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PART II:

**DEPARTMENT OF
HEALTH,
EDUCATION,
AND WELFARE**

Food and Drug Administration



**DRAINED WEIGHTS FOR
PROCESSED FRUITS AND
VEGETABLES**

**Standards of Fill of Container
and Label Statement**

**DEPARTMENT OF HEALTH,
EDUCATION, AND WELFARE**

Food and Drug Administration

[21 CFR Parts 1, 10, 27, 51, and 53]

[Docket No. 75P-0166]

**DRAINED WEIGHTS FOR PROCESSED
FRUITS AND VEGETABLES**

**Standards of Fill of Container and Label
Statement**

The Food and Drug Administration (FDA) is proposing to require label declarations of the drained weight of canned fruit and vegetable products. In addition, minimum average drained weight requirements are being proposed for most canned fruit and vegetable products. The intended effect is to minimize consumer confusion and to help the consumer make value comparisons among various brands and thus save money when shopping. Interested persons have until February 5, 1976 to submit comments.

SUMMARY OF PROPOSAL

A notice published in the **FEDERAL REGISTER** of December 5, 1973 (38 FR 33512), disclosed that Consumers Union of United States, Inc., Washington Office, 1714 Massachusetts Ave., NW., Washington, DC 20036, had filed a petition proposing establishment of regulations, or the amendment of existing regulations, in 21 CFR Part 1, to require that all processed fruits and vegetables packed with sugar or other sirup, water, brine, or their own juice, bear on their labels a statement of the drained weight of the solid food content of the container. In that notice, the Commissioner of Food and Drugs invited all interested persons, including Federal, State and local agencies, manufacturers and their associations, universities, and private citizens, to submit relevant information, requesting that all such information submitted be supported by factual data including, where appropriate, statistical and cost-benefit analyses.

In support of its proposal, Consumers Union stated that whether or not the consumer intends to use the packing medium he should be able to determine how much of the net contents of his purchase is fruit or vegetable, and how much is liquid. The petitioner noted that data produced during the Packaging and Labeling Hearings (Hearing before a Subcommittee on the Committee on Government Operations House of Representatives, 91st Congress, June 3, 4, and 5, 1969), and by Consumers Union's own 1972 study of the problem, support the need for drained weight labeling. Containers of the same product, marked with the same net weight, were found to vary considerably in drained weight from packer to packer. Furthermore, many private label as well as brand name products are obtained from contract canners who may vary the fill of fruit or vegetable as commodity prices rise. Hence, petitioner contended, the lack of drained weight labeling totally frustrates the consumer's attempt to obtain the most fruit or vegetable for his money.

Consumers Union was of the opinion that the value of providing drained weight labeling would far exceed the costs such a regulation would entail. In addition, the technical and economic capability that exists to comply with a drained weight regulation was said to be evidenced by packer compliance with minimum drained weight requirements in existing fill-of-container standards (e.g., 21 CFR 27.42 for canned fruit cocktail and 21 CFR 51.503 for canned mushrooms), and by packer ability to meet Federal purchasing program specifications for drained weight. Consumers Union added that it is noteworthy that the Defense Supply Agency pays no more for its purchases under drained weight specification than do commercial buyers of the same size containers. In sum, petitioner contends that drained weight labeling is essential to avoid confusion to consumers and to enable value comparison at the consumer level.

The Commissioner notes that under current good manufacturing practice the relationship between the fill-in weight of the fresh fruit or vegetable (solid food components less the liquid packing medium before processing) and the drained weight of the food (solid food components less the liquid packing medium after processing) may vary depending on the type of food, the type of packing medium, and the processing conditions used. (NOTE: The net weight which includes both solid food and packing liquid is constant for an individual container before and after processing.) Many consumers want to know the drained weight of particular products, but this information is not currently available in most labeling, which states only the net weight. Some fill-of-container standards do specify minimums for drained weight but have not required label declaration of that fact.

As pointed out in the petition published in the **FEDERAL REGISTER** of December 5, 1973 (38 FR 33512), it has been the policy of the FDA to regard the packing medium as properly part of the declared net weight, if the packing medium is generally consumed as part of the food. Where solid foods are packed in a salt brine or other medium which is considered inedible and almost always discarded before serving, declaration of drained weight of the food, instead of the net weight, has been recommended. Examples of foods that are traditionally labeled with the drained weight are green olives, canned mushrooms, canned artichokes, canned clams, and canned wet pack shrimp.

It is clear that the Commissioner has authority under the Federal Food, Drug, and Cosmetic Act to require a declaration of drained weight for all foods in a packing medium. Section 403(e) of the act provides that the label shall bear "an accurate statement of the quantity of the contents in terms of weight * * *." Where a food is sold in a packing medium, whether or not commonly consumed with the food, the "quantity of the contents" may be defined as the quantity of the fruit or vegetable as well as the quantity of the fruit or vegetable

plus packing medium. In addition, sections 403(a) and 201(n) of the act permit the Commissioner to require the disclosure of material facts in labeling. The portion of net weight that the more valuable fruit or vegetable comprises is obviously a material fact, which may be required to be disclosed.

The Commissioner is therefore proposing to require a declaration of drained weight on the labels of certain foods. The proposal would implement, insofar as is considered economically sound and practicable, the Consumers Union petition.

An important modification of the petition is the limitation of this proposal to canned fruit and vegetable products. Whereas the Consumers Union petition seeks a requirement for drained weights on all processed fruits and vegetables, including frozen fruits and vegetables, the Commissioner is of the opinion that this proposal should be limited to those foods for which sufficient information and data on drained weights are available to permit establishment of effective compliance criteria. Such data are not available for frozen fruits and vegetables, to the knowledge of the Commissioner.

In addition, this proposal would also amend existing standards of fill of container and establish new standards of fill of container for most canned fruits and vegetables for which the declaration of drained weight is applicable. Section 401 of the Federal Food, Drug, and Cosmetic Act authorizes the establishment of reasonable standards of fill of container. Such regulations designate the quantity of food that should be packed in the container in terms of the solid or liquid food components or both. The existing fill-of-container standards for canned fruits and vegetables may be grouped as follows: (1) those that simply state that the fill of container is the maximum quantity of the solid food component that can be sealed in the container and processed by heat without crushing or breaking such component (limited to certain canned fruits); (2) those that specify a minimum quantity of the solid food component which shall be present in the container after processing. This quantity is commonly expressed either as a minimum drained weight for a given container size or as a percentage of the water capacity of the container; (3) those that specify that the food present in the container, including both the solid food component and any liquid packing medium, shall occupy not less than 90 percent of the total capacity of the container; (4) those that specify both a minimum drained weight requirement and the 90 percent minimum fill requirement; and (5) those that are based on a minimum volume of the solid component irrespective of the quantity of the liquid (canned peas).

The proposal set forth below provides fill of container standards requiring that the solid food component and liquid packing medium fill at least 90 percent of the container or in some cases, that the container be as full as practicable, as well as specifying the minimum average drained weight of the solid food component (in terms of ounces for specific can

sizes). The proposed minimum average drained weight requirements are based primarily on the U.S. Department of Agriculture (USDA) standards for grades for canned fruits and vegetables. These USDA standards are recognized by packers, have been used by the food industry for some years, and have been issued as USDA regulations in 7 CFR Part 52 through public rule making procedures. In the case of canned tomatoes, green beans, grapefruit and pineapple, the minimum average drained weight requirements proposed below are not completely consistent with those of USDA but are based on other information and data available to the Commissioner as discussed elsewhere in this preamble.

In addition to recommending drained weights (determined after processing), the USDA standards also provide a recommended fill-in weight of the unprocessed food for a number of canned fruits and vegetables. Neither the existing nor the proposed FDA fill-of-container standards set forth below include requirements for fill-in weight for the reasons discussed elsewhere in this preamble.

The international standards of the Codex Alimentarius Commission also include recommendations for minimum average drained weight. It is the Commissioner's opinion that these international minimums should be adopted, whenever practicable, pursuant to section 401 of the act. The minimum drained weight requirements in the Codex standards and the USDA recommended minimum drained weight requirements are the same in most cases. However, the minimum drained weight requirements proposed below for canned green beans and canned pineapple are not completely consistent with the Codex requirements but rather are based on other information and data available to the Commissioner as discussed elsewhere in this preamble.

This proposal would require that the label declare the minimum average drained weight established in the fill-of-container standard for a food where such a standard exists. Alternatively, under the proposal a manufacturer could declare a higher drained weight if the average drained weight of the product in fact exceeded the minimum. This provision in the proposal, permitting a manufacturer to declare the minimum allowable average drained weight even though his product exceeds that minimum, eliminates the need to predict or ascertain the precise average drained weight that he is packing. In the case of a food for which no minimum average drained weight requirement is established in a fill-of-container standard, it is proposed that such foods be labeled with a drained weight declaration that does not exceed the average drained weight of the lot.

The declarations of drained weight are based on the average drained weight of a lot, since the drained weight of individual containers varies unavoidably under good manufacturing practice. The Commissioner believes, however, that large variations should not be permitted.

The drained weight declaration would not be sufficiently informative to consumers if individual containers are far below the labeled drained weight, even though the labeled weight might accurately state the average. Consequently, this proposal establishes a lower limit for permitted variation from the declared drained weight. For a number of products, sufficient data are available from studies of packing operations to determine what variation is likely to occur under good manufacturing practice. Where such data are available, the USDA recommended standards in 7 CFR Part 52 have adopted them, and this proposal adopts them as mandatory requirements. Where such data are not available, and in those cases where no standard of fill of container is being established, drained weight variations of individual containers must be within good manufacturing practice.

The proposal also specifies methods for determining compliance with the fill-of-container standards. A plan for sampling a lot of canned fruit or vegetables is set forth. In addition, compliance criteria are established, based on the USDA criteria in 7 CFR Part 52. Where no standard of fill of container is established, the criteria for determining compliance are the same as those criteria established by USDA where data on the range of variability are insufficient to establish a permissible lower limit of drained weight for individual containers. In such cases, a lot will be considered in compliance when (1) the average drained weight of the units in a sample is greater than, or equal to, the labeled drained weight, and, (2) the drained weights of at least 50 percent of the units sampled are greater than, or equal to, the labeled drained weight, and, (3) the drained weights of units less than the labeled drained weight are within limits of good manufacturing practice.

This proposal is structured, for the most part, as one for standards of fill of container. The Commissioner notes, however, that all the provisions of this proposal could be issued as final regulations without establishing standards, except for the minimum permissible average drained weights. The Commissioner specifically invites comment as to whether minimum average drained weights should be established. Should the Commissioner conclude not to establish minimums, a requirement for declaration of drained weight and the compliance criteria applicable to foods for which no minimum drained weight requirements have been established may be issued under authority of sections 201(n) and 403 of the act.

Accordingly, the Commissioner intends to implement the intent of the Consumers Union petition by proposing:

a. To amend 21 CFR 1.8b to require that the statement of drained weight be declared on the label in conjunction with the net quantity of contents declaration and to require that foods packed in a medium that is ordinarily discarded bear a declaration of drained weight only.

b. To establish a new § 1.8e to require that a statement of the drained weight of

the solid food contents of canned fruits and vegetables appear on the label of the container.

c. To amend § 10.7(b) to provide a general statement of substandard fill for use when the food in the container is substandard for fill because the drained weight requirement of the fill-of-container standard has not been met.

d. To establish a new § 10.9 to set out methods for determining drained weight, sampling plans and compliance procedures.

e. To delete the drained weight procedure in § 27.1(n) and the sampling and acceptance procedures in § 27.1(p), as these procedures are being incorporated in § 10.9 (c) and (d), respectively; § 10.9 in turn, is cross-referenced by § 27.1. Also, to delete the compliance definition in § 27.1(o) and incorporate it in new § 27.1(n).

f. To establish or amend fill-of-container standards in selected sections of 21 CFR Parts 27, 51 and 53 to incorporate therein fill-of-container and drained weight requirements, as appropriate.

The following table lists the foods for which minimum average drained weights are involved and, in each case, whether an amendment is being proposed to an existing standard of fill of container, or if the establishment of a new standard of fill of container is being proposed:

Section	Food	New	Amended
27.4	Peaches		×
27.12	Apricots		×
27.17	Prunes	×	
27.22	Pears		×
27.27	Grapes	×	
27.32	Cherries		×
27.37	Berries	×	
27.42	Fruit Cocktail		×
27.47	Plums		×
27.52	Pineapple		×
27.74	Figs	×	
27.92	Grapefruit		×
51.12	Green Beans	×	
51.22	Corn		×
51.503	Mushrooms		×
51.513	Asparagus	×	
51.523	Lima Beans	×	
51.533	Beets	×	
51.543	Carrots	×	
51.553	Leafy Greens	×	
51.563	Okra	×	
51.573	Field Peas and Black-Eye Peas	×	
51.583	Pimientos	×	
51.593	Onions	×	
51.603	Sweet Potatoes	×	
51.613	White Potatoes	×	
53.42	Tomatoes	×	

NOTE: Existing drained weight requirement found in § 53.41 is being transferred to fill-of-container standard § 53.42.

The proposed requirement for minimum average drained weights for canned pineapple set out in this proposal is not consistent with that of the Codex Alimentarius Commission. Neither is it completely in accordance with the USDA Standards for Grades. It was arrived at through consideration of data gathered by industry and government, and by consultation with members of the industry. The Commissioner requests comments, with data and information in support thereof, on the applicability of these drained weight requirements to current commercial practice.

The compliance criteria established for canned tomatoes are different from those

established for the other canned fruits and vegetables. The compliance criteria for canned tomatoes are based on a study conducted by the FDA, whereas the criteria for the other food are based on USDA data. Since compliance criteria are properly based on empirical data, use of different methods where the data bases were compiled differently is appropriate.

The Commissioner recognizes that the International (metric) System is used throughout the world and in the United States for technical analyses and may eventually be adopted by this country as the common usage for measurements. He therefore encourages use of a parenthetical declaration of metric equivalents immediately following the declaration in the U.S. customary terms now required for quantity of contents statements and the proposed drained weight declaration if it is adopted.

SUMMARY OF COMMENTS ON PETITION

In response to the notice of the filing of the petition, 1,650 letters, each containing one or more comments, were received. Some letters bore more than one signature, resulting in a total of 1,971 responses. One letter from a municipal government agency contained a petition signed by 86 city employees. Since only one person signed the letter of transmittal, the communication is being treated as one response. A letter from a consumer association referred to a poll in which more than 200 people had been surveyed. Since the letter was signed by only one person, it was counted as only one response. This account of the number of responses is provided for information only. As is the case in all rule making, comments are evaluated for their substantive merit, and no weight is given simply to the number received. All letters and supporting documents received are on file with the Hearing Clerk, Food and Drug Administration, Rm. 4-65, 5600 Fishers Lane, Rockville, MD 20852.

Of the 1,971 responses, 1,942 (of which 1,906 were from individual consumers and 36 were from organizations, local governments, dieticians, teachers, home economists, etc.) favored label declaration of drained weight. Some of these acknowledged that problems could be involved with such a requirement. Some of those who favored declaration of drained weight offered suggestions for additional requirements, such as declaration of number of pieces, number and size of servings, minimum standards for drained weights, etc. Two comments called for such requirements to be alternatives to drained weight instead of supplements to it.

Twenty-seven responses opposed the proposal. Six of these were from individual consumers. Of the six, three felt that there should be less government interference in food marketing; two felt that declaring drained weight would be a waste of time; one, who felt drained weight declaration was unnecessary, stated that information on the food's processing conditions and its safety would better serve the consumer.

Another comment referred to the previously mentioned poll of more than 200 consumers conducted in a two-county survey. One of the questions asked of the consumers was "Would you be willing to pay additional cost on a product for this information to be added to the label?" (It should be noted that the question neither defined, nor attempted to quantify, "additional cost.") The commenter reported that 128 responders, a majority of those polled, would not be willing to pay such costs. In addition 42 answered "yes" and 32 answered "maybe."

Other comments in opposition to the Consumers Union proposal were received from five trade associations, eight processors of fruits and vegetables, one food distributor, one state government, and five foreign governments.

Most of the opposing comments centered around the 12 factors on which the Commissioner had invited further information. Most of these offered alternatives to the proposal. The data and other information received concerning each of these 12 factors are summarized below, together with the petitioner's subsequent comments on each of the factors. Where appropriate, the summary includes the general conclusion of the Commissioner.

The information submitted and arguments made are summarized here so as to permit comments on this proposal to address their validity and relevance. Data and information submitted in response to the notice of the filing of the petition need not be submitted again, but comments should state whether the proposal should be modified, based on the contentions and information summarized here, and if so, in what manner. Additional information may also be submitted.

1. Information on how variations in unit size, shape and form, maturity, character (whether firm or soft), variety, packing medium density, climatic conditions (rainfall, temperature), irrigation practices, cultural practices, and geographic regions affect the drained weight of processed fruits and vegetables.

Thirteen comments opposed drained weight labeling of processed fruits and vegetables because of the inability to determine accurately a figure for the drained weight of the processed food prior to processing and storage. This inability to predetermine a value for the drained weight of the food was reported to result from differences in maturity of the food, differences in variety, variations within a particular variety resulting from growth conditions, differences due to seasonal changes, grade, and shape and size of the individual pieces. Five of these comments provided exhibits intended to support their statements.

One comment stated that drained weight labeling might confuse the consumer since the product with the higher drained weight may not always be the best buy on the basis of quality. For example, the comment stated that when equal fill-in weights (weight of the food prior to canning and processing) of "mature" and "immature" vegetables such as peas, lima beans, or corn are processed,

the more mature products have the higher drained weights, while the immature products, which have the lower drained weights, usually have better quality and are preferred by most consumers. The comment added that the converse is often true for processed fruits and that, frequently, fill-in weights of fruit of optimum ripeness will have lower drained weights than their less ripe counterparts.

For purposes of elaboration, the same comment stated that drained weights of canned fruits vary with grade; for example, fancy grade fruits have lower drained weights than do choice grades, and choice grades have lower drained weights than do standard grades. The comment was accompanied by exhibits illustrating the effect of grade for royal anne cherries, midsummer peaches, phillips peaches, and bartlett pears. Similar statements were made in two other comments concerning cherries on the grounds that consumers usually prefer the larger (more decorative) maraschino cherries, although the smaller cherries yield the higher drained weight.

Some comments stated that the methods used to size units may affect drained weights. They indicated that large units, e.g., potatoes and cucumbers, usually sorted by diameter, may yield wide variations in drained weights due to differences in length, and that packers of such large units may have to do more size sorting than they presently do in order to conform to drained weight declaration, resulting in poorer quality of product because of bruising during mechanical sorting. They stated that, although hand sorting causes less damage, it is very costly.

Three comments stated that climatic conditions affect the rate of maturation of the food, which in turn affects the texture, quality, and density of tissue, resulting in variations in drained weights. Examples such as spinach, cucumber, and tomatoes were cited.

Five comments reported that the packing medium affects drained weights because some foods absorb water and additional substances from the medium while others lose water and nutrients to the medium. The comments stated that the extent and rate at which the exchange takes place are dependent on the properties of the solid food and the packing medium. They said that some foods, e.g., peach halves in heavy sirup, may require as long as 6 months to reach equilibrium while certain others, e.g., pears in heavy sirup, require only 1 month, and that vegetables in brine require shorter equilibration periods and exhibit less variance in drained weights than do fruits in sirups.

The petitioner commented that "Petitioner recognizes that there exist many variations among fruits and vegetables, variations based on unit size, shape, form, maturity, climatic conditions, and so forth. However, packers are currently meeting the minimum drained weights specified in the USDA grade standards for many products notwithstanding these many variables. The technological capacity to pack to minimum drained

weights in compliance with USDA grading requirements should be taken into account when product variations are relied upon as an excuse for avoiding a drained weight labeling requirement. It should also be recognized that these product variations are equally relevant to net weight labeling, because the processor, notwithstanding variables, must meet the net weight declaration."

The Commissioner agrees that unavoidable variations in drained weight may exist in canned fruit and vegetable products due to differences in the foods' physical properties and processing conditions; he is of the opinion, however, that these variations should not be unreasonably large. This proposal is consistent with the assumption that such variations exist and provides for variations that may occur under good manufacturing practice.

2. Data to illustrate drained weight variations from container to container and lot to lot.

One association submitted drained weight data for clingstone peaches and tomatoes from cutting reports for a 10-year period (1963-1972). The comment stated that the data showed substantial variability within a season's pack for these products (14 percent variability in drained weights for tomatoes, 9 percent for large and medium peaches, and 8 percent for peach slices in 1972) and that the variability for these products in 1965 was somewhat lower (8 percent for tomatoes, 5 percent for large and medium peaches, and 6 percent for peach slices).

Additional information supplied by the association for the 6-year period (1968-1973) for seven other commodities (sliced peaches, sliced pears, pear halves, sliced pineapple, green beans, sauerkraut, and spinach) showed variations within each year and from year to year, but the data showed 31 of the 35 yearly averages exceeding the USDA minimum average drained weights for these foods. It was reported that the data for each commodity came from a single company. Data were available for only 2 years for sliced pineapple, 4 years for sauerkraut, 5 years for spinach, and 6 years for the others.

According to the data submitted, the range in yearly variation in drained weights, after storage of 1 month, for sliced peaches in No. 2½ cans, adjusted to a 19 ounce fill-in weight (F.W.), was from 5.1 to 5.8 ounces; for sliced pears (No. 2½ cans, adjusted to 19 ounce F.W.), from 4.3 to 5.3 ounces; and for sliced green beans (No. 303 cans adjusted to 19 ounce F.W.), from 1.9 to 2.5 ounces.

Another comment stated that different lots within a planting season may yield significantly different drained weights due to changes in water content because of climatic conditions. Such variations, assuming 90 percent fill of container, were reported to be as large as 1.5 ounces per 10 ounces drained weight for spinach.

Pickle packers reported that they have little control over their raw material. They said that pickles are sorted, processed, machine filled, and inspected, and that when possible, additional pickles

are added by hand to prevent slack-filled jars. They contended that data submitted show substantial variations in drained weights from container to container and lot to lot. They said that whole cucumber pickles show the greatest variation in drained weights (up to 40 percent) and that relish shows the least. Similar variations were shown to occur in other types of pickled products, such as finger peppers and cherry peppers.

The petitioner commented that "Currently available data on variations from can to can should be considered in light of the fact that processors currently lack the incentive to pack to a uniform drained weight—as long as required minima are met. Perhaps such data should be obtained from cans packed for government purchasers whose specifications required drained weight minima. Contract packers have a financial incentive to meet the minimum but to exceed it by as little as possible, and successful packers are likely to be those who have found the technology to accomplish that objective."

The Commissioner notes that the proposal takes into account the possibility of variation from container to container and lot to lot by establishing a required minimum average drained weight as a standard of fill of container for most products and permitting the declaration of that minimum average drained weight, even though the actual average drained weight may be higher. However, the proposal offers an incentive to pack to a uniform drained weight above the minimum required since that higher drained weight could be declared on the label.

3. Information on the best way for drained weight to be declared; including whether it should be the actual drained weight found in each can or an average for all cans in a lot and, if an average, what deviations should be permitted therefrom. Data resulting from any relevant studies should be supplied.

Two comments expressed the opinion that it would be impossible to declare drained weight in terms of actual drained weight on each can, since such a figure could only be determined after the food is packed. They said that labels and lithographed containers are ordered well in advance of the canning season and that any practice that would require testing of cans after processing and prior to labeling would lead to chaos in the established procedures for shipping and marketing canned goods.

Various comments pointed out that, although a statement of average drained weight would present fewer problems for manufacturers, it would be, at best, only an estimate of what is likely to be found on examining a large number of containers of product of similar grade, maturity, and other factors that affect the relationship between fill-in and drained weight. They indicated that it would not be expected to represent precisely the drained weight; hence, to be practical for compliance, any regulation would have to provide for proper and reason-

able allowance for normal and unavoidable variations. A comment suggested that with the use of average levels and maximum individual can variations of the USDA grade standards, any number of schemes of label declaration could be postulated. It was further stated that any figure so derived that would be low enough to bear rigid application would be too low to be useful to the consumer.

The petitioner commented that "The petition filed suggests a compliance method based upon lot average plus acceptance number of individual units falling below the minimum."

The Commissioner notes that the proposal adopts compliance criteria based on average drained weights and specifying an acceptable number of individual units falling outside the ordinarily permissible variation.

4. Information on whether a minimum drained weight should be established and required for label declaration for each form of each food for each size of container. Data should be presented to show how this would assist the consumer in making value comparisons.

With reference to the establishment of a minimum drained weight for each food for each size container, one comment, which opposed such a requirement, said that it might lead to slack filling. The comment cited a Fill-Drained Weight Collaborative Study, conducted in 1938 by the FDA and the National Canners Association. This study led to a reversal of the policy reflected in a regulation issued under authority of the 1930 McNary-Mapes Amendment to the 1906 Food and Drug Act in which the fill of container for peaches had been standardized to 60 percent of the water capacity of the container. Instead of the 60 percent fill-of-container standard, the regulation was changed to require that the container be filled with "the maximum quantity of optional ingredients (solid peach pieces) that can be sealed in the container and processed by heat to prevent spoilage without crushing or breaking such ingredient."

Two other comments expressed the opinion that a minimum drained weight figure would be of little value since the actual drained weight figure would always be higher.

Another comment from a food distributor stated that a minimum drained weight should be established by package size. In his opinion, such an approach would hopefully discourage the trend to process lower quality products, e.g., more mature vegetables, simply to show higher drained weights.

Two manufacturers expressed the opinion that drained weights should be based on the USDA's recommended minimum standards since these were established on a sound statistical basis. However, one of them said that the compliance standards are too high (86 percent must meet or exceed the recommended minimum drained weight) and that this criterion should be deleted.

Another comment stated that since the processor has no control over the size of his raw fruit, a minimum drained weight, if set too high, might lead to

crushing, and if set too low, might lead to slack filling.

Two comments, one from a packer and one from a person who works for a food company, but commenting as a consumer knowledgeable in the canning of food, advocated separate drained weight regulations for individual foods where there is evidence that excess packing media are being used by canners.

Two alternatives to minimum drained weights were suggested by comments opposed to the petition. One trade association recommended the declaration of fill-in weight of the solid food since the fill of container for most foods sold by net weight is an established quantity and filling equipment has been routinely adjusted to achieve target amounts. Comments from two foreign governments recommended the use of fill-in weights.

Another industry representative stated that, in his opinion, the consumer would best be served by a statement of net weight plus the number and size of servings.

The petitioner commented that "Petitioner believes it is unnecessary, if drained weight labeling is required, for the government to interject itself any further into the determination of minimum drained weights. The marketplace would function to provide competition among packers for higher drained weights (although all containers should be filled only to safe packing levels, leaving sufficient headspace).

"The value comparison in the marketplace will result from price/weight comparison, accomplished primarily through the unit pricing of processed fruits and vegetables on a drained weight basis. The many consumer comments received by FDA on this proposal demonstrate that consumers will utilize this information."

The Commissioner notes that the proposal contains requirements for minimum drained weight. As discussed above, this aspect of the proposal is consistent with the current recommendations of the Codex Alimentarius Commission.

The Commissioner has considered the possibility of requiring the declaration of fill-in weight, i.e., the weight of the fruit or vegetable prior to the time it is packed and cooked, but has concluded that this proposal be issued as one requiring the declaration of drained weight. While the Commissioner remains open to the presentation of data that would indicate the superiority of a declaration of fill-in weight as compared to a declaration of drained weight, he does recognize at least two problems with a requirement for the declaration of fill-in weight. The first is the potential confusion to consumers who might weigh the contents of a can of food and compare the weighing to the labeled declaration. Since fill-in weight ordinarily exceeds drained weight, a consumer weighing the product at home would determine a weight less than any weight appearing on the label. It is the Commissioner's preliminary belief that this result would be confusing to consumers and that knowledgeable con-

sumers would thus regard fill-in weight as insufficiently informative. The second problem is the availability of an enforcement mechanism. Since the relationship between drained weight and fill-in weight is dependent on many variables, the FDA would not be able to determine compliance with declared fill-in weights except by examination of company records. Under current statutory authority, such examination of records cannot be compelled.

In anticipation that comments favoring a declaration of fill-in weight rather than a declaration of drained weight will be submitted, the Commissioner requests that such comments show in what manner a fill-in weight declaration would be more meaningful and more in the interest of the consumer than a declaration of the drained weight. All such comments should be accompanied by supporting data.

5. Data to illustrate the effect on packing speed when a manufacturer attempts to pack to higher drained weight.

Four comments, two from trade associations, one from a packing company, and one from a food distributor, were not in agreement regarding the effect on packing speed when a manufacturer attempts to pack to higher drained weights. One comment from a trade association stated that there is some speculation that somewhat faster filling line speeds might be realized with newer equipment at current drained weight levels and that there should be no detrimental effect on packing speed. It said that most manufacturers optimize fill weights for quality factors and proper thermal processing, as well as for adequate fill. It added that the potential, if any, for increasing drained weights will depend on the characteristics of the individual foods.

The comment from the other trade association stated that unless automated weighing and sorting equipment is used, packing to precise fill-in weights would require increased hand labor and individual weighing of cans resulting in about a 25 percent decrease in present production line speeds.

The comment from the packing company stated that packing to higher drained weights would result in slower line speeds because the time required at each filler station would be increased by 10 to 20 percent.

The comment from the food distributor said that packing speeds would be substantially lowered because of the increased controls that must be applied and the label changes needed to cover changes in drained weight.

The petitioner commented that "Packing speed is not relevant to the determination before the Commissioner. Petitioner seeks neither changes in processing methods nor packing to higher drained weights. There should be no effects on packing speed unless a packer decided to change the amount of fill, which is done by processors from time to time regardless of the proposed regulations."

6. A number of processed foods have fill-of-container standards. These require the maximum quantity of solid food in-

redient that can be sealed in the container and processed by heat to prevent spoilage without crushing such ingredient. In addition, some set out a minimum drained weight for the solid food ingredient but do not require such weight to be declared on the label. The Commissioner seeks comments, and data in support thereof, as to what would be the consequences, from a thermal processing standpoint, if the container is filled as full as possible with the solid food ingredient.

Five comments pertained to the effect on thermal processing when the container is filled as full as possible with solid food ingredients. The comments agreed that for a given thermal process the sterilizing value is decreased with increased solid-to-liquid ratios. Several examples were given, illustrating the need for adequate amounts of liquid medium, e.g., more mature starchy foods absorb more liquid and consequently a processor is required to use less of the more mature product to obtain the same sterilizing effect as would be obtained from a less mature product of the same variety. It was also mentioned that cans with increased fill-in weights could be processed at higher temperatures with longer holding times, but that this would result in overcooking the product nearest the can's surface.

One comment included a research paper by R. J. Monroe, et al., published in "Food Technology" (1969) on the influence of various acidities and pasteurizing temperatures on the keeping quality of fresh pack dill pickles. This study concluded that the tightness of pack significantly affects the heating rate and the resultant texture and chemical composition of the pickles. It said that tight packs (such as 75 percent pickles by volume) result in underheating with respect to internal product temperatures, causing subsequent spoilage of the product.

The petitioner commented that "This question also is entirely without relevance to the adoption of the petition. Petitioner recognizes that standards of fill have been adopted which take into account the need for proper thermal processing and the desire to prevent crushing of the packed solid food ingredient, as well as the elimination of non-functional slack fill. All that this petition seeks is the labeling of the product alone which is contained in the package; adoption of the regulation should not result in filling containers as 'full as possible'; processors which desire to increase their fill of container in order to label a higher drained weight would be expected to do so without jeopardizing compliance with good manufacturing practices concerning maximum fill amounts for proper processing."

7. Data relating to the need for "headspace" in canned foods.

Four comments discussed the need for headspace in cans. One supplied data as requested by the Commissioner. The data represented headspace as serving two purposes, as follows: (1) It provides an "area" in which a vacuum can be created,

and (2) it allows the product movement, which is essential for "rotary" retorting. The vacuum provides for expansion of the product during retort processing and for the development of sufficient vacuum after cooling to prevent can end distortion should the can be subjected to changes in atmospheric pressure or temperature. The headspace also provides a bubble when the cans are agitated during processing. This bubble promotes rapid heat penetration throughout the container by means of "mechanically induced" convection currents, permitting the use of higher temperatures and shorter cooking times that produce superior products. The advantage of this high-temperature short-time (HTST) process over the still-retort process was demonstrated in cream style corn in 303 x 406 cans with a minimum headspace of $\frac{1}{4}$ inch. The HTST process required 19 minutes at 270° F while the equivalent process by still retort would require 42 minutes at 270° F. In addition, the latter product would be completely unacceptable due to scorching.

The petitioner commented that "This question also is irrelevant to the petition. Petitioner of course recognizes the need for 'headspace' in canned foods for proper heat treatment. What headspace has to do with the mere labeling of the contained drained weight is a mystery."

8. Survey evidence indicating whether consumers do or do not consume the packing media of certain processed foods.

Survey evidence indicating whether consumers use the packing medium was not submitted by representatives of the food industry. However, two trade associations indicated that packing media from their products were used as ingredients in preparation of other foods. One of these submitted 37 published recipes for the use of pickle liquids in foods.

A survey of consumers, conducted by a consumer protection association, showed that 38 persons use the packing liquid of processed fruits and vegetables, 53 do not, and 118 use such liquids sometimes.

The petitioner commented that "Petitioner has no survey data concerning the consumer's use of packing media of processed foods. However, the large number of consumer comments sent the FDA on this basically mundane, and hardly well-publicized, issue suggests strongly that consumers either do not utilize the majority of the packing media and/or do not want to pay fruit and vegetable prices for those liquids. Consumers, according to their comments, wish to know which of several competing brands contains more solid product, and they will decide for themselves whether the greater quantity is the variable (rather than, for instance, tenderness is a less mature product, a factor that can be determined by gustatory testing) which will govern their repeat purchases."

9. Data illustrating the purpose and function of a packing medium in processed fruits and vegetables.

Although no data were submitted, four comments briefly described, as follows, the function of the packing medium:

Brine is added to vegetables and sirup to fruits to accomplish three purposes: (1) to improve flavor; (2) to fill the spaces between the pieces, thus preventing oxidation and browning, and serving as a cushion against tearing and breaking of the pieces of food; and (3) to aid in convection and heat transfer during thermal processing, as previously discussed.

The petitioner commented that "Again, the data sought are irrelevant. No one is challenging the purposes or functions of packing media. Fluid is recognized as necessary in many canned foods, not just for heat treatment, but also to cushion the product against damage. This question, and others noted above, seems to be based upon a misinterpretation of Consumers Union's petition, seemingly assuming that petitioner seeks to have all packages squeezed full of fruit or vegetable without any packing medium. Nothing could be further from the content of the petition, which seeks the revelation to the public of the amount of fruit or vegetable actually contained in the package—and nothing more."

10. Information on whether there is a clear relationship between the "put-in" weight of a canned fruit or vegetable and the resulting drained weight.

Regarding the relationship of put-in (fill-in) weights to drained weights, eight comments referred to the complex of variables that affect drained weights of processed fruits and vegetables (maturity, grade, climatic conditions during growth of the raw materials, processing variables, etc.), suggesting that any workable formula for a mandatory drained weight declaration would have to consider all factors. They further stated that this formula should be based on a very large body of representative data obtained under good manufacturing practices and that presently such data are unavailable.

One comment simply stated that there is no clear-cut relationship between the put-in weight of a can of fruit or vegetable and the equilibrium drained weight some weeks or months later.

The petitioner commented that "USDA grade standards for some fruits and vegetables specify both recommended minimum fill weights and recommended minimum drained weights (see, e.g., 7 CFR 52.2568-69, canned clingstone peaches). USDA probably has data to corroborate that there is a relationship between 'put-in' and drained weights."

"Insofar as a particular processor is unsure of its own ability to maintain a certain drained weight from a certain fill weight that processor would simply be required, under the drained weight labeling proposal to choose a lower value as the labeled drained weight to assure compliance. There would of course be economic incentive to gauge the drained weights of one's products as accurately as possible. The marketplace similarly rewards processors with greater ability to fill to a standard net weight. The more efficient producer, in the marketplace, is the one who can meet the requirements of the law with the need for the least

overpacking. A drained weight rule will thus pose the same choice to all processors—to label as drained weight an amount which each package is certain to meet or to choose a higher value and risk noncompliance. The processor will naturally weigh the costs of choosing one or the other course of compliance against the expected marketplace performance of his products. No processor will be at any disadvantage just because of the rule; the processor best able to control its processing equipment will be able to turn the rule into an advantage."

11. Information on what procedure should be employed to declare an accurate statement of drained weight on lithographed containers that are labeled before they are filled.

Four commenters said that they know of no such procedure other than to maintain a vast inventory of cans which are prelabeled with various drained weights so that the proper ones may be selected for use based on existing conditions.

The petitioner commented that "It is noted that net weight labels are prepared in advance of fill yet variations among lots of produce undoubtedly affect those determinations just as they would affect drained weight. A processor could choose to print labels in advance with the expected average drained weight just as net weight labels are printed. A processor which decides that it is worth overprinting and labeling a more accurate, and higher, drained weight, based upon post-canning weighing, will be able to make that choice."

12. A cost benefit analysis of the different factors involved in drained weight declaration, e.g., data illustrating costs involved in holding unlabeled containers until the drained weight can be determined. Views on whether the information thus provided will be worth the added cost of providing the drained weight label declaration.

Comments were received from manufacturers and two trade associations regarding the added costs of drained weight declaration. All indicated that there would be cost increases and that, in most cases, the increases would be passed on to the consumer.

One processor provided a list of estimated minimum costs for affixing labels after a 30-day storage period, from which he concluded that cost increases would approach 2 cents per unit currently costing 15 to 20 cents.

One trade association reported that one member company estimated cost increases of 3 percent to 10 percent, while another estimated an increase of $\frac{1}{4}$ cent per can, which would be passed on to the consumer. However, this association said that in the latter estimate, many aspects relating to costs incurred by drained weight labeling had not been considered and that the total costs could be considerably more, resulting in increases of at least 1 cent per can. The association said that the cost-benefit ratio is difficult to assess because a minimum drained weight figure practicable for compliance could have only limited value for com-

parative buying purposes, since most actual drained weights would substantially exceed the declaration. The association also expressed the opinion that an average drained weight declaration might provide a more representative basis for comparison if workable compliance formulas could be developed.

The petitioner commented that "As noted in 11. above there is nothing in the proposed rule which would require the holding of cans for drained weight determination and labeling."

The Commissioner recognizes that the determination and labeling of drained weight may increase costs to the manufacturer and that all or part of any such increased costs may well be passed on to the consumer. He also notes that the limited consumer poll, referred to earlier in this preamble, suggests understandable reservations of consumers about paying increased prices for label declaration of drained weight on processed foods, even though they seemed to want the information (at no increased food cost). The Commissioner concludes, however, that the contentions regarding the additional costs of drained weight declaration have not been sufficiently documented and that there is no evidence that consumers generally believe that the information provided by label declaration of drained weight is not of sufficient worth to justify some additional costs.

The following additional comments, which do not speak specifically to any of the 12 factors in the notice, were received:

One comment speaking for processors of fruits who package in bulk and institutional size cans only, requested exemption from any regulation requiring a declaration of drained weight since their products are not sold directly to consumers. It said that manufacturers and institutional users buy on the basis of their own specifications, which assures them that they are receiving the quality and quantity ordered.

The Commissioner agrees with the comment and is proposing that the fill-of-container regulations be limited to No. 10 cans or equivalent or smaller.

Four comments, two from the pickle industry and two from the maraschino cherry industry, opposed drained weight labeling because their products are packed in glass containers. They maintained that the consumer can visually judge the quality and quantity of food in the container and, accordingly, there is no need for the drained weight declaration. Further, they stated that these products are not usually served on a weight basis but rather by count. A pickle packer association said that it would be "unfair" for the FDA to change its 1970 regulation (21 CFR 1.8b(r)) requiring the declaration of the net quantity of contents of pickles in terms of the U.S. gallon or subdivision thereof.

The Commissioner believes that the regulation requiring the declaration of quantity of contents of pickles in terms of volume should be retained because of difficulties of controlling drained weight

that appear to be unique to pickles. However, he proposes that maraschino cherries, as well as all other fruits and vegetables packed in readily drained liquids, shall be subject to drained weight labeling.

Three comments that generally opposed the petition did remark, however, that the idea of labeled drained weights has merit. One of these comments stated that the compliance procedures in the petition are too stringent and should be deleted. Another, while opposing the petition as submitted, said that it might be possible to amend it so as to provide for average levels and maximum can variations, thus making compliance more practicable. Another said that packers will not be able to meet the strict compliance criteria proposed and suggested that if the drained weight must be declared, a 70-70 tolerance could be used, i.e., "70 percent of the samples give a certain minimum drained weight 70 percent of the time." The comment further said that the drained weight, if declared, should be in terms of minimum drained weight established for each form of food in each size of container.

Comments from five foreign governments said they have no regulation requiring label declaration of drained weights of all fruits and vegetables. Comments from two of these governments, the Netherlands and Australia, said that they have standards for minimum drained weights for fruits and vegetables but that the drained weights need not be declared on the labels. The comments added that it is impossible to disclose in advance without tolerances a correct weight to be found some months later for the solid portion. The comments from these countries further cited the Codex Alimentarius Commission policy of establishing standards for minimum drained weights but not requiring label declaration of such drained weights for processed fruits and vegetables. The comment from the Netherlands stated that for the United States to adopt such a policy would be inconsistent with the draft proposals the United States has submitted to the committee.

Comments from two other countries, Germany and Yugoslavia, suggested the use of a fill-in weight declaration as required by the European Common Market. A letter from the Federal Ministry for Youth, Family Affairs, and Health in Germany, submitted through the petitioner, stated that that country had advocated declaration of drained weight in developing the Codex International Standards. However, a comment sent directly to the Hearing Clerk from the German Embassy stated that the request filed by Consumers Union is neither useful nor practical since an individual declaration of drained weight, taking into account varying conditions of the raw materials, would be extremely difficult as to technical practicability and would involve considerable expense without providing valuable information to the consumer.

A comment from the fifth country, Poland, said that Poland requires

drained weight declaration for canned fruits and vegetables intended for domestic consumption when packed in brine, acid solution, etc., which are not commonly consumed with the food, but it requires only net weight declaration when such foods are intended for export.

Comments from three additional foreign governments reported that they have promulgated, or are in the process of promulgating, regulations requiring drained weight declaration for all goods packed in liquids or jellies. A comment from Sweden said that country requires label declaration of average drained weight of solid content. One from Argentina said that country requires declaration of minimum drained weights for peas, corn, peaches and strawberries. One from Norway said Norway was establishing regulations to require label declaration of drained weights for all packaged processed fruits and vegetables, the regulations to become effective on January 1, 1975.

A trade association that had previously submitted extensive comments filed an additional comment emphasizing opposition to label declaration of drained weight as proposed in the Consumers Union petition. The comment stated that although some canners do pack under USDA inspection, such canners use the drained weight values in the USDA grade standards only as guidelines and not as absolute working bases.

This comment also stated that the fill of fruits and vegetables is by volume and that canners merely use fill or put-in weight with extensive nondestructive sampling as the control for the quantity of food in the container and do not try to relate this weight to the drained weight of the finished product because of the variability of the fill weight to drained weight relationship due to variety, maturity, unit size, etc. It stated that, in view of these variations, the canners feel they cannot routinely comply with the USDA drained weight requirements but they do feel confident that containers are adequately filled because of their nondestructive fill-weight testing and they are complying with existing FDA fill-of-container standards.

The comment further stated that, to the individual not trained in food manufacturing, the logical answer would be to increase the fill-in weight so all containers would comply with the drained weight requirements. The comment stated that the answer is not so simple because product safety must be considered. Cited as examples were instances where serious underprocessing in certain types of vegetable products resulted from containers being filled to the point where adequate heat penetration could not occur. The comment said that the potential for overfilling with the associated health hazard would be a far greater disservice to the consumers than not to have drained weight on the labels.

The comment stated "If drained weight declaration were to become a requirement, the only possible protection against the serious potential health hazards from overfilling that comes to mind

immediately would be to establish an absolute maximum drained weight with the suggestion that all packers use a uniform declaration for each commodity low enough to cover all possible inherent variations in weight. If this were done, we can't see that the practice of declaring drained weight, with its added cost, would provide any helpful information to the consumer because all cans of each product or variety of product would carry the same declaration and, in most containers, the declaration would be considerably less than the actual drained weight in order to allow for the variability which occurs."

Additional comments from the petitioner stressed that consumers, as well as large volume buyers, have a right to know the weight of the solid portion of the food in the container. The petitioner stated that food processors must pack to drained weight specifications for contract purchasers and must also meet drained weight requirements for exported products when required by the respective receiving country. The comment further stated that the FDA minimum drained weight requirement in its whole kernel corn standard indicates the belief of the agency that processors are able to pack to minimum drained weights. The comment stated that, by the same token, processors should be able to declare a drained weight on the label of the product. The petitioner added that whatever is done to maintain compliance with the percentage of fill can also be done to meet the label declaration.

OTHER REGULATIONS AFFECTED BY PROPOSAL

This proposal affects a number of existing standards of fill of container and a number of standards which have been proposed but not yet made final. In the following portion of this preamble, the changes in existing standards are explained. In addition, a summary of the comments received to the proposed standards for fill of container, and the Commissioner's comments in response, are included. The statement here of the Commissioner's response to these comments will eliminate the need to submit the same comments again.

Canned Grapefruit. Regulations published in the FEDERAL REGISTER of May 29, 1974 (39 FR 18643), amended the canned grapefruit standards of identity (§ 27.90), quality (§ 27.91), and fill of container (§ 27.92) in consideration of the "Recommended International Standard for Canned Grapefruit." The Commissioner is herein proposing further amendment of the drained weight requirements of § 27.92 to require label declaration of the drained weight for processed fruits and vegetables. Also, whereas § 27.92 establishes requirements for drained weight in terms of percentage of container capacity, the instant proposal specifies the drained weights in ounces. The value designated as " \bar{X}_s " is the average drained weight of all sample units in the sample and is consistent with the drained weight requirement in § 27.92 in its present form. The Commissioner

proposes a lower drained weight limit for individual containers, designated as "LL". Compliance with the lower limit is based on the sampling and acceptance procedure set forth in the proposed new § 10.9.

Canned sweet corn. Regulations published in the FEDERAL REGISTER of February 15, 1974 (39 FR 5760), amended the standards of identity (§ 51.20), quality (§ 51.21), and fill of container (§ 51.22) for canned sweet corn in consideration of the "Recommended International Standard for Canned Sweet Corn." The Commissioner is now proposing further amendment of the drained weight requirement of § 51.22 to require label declaration of the drained weight. Also, whereas § 51.22 establishes requirements for drained weight in terms of percentage of container capacity, the instant proposal specifies the drained weight in ounces. The Commissioner is proposing that, in addition to the requirement that the average drained weight of the samples meet the drained weight requirements: (1) One-half or more of the individual containers meet the drained weight requirement, and (2) the drained weight of the containers that do not meet the established drained weight requirements be within the variability of good manufacturing practice.

Canned plums. Regulations published in the FEDERAL REGISTER of February 7, 1975 (40 FR 5772), amended the standard of identity (§ 27.45) and established standards of quality (§ 27.46) and fill of container (§ 27.47) for canned plums, in consideration of the "Recommended International Standard for Canned Plums." The Commissioner is now proposing amendment of the drained weight requirements of § 27.47 to require label declaration of the drained weight. Also, whereas § 27.47 establishes requirements for drained weight in terms of percentage of container capacity, the instant proposal specifies the drained weight in ounces. The value designated as " \bar{X}_s " is the average drained weight of all sample units in the sample and is consistent with the drained weight requirement in § 27.47 in its present form. The Commissioner proposes a drained weight lower limit for individual containers, designated as "LL". The Commissioner proposes that compliance with the lower limit be based on the sampling and acceptance procedure set forth in the proposed new § 10.9.

Canned green beans and wax beans. A proposal was published in the FEDERAL REGISTER of January 28, 1974 (39 FR 3560) to amend the standards of identity (§§ 51.10, 51.15) and quality (§§ 51.11, 51.16) and to establish a standard of fill of container (§ 51.12) for canned green beans and canned wax beans in consideration of the "Recommended International Standard for Canned Green Beans and Canned Wax Beans." The Commissioner, in consideration of the comments received on this proposed fill-of-container standard, and to be consistent with the other proposed standards contained in this notice, is proposing a revised fill-of-container standard. Standards of identity and quality for

canned green beans and canned wax beans will be issued at a later date.

Seven responses were received to the proposal published on January 28, 1974. They were from a consumer, three processors of green beans and wax beans, an ingredient manufacturer, a trade association and the USDA. The consumer was opposed in general to any standards for these foods. The comments received regarding only the proposed fill-of-container standard and the Commissioner's responses are as follows:

1. A comment from the USDA suggested that the word "approximately" precede the 17-20° angle of inclination for the sieve in the procedure for determining drained weight that was included as part of the fill-of-container standard for canned green beans and wax beans.

The Commissioner does not agree with this comment. Within the range proposed there is sufficient flexibility to provide for some variation without significantly affecting the determination of drained weight values.

2. One comment from a processor expressed opposition to the use of the proposed sampling plan for determining compliance with the standard. It was suggested that the "old average concept" be continued for its ease of interpretation and that "it would not mean another insidious tightening or raising of the standard without changing the actual value or limits of that standard." The comment stated that it would be more difficult for processors to meet the minimum drained weight requirement based on an accept-reject basis.

The Commissioner advises that the proposed sampling and acceptance procedure for determining compliance with the drained weight requirement for canned green beans and canned wax beans is based on the average drained weight of all units in the sample examined. The Commissioner notes that the accept-reject based compliance criteria in the proposed standard for canned green beans and wax beans is applicable only to the quality factors and the 90 percent fill-of-container requirement and not to the drained weight requirement.

3. One comment from the trade association suggested that the requirement in the fill-of-container standard that the bean ingredient and packing medium be not less than 90 percent of the total capacity of the container should be based on the average of a lot, as is proposed for the drain weight requirement.

The Commissioner does not agree. He is of the opinion that packers using good manufacturing practices can meet the proposed 90 percent fill requirement. No suggestion was made in the comment that the 90 percent level could not be attained. Further, the comment provided no data in support of the suggested change. Accordingly, the procedure previously proposed is included in this proposal.

4. Three comments, from a processor, a trade association, and the USDA, expressed concern that the proposed drained weight, based on the water capacity of the containers, be not less than

55 percent of the water capacity of the container, will be extremely difficult, if not impossible, to meet for cuts 1½ inch and longer, for small sieve size beans, and for certain size cans. It was suggested that weather conditions, growing areas, and varietal factors seem to cause drained weights to vary considerably. It was also stated that in order to attain the proposed fill weight, one or more or all of the following will happen: (1) There will be considerable waste of raw stock during the filling and closing operation, (2) the beans will have to be blanched so severely that they become "slimy" and deteriorate in quality, (3) there will be damage to the product from the physical crushing of the product when the head space plunger goes down and the can lid is applied, (4) beans will be left on the flanges of the can, adversely affecting the integrity of the top double seam.

The trade association suggested that the drained weight should be established at not less than 52 percent of the water capacity of the container, except for beans in whole or sliced-lengthwise style, for which it should not be less than 50 percent. For those containers of one-fourth kilogram (8.82 ounces) or less, the percentage should be 47 percent of the water capacity of the container. The processor suggested that cut beans 1½ inch and longer should be placed in the same category as whole and French style beans with a minimum drained weight requirement of 50 percent of the water capacity of the container.

A processor and the USDA submitted data to demonstrate that it is not feasible to meet the 50 percent drained weight requirement for whole green beans packed in No. 303 glass jars. The data indicated that the 50 percent drained weight requirement can be met if the water capacity of the container is calculated on the basis of the sealed container rather than the overflow capacity.

The Commissioner has considered these comments and believes they have merit for certain containers and styles of pack. The previously proposed drained weight requirements have been revised accordingly in this new proposal.

Canned tomatoes. A proposal was published in the FEDERAL REGISTER of April 29, 1974 (39 FR 14971), to amend the standards of identity (§ 53.40), quality (§ 53.41), and fill of container (§ 53.42) for canned tomatoes in consideration of the "Recommended International Standard for Canned Tomatoes." The Commissioner, in consideration of the comments received to the proposed fill-of-container standard and to be consistent with the other proposed standards contained in this notice, is proposing a revised fill-of-container standard as part of this document. Standards of identity and quality for canned tomatoes will be issued at a later date.

Seven responses were received to the proposal published April 29, 1974. They were from a consumer organization, four trade associations, a processor of tomatoes and the USDA. The comments received regarding only the proposed fill-

of-container standard for canned tomatoes and the Commissioner's responses are as follows:

1. The consumer organization commented that as long as there is a requirement for minimum drained weights for canned tomatoes, drained weight labeling should also be required.

The Commissioner is of the opinion that the comment has merit. Accordingly, this proposal provides for the label declaration of drained weight.

2. The USDA suggested that the drained weight of stewed tomatoes be determined on a "4-mesh sieve." It further suggested that for all canned tomatoes the drained weight average of 50 percent of the water capacity of the container is too low.

The Commissioner is of the opinion that the requirements for a No. 4 rather than a No. 2 mesh sieve and for a drained weight higher than 50 percent of the water capacity of the container should be based on supporting data. In the absence of such data, the Commissioner is making no change in the proposed drained weight requirement for canned tomatoes.

3. The consumer organization commented that incorporation of the sampling plans in the standard poses a rather complex problem that should not be resolved solely upon the comments of those relatively few persons interested in canned tomatoes. It suggested that the publication of a separate notice headed "Sampling Plans" in the FEDERAL REGISTER would likely elicit significantly more comments than a proposal on canned tomatoes.

The Commissioner agrees that the problem of sampling plans is complex and that it should not be resolved solely upon the comments of a few persons interested in only canned tomatoes. However, the sampling plans set out in the proposed new § 10.9 for canned fruit and vegetables are the result of years of study by many individuals and groups and the plans' applicability is well established and accepted. Nevertheless, sampling plans are now considered essential to a proper determination of compliance with the requirements of a fill-of-container standard and are therefore again being proposed.

4. The consumer organization expressed the opinion that each container must contain the amount required in the regulation. It also stated that the sampling plans should be eliminated in favor of 100 percent compliance with the drained weight requirement. It recognized that this requirement would mean higher retail prices but stated the obvious advantage is enforcement. The comment stated that "spot checks" could be made where every container must be in compliance, whereas the proposal involves sampling the entire lot.

The Commissioner does not agree with this comment. The sample average represents the most reasonable means for determining compliance considering the inherent container-to-container variation in drained weights as discussed elsewhere in this notice.

5. A processor and a trade association expressed the opinion that the sample sizes are extremely large and in excess of the sample sizes taken under the USDA grading program.

The lot sample size proposed in § 10.9 is consistent with the sampling plans established by the Codex Alimentarius Commission for inspection level II. The plan for inspection level II was designed for use in the case of controversy or disputes and provides for a higher sample-size-to-lot-size ratio than does the Codex plan for inspection level I or the USDA sampling plan. In addition, it should be noted that USDA samples larger lots at the producing establishment while the FDA normally will be sampling smaller lots in the distribution channels. The Commissioner is of the opinion that the higher sampling ratio should be used for compliance with the drained weight labeling since it will reduce the consumers' risk of accepting defective lots. It will also provide a greater level of confidence for undertaking legal action.

A number of the tables contained in the proposed fill-of-container standards have been incorporated as previously published in other documents and, as a result, are not always consistent in the manner of presentation of the data. For instance, in the description of the overall dimensions of the container, some tables include a description of the diameter and height in terms of inches and fractional parts thereof, e.g., a No. 303 can is 3¼ inches wide by 4¼ inches high. Other tables may describe a No. 303 can as 303 x 406 or 303 inches by 406 inches (where the first figure of the 3 digit number is inches and the remaining figures are sixteenths of an inch). This latter designation is the one more commonly used in the canning industry.

PROPOSAL

Assuming that final regulations will require label declarations of drained weight on canned fruits and vegetables, the Commissioner invites comments on a reasonable effective date for the final regulations. Such comments should be supported by data or other pertinent information. It is the Commissioner's opinion that the effective date should be established as 1 year after the date of publication of the final regulations.

The Commissioner believes the wisdom of a proposal to require drained weight labeling ultimately depends on the dollar value to the consumer of any benefit of knowing drained weight, when buying food, in relation to any increase in the product cost resulting from manufacturers' costs being passed on to the consumer. In publishing the Consumers Union petition for comment, the Commissioner asked particularly for information about 12 specific subject areas important to any decision as to what, if any, regulation should be proposed. The information submitted, particularly economic data, was less definitive than desired. Nonetheless, the information was sufficient to permit the Commissioner to propose a method of drained weight labeling that would achieve most

of the objectives of the Consumers Union petition in a less costly manner, as explained in the "Inflation Impact Assessment of the Proposed Drained Weight Regulation" on file with the Hearing Clerk. However, the economic information was inadequate to allow the Commissioner to decide whether or not the economic benefits to consumers of his proposal would outweigh any increases in product cost. Any final decision about a drained weight labeling regulation will depend primarily on an analysis of the economic information ultimately available to the Commissioner.

The Commissioner's proposal has been analyzed for inflation impact as required by Executive Order 11821, OMB Circular A-107, and guidelines issued April 1, 1975 by the Department of Health, Education, and Welfare. The Commissioner has concluded that the proposal would not cause a major inflation impact as described in those documents. As noted above, a copy of the inflation impact assessment is on file with the Hearing Clerk, Food and Drug Administration.

However, because of the role economic analysis will play in determining the Agency's final actions regarding any drained weight labeling requirement, the inflation impact assessment and the discussion which follows have been expanded to include a consideration of the costs of implementing two alternatives. The first of these is the Consumers Union petition which asked for drained weight labeling for all processed fruits and vegetables based on lot sampling. The second, called "label disclosure," would have the effect of limiting the major provisions in the Consumers Union petition to canned fruits and vegetables. The Commissioner's proposal represents a third approach which would permit a processor to label cans based on fill of container standards where they exist. The following discussion only considers the cost, and not the benefits, of implementing the Commissioner's proposal and the alternatives to it. It is hoped that additional information pertaining to costs and benefits will be forthcoming during the comment period.

The cost impact of three approaches to a drained weight requirement have been assessed. These are: (1) The Commissioner's proposal which, it is estimated, would cost about \$16 million annually to implement; (2) the Consumers Union petition, estimated at \$92 million to effect; and (3) the "label disclosure" option, which would cost an estimated \$74 million to put into practice. All sources of cost of information are documented and further explained in the inflation impact assessment.

The Consumers Union Petition. The Consumers Union petition called for drained weight labeling of all processed, i.e., frozen and canned, fruits and vegetables. Ascertaining drained weight levels was to be done through lot testing.

Using the National Cannery Association (NCA) estimate of 1 cent per unit to comply with the drained weight requirement proposed by Consumers Union results in an estimated cost impact of

\$92 million. This figure should be viewed only as an approximation. The NCA response may not be representative for the canning industry as a whole, and was limited to canned, not frozen, products. The estimate was computed as follows:

	Million units
Volume canned products covered by a drained weight requirement.....	7,368
Plus:	
Volume frozen products covered by a drained weight requirement	1,833
Total	9,201
Times 1 c per unit (0.01)	92.01
Estimated cost impact.....	\$92,000,000

The "Label Disclosure" Approach. One option for instituting a drained weight requirement would be to apply the provisions of the Consumers Union petition only to canned fruits and vegetables. This would avoid the problem of ascertaining drained weight for frozen foods, where appropriate testing techniques would have to be developed.

The cost estimate for industry compliance under this second option is \$74 million, calculated by multiplying the annual volume of canned products covered by a drained weight requirement by \$0.01 per unit.

The Commissioner's proposal. The key difference between the Commissioner's proposal and the other two is that it would permit a processor to label cans based on fill-of-container standards, where they exist. Where such a standard does not exist, a processor would have to undertake lot testing and label drained weight based on lot average. Where fill-of-container standards exist, a processor would have the option of labeling cans based on the standard, or undertaking lot testing and labeling with the lot average.

In the aggregate, the reduction in anticipated cost impact from permitting the use of a fill-of-container standard should be substantial. Fill-of-container standards specifying minimum average drained weights are being proposed for 78 percent of the total production of all products for which drained weight labeling would be required. Consequently, the cost impact from complying with the Commissioner's proposal should only be applied to the 22 percent of canned fruits and vegetables amenable to a drained weight requirement but for which there would be no fill-of-container standard. This cost would amount to about \$16 million, derived by multiplying 7.4 billion (annual production of canned goods with drained weight required) by \$0.01 (cost per unit) by .22 (percent with no fill-of-container standard). The estimated annual cost would be reduced further if more fill-of-container standards were developed and used.

The Commissioner seeks concrete and specific information concerning the following:

a. What would be the per unit cost of declaring drained weight on a lot-by-lot basis as proposed in the Consumers Union petition? Responses should an-

alyze the additional costs, if any, of (1) quality control and testing for the determination of the drained weight, (2) storage of unlabeled cans prior to such determination, and (3) the development and maintenance of an inventory of labels carrying different drained weight declarations.

b. What would be the benefits, including the dollar value, to consumers of declaring drained weight on a lot-by-lot basis as proposed in the Consumers Union petition? Consideration should be given both to the incidence of use by the public at large, as well as the value of the information to those who would use it in making purchasing decisions.

c. What would be the per unit cost of declaring the drained weight in the fill-of-container standards set out below as proposed by the Commissioner? Again, consideration should be given to the additional costs, if any, associated with the factors enumerated in paragraph a. above.

d. What would be the benefits, including the dollar value, to consumers of declaring the drained weights as proposed by the Commissioner? Consideration should be given both to the incidence of use by the public at large, as well as the value of the information to those who would use it in making purchasing decisions.

Further, the Commissioner welcomes the submission of comments and information not only on the proposed rules below but also on the following:

a. Survey data, representative of the population at large, which quantify the additional costs consumers would be willing to pay for label declaration of drained weights in the manner proposed by Consumers Union, or the Commissioner, or both.

b. Support or rebuttal of the comments already received concerning the Consumers Union petition, published in the FEDERAL REGISTER of December 5, 1973 (38 FR 33512).

c. Drained weight data available for frozen fruits and vegetables.

d. Whether the regulations should require label declaration of whatever drained weight the packer is packing without establishing a fill-of-container standard that contains drained weight requirements.

e. Whether the drained weights set out for canned pineapple are reflective of current good commercial practice.

f. Whether a label declaration of fill-in weight rather than drained weight would be more or less meaningful and in the interest of the consumer.

g. Any other information relevant to the question of declaration of drained weights on the labels of canned fruits and vegetables.

h. What effective date would be appropriate for each of the proposed regulations.

The Commissioner has considered the environmental effects of the issuance or amendment of food standards and has concluded in 21 CFR 6.1(d) (4) that food standards are not major agency actions significantly affecting the quality of the

human environment. Because some of the proposed provisions affect regulations in addition to food standards, however, he has also considered the environmental effects of the proposed regulations and has determined that the proposed action would not significantly affect the quality of the human environment. Therefore, the Commissioner concludes that an environmental impact statement is not required by this proposal.

Therefore, pursuant to provisions of the Federal Food, Drug, and Cosmetic Act (secs. 201(n), 401, 403, 701, 52 Stat. 1041, 1046-1048, 1055-1056, as amended by 70 Stat. 919 and 72 Stat. 948 (21 U.S.C. 321(n), 341, 343, 371)) and under authority delegated to him (21 CFR 2.120), the Commissioner proposes that 21 CFR Parts 1, 10, 27, 51, and 53 be amended to read as follows:

PART 1—REGULATIONS FOR THE ENFORCEMENT OF THE FEDERAL FOOD, DRUG, AND COSMETIC ACT AND THE FAIR PACKAGING AND LABELING ACT

1. In § 1.8b by revising paragraph (f) and adding new paragraph (t) as follows:

§ 1.8b Food labeling; declaration of net quantity of contents; when exempt.

(f) The declaration shall appear as a distinct item on the principal display panel, shall be separated (by at least a space equal to the height of the lettering used in the declaration) from other printed label information appearing above or below the declaration and (by at least a space equal to twice the width of the letter "N" of the style of type used in the quantity of contents statement) from other printed label information appearing to the left or right of the declaration except that when the label of a container also bears a statement of drained weight pursuant to § 1.8e of this part, such statement shall appear directly to the right of or below the declaration required by this section, without intervening written, printed or graphic matter. The declaration shall not include any term qualifying a unit of weight, measure, or count (such as "jumbo quart" and "full gallon") that tends to exaggerate the amount of the food in the container. It shall be placed on the principal display panel within the bottom 30 percent of the area of the label panel in lines generally parallel to the base on which the package rests as it is designed to be displayed: *Provided*, That on packages having a principal display panel of 5 square inches or less, the requirement for placement within the bottom 30 percent of the area of the label panel shall not apply when the declaration of net quantity of contents meets the other requirements of this part.

(t) For the purposes of this section, the term "net quantity of contents" of foods, such as ripe olives, green olives, canned artichokes, and canned mushrooms that are packed in liquid that is ordinarily discarded, means the drained

weight of the solid food that is determined in accordance with § 10.9(c) of this chapter and that complies with § 10.9(f) (2) of this chapter. This paragraph does not apply to pickles, the net quantity of contents of which shall be declared in accordance with paragraph (r) of this section.

2. By adding new § 1.8e as follows:

§ 1.8e Food labeling; label statement of the drained weight of the solid food contents of canned fruits and vegetables.

(a) The canned fruits and vegetables listed in paragraph (c) of this section, when packed in containers whose capacity is equal to or less than a No. 10 can (109 oz), shall bear on their labels a statement of the drained weight of the solid food contents of the container in the manner prescribed in paragraph (d) of this section. The statement of drained weight shall consist of the words "drained weight _____", the blank to be filled in with the minimum average drained weight specified in the appropriate fill-of-container standard established in Subchapter B of this chapter. Alternatively, the blank in the statement may be filled in with a weight that is greater than the minimum average drained weight specified in the appropriate fill-of-container standard if such greater weight accurately states the drained weight of the solid food contents of the container as determined by the procedure established in § 10.9(c) of this chapter and complies with § 10.9(f) of this chapter.

(b) The label of a canned fruit or vegetable not listed in paragraph (c) of this section that is packed in a container whose capacity is equal to or less than that of a No. 10 can (109 oz) in a readily drained liquid that is not ordinarily discarded, shall bear a statement of the drained weight of the solid food contents of the container in the manner prescribed in paragraph (d) of this section. The statement of drained weight shall consist of the words "drained weight _____", the blank to be filled in with the drained weight of the solid food contents of the container, as determined by the procedure established in § 10.9(c) of this chapter, and which shall comply with § 10.9(f) (2) of this chapter.

(c) The canned fruits and vegetables referred to in paragraph (a) of this section are those for which minimum average drained weight requirements have been established in fill-of-container standards in Parts 27, 51 and 53 of this chapter and are as follows:

Apricots (§ 27.12).
Asparagus (§ 51.513).
Beans, green and waxed (§ 51.12).
Beans, lima (§ 51.523).
Beets (§ 51.533).
Blackberries (§ 27.37).
Blueberries (§ 27.37).
Carrots (§ 51.543).
Cherries, red tart pitted (§ 27.32).
Cherries, sweet (§ 27.32).
Collards (§ 51.553).
Corn, whole kernel (§ 51.22).
Figs (§ 27.74).
Fruit cocktail (§ 27.42).

Grapes (§ 27.27).
Grapefruit (§ 27.92).
Kale (§ 51.553).
Mushrooms (§ 51.503).
Okra (§ 51.563).
Onions (§ 51.593).
Peaches, clingstone (§ 27.4).
Peaches, freestone (§ 27.4).
Pears (§ 27.22).
Peas, field and black-eye (§ 51.573).
Pimientos (§ 51.583).
Pineapple (§ 27.52).
Plums (§ 27.47).
Potatoes, white (§ 51.613).
Prunes, canned dried (§ 27.17).
Raspberries (§ 27.37).
Spinach (§ 51.553).
Sweetpotatoes (§ 51.603).
Tomatoes (§ 53.42).
Turnips greens (§ 51.553).

(d) The statement of drained weight shall be a part of the declaration of net quantity of contents required by § 1.8b of this part and shall meet the same requirements prescribed in § 1.8b (b) (1), (e), (f), (h), (i), (j), (k), (m), and (n) for the declaration of net quantity of contents. The statement may contain common or decimal fractions. A common fraction shall be in terms of halves, quarters, or eighths. A common fraction shall be reduced to its lowest terms; a decimal fraction shall not be carried out to more than two places nor to less than one tenth of an ounce.

(e) No provision of this section shall be construed as in any way affecting the concurrent applicability of other labeling regulations set out in this chapter.

(f) The list of foods in paragraph (c) of this section represents those foods for which sufficient data are available to support incorporation of a minimum average drained weight requirement in fill-of-container standards for these foods. The Commissioner of Food and Drugs, on his own initiative, or on behalf of any interested person who has submitted a petition, may publish a proposal to add other foods to this list and, concurrently, to establish fill-of-container standards that specify drained weight requirements for these foods. Any such petition shall include an adequate factual basis to support the petition in the form set forth in Part 2 of this chapter and will be published for comment if it contains reasonable grounds for the proposal.

PART 10—DEFINITIONS AND STANDARDS FOR FOOD

3. In § 10.7 by revising paragraph (b) as follows:

§ 10.7 General statements of substandard quality and substandard fill of container.

(b) The term "general statement of substandard fill" means the statement "Below Standard in Fill", or "Below Standard in Drained Weight", or "Below Standards in Fill and Drained Weight", as appropriate, printed in Cheltenham bold condensed caps. If the quantity of the contents of the container is less than 1 pound, the statement is in 12-point type; if such quantity is 1 pound or more,

the statement is in 14-point type. Such statement is enclosed within lines, not less than 6 points in width, forming a rectangle; but if the statement specified in paragraph (a) of this section is used, the statements (one following the other) may be enclosed within the same rectangle. Such statement or statements, with enclosing lines, are on a strongly contrasting, uniform background, and are so placed as to be easily seen when the name of the food or any pictorial representation thereof is viewed, wherever such name or representation appears so conspicuously as to be easily seen under customary conditions of purchase.

4. By adding new § 10.9 as follows:

§ 10.9 Compliance with the fill-of-container standards for canned fruits or vegetables.

(a) *Minimum fill.* In the case of those fill-of-container standards in this Subchapter B that specify a 90 percent fill, a container that falls below the minimum fill prescribed in the fill-of-container standard is considered a "defective" unit. A lot of canned fruit or vegetable is in compliance with the requirement that the fruit or vegetable occupy not less than 90 percent of the total capacity of the container when the number of "defective" units in a sample analyzed according to the sampling plans in paragraph (d) of this section does not exceed the applicable "acceptance number" designated as "c" in the sampling plans in paragraph (d) of this section.

(b) *Minimum drained weight.* In the case of those fill-of-container standards in this Subchapter B that specify a minimum drained weight requirement, a lot of canned fruit or vegetable is in compliance with such drained weight requirement if it meets the provisions of the compliance procedure specified in the standard and described below:

(1) Compliance procedure No. 1. (1) The average drained weight of all sample units in the sample, analyzed according to the sampling plans provided in paragraph (d) of this section is equal to or greater than the average drained weight (designated as "average" or \bar{X}_d in the table in the standard) requirement of the fill-of-container standard; and

(ii) The number of "defective" units, i.e., sample units that are less than the lower limit drained weight requirement for individual containers (designated as "individuals" or "LL" in the table), does not exceed the applicable "acceptance number" designated as "c" in the sampling plan in paragraph (d) of this section. The lower limit ("minimum") drained weight requirement for individual containers set forth in the table in § 53.42(a) (2) of this chapter shall apply to canned tomatoes regardless of sample size. In the case of all other foods, the lower limits for individual containers in the tables shall apply when the sample consists of 13 sample units. When the sample consists of more than 13 sample units, the lower limit is calculated using the equation given in paragraph (f) of this section, where LL_n is the lower limit

for the larger sample size, X_n equals \bar{X}_d given in the table in the fill-of-container standard, and M is the value selected (from the table in paragraph (d) of this section) according to the sample size (n) used.

(2) Compliance procedure No. 2. (i) The average drained weight of all sample units in the sample analyzed according to the sampling plans provided in paragraph (d) of this section is equal to or greater than the drained weight requirements in the applicable fill-of-container standard; and

(ii) The drained weight of one-half or more of the individual containers is equal to or greater than the minimum average drained weight required by the standard; and

(iii) The drained weights from the containers which are less than the minimum average drained weight required by the standard are within the variability of good manufacturing practice.

(c) *Determination of drained weight.*

(1) Except as otherwise provided in the applicable fill-of-container standard, the procedure for determining drained weight in canned fruits or vegetables is as follows: Tilt the opened container so as to distribute the contents evenly over the meshes of a circular sieve that has been previously weighed. The diameter of the sieve is 8 inches if the quantity of contents of the container is less than 3 pounds and 12 inches if such quantity is 3 pounds or more. The bottom of the sieve is woven-wire cloth that complies with the specifications for the No. 8 sieve set forth in the "Definitions of Terms and Explanatory Notes" p. xvi, of the "Official Methods of Analysis of the Association of Official Analytical Chemists," 12th ed., 1975.¹ Carefully invert by hand all fruits having cups or cavities if they fall on the sieve with cups or cavities up. Cups or cavities in soft products may be drained by tilting sieve. Without further shifting the material on the sieve, incline the sieve at an angle of 17° to 20° to facilitate drainage. Two minutes after the drainage begins, weigh the sieve and drained food. The weight so found, less the weight of the sieve, shall be considered to be the weight of the drained food.

(2) Testing for compliance with drained weight requirements shall be performed no sooner than 30 days after the food has been canned.

(d) *Sampling and acceptance procedure.* A lot is to be considered acceptable when the number of "defectives" does not exceed the "acceptance number" in the sampling plans given in paragraph (d) (2) of this section.

(1) Definitions of terms to be used in the sampling plans in paragraph (d) (2) of this section are as follows:

(i) *Lot.* A collection of primary containers or units of the same size, type, and style manufactured or packed under similar conditions and handled as a single unit of trade.

¹ Copies may be obtained from: Association of Official Analytical Chemists, P.O. Box 540, Benjamin Franklin Station, Washington, DC 20044.

(ii) *Lot size.* The number of primary containers or units in the lot.

(iii) *Sample size (n).* The total number of sample units drawn for examination from a lot.

(iv) *Sample unit.* A container, the entire contents of a container, a portion of the contents of a container, or a composite mixture of product from small containers that is sufficient for the examination or testing as a single unit.

(v) *Defective.* Any sample unit shall be regarded as defective when any of the defects or conditions specified in the quality and fill of container standards are present in excess of the stated tolerances.

(vi) *Acceptance number (c).* The maximum number of defective sample units permitted in the sample in order to consider the lot as meeting the specified requirements.

(vii) *Acceptable quality level (AQL).* The maximum percent of defective sample units permitted in a lot that will be accepted approximately 95 percent of the time.

(2) Sampling plans and acceptance procedure:

Acceptable Quality Level 6.5

Lot size (primary container)	Size of container	
	a	c
	Net weight equal to or less than 1 kg (2.2 lb)	
4,800 or less.....	13	2
4,801 to 24,000.....	21	3
24,001 to 48,000.....	29	4
48,001 to 84,000.....	48	6
84,001 to 144,000.....	84	9
144,001 to 240,000.....	126	13
Over 240,000.....	200	19
	Net weight greater than 1 kg (2.2 lb) but not more than 4.5 kg (10 lb)	
2,400 or less.....	13	2
2,401 to 15,000.....	21	3
15,001 to 24,000.....	29	4
24,001 to 42,000.....	48	6
42,001 to 72,000.....	84	9
72,001 to 120,000.....	126	13
Over 120,000.....	200	19
	Net weight greater than 4.5 kg (10 lb)	
600 or less.....	13	2
601 to 2,000.....	21	3
2,601 to 7,200.....	29	4
7,201 to 15,000.....	48	6
15,001 to 24,000.....	84	9
24,001 to 42,000.....	126	13
Over 42,000.....	200	19

n = number of primary containers in sample.
c = acceptance number.

(e) *Interpolation.* When a fill-of-container standard requires a minimum average drained weight but does not specify the requirement for the particular container size and style of pack used, the following procedure shall be used to determine the required drained weight: Select as a reference container from the table of drained weights specified in the standard, the container for the particular food in the same packing medium that is nearest in size, first on the basis of diameter and next on the basis of height. Convert the number of drained ounces for the reference container to an equivalent percentage of the weight of water

capacity of the container in accordance with the method prescribed in § 10.6 of this part. Determine the water capacity of the unknown container in accordance with § 10.6. Multiply the percentage obtained for the reference container by the water capacity of the unknown container, for which the standard-of-fill is being calculated. The result will be the required drained weight.

(f) Compliance with drained weight declarations for containers that declare on the label a drained weight that exceeds the drained weight requirement in the fill-of-container standard and for containers for which no drained weight requirement has been established but that are required to bear a statement of drained weight in accordance with paragraph (c) of this section is determined as follows:

(1) In the case of foods for which the fill-of-container standard specifies, in addition to a minimum average drained weight, a lower limit of drained weight variation for individual containers, a lot is considered as meeting the drained weight requirement if it meets the following criteria:

(i) The average of the drained weights from all the sample units in a sample analyzed according to the sampling plans in paragraph (d) of this section is equal to or greater than the drained weight declared on the label; and

(ii) The number of sample units for which the drained weights are less than the lower limit of drained weight variation for individual containers calculated for the higher declared drained weight does not exceed the applicable acceptance number designated as "c" in the sampling plan in paragraph (d) of this section. The lower limit of drained weight variation for individual containers is determined as follows:

(a) In the case of canned tomatoes, by multiplying the higher declared drained weight by the factor 0.9.

(b) In the case of all other foods for which the fill-of-container standard includes a lower limit of drained weight variation, the lower limit of drained weight variation for the higher declared drained weight is calculated as follows:

$$LL_h = X_h - M \left[\frac{(\bar{X}_{d(s)} - LL_{d(s)})}{1.1} \right]$$

where LL_h is the lower limit of drained weight variation for the higher declared drained weight X_h and $\bar{X}_{d(s)}$ is the minimum average drained weight of the food in the appropriate style of pack and container size designated in the standard. $LL_{d(s)}$ is the corresponding lower limit of drained weight variation in the standard, and M is a constant for a given sample size. M is derived from the normal distribution theory and allows 6.5 percent of the individual sample units in the lot to fall below the lower limit of drained weight variation. Values of M for sample sizes (n) given in the sampling plan are as follows:

n=	13	21	29	48	84	126	200
M=	1.1	1.2	1.2	1.3	1.3	1.4	1.4

(2) In cases where no lower limit values for drained weight have been

established in fill-of-container standards and in the case of foods for which no drained weight requirement has been established in a fill-of-container standard, a lot is considered in compliance with the label declaration of drained weight if it meets the following criteria:

(1) The average drained weight of all the sample units in a sample analyzed according to the sampling plans in paragraph (d) of this section is equal to or greater than the drained weight declared on the label; and

(ii) The drained weight of one-half or more of the individual containers is equal to or greater than the drained weight declared on the label; and

(iii) The drained weights of the containers which are less than the drained weight declared on the label are within the variability of good manufacturing practice.

PART 27—CANNED FRUITS AND FRUIT JUICES

5. In § 27.1 by revoking paragraphs (o) and (p) and revising paragraph (n) to read as follows:

§ 27.1 Definitions.

(n) *Compliance means the following:* Unless otherwise provided in a standard, a lot of canned fruits shall be deemed in compliance for the following factors, to be determined by the sampling and acceptance procedure as provided in § 10.9 of this chapter, namely: (1) *Packing medium density.* A lot shall be deemed to be in compliance for packing medium density based on the average sucrose

value for all samples analyzed according to the sampling plans, but no container may have a sucrose value lower than that of the next lower category or 2 percent by weight sucrose (degrees Brix) lower if no lower category exists.

(2) *Quality.* The quality of a lot shall be considered acceptable when the number of defectives does not exceed the acceptance number in the sampling plans as set forth in § 10.9 of this chapter.

6. By revising § 27.4 to read as follows:

§ 27.4 Canned peaches; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned peaches is:

(1) For peaches in liquid packing medium, the maximum practicable quantity of peaches that can be sealed in the container without impairment of quality.

(2) For solid pack peaches, as defined in § 27.1(d), the maximum practicable quantity of peaches that can be sealed in the container without impairment of quality and that occupies not less than 90 percent of the total capacity of the container, as determined by the general method for fill of container prescribed in § 10.6(b) of this chapter.

(3) A drained weight of peaches not less than the average drained weight, (designated as \bar{X}_d) prescribed in Tables 1 and 2 of this paragraph (a) (3) for the container, as determined by the general method for drained weight prescribed in § 10.9(c) of this chapter. Drained weight requirements for containers not specified in the tables are determined by interpolation as specified in § 10.9(e) of this chapter.

TABLE 1A.—Drained weights for canned Freestone peaches

Container designation	Container size (overall dimensions)		Overflow capacity (fluid ounces)	Halves			
	Diameter (inches)	Height (inches)		In extra heavy sirup (ounces)		In any other liquid medium (ounces)	
				LL ¹	\bar{X}_d ²	LL	\bar{X}_d
8 Z tall	211	304		4.1	4.8	4.3	5.0
No. 300	300	407		7.8	8.6	8.0	8.8
No. 303	303	406		8.6	9.5	8.9	9.8
No. 303 glass			17.0	8.6	9.5	8.9	9.8
No. 2	307	409		10.4	11.5	10.8	11.9
No. 2½ glass			28.35	14.7	16.1	15.2	16.6
No. 2½, 7 count or more	401	411		15.2	16.6	15.7	17.1
No. 2½, 6 count or less	401	411		14.8	16.2	15.3	16.7
No. 10, 24 count or more	603	700		58.5	61.0	60.0	62.5
No. 10, 23 count or less	603	700		57.5	60.0	59.0	61.5

¹ LL is the lower limit drained weight for individual containers.

² \bar{X}_d is the average drained weight of all sample units in the sample.

TABLE 1B.—Drained weights for canned Freestone peaches

Container size	Quarters, mixed pieces of irregular sizes and shapes				Sliced			
	In extra heavy sirup (ounces)		In any other liquid medium (ounces)		In extra heavy sirup (ounces)		In any other liquid medium (ounces)	
	LL ¹	\bar{X}_d ²	LL	\bar{X}_d	LL	\bar{X}_d	LL	\bar{X}_d
8 Z tall	4.2	4.9	4.4	5.1	4.1	4.7	4.3	4.9
No. 300	8.0	8.8	8.2	9.0	7.8	8.5	8.0	8.7
No. 303 glass	8.8	9.7	9.1	10.0	8.6	9.4	8.9	9.7
No. 303	8.8	9.7	9.1	10.0	8.6	9.4	8.9	9.7
No. 2	10.6	11.7	11.0	12.1	10.4	11.3	10.8	11.7
No. 2½ glass	15.0	16.4	15.5	16.9	14.7	15.8	15.2	16.3
No. 2½	15.5	16.9	16.0	17.4	15.2	16.3	15.7	16.8
No. 10	60.5	63.0	62.0	64.5	68.0	60.0	60.0	61.0

¹ LL is the lower limit drained weight for individual containers.

² \bar{X}_d is the average drained weight of all sample units in the sample.

TABLE 1C.—Drained weights for canned Freestone peaches

Container size	Heavy pack (all styles) (ounces)		Solid-pack unsweetened (all styles) (ounces)	
	LL ¹	X _a ²	LL	X _a
	No. 2 1/4			22.6
No. 10	67.5	70.0	87.5	90.0

¹ LL is the lower limit drained weight for individual containers.
² X_a is the average drained weight of all sample units in the sample.

TABLE 2A.—Drained weights for canned Clingstone peaches

Container designation	Container size (overall dimensions)		Overflow capacity (fluid ounces)	Sliced							
	Diameter (inches)	Height (inches)		In extra heavy sirup (ounces)		In heavy sirup (ounces)		In any other liquid medium (ounces)		Diced in any liquid medium (ounces)	
				LL ¹	X _a ²	LL	X _a	LL	X _a	LL	X _a
5 Z	211	200		2.2	2.8	2.4	3.0	2.5	3.1	2.6	2.9
5 Z	211	202		2.4	3.0	2.6	3.2	2.7	3.3	2.9	3.2
6 Z	300	300		2.8	3.4	3.0	3.6	3.1	3.7	3.4	3.7
7 Z	211	212		3.4	4.0	3.6	4.2	3.7	4.3	4.0	4.3
8 Z tall	211	301		4.3	4.9	4.5	5.1	4.6	5.2	4.7	5.2
No. 300	300	407		8.2	8.9	8.4	9.1	8.6	9.3	8.9	9.5
No. 303	303	406		9.1	9.9	9.3	10.1	9.5	10.3	9.8	10.5
No. 303 glass			17.0	9.1	9.9	9.3	10.1	9.5	10.3	9.8	10.5
No. 2	307	400		11.1	12.0	11.4	12.3	11.7	12.6	11.9	12.7
No. 2 1/2	401	411		16.3	17.4	16.7	17.8	17.1	18.2	17.5	18.5
No. 2 1/2 glass			28.35	15.8	16.9	16.2	17.3	16.6	17.7	17.0	18.0
No. 10	603	700		62.5	64.5	64.5	66.5	66.5	68.5	68.2	70.0

¹ LL is the lower limit drained weight for individual containers.
² X_a is the average drained weight of all sample units in the sample.

TABLE 2B.—Drained weights for canned Clingstone peaches

Container designation	Heavy pack—any style in any liquid medium (ounces)		Solid pack—all applicable styles (unsweetened only) (ounces)	
	LL ¹	X _a ²	LL	X _a
	No. 2 1/2		18.6	20.0
No. 10		73.5	76.0	89.5
				25.5
				92.0

¹ LL is the lower limit drained weight for individual containers.
² X_a is the average drained weight of all sample units in the sample.

TABLE 2C.—Drained weights for canned Clingstone peaches

Container designation	Halves						Quarters; and mixed pieces of irregular sizes and shapes					
	In extra heavy sirup (ounces)		In heavy sirup (ounces)		In any other liquid medium (ounces)		In extra heavy sirup (ounces)		In heavy sirup (ounces)		In any other liquid medium (ounces)	
	LL ¹	X _a ²	LL	X _a	LL	X _a	LL	X _a	LL	X _a	LL	X _a
8 Z tall	4.3	5.0	4.5	5.2	4.6	5.3	4.3	5.0	4.5	5.2	4.6	5.3
No. 300	8.2	9.0	8.4	9.2	8.6	9.4	8.2	9.0	8.4	9.2	8.6	9.4
No. 303	9.1	10.0	9.3	10.2	9.5	10.4	9.1	10.0	9.3	10.2	9.5	10.4
No. 303 glass	9.1	10.0	9.3	10.2	9.5	10.4	9.1	10.0	9.3	10.2	9.5	10.4
No. 2	11.0	12.1	11.3	12.4	11.6	12.7	11.0	12.1	11.3	12.4	11.6	12.7
No. 2 1/2 glass	15.7	17.1	16.1	17.5	16.5	17.9	15.7	17.1	16.1	17.5	16.5	17.9
No. 2 1/2							16.2	17.6	16.6	18.0	17.0	18.4
No. 2 1/2, 7 count or more	16.2	17.6	16.6	18.0	17.0	18.4						
No. 2 1/2, 6 count or less	15.6	17.0	16.0	17.4	16.4	17.8						
No. 10							62.0	64.5	64.0	66.5	66.0	68.5
No. 10, 24 count or more	62.0	64.5	64.0	66.5	66.0	68.5						
No. 10, 23 count or less	60.5	63.0	62.5	65.0	64.5	67.0						

¹ LL is the lower limit drained weight for individual containers.
² X_a is the average drained weight of all sample units in the sample.

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(b) Determination of compliance:
 (1) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(a) of this chapter.

(2) Compliance with the requirements of paragraph (a) (3) of this section shall be determined as set forth in § 10.9(b) (1) of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

7. By revising § 27.12 to read as follows:

§ 27.12 Canned apricots; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned apricots is:

(1) For apricots in liquid packing medium the maximum practicable quantity of apricots that can be sealed in the container without impairment of quality.

(2) For solid pack apricots, as defined in § 27.1(1), the maximum practicable quantity of apricots that can be sealed in the container without impairment of quality and that occupies not less than 90 percent of the total capacity of the container, as determined by the general method for fill of container prescribed in § 10.6(b) of this chapter.

(3) A drained weight of apricots not less than the average drained weight (designated as \bar{X}_d) prescribed in the table in this paragraph (a) (3) for the container, as determined by the general method for drained weight prescribed in § 10.9(c) of this chapter. Drained weight requirements for containers not specified in the table are determined by interpolation as specified in § 10.9(e) of this chapter.

Drained weights for canned apricots

Container size		Unpeeled or peeled halves; slices; mixed pieces of irregular sizes and shapes (ounces)		Whole unpeeled (ounces)		Whole peeled (ounces)	
Designation	Dimensions (inches)	LL^1	\bar{X}_d^2	LL	\bar{X}_d	LL	\bar{X}_d
In extra heavy and heavy surps							
5Z.....	211 by 200.....	2.1	2.7				
5Z.....	211 by 302.....	2.4	3.0				
7Z.....	211 by 212.....	3.4	4.0				
8Z tall.....	211 by 304.....	4.2	4.8	3.7	4.3	3.8	4.5
No. 300.....	300 by 407.....	7.9	8.6	6.8	7.6	7.2	8.0
No. 303 glass.....	300 by 407.....	8.7	9.5	7.6	8.5	8.0	8.9
No. 303.....	303 by 406.....	8.7	9.5	7.6	8.5	8.0	8.9
No. 2.....	307 by 409.....	10.6	11.5	9.6	10.5	9.8	10.8
No. 2 1/2 glass.....	401 by 411.....	15.2	16.3	13.6	14.9	13.9	15.2
No. 2 1/2.....	401 by 411.....	15.5	16.7	13.8	15.9	14.4	15.7
No. 10.....	603 by 700.....	59.7	62.0	57.5	60.0	57.9	60.4
In any other liquid medium							
5 Z.....	211 by 200.....	2.2	2.8				
5 Z.....	211 by 302.....	2.5	3.1				
7 Z.....	211 by 212.....	3.5	4.1				
8 Z tall.....	211 by 304.....	4.3	4.9	3.8	4.4	3.9	4.6
No. 300.....	300 by 407.....	8.1	8.8	7.0	7.8	7.4	8.2
No. 303 glass.....	300 by 407.....	8.9	9.7	7.8	8.7	8.2	9.1
No. 303.....	303 by 406.....	8.9	9.7	7.8	8.7	8.2	9.1
No. 2.....	307 by 409.....	10.9	11.8	9.7	10.7	10.1	11.1
No. 2 1/2 glass.....	401 by 411.....	15.7	16.8	14.0	15.3	14.3	15.6
No. 2 1/2.....	401 by 411.....	16.0	17.2	14.2	15.5	14.8	16.1
No. 10.....	603 by 700.....	61.7	64.0	59.0	61.5	59.5	62.0
Solid pack (without liquid medium)							
No. 10.....	603 by 700.....	89.5	92.0				

¹ LL is the lower limit drained weight for individual containers.
² \bar{X}_d is the average drained weight of all sample units in the sample.

(b) Determination of compliance:
 (1) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(a) of this chapter.
 (2) Compliance with the requirements of paragraph (a) (3) of this section shall be determined as set forth in § 10.9(b) (1) of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

8. By adding new § 27.17 to provide for fill-of-container standards for canned prunes as follows:

§ 27.17 Canned prunes; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned prunes is:

(1) The maximum practicable quantity of prunes that can be sealed in the container without impairment of quality and occupies (including packing medium) not less than 90 percent of the total capacity of the container, as determined by the general method for fill of container prescribed in § 10.6(b) of this chapter.

(2) A drained weight of prunes not less than the average drained weight prescribed in the table in this paragraph (a) (2) for the container, as determined by the general method for drained weight prescribed in § 10.9(c) of this chapter. Drained weight requirements for containers not specified in the table are determined by interpolation as specified in § 10.9(e) of this chapter.

Drained weights for canned prunes

Container size or name	Metal containers		Glass containers
	Regular pack (ounces)	Heavy pack (ounces)	Regular pack (ounces)
8 oz.....	5 1/4		
No. 1 tall.....	10 3/4		
No. 2.....	13		
No. 2 1/2.....	19	29	18
No. 10.....	70	110	

(b) Determination of compliance:
 (1) Compliance with the requirements of paragraph (a) (1) of this section shall be determined as set forth in § 10.9(a) of this chapter.
 (2) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (2) of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

9. By revising § 27.22 to read as follows:
§ 27.22 Canned pears; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned pears is:
 (1) The maximum practicable quantity of pears that can be sealed in the container without impairment of quality.

(2) A drained weight of pears not less than the average drained weight (designated as \bar{X}_d) prescribed in Tables 1, 2 and 3 of this paragraph (a) (2) for the container, as determined by the general method for drained weight prescribed in § 10.9(c) of this chapter. Drained weight requirements for containers not specified in the tables are determined by interpolation as specified in § 10.9(e) of this chapter.

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TABLE 1.—Drained weights for canned pears
[Styles of quarters; slices; mixed pieces of irregular sizes and shapes]

Container designation	Container size (overall dimensions)		Overflow capacity (fluid ounces)	In any sirup or other liquid medium (ounces)	
	Diameter (inches)	Height (inches)		LL ¹	X _d ²
5 Z.....	211	200		2.6	3.0
5 Z.....	211	202		2.9	3.3
6 Z.....	300	200		3.3	3.7
7 Z.....	211	212		3.8	4.2
8 Z glass.....			8.2	4.4	4.8
8 Z tall.....	211	304		4.5	4.9
No. 300.....	300	407		8.3	8.9
No. 303 glass.....			17.0	8.8	9.4
No. 303.....	303	406		9.0	9.6
No. 2.....	307	409		11.1	11.8
No. 2½ glass.....			28.35	16.1	16.9
No. 2½.....	401	411		16.4	17.2
No. 10.....	603	700		64.9	65.5

¹ LL is the lower limit drained weight for individual containers.
² X_d is the average drained weight of all sample units in the sample.

TABLE 2.—Drained weights for canned pears

Container designation	Halves style	
	In any sirup or other liquid medium (ounces)	
	LL ¹	X _d ²
8 Z glass.....	4.1	4.7
8 Z tall.....	4.2	4.8
No. 300:		
7 count or less.....	7.7	8.4
8 count or more.....	8.0	8.7
No. 303 glass:		
7 count or less.....	8.2	9.0
8 count or more.....	8.5	9.3
No. 303:		
7 count or less.....	8.5	9.3
8 count or more.....	8.8	9.6
No. 2:		
7 count or less.....	10.5	11.4
8 count or more.....	10.8	11.7
No. 2½ glass:		
8 count or less.....	14.9	16.0
9 count or more.....	15.4	16.5
No. 2½:		
8 count or less.....	15.3	16.4
9 count or more.....	15.3	16.9
No. 10:		
25 count or less.....	60.8	62.7
26 count or more.....	62.2	64.1

¹ LL is the lower limit drained weight for individual containers.
² X_d is the average drained weight of all sample units in the sample.

TABLE 3.—Drained weights for canned pears

Container designation	Diced style	
	In any sirup or other liquid medium (ounces)	
	LL ¹	X _d ²
5 Z.....	2.8	3.1
5 Z.....	3.0	3.3
6 Z.....	3.5	3.8
7 Z.....	4.3	4.6
8 Z glass.....	5.3	5.6
8 Z tall.....	5.3	5.6
No. 300.....	9.3	9.7
No. 303 glass.....	10.1	10.6
No. 303.....	10.2	10.7
No. 2.....	12.4	13.0
No. 2½ glass.....	18.2	18.8
No. 2½.....	18.4	19.0
No. 10.....	65.7	67.0

¹ LL is the lower limit drained weight for individual containers.
² X_d is the average drained weight of all sample units in the sample.

(b) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (1) of this chapter.

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(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

10. By adding new § 27.27 to provide for fill-of-container standards for canned grapes as follows:

§ 27.27 Canned grapes; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned grapes is:

(1) The maximum practicable quantity of grapes that can be sealed in the con-

tainer without impairment of quality and occupies (including packing medium) not less than 90 percent of the total capacity of the container, as determined by the general method for fill of container prescribed in § 10.6(b) of this chapter.

(2) A drained weight of grapes not less than the average drained weight (designated as \bar{X}_d) prescribed in the table in this paragraph (a) (2) for the container, as determined by the general method for drained weight prescribed in § 10.9(c) of this chapter. Drained weight requirements for containers not specified in the table are determined by interpolation as specified in § 10.9(e) of this chapter.

Drained weights for canned grapes

Container designation	Container size—overall dimensions		Overflow capacity (fluid ounces)	In any liquid medium (ounces)	
	Diameter (inches)	Height (inches)		LL ¹	\bar{X}_d ²
8 Z tall.....	211	304		4.7	5
8 oz glass.....			8.2	4.7	5
No. 300.....	300	407		8.6	9
No. 1 tall.....	301	411		9.4	10
No. 303.....	303	406		9.4	10
No. 303 glass.....			17.0	9.4	10
No. 2.....	307	409		11.4	12
No. 2½.....	401	411		16.1	17
No. 2½ glass.....			28.35	16.1	17
No. 10.....	603	700		60.3	62

¹ LL is the lower limit drained weight for individual containers.

² \bar{X}_d is the average drained weight of all sample units in the sample.

(b) Determination of compliance:

(1) Compliance with the requirements of paragraph (a) (1) of this section shall be determined as set forth in § 10.9(a) of this chapter.

(2) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (1) of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

11. By revising § 27.32 to read as follows:

§ 27.32 Canned cherries; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned cherries is:

(1) The maximum practicable quantity of cherries that can be sealed in the container without impairment of quality.

(2) A drained weight of cherries not less than the average drained weight (designated as \bar{X}_d) prescribed in Tables 1 and 2 of this paragraph (a) (2) for the container, as determined by the general method for drained weight prescribed in § 10.9(c) of this chapter. Drained weight requirements for containers not specified in the tables are determined by interpolation as specified in § 10.9(e) of this chapter.

TABLE 1.—*Drained weights for canned red tart pitted cherries*

Container designations	Container size—overall dimensions		Packed in water or cherry juice (ounces)		Packed in any syrup or slightly sweetened water (ounces)	
	Diameter (inches)	Height (inches)	LL ¹	\bar{X}_d ²	LL	\bar{X}_d
No. 303.....	303	406	10.7	11.0	9.9	10.3
No. 303 cylinder.....	303	509	14.0	14.4	12.7	13.1
No. 2.....	307	409	13.1	13.5	12.3	12.7
No. 10.....	603	700	71.2	72.0	69.4	70.2

¹ LL is the lower limit drained weight for individual containers.

² \bar{X}_d is the average drained weight of all sample units in the sample.

TABLE 2.—*Drained weights for pitted and unpitted canned sweet cherries*

Container designations	Container size—overall dimensions		Overflow capacity (fluid ounces)	In extra heavy sirups and in declared "dietetic packs" whether or not packed in water (ounces)		In heavy sirups (ounces)		In light sirup and in slightly sweetened water or juice (ounces)		In water (ounces)	
	Diameter (inches)	Height (inches)		LL ¹	X _a ²	LL	X _a	LL	X _a	LL	X _a
8 Z tall.....	211	304	4.3	4.7	4.6	5.0	4.8	5.2	4.8	5.2	
No. 300.....	300	407	8.4	8.9	8.7	9.2	8.2	8.7	8.2	8.7	
No. 1 tall.....	301	411	9.0	9.7	9.3	10.0	9.5	10.2	9.5	10.2	
No. 303.....	303	406	9.0	9.7	9.3	10.0	9.5	10.2	9.5	10.2	
No. 303 glass.....			17.0	9.0	9.7	9.3	10.0	9.5	10.2	9.5	
No. 2.....	307	409	11.3	12.0	11.8	12.5	12.0	12.7	12.0	12.7	
No. 2½.....	401	411	16.6	17.5	17.1	18.0	17.6	18.5	17.6	18.5	
No. 2½ glass.....			28.35	16.3	17.2	16.8	17.7	17.3	18.2	17.3	
No. 10.....	603	700		61.7	64.5	63.7	66.5	68.2	70.0	68.2	

¹ LL is the lower limit drained weight for individual containers.
² X_a is the average drained weight for all sample units in the sample.

(b) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (1) of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

12. By adding new § 27.37 to provide fill-of-container standards for canned berries as follows:

§ 27.37 Canned berries; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned berries, either raspberries, blueberries, blackberries or other similar berries is:

(1) The maximum practicable quantity of berries that can be sealed in the container without impairment of quality and occupies (including packing medium) not less than 90 percent of the total capacity of the container as determined by the general method for fill of container prescribed in § 10.6(b) of this chapter.

(2) A drained weight of berries not less than the average drained weight

prescribed in Tables 1, 2, and 3 in this paragraph (a) (2) for the container, as determined by the general method for drained weight prescribed in § 10.9(c) of

this chapter. Drained weight requirements for containers not specified in the tables are determined by interpolation as specified in § 10.9(e) of this chapter.

TABLE 1.—*Drained weights for canned raspberries*

Container designation	Container size, overall dimensions		Drained weights in sirup; artificially sweetened packing media; water	
	Width (inches)	Height (inches)	Red and purple (ounces)	Black (ounces)
8 oz tall.....	2½ ¹ / ₁₆	3½ ¹ / ₁₆	4	5
No. 300.....	3	4½ ¹ / ₁₆	7	7
No. 1 tall.....	3½ ¹ / ₁₆	4½ ¹ / ₁₆	8	8
No. 303.....	3¾ ¹ / ₁₆	4½ ¹ / ₁₆	8	8
No. 2.....	3¾ ¹ / ₁₆	4¾ ¹ / ₁₆	10	10
No. 2½.....	4½ ¹ / ₁₆	4½ ¹ / ₁₆	14¼	14¼
No. 10.....	6¾ ¹ / ₁₆	7	53	55

TABLE 2.—*Drained weights for canned blueberries*

Container designation	Container size, overall dimensions		Drained weights in sirup; artificially sweetened packing media; water, (ounces)
	Width (inches)	Height (inches)	
300 by 407.....	3	4¾ ¹ / ₁₆	7.5
No. 2.....	3¾ ¹ / ₁₆	4¾ ¹ / ₁₆	10.0
No. 10.....	6¾ ¹ / ₁₆	7	55.0

TABLE 3.—*Drained weights for canned blackberries and other similar berries*

Container designation	Container size—overall dimensions		Maximum capacity in water at 68° F (ounces)	Drained weights blackberries		Drained weights other berries	
	Diameter (inches)	Height (inches)		Extra heavy and heavy sirup (ounces)	Light sirup and water (ounces)	Extra heavy and heavy sirup (ounces)	Light sirup and water (ounces)
8 oz.....	2½ ¹ / ₁₆	3¾ ¹ / ₁₆	8.65	4½	4¾	4½	4½
No. 303.....	3½ ¹ / ₁₆	4¾ ¹ / ₁₆	16.85	8½	9¼	7¾	8¼
No. 2.....	3¾ ¹ / ₁₆	4¾ ¹ / ₁₆	20.50	11	12	9½	10
No. 10.....	6¾ ¹ / ₁₆	7	109.45	62	66	55	60
No. 10 (heavy pack) ¹	6¾ ¹ / ₁₆	7	109.45		74		70

¹ Canned berries in No. 10 containers (in water) may be certified with the additional statement "heavy pack", provided they meet the drained weight requirement specified.

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(b) Determination of compliance:

(1) Compliance with the requirements of paragraph (a) (1) of this section shall be determined as set forth in § 10.9(a) of this chapter.

(2) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (2) of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

13. By revising § 27.42 to read as follows:

§ 27.42 Canned fruit cocktail, canned cocktail fruits, canned fruit for cocktail; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned fruit cocktail is:

(1) The maximum practicable quantity of fruit cocktail that can be sealed in the container without impairment of quality and occupies (including packing medium) not less than 90 percent of the total capacity of the container, as determined by the general method for fill of container prescribed in § 10.6(b) of this chapter.

(2) A drained weight of fruit cocktail not less than the average drained weight (designated as \bar{X}_d) prescribed in the table in this paragraph (a) (2) for the container, as determined by the general method for drained weight prescribed in § 10.9(c) of this chapter. Drained weight requirements for containers not specified in the table are determined by interpolation as specified in § 10.9(e) of this chapter.

Drained weights for canned fruit cocktail

Container designation	Container size		Capacity weight H ₂ O at 68° F (avoirdupois ounces)	Drained weight (65 percent capacity) (ounces)	
	Overall dimen- sions (inches)	Overflow capac- ity (fluid ounces)		<i>L.L.</i> ¹	\bar{X}_d ²
5 oz.....	211 by 200		4.90	2.8	3.18
5 oz.....	211 by 202		5.25	3.0	3.41
6 oz.....	300 by 200			3.6	3.97
7 oz.....	211 by 212		7.15	4.2	4.64
8 Z tall.....	211 by 304		6.65	5.1	5.63
8 oz glass.....		8.2	8.50	5.0	5.53
No. 300.....	300 by 407		15.20	9.3	9.88
No. 1 tall.....	301 by 411		16.60	10.1	10.79
No. 303.....	303 by 406		16.85	10.3	10.96
303 glass.....		17.0	17.70	10.8	11.51
No. 2.....	307 by 409		20.50	12.5	13.33
No. 2½.....	401 by 411		29.75	18.3	19.34
No. 2½ glass.....		28.35	29.50	18.2	19.18
No. 3 cylinder.....	404 by 700			22.3	24.57
No. 10.....	603 by 700		109.45	69.4	71.15

¹ *L.L.* is the lower limit drained weight for individual containers.

² \bar{X}_d is the average drained weight of all sample units in the sample.

(b) Determination of compliance:

(1) Compliance with the requirements of paragraph (a) (1) of this section shall be determined as set forth in § 10.9(a) of this chapter.

(2) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (1) of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

14. By revising § 27.47 to read as follows:

§ 27.47 Canned plums; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned plums is:

(1) The maximum practicable quantity of plums that can be sealed in the container without impairment of quality and occupies (including packing medium) not less than 90 percent of the total capacity of the container, as determined by the general method for fill of container prescribed in § 10.6(b) of this chapter.

(2) A drained weight of plums not less than the average drained weight (designated as \bar{X}_d) prescribed in the table in this paragraph (a) (2) for the container, as determined by the general method for drained weight prescribed in § 10.9(c) of this chapter. Drained weight requirements for containers not specified in the table are determined by interpolation as specified in § 10.9(e) of this chapter.

Drained weights for canned plums

Container designation	Water capacity of container (ounces)	In any liquid medium			
		Whole plums drained weight (ounces)		Halves drained weight (ounces)	
		LL ¹	X _d ²	LL ¹	X _d ²
8 Z tall.....	8.65	3.7	4.3	4.2	4.8
8 oz glass.....	8.2	3.5	4.1	3.9	4.5
No. 1 tall.....	16.60	7.5	8.3	8.3	9.1
No. 303.....	16.85	7.6	8.4	8.5	9.3
No. 303 glass.....	17.0	7.7	8.5	8.5	9.3
No. 2.....	20.5	9.4	10.3	10.4	11.3
No. 2½.....	29.75	13.7	14.9	15.2	16.4
No. 2½ glass.....	29.50	13.6	14.8	15.0	16.2
No. 10.....	109.45	52.5	54.7	58.0	60.2

¹ LL is the lower limit drained weight for individual containers.
² X_d is the average drained weight for all sample units in the sample.

(b) Determination of compliance:
 (1) Compliance with the requirements of paragraph (a) (1) of this section shall be determined as set forth in § 10.9(a) of this chapter.
 (2) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (1) of this chapter.
 (c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and forms specified therein.

(1) The maximum practicable quantity of pineapple that can be sealed in the container without impairment of quality and occupies (including packing medium) not less than 90 percent of the total capacity of the container, as determined by the general method for fill of container prescribed in § 10.6(b) of this chapter.
 (2) A drained weight of pineapple not less than the average drained weight prescribed in Tables 1 and 2 of this paragraph (a) (2) for the container, as determined by the general method for drained weight prescribed in § 10.9(c) of this chapter. Drained weight requirements for containers not specified in the tables are determined by interpolation as specified in § 10.9(e) of this chapter.

15. By revising § 27.52 to read as follows:

§ 27.52 Canned pineapple; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned pineapple is:

TABLE 1.—Drained weights for canned pineapple in styles other than crushed and chip styles

Container designation	Dimensions (inches)	Water capacity (ounces)	Other styles			
			Juice and sirup packs (ounces)		Water packs (ounces)	
			X _d ¹	LL ²	X _d	LL
1 flat.....	300 by 207.....	7.00	4.06	3.86	3.85	3.65
1 flat.....	307 by 201.25.....	8.49	4.92	4.70	4.67	4.44
1 flat.....	307 by 203.....	8.94	5.19	4.96	4.92	4.69
8 Z.....	211 by 304.....	8.65	5.02	4.79	4.76	4.53
211 cyl.....	211 by 414.....	13.55	7.86	7.54	7.45	7.13
1½.....	401 by 207.....	14.47	8.68	8.34	8.26	7.91
2.....	307 by 309.....	15.64	9.38	9.02	8.91	8.54
2.....	307 by 409.....	20.50	12.30	11.90	11.68	11.28
2½.....	401 by 411.....	23.50	17.70	17.14	16.81	16.25
10.....	603 by 700.....	109.45	68.85	67.26	65.67	63.98
10 (slices).....	603 by 700.....	109.45	65.67	63.98	62.39	60.70

¹ X_d is the average drained weight of all sample units in the sample.
² LL is the lower limit drained weight for individual containers.

TABLE 2.—Drained weights for canned crushed pineapple

Container designation	Dimensions (inches)	Water capacity (ounces)	Crushed and chips styles		
			Regular pack (ounces) X _d ¹	"Heavy pack" (ounces) X _d	"Solid pack" (ounces) X _d
			1 flat.....	300 by 207.....	7.00
1 flat.....	307 by 201.25.....	8.49	5.35	6.20	6.62
1 flat.....	307 by 203.....	8.94	5.63	6.52	6.97
8 Z.....	211 by 304.....	8.65	5.45	6.31	6.75
211 cylinder.....	211 by 414.....	13.55	8.54	9.89	10.57
1½.....	401 by 207.....	14.47	9.11	10.56	11.29
2.....	307 by 309.....	15.64	9.85	11.42	12.20
2.....	307 by 409.....	20.50	12.91	14.97	15.99
2½.....	401 by 411.....	23.50	18.59	21.54	23.01
10.....	603 by 700.....	109.45	68.96	79.90	85.37

¹ X_d is the average drained weight of all sample units in the sample.

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(b) Determination of compliance:

(1) Compliance with the requirements of paragraph (a) (1) of this section shall be determined as set forth in § 10.9(a) of this chapter.

(2) Compliance with the requirements of Tables 1 and 2 in paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (1) and (2), respectively, of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

16. By adding new § 27.74 to provide fill-of-container standards for canned figs as follows:

§ 27.74 Canned figs; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned figs is:

(1) The maximum practicable quantity of figs that can be sealed in the container without impairment of quality and occupies (including packing medium) not less than 90 percent of the total capacity of the container, as determined by the general method for fill of container prescribed in § 10.6(b) of this chapter.

(2) A drained weight of figs not less than the average drained weight (designated as \bar{X}_d) prescribed in the table in this paragraph (a) (2) for the container, as determined by the general method for drained weight prescribed in § 10.9(c) of this chapter. Drained weight requirements for containers not specified in the table are determined by interpolation as specified in § 10.9(e) of this chapter.

Drained weights for canned figs

Container designation	Container size, overall dimensions		Overflow capacity (fluid ounce)	All styles (including canned dietetic figs) (ounces)	
	Width (inches)	Height (inches)		LL ¹	\bar{X}_d ²
8 Z tall.....	211	304		4.2	5.0
8 oz glass.....			8.2	4.2	5.0
No. 300.....	300	407		8.1	9.0
No. 1 tall.....	301	411		9.0	10.0
No. 303.....	303	406		9.0	10.0
No. 303 glass.....			17.0	8.7	9.7
No. 2.....	307	409		11.5	12.5
No. 2½.....	401	411		16.6	18.0
No. 2½ glass.....			28.35	15.8	17.2
No. 10 (70 whole figs, or portions equivalent thereto, and less).....	603	700		60.5	63.0
No. 10 (71 whole figs, or portions equivalent thereto, and more).....				63.5	66.0

¹ LL is the lower limit drained weight for individual containers.

² \bar{X}_d is the average drained weight of all sample units in the sample.

(b) Determination of compliance:

(1) Compliance with the requirements of paragraph (a) (1) of this section shall be determined as set forth in § 10.9(a) of this chapter.

(2) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (1) of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

17. By revising § 27.92 to read as follows:

§ 27.92 Canned grapefruit; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned grapefruit is:

(1) The maximum practicable quantity of grapefruit that can be sealed in the container without impairment of quality and occupies (including packing medium) not less than 90 percent of the total capacity of the container, as determined by the general method for fill of container prescribed in § 10.6(b) of this chapter.

(2) A drained weight of grapefruit not less than the average drained weight (designated as \bar{X}_d) prescribed in the table in this paragraph (a) (2) for the container, as determined by the general method for drained weight prescribed in § 10.9(c) of this chapter. Drained weight requirements for containers not specified in the table are determined by interpolation as specified in § 10.9(e) of this chapter.

Drained weights for canned grapefruit

Container size or designation	Dimensions (inches)	Water capacity (ounces)	LL ¹ (ounces)	\bar{X}_d ² (ounces)
8 Z tall.....	211 by 304.....	8.85	3.95	4.30
No. 303.....	303 by 406.....	16.85	7.95	8.40
No. 3 cylinder.....	404 by 700.....	51.70	24.75	25.85

¹ LL is the lower drained weight limit for individual cans.

² \bar{X}_d is the average drained weight of all sample units in the sample.

(b) Determination of compliance:
 (1) Compliance with the requirements of paragraph (a) (1) of this section shall be determined as set forth in § 10.9(a) of this chapter.

(2) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (1) of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

PART 51—CANNED VEGETABLES

18. By adding new § 51.12 to provide fill-of-container standards for green beans and wax beans as follows:

§ 51.12 Canned green beans and canned wax beans; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned green beans and canned wax beans is:

Drained weights for canned green beans and wax beans

Container size or designation	Water capacity (ounces)	Whole and sliced lengthwise or French style (ounces)	Cuts 1½ in and longer (ounces)	Mixed cuts and short cuts, less than 1½ in (ounces)
8 Z tall.....	8.65	4.3	4.5	4.7
8 oz glass.....	8.2	3.9	4.1	4.3
No. 1 (picnic).....	10.90	5.4	5.6	6.0
No. 300.....	15.20	7.6	7.9	8.4
No. 1 tall.....	16.60	8.3	8.6	9.1
No. 303.....	16.85	8.4	8.8	9.3
No. 303 glass.....	17.0	8.2	8.5	9.0
No. 2.....	20.50	10.3	10.7	11.3
No. 2½.....	29.75	14.9	15.5	16.4
No. 2½ glass.....	29.50	14.25	14.8	15.6
No. 10.....	109.45	54.5	57.0	60.2

(b) Determination of compliance:
 (1) Compliance with the requirements of paragraph (a) (1) of this section shall be determined as set forth in § 10.9(a) of this chapter.

(2) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (2) of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

19. By revising § 51.22 to read as follows:

§ 51.22 Canned corn, canned sweet corn, canned sugar corn; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned corn is:

(1) Except in the case of vacuum pack corn, the maximum practicable quantity of corn that can be sealed in the container without impairment of quality in a manner adequate to protect the public health in accordance with Parts 90 and 128b of this chapter and occupies (including packing medium) not less than 90 percent of the total capacity of the container, as determined by the general

(1) The maximum practicable quantity of green beans or wax beans that can be sealed in the container without impairment of quality in a manner adequate to protect the public health in accordance with Parts 90 and 128b of this chapter and occupies (including packing medium) not less than 90 percent of the total capacity of the container, as determined by the general method for fill of container prescribed in § 10.6(b) of this chapter.

(2) A drained weight of green beans or wax beans not less than the average drained weight prescribed in the table in this paragraph (a) (2) for the container, as determined by the general method for drained weight prescribed in § 10.9(c) of this chapter. Drained weight requirements for containers not specified in the table are determined by interpolation as specified in § 10.9(e) of this chapter.

method for fill of container prescribed in § 10.6(b) of this chapter.

(2) Except in the case of vacuum pack corn, a drained weight of corn not less than the average drained weight prescribed in the table in this paragraph (a) (2) for the container, as determined by the general method for drained weight prescribed in § 10.9(c) of this chapter. Drained weight requirements for containers not specified in the table are determined by interpolation as specified in § 10.9(e) of this chapter.

Drained weights for whole kernel corn

Container size or designation	Water capacity (ounces)	Drained weight (ounces)
8 Z tall.....	8.65	5.3
No. 1 (picnic).....	10.90	6.6
No. 300.....	15.20	9.3
No. 303.....	16.85	10.3
No. 2.....	20.50	12.5
No. 10.....	109.45	66.8

(b) Determination of compliance:
 (1) Compliance with the requirements of paragraph (a) (1) of this section shall be determined as set forth in § 10.9(a) of this chapter.

(2) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (2) of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

20. By revising § 51.503 to read as follows:

§ 51.503 Canned mushrooms; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned mushrooms is:

(1) The maximum practicable quantity of mushrooms that can be sealed in the container without impairment of quality in a manner adequate to protect the public health in accordance with Parts 90 and 128b of this chapter and occupies (including packing medium) not less than 90 percent of the total capacity of the container as determined by the general method for fill of container prescribed in § 10.6(b) of this chapter.

(2) A drained weight of mushrooms not less than the average drained weight prescribed in the table in this paragraph (a) (2) for the container, as determined by the general method for drained weight prescribed in § 10.9(c) of this chapter.

Drained weight of mushrooms

Trade designation	Overall dimensions, sealed can		Average weight of drained mushrooms (avoirdupois ounces)
	Diameter (inches)	Height (inches)	
202 by 204.....	2½	2½	2
211 by 212.....	2½	2¾	4
300 by 400.....	3	4	8
307 by 510.....	3¾	5¾	16
603 by 700.....	6¾	7	68

(b) Determination of compliance:
 (1) Compliance with the requirements of paragraph (a) (1) of this section shall be determined as set forth in § 10.9(a) of this chapter.

(2) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (2) of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

21. By adding new § 51.513 to provide for fill-of-container standards for asparagus as follows:

§ 51.513 Canned asparagus; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned asparagus is:

(1) The maximum practicable quantity of asparagus that can be sealed in the

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container without impairment of quality in a manner adequate to protect the public health in accordance with Parts 90 and 128b of this chapter and occupies (including packing medium) not less than 90 percent of the total capacity of

the container, as determined by the general method for fill of container prescribed in § 10.6(b) of this chapter.

(2) A drained weight of asparagus not less than the average drained weight (designated as \bar{X}_d) prescribed in the table in this paragraph (a) (2) for the con-

tainer, as determined by the general method for drained weight prescribed in § 10.9(c) of this chapter. Drained weight requirements for containers not specified in the table are determined by interpolation as specified in § 10.9(e) of this chapter.

Drained weight for canned asparagus

Container designation	Container dimensions (inches; or water capacity in ounces avoirdupois as applicable)		Small, medium, or large sizes; and blends of these sizes				Extra large, colossal, giant sizes; or blends including these sizes				Cuts spears, bottom out-tips removed			
	Diameter	Height	Green tipped and white; (ounces)		Green and green tipped (ounces)		Green tipped and white; (ounces)		Green and green tipped (ounces)		Green tipped and white (ounces)		Green (ounces)	
			LL ¹	\bar{X}_d ²	LL	\bar{X}_d	LL	\bar{X}_d	LL	\bar{X}_d	LL	\bar{X}_d	LL	\bar{X}_d
8 oz glass.....	(²)	3	4.8	5.1	4.6	4.9	4.8	5.1	4.6	4.9	4.7	5.0	4.4	4.7
8 Z short.....		2 1/4	4.4	4.7	4.2	4.5	4.4	4.7	4.2	4.5	4.2	4.5	4.1	4.3
8 Z tall.....		3 1/4	4.9	5.2	4.7	5.0	4.9	5.2	4.7	5.0	4.7	5.0	4.5	4.8
No. 1 picnic.....		4	5.6	7.0	5.8	6.2	6.1	6.5	5.6	6.0	6.2	6.5	5.7	6.0
12 Z.....		4 1/2	7.6	8.0	7.1	7.5	7.3	7.7	6.8	7.2	7.3	7.7	6.8	7.2
13 1/2 Z glass.....	(⁴)	5	8.6	9.1	7.8	8.3	8.1	8.6	7.5	8.0	7.8	8.3	7.2	7.7
No. 300.....		3	4 1/2	9.0	9.5	8.2	8.7	8.5	9.0	7.9	8.4	8.6	9.0	8.2
300 by 400.....		3	4 1/2	9.2	9.7	8.5	9.0	8.7	9.2	8.1	8.6	8.8	9.2	8.4
No. 1 tall.....		3 1/4	9.9	10.5	8.8	9.4	9.3	9.9	8.5	9.1	9.1	9.6	8.6	9.1
No. 303 glass.....	(⁵)	5	10.3	10.9	9.1	9.7	9.7	10.3	8.8	9.4	9.4	9.9	8.9	9.4
No. 303.....		3 1/2	10.1	10.7	8.9	9.5	9.5	10.1	8.6	9.2	9.2	9.7	8.7	9.2
No. 303 cylinder.....		3			10.3	11.0			9.8	10.5				
No. 2.....		3 1/2	12.3	13.0	11.1	11.8	11.6	12.3	10.6	11.3	12.1	12.7	11.1	11.7
No. 2 1/2 glass.....	(⁶)	4	17.7	18.7	16.0	17.0	16.7	17.7	15.5	16.5	17.6	18.3	16.0	16.7
No. 2 1/2.....		4 1/2	18.0	19.0	16.2	17.2	17.0	18.0	15.7	16.7	17.8	18.5	16.2	16.9
No. 5 squat.....		6 1/2	41.5	48.0	37.5	39.0	39.5	41.0	36.5	38.0	41.0	42.0	37.0	38.0
No. 10.....		6 3/4									63.1	64.5	58.8	60.2

¹ LL is the lower limit drained weight for individual containers.

² \bar{X}_d is the average drained weight of all sample units in the sample.

³ 8.5 oz avdp.

⁴ 14.0 oz avdp.

⁵ 17.7 oz avdp.

⁶ 29.5 oz avdp.

(b) Determination of compliance:

(1) Compliance with the requirements of paragraph (a) (1) of this section shall be determined as set forth in § 10.9(a) of this chapter.

(2) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (1) of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

22. By adding new § 51.523 to provide fill-of-container standards for lima beans as follows:

§ 51.523 Canned lima beans; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned lima beans is:

(1) The maximum practicable quantity of lima beans that can be sealed in the container without impairment of quality in a manner adequate to protect the public health in accordance with Parts 90 and 128b of this chapter and occupies (including packing medium) not less than 90 percent of the total capacity of the container, as determined by the general method for fill of container prescribed in § 10.6(b) of this chapter.

(2) A drained weight of lima beans not less than the average drained weight prescribed in the table in this paragraph (a) (2) for the container, as determined by the general method for drained weight prescribed in § 10.9(c) of this chapter. Drained weight requirements for containers not specified in the table are determined by interpolation as specified in § 10.9(e) of this chapter.

(b) Determination of compliance:

(1) Compliance with the requirements of paragraph (a) (1) of this section shall be determined as set forth in § 10.9(a) of this chapter.

(2) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (2) of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

23. By adding new § 51.533 to provide fill-of-container standards for beets as follows:

§ 51.533 Canned beets; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned beets is:

(1) The maximum practicable quantity of beets that can be sealed in the container without impairment of quality in a manner adequate to protect the public health in accordance with Parts 90 and 128b of this chapter and occupies (including packing medium) not less than 90 percent of the total capacity of the container, as determined by the general method for fill of container prescribed in § 10.6(b) of this chapter.

(2) A drained weight of beets not less than the average drained weight prescribed in the table in this paragraph (a) (2) for the container, as determined by the general method for drained weight prescribed in § 10.9(c) of this chapter. Drained weight requirements for containers not specified in the table are determined by interpolation as specified in § 10.9(e) of this chapter.

Drained weights of lima beans

Container designation	Container size			Drained weight (ounces)
	Overall diameter (inches)	Overall height (inches)	Overflow capacity (fluid ounces)	
8 Z tall.....	2 1/4	3 1/4		5 1/2
8 Z jar.....			8.2	5 1/2
No. 1 (picnic).....	2 1/2	4		7
No. 1 tall.....	3 1/4	4 1/2		10 3/4
No. 300.....	3	4 1/2		9 1/2
No. 303.....	3 1/2	4 1/2		11
No. 303 jar.....			17.0	11
No. 2.....	3 1/2	4 1/2		13 1/4
No. 10.....	6 1/2	7		72

Drained weights (in ounces) of beets

Container size or designation	Whole ¹		Sliced ¹		Diced	Quartered cut	Julienne
	Size Nos. 1 to 3, inclusive	Size Nos. 4 to 6, inclusive	Small	Medium and large			
8 Z tall.....	5½	5	5½	5	5½	5½	5½
8 Z jar.....	5½	5	5½	5	5½	5½	5½
No. 1 picnic.....	6¾	6½	6¾	6¼	7	7	6¾
No. 300.....	9½	9¼	9¾	9¼	10	10	8¾
No. 303.....	10	9½	10¼	9¾	10½	10½	9
No. 303 jar.....	10	9½	10¼	9¾	10½	10½	9
No. 2.....	12½	12¼	12½	12	12¾	12½	11½
No. 2½.....	19½	19	19	18½	19	18½	18½
No. 2½ jar.....	19½	18¾	18¾	18¼	18¾	18¼	18
No. 10.....	69	68	69	68	72	70	68

¹ Mixed sizes to be based on drained weight for predominant size of individual units.

(b) Determination of compliance:

(1) Compliance with the requirements of paragraph (a) (1) of this section shall be determined as set forth in § 10.9(a) of this chapter.

(2) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (2) of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

24. By adding new § 51.543 to provide fill-of-container standards for carrots as follows:

§ 51.543 Canned carrots; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned carrots is:

(1) The maximum practicable quantity of carrots that can be sealed in the container without impairment of quality in a manner adequate to protect the public health in accordance with Parts 90 and 128b of this chapter and occupies (including packing medium) not less than 90 percent of the total capacity of the container, as determined by the general method for fill of container prescribed in § 10.6(b) of this chapter.

(2) A drained weight of carrots not less than the average drained weight prescribed in the table in this paragraph (a) (2) for the container, as determined by the general method for drained weight prescribed in § 10.9(c) of this chapter. Drained weight requirements for containers not specified in the table are determined by interpolation as specified in § 10.9(e) of this chapter.

Drained weights (in ounces) of carrots

Container size or designation	Whole ¹		Sliced ¹		Diced	Quartered cut	Julienne
	Less than 1½ in in diameter	1½ in in diameter and over	Less than 1½ in in diameter	1½ in in diameter and over			
8 Z tall.....	5½	5	5½	5	5½	5½	5½
8 Z jar.....	5½	5	5½	5	5½	5½	5½
No. 1 picnic.....	6¾	6½	6¾	6¼	7	7	6¾
No. 300.....	9½	9	9¾	9¼	10	10	8¾
No. 303.....	9½	9¼	10	9¾	10½	10½	9
No. 303 jar.....	9½	9¼	10	9¾	10½	10½	9
No. 2.....	12½	12¼	12½	12	12¾	12½	11½
No. 2½.....	19½	19	19	18½	19	18½	18½
No. 2½ jar.....	19½	18¾	18¾	18¼	18¾	18¼	18
No. 10.....	69	68	69	68	72	70	68

¹ Mixed sizes to be based on drained weight for predominant size of individual units.

(b) Determination of compliance:

(1) Compliance with the requirements of paragraph (a) (1) of this section shall be determined as set forth in § 10.9(a) of this chapter.

(2) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (2) of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

25. By adding new § 51.553 to provide fill-of-container standards for leafy greens as follows:

§ 51.553 Canned leafy greens; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned leafy greens, either canned collards, kale, mustard greens, turnip greens, spinach, or mixed greens (a mixture of two or more of these greens) is:

(1) The maximum practicable quantity of leafy greens that can be sealed in the container without impairment of quality in a manner adequate to protect the public health in accordance with Parts 90 and 128b of this chapter and occupies (including packing medium) not less than 90 percent of the total capacity of the container, as determined by the general method for fill of container prescribed in § 10.6(b) of this chapter.

(2) A drained weight of leafy greens not less than the average drained weight (designated as \bar{X}_a) prescribed in the table in this paragraph (a) (2) for the container, as determined by the method for drained weight prescribed in paragraph (b) of this section. Drained weight requirements for can sizes not specified in the table are determined by interpolation according to the general method in § 10.9 (c) of this chapter.

Drained weights for canned leafy greens

Container designation	Container size overall dimensions		Capacity weight H ₂ O at 68° F (avoirdupois ounces)	Drained weight (avoirdupois ounces) LL ¹	X _d ²
	Diameter (inches)	Height (inches)			
§ Z tall.....	2 1/4	3 3/4	8.65	4.8	5.2
No. 1 picnic.....	2 1/4	4	10.90	6.3	6.8
No. 300.....	3	4 7/8	15.20	8.6	9.1
No. 1 tall.....	3 1/4	4 1 1/4	16.60	9.4	10.0
No. 303.....	3 3/4	4 9/8	16.85	9.6	10.2
No. 303 glass.....			17.70	9.4	10.0
No. 2.....	3 3/4	4 3/4	20.50	11.9	12.6
No. 2 1/4.....	4 1/4	4 1 1/4	29.75	17.6	18.6
No. 2 1/4 glass.....			29.60	15.8	16.6
No. 10.....	6 3/4	7	109.45	54.7	58.4

¹ LL is the lower limit drained weight for individuals.
² X_d is the average drained weight of all sample units in the sample.

(b) The drained weight of leafy greens is determined by the following method: The drained weight of canned leafy greens is determined when the product is at approximately room temperature (68° F) and at least 30 days after the product is canned. The contents of the containers are emptied onto a dry, previously weighed U.S. Standard No. 8 circular sieve of proper diameter containing 8 meshes to the inch (0.0937, ± 3 percent, square openings). With the sieve flat on the tray, the container of product is placed open end down in the sieve in an upright position. The container is lifted off the product without spreading the product out on the sieve. The product is allowed to drain for exactly 2 minutes. The weight of the product and sieve minus the weight of the dry sieve is the drained weight of the product. A sieve 8 inches in diameter is used for the equivalent of a No. 3 size can (404 x 700) and smaller, and a sieve 12 inches in diameter is used for containers larger than the equivalent of a No. 3 size can.

(c) Determination of compliance:

(1) Compliance with the requirements of paragraph (a) (1) of this section shall be determined as set forth in § 10.9(a) of this chapter.

(2) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (1) of this chapter.

(d) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

26. By adding new § 51.563 to provide fill-of-container standards for okra as follows:

§ 51.563 Canned okra; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned okra is:

(1) The maximum practicable quantity of okra that can be sealed in the container without impairment of quality in a manner adequate to protect the public health in accordance with Parts 90 and 128b of this chapter and occupies (including packing medium) not less than 90 percent of the total capacity of the container, as determined by the general method for fill of container prescribed in § 10.6(b) of this chapter.

(2) A drained weight of okra not less than the average drained weight prescribed in the table in this paragraph (a) (2) for the container, as determined by the general method for drained weight prescribed in § 10.9(c) of this chapter. Drained weight requirements for containers not specified in the table are determined by interpolation as specified in § 10.9(e) of this chapter.

Drained weight of okra

Container size or designation	Container dimensions (inches)		Styles of canned okra (ounces)	
	Width	Height	Whole or salad	Cut
§ or tall.....	2 1/4	3 3/4	4.5	5
No. 1 picnic.....	2 1/4	4	6.2	6.5
No. 1 tall.....	3 1/4	4 1 1/4	9.8	10.2
No. 303.....	3 3/4	4 9/8	10	10.5
No. 2.....	3 3/4	4 3/4	12	12.8
No. 2 1/4.....	4 1/4	4 1 1/4	17.8	18.8
No. 10.....	6 3/4	7	60	60

(b) Determination of compliance:

(1) Compliance with the requirements of paragraph (a) (1) of this section shall be determined as set forth in § 10.9(a) of this chapter.

(2) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (2) of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

27. By adding new § 51.573 to provide fill-of-container standards for field peas and black-eye peas as follows:

§ 51.573 Canned field peas and black-eye peas; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned field peas or canned black-eye peas is:

(1) The maximum practicable quantity of field peas or black-eye peas that can be sealed in the container without impairment of quality in a manner adequate to protect the public health in accordance with Parts 90 and 128b of this chapter and occupies (including packing medium) not less than 90 percent of the total capacity of the container, as determined by the general method for fill of container prescribed in § 10.6(b) of this chapter.

(2) A drained weight of field peas or black-eye peas not less than the average drained weight prescribed in the table in this paragraph (a) (2) for the container, as determined by the general method for drained weight prescribed in § 10.9(c) of this chapter. Drained weight requirements for containers not specified in the table are determined by interpolation as specified in § 10.9(e) of this chapter.

Drained weights for canned field peas and black-eye peas

Container size or designation	Ounces
No. 1 (picnic).....	7
No. 1 tall.....	10 1/2
No. 300.....	9 3/4
No. 303.....	11
No. 2.....	13 1/4
No. 10.....	72

(b) Determination of compliance:

(1) Compliance with the requirements of paragraph (a) (1) of this section shall be determined as set forth in § 10.9(a) of this chapter.

(2) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (2) of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

28. By adding new § 51.583 to provide fill-of-container standards for pimientos as follows:

§ 51.583 Canned pimientos; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned pimientos is:

(1) The maximum practicable quantity of pimientos that can be sealed in the container without impairment of quality in a manner adequate to protect the public health in accordance with Parts 90 and 128b of this chapter and occupies (including packing medium) not less than 90 percent of the total capacity of the container, as determined by the general method for fill of container prescribed in § 10.6(b) of this chapter.

(2) A drained weight of pimientos not less than the average drained weight pre-

scribed in the table in this paragraph (a) (2) for the container, as determined by the general method for drained weight prescribed in § 10.9(c) of this chapter.

Drained weight requirements for containers not specified in the table are determined by interpolation as specified in § 10.9(e) of this chapter.

Drained weights of pimientos

Metal or glass container designation	Metal container dimension (inches)	Capacity		Style of pimientos			
		Avoirdupois ounces of water at 68° F (weight)	Whole halves (ounces)	Whole and piece (ounces)	Pieces (ounces)	Diced; chopped (ounces)	Sliced (ounces)
Regular pack:							
2 Z jar		2.28	1.5	1.5	1.5	1.5	1.5
4 Z pimiento	211 by 200	4.90	3.2	3.2	3.2	3.2	3.2
4 Z jar		4.88	3.2	3.2	3.2	3.2	3.2
7 Z pimiento	300 by 200	7.50	5.2	5.2	5.2	5.2	5.2
7 Z jar		8.10	5.3	5.3	5.3	5.3	5.3
No. 300	300 by 407	15.20	10.0	10.2	10.2	10.2	10.0
No. 303	303 by 408	16.85	11.0	11.2	11.2	11.2	11.0
No. 303 jar		17.65	11.2	11.5	11.5	11.5	11.2
No. 2	307 by 409	20.50	13.2	13.5	14.0	14.0	13.2
No. 2 1/2	401 by 411	29.75	20.2	20.5	20.5	20.5	20.2
No. 2 1/2 jar		29.38	20.0	20.2	20.2	20.2	20.0
No. 10	603 by 700	109.45	70.7	72.2	74.0	74.0	71.7

Containers of different capacities than above—not less than 66 pct of the water capacity (avoirdupois weight at 68° F) of the container.
Heavy pack—little free liquid and drained weight is not less than 90 pct of the water capacity (avoirdupois weight at 68° F) of the container.

(b) Determination of compliance:
(1) Compliance with the requirements of paragraph (a) (1) of this section shall be determined as set forth in § 10.9(a) of this chapter.

(2) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (2) of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

29. By adding new § 51.593 to provide fill-of-container standards for onions as follows:
§ 51.593 Canned onions; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned onions is:

Drained weights for canned onions

Container size or designation	Maximum headspace allowable (measured from top double seam)	Sizes of canned onions		
		Tiny (ounces)	Small (ounces)	Medium (ounces)
	One-sixteenth of an inch			
8 Z tall	7.6	4.5	4.5	4.5
No. 303	9.4	9.5	9	9
No. 303 glass	9.4	9	9	9
No. 10	13.6	64	63	60

(b) Determination of compliance:
(1) Compliance with the requirements of paragraph (a) (1) of this section shall be determined as set forth in § 10.9(a) of this chapter.
(2) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (2) of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

30. By adding new § 51.603 to provide fill-of-container standards for sweet potatoes as follows:

§ 51.603 Canned sweet potatoes; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned sweet potatoes is:

(1) Except in the case of "vacuum pack" sweet potatoes (closed under high vacuum with little or no packing medium), the maximum practicable quantity of sweet potatoes that can be sealed in the container without impairment of quality in a manner adequate to protect the public health in accordance with Parts 90 and 128b of this chapter and occupies (including packing medium) not less than 90 percent of the total capacity of the container, as determined by the general method for fill of container prescribed in § 10.6(b) of this chapter.

(2) Except in the case of vacuum pack or solid pack (dry pack, without added packing medium), a drained weight of sweet potatoes not less than the average drained weight prescribed in the table in this paragraph (a) (2) for the container, as determined by the general method for drained weight prescribed in § 10.9(c) of this chapter. Drained weight requirements for containers not specified in the table are determined by interpolation as specified in § 10.9(e) of this chapter.

Sweet potatoes in a liquid packing medium

Container size or designation:	Drained weight (ounces)
No. 2	14
No. 2 1/2	19
No. 3 vacuum or squat (404 x 307)	15
No. 10	72

(b) Determination of compliance:

(1) Compliance with the requirements of paragraph (a) (1) of this section shall be determined as set forth in § 10.9(a) of this chapter.

(2) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (2) of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

31. By adding new § 51.613 to provide fill-of-container standards for white potatoes as follows:

§ 51.613 Canned white potatoes; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned white potatoes is:

(1) The maximum practicable quantity of white potatoes that can be sealed in the container without impairment of quality in a manner adequate to protect the public health in accordance with Parts 90 and 128b of this chapter and occupies (including packing medium) not less than 90 percent of the total capacity of the container, as determined by the general method for fill of con-

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tainer prescribed in § 10.6(b) of this chapter.

(2) A drained weight of white potatoes not less than the average drained weight prescribed in the table in this paragraph (a) (2) for the container, as determined by the general method for drained weight prescribed in § 10.9(c) of this chapter. Drained weight requirements for containers not specified in the table are determined by interpolation as specified in § 10.9(e) of this chapter.

Drained weight for white potatoes

Container size or designation	All styles (ounces)
No. 2.....	13
No. 2½.....	19
No. 10.....	74

(b) Determination of compliance:

(1) Compliance with the requirements of paragraph (a) (1) of this section shall be determined as set forth in § 10.9(a) of this chapter.

(2) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (2) of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

PART 53—TOMATO PRODUCTS

32. By revising § 53.42 to read as follows:

§ 53.42 Canned tomatoes; fill of container; label statement of substandard fill.

(a) The standard of fill of container for canned tomatoes is:

(1) The maximum practicable quantity of tomatoes that can be sealed in the container without impairment of quality and occupies (including packing medium) not less than 90 percent of the total capacity of the container, as determined by the general method for fill of container prescribed in § 10.6(b) of this chapter.

(2) A drained weight of tomatoes not less than the average drained weight prescribed in the table in this paragraph (a) (2) for the container, as determined by the method prescribed in § 10.9(c) of this chapter except that sieves with square mesh openings of 11.2 mm (0.438 inch) or 11.33 mm (0.446 inch) are used. Drained weight requirements for can sizes not specified in the table are determined by interpolation according to the general method in § 10.9(e) of this chapter.

Drained weights for canned tomatoes

Container designation	Container dimensions		Overflow capacity (fluid ounces)	Average drained weight (ounces)	Minimum drained weight (ounces)
	Width (inches)	Height (inches)			
8 Z Tall.....	211	304		4.3	3.9
8 oz. glass.....			8.2	4.1	3.7
No. 300.....	300	407		7.6	6.8
No. 1 Tall.....	301	411		8.4	7.5
No. 303.....	303	406		8.4	7.6
No. 303 glass.....			17.0	8.5	7.7
No. 2.....	307	409		10.3	9.2
No. 2½.....	401	411		14.9	13.4
No. 2½ glass.....			28.35	14.8	13.3
No. 10.....	603	700		54.7	45.3

(b) Determination of compliance:

(1) Compliance with the requirements of paragraph (a) (1) of this section shall be determined as set forth in § 10.9(a) of this chapter.

(2) Compliance with the requirements of paragraph (a) (2) of this section shall be determined as set forth in § 10.9(b) (1) of this chapter.

(c) If the fill of container falls below that prescribed in paragraph (a) of this section, the label shall bear the general statement of substandard fill specified in § 10.7(b) of this chapter, in the manner and form specified therein.

Interested persons may, on or before February 5, 1976, submit to the Hear-

ing Clerk, Food and Drug Administration, Rm. 4-65, 5600 Fishers Lane, Rockville, MD 20852, written comments (preferably in quintuplicate and identified with the Hearing Clerk docket number found in brackets in the heading of this document) regarding this proposal. Received comments may be seen in the above office during working hours, Monday through Friday.

Dated: October 20, 1975.

SHERWIN GARDNER,
Acting Commissioner of
Food and Drugs.

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