feed business.

While some of the many products derived from citrus fruit have uses in other fields, it will be evident that practically all of them enter into products of the food industries. As a consequence we have been close to the problems encountered in the conversion from the raw agricultural commodity to intermediate and finished prepared foods so in this respect we are talking not about some small part of the citrus business, but speaking of the national production of all areas, of about one-half of the citrus crop which is purchased as processed products.

Suggestions for the improvement of the prompt evaluation and the solution of food problems will come from no one source exclusively, whether it be the grower, the manufacturer, the distributor, the food law enforcement agency, or the consumer. We should hope that the experiences of all these groups will constantly bring forth valuable suggestions and therefore we are not at all reticent in speaking briefly about one of our own suggestions which, we believe, will serve to illustrate a need concerned with certain basic principles common to the food business in the channels of conversion and distribution.

Tolerances

The agricultural chemical industry in cooperation with state and federal experiment stations all over the country, Departments of Agriculture, growers organizations, trade associations, chemical manufacturers and others, have made great progress in the use of agricultural chemicals such as pesticides. There is only one purpose motivating these commendable efforts and that is to effect improvement of quality and quantity of crops, thereby enhancing the economic situation for all concern-
tives, such as the products made from citrus fruits as mentioned previously.

The proposal permits of a minimum of legislation to control safely by far the greater portion of food processing of the country. It permits in regulatory and enforcement work much less effort to accomplish much greater benefits. It would eliminate much confusion and uncertainty which the conscientious food processor new experiences. It would prevent irresponsible processors from avoiding the underlying purpose of tolerances which is to afford the consuming public economy, quality, and safety of its food supply.

Modern rapid and precise methods of determination of moisture content make this proposal simple of technical accomplishment. Furthermore, the technical-legal significance of samples for official testing would be enhanced greatly because moisture losses would not affect the conclusions.

Our philosophy in connection with matters of this kind is best illustrated by paraphrasing a statement attributed to Abraham Lincoln—he has the right to suggest and to propose who has the heart to help.

We of Sunkist regard highly the advantages afforded the food industry of informal discussions with representatives of the Food and Drug Administration whose cooperation we have always appreciated and whose opinions we have always respected, as contrasted with strictly legal hearings. The recent enactment of the Hale Bill, in our opinion, is a significant accomplishment in the right direction by omitting the need for exhaustive and often costly hearings governing the establishment of food standards at least in connection with non-controversial matters.

**Fundamental Research**

So often in public statements we hear richly deserved praise of the American way of life expressed in terms of physical comforts such as central heating, sanitary facilities, telephones, or motor cars, but there are other ingredients contributing to the higher levels of living standards which are far more dimensional. Without attempting to enumerate all of them, let us think of just one and then briefly discuss its meaning in the sense of human welfare. The one to which I refer is nutrition in all of its social and economical manifestations. We are blessed with a productive land, but so are many peoples. From the most primitive techniques we have advanced to a most efficient plane of agricultural production. We are a well-fed nation—some would say, too well-fed.

Sunkist and the citrus industry owes its present vitality to modern nutrition concepts and traces the beginning of its commercial progress to nutrition research. Were it not for nutrition awareness on the part of scientists and the public interest it has aroused, citrus would still be considered a luxury as it was in the decade or so after the turn of the century. Because our growers realized that nutrition benefits were the only means by which citrus would be established as a part of the regular dietary, they made their first grant to a university in 1921. Sunkist thus became one of the very earliest commercial enterprises to support scientific nutrition research. Since then Sunkist has supported scores of projects, large and small, by grants of money, fellowships, and other assistance. These have revealed important facts which, when directed to the public in advertising and exactly prepared literature, have stimulated the consumption of citrus fruits and products through public enlightenment. Of greater importance than the work Sunkist has directly supported have been the investigations conducted independently by qualified individuals at renowned institutions.

It should be made clear that at first the objective was the identification of the components of citrus. After that came their evaluation as elements in human nutrition. Other American enterprises had the same interests and followed the same procedures with the result that the work of one complemented the other. A modestly publicized example of the interest and support the American food industry has taken in nutrition development is the Nutrition Foundation founded in 1941. Its objective is fundamental nutrition research and the development of the public's interest in nutrition. Members have no voice in the selection of projects to be sponsored by the foundation funds. Those decisions lie in the hands of eminent scientists. The roster of membership includes the nation's leading food producers and processors, of which Sunkist is pleased to be listed as a member.

Today the consumer is better informed on the subject of nutrition than ever before, thanks to the teamwork of food officials, medical doctors, nutritionists, food editors, and the agricultural industries. The minimum daily requirement of certain of these important vitamins established by the Food and Drug Administration has done much to acquaint the consumer with his continuing needs for the maintenance of good health. All of this work has contributed to the improved general health of our 160 million population. Of course, there remains in this relatively new field some standardization yet to be accomplished. For example, Food and Drug regulations specify that the minimum daily requirements of Vitamin C (ascorbic acid) is 30 milligrams while the National Research Council Food and Nutrition Board maintains that 75 milligrams are necessary for good health and well-being. We recognize that these two recommendations serve somewhat different purposes—the one for labeling requirements and the other as a guide to nutritionists—but in this instance of Vitamin C, the difference is so great that it has caused confusion.

**Conflicting Laws**

The national distribution of food products frequently has to contend with vexing problems that originate as a result of the variations of the state laws and regulations as between the states and the Federal Act of 1938. For example, some states have defined certain food products in conflict with definitions promulgated in other states. Others have sought to enforce dictionary definitions that neither are practical nor in the best interest of consumers. Some permit the addition of certain chemical preservatives with specified tolerances, while others do not. Some require label declarations that are different from the federal requirements and from other states. National distributors of food products find these situations confusing and expensive to resolve, and frequently consumers in one state are deprived of the advantages of convenient,
economical, wholesome, and nutritional products that may be available to consumers in other states.

Several years after the adoption of the Federal Act of 1938, the Association of Food and Drug Officials of the United States approved and endorsed a model Act known as the Uniform State Food, Drug, and Cosmetic Bill. At present some 29 states have seen fit to adopt it in whole or in part and most of these have followed the federal regulations in many particulars. That is very helpful! The reasons for the apparent apathy in some of the remaining states in adopting this Uniform Code are not entirely clear, but it is suspected that it may be due largely to a lack of active and informed public interest. In spite of these problems where uniformity would be helpful, we acknowledge that food products available to us as consumers in the United States are processed and distributed in accordance with present federal and state food laws and are unequaled in quality anywhere in the world.

State regulation of fresh fruits and fruit products has been an important adjunct to the Federal Food and Drug Laws and conflicts have been minimized by cooperation between the state and federal groups. We in the citrus business would advocate more uniformity between state and federal laws, realizing that complete uniformity probably can never be achieved. Our industry in California stands ready at all times to cooperate fully with federal and state food officials in promulgating standards for citrus fruits and citrus fruit products in the interests of the consumer and the grower.

Sunkist sells and ships citrus fruits and citrus products to some fifty-five foreign countries and we have to deal constantly with the food and drug laws of those countries where policies and attitudes often are much different from those in the United States. Sometimes interpretations of officials are perfunctory and decisions can have obvious political implications, but we have observed recently a trend toward better international understanding relative to food and drug regulations accentuated, I am sure, by the leadership of the United States as a producer of more food than we can consume and the world-wide distribution given to those substantial surpluses. Our food and drug laws are, and must continue to be, worthy of emulation. That obligation puts upon all of us the responsibility of being progressive in food law legislation and alert to changes which are sound and beneficial to all concerned.

In conclusion, I want to thank Mr. Dunn and The Food Law Institute for the opportunity of discussing with you this afternoon these problems of mutual interest; also Dean Kingsley, Dean of the School of Law, University of Southern California, for the gracious hospitality extended by him and his associates. Working together all of us can continue to accomplish much for the common good in food and drug legislation consistent always with the maintenance of the spirit of our free enterprise system.

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**TWO PENN STATE ICE CREAM SHORT COURSES**

Two short courses in ice cream making will be given by the Dairy Science Department of the Pennsylvania State University this coming winter. One is designed for ice cream supply and equipment men and will be of one week's duration, from December 6 to December 11, 1954.

The second course will be held January 10 to 22, 1955 for plant men. The two courses are given because of the demand during the past years. If the demand does not warrant the two courses, they will be combined in the two weeks course. The two weeks course is limited to 60.

Material covered in the two courses is quite similar but naturally the two weeks course for plant men goes into considerably more detail and includes a few more subjects and more time is spent on mix calculations.

**Supplement Men’s Course December 6-11, 1954**

Topics covered in the Supplement Men’s Course will include, mainly, composition of ice cream, ingredients used, standardization of acidity, calculation, processing, flavoring, freezing, overrun, and hardening of ice cream, ices, and sherbets. A certain amount of testing will also be included. A discussion of soft ice cream is given along with demonstrations.

**Plant Men’s Course January 10-22, 1955**

Subjects covered in the two weeks course for plant men follow:
- Composition of ice cream: ingredients used in ice cream – sugars, sugar alternates, etc.; testing ice cream (Mojonnier and Modified Babcock); calculation of mixes; restandardization of off-batches; processing mixes; standardizing acidity; manufacture of sherbets and ices using various sugars, stabilizers, etc.; use of stabilizers for ice cream, sherbets, and ices; freezing of mixes, sherbets and ices (batch and continuous freezers); defects in ice cream, sherbets, and ices; cocoa and chocolate flavored ice cream; flavors used in frozen desserts; scoring of ice cream; ingredients used in ice cream; washing compounds used; making mixes in vacuum pan; and making soft ice cream.

For further information, bulletin, and application of either of these courses, please write to D. R. McClay, Director of Short Courses, College of Agriculture, The Pennsylvania State University, State College, Pennsylvania.

**Ice Cream Conference**

At the conclusion of the two weeks course the usual Penn State Ice Cream Conference will be held at the Nittany Lion Inn. Outstanding speakers will be on hand for an interesting and instructive program. The conference date is Friday, January 21, 1955. The Banquet, at which time the usual awards are made, will be held the same evening at the Nittany Lion Inn.