

UNITED STATES DEPARTMENT OF AGRICULTURE  
Agricultural Marketing Service  
Fruit and Vegetable Division  
Processed Products Standardization and Inspection Branch  
Washington, D.C. 20205

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INSTRUCTIONS FOR INSPECTION

OF

FROZEN PLUMS

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FOR USE OF USDA PROCESSED FOODS INSPECTORS

NOVEMBER 1957

ACTION BY: All Employees of the Branch

APPROVED BY: \_\_\_\_\_  
Chief of the Branch

FILE UNDER: FROZEN PLUMS

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INSPECTORS' INSTRUCTIONS  
FOR  
FROZEN PLUMS

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INSPECTORS' INSTRUCTIONS  
FOR  
FROZEN PLUMS

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NOVEMBER - 1957

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I GENERAL

A. Purpose and Scope.

The instructions contained herein explain and furnish technical information which will serve as a guide in the inspection of frozen plums and aid inspectors in attaining uniformity in applying the standards and in certifying the product. These instructions will serve to familiarize the inspectors with the commercial production of frozen plums and the general procedures used by the industry.

B. Caution.

These instructions are for the inspectors' use only and shall not be released in whole or in part to anyone outside of the inspection service. Interpretations may be explained and situations discussed, but the text for a given instruction shall not be given to the public or trade.

C. Keep Instructions Current.

These instructions may be revised, in whole or in part, whenever the need for such revision is indicated. Therefore, any comments or suggestions, such as detection of errors or the development of new and better inspection techniques, should be forwarded in detail to the Washington office.

II PRODUCTION

A. Annual Pack.

The frozen plum pack is relatively small in comparison with other fruits. In 1956, the frozen plum pack ranked 14<sup>th</sup> in total number of pounds for frozen fruit packs, exceeding only the frozen packs of loganberries, and currants. Table I shows the yearly pack for frozen plums for the last 10 year period.

II PRODUCTION (continued)

A. Annual Pack. (Continued)

TABLE I

Total United States Pack  
Frozen Plums for Period 1947 to 1956 1/

YEAR	POUNDS	YEAR	POUNDS
1947	2,842,548	1952	3,588,065
1948	2,125,326	1953	8,356,212
1949	5,296,709	1954	4,497,957
1950	5,143,548	1955	3,754,779
1951	6,791,397	1956	3,990,670

1/ Frozen Food Pack Statistics, National Association of Frozen Food Packers, Washington, D.C. 1956. Product designated as Frozen Prunes.

B. Areas of Production.

Well over half of the frozen plum pack is made in the West, principally in the Willamette Valley of Western Oregon and in the Milton Freewater area of Eastern Oregon and lower Yakima Valley in Washington.

The Snake River Valley in Western Idaho is an important area in the production of fresh prune plums. California is the leader in the production of plums but only a very small percentage of California plums are frozen.

Other leading plum producing areas include Southwestern Michigan, New York, Pennsylvania, and Ohio near Lakes Erie and Ontario, Eastern Texas and the Western Slope area in Colorado.

Table II shows a comparison of the total number of pounds of frozen plums packed in the principal regions.

II PRODUCTION (Continued)

TABLE II

Frozen Plum Pack by Regions 1/

YEAR	NORTHEAST AND MIDWEST	WEST
1949	388,370	4,908,339
1950	393,430	4,750,118
1951	1,959,969	4,831,428
1952	723,732	2,864,333
1953	1,397,350	7,058,862
1954	756,972	3,731,985
1955	1,076,310	2,677,469
1956	458,340	3,532,330

1/ Frozen Food Pack Statistics, National Association of Frozen Food Packers, Washington, D.C. 1956. Product designated as Frozen Prunes.

C. Varieties for Freezing.

The Italian Prune Plum variety is the principal variety frozen. However, other varieties such as the Satsuma, Santa Rose, Yellow Egg, Jefferson, and Reine Claude are sometimes frozen commercially.

D. Harvesting.

In general, harvesting in western Oregon and Washington is done by shaking the ripe fruit from the trees and picking it up off the ground. The fruit is put in lug boxes which hold approximately 40 or 50 pounds. Fruit harvested in this manner is usually delivered to the plant coated with dust, mixed with leaves, twigs, and other extraneous material. Crushed and split fruit resulting from such harvesting is usually included with the sound fruit.

Plums grown in the "eastern" sections of the Northwest, California, and most other areas are hand picked into lug boxes. Such hand picked plums are usually not as mature as those harvested by shaking the trees and may be ripened in storage.

### III PREPARATION AND FREEZING

#### A. Raw Material.

In order to obtain a desirable finished product, only well ripened plums of good quality should be used. Raw material containing decayed fruit, or defect material such as dust, grit, leaves, or twigs frequently results in a low quality finished product.

Plums that have been picked fully tree-ripened should be processed as soon after picking as possible. Plums picked in a stage of maturity common or fresh plum pack operation should be held in suitable storage and ripened. "Sorts Outs" from the fresh market operation are sometimes ripened and used for freezing.

#### B. Washing and Draining.

An important step in the preparation for freezing is ample washing. The fruit is sometimes agitated gently on a riddle-type shaker to remove leaves, twigs and loose dirt. After leaving the shaker the plums travel through a tank-type or flood-type washer where dirt clinging to the fruit is removed. After leaving the washer, the plums are rinsed on a mesh belt under strong sprays of water. After rinsing, the plums are permitted to drain on the mesh belt while being conveyed to the sorting belt.

#### C. Sorting.

After draining, leaves, stems, twigs, and any other foreign material that may have passed over the riddle type shaker, and defective fruit are removed as the plums pass over a sorting belt.

#### D. Pitting.

Most plums for freezing are pitted with an Elliot Pitter. This pitter forces the flesh of the fruit into a cylinder of spaced teeth. The pit is forced into a rubber cylinder which holds the pit while the flesh is removed from the teeth by mechanical fingers. The flesh of the fruit will show punch or teeth marks on freestone fruit and will usually be quite macerated on clingstone fruit when pitted by this method.

A small portion of the frozen plum pack consists of hand pitted plums. Most of the hand pitted plums are "halved" style, however, a few which are slit only enough to remove the pit fall into "whole pitted" style.



III PREPARATION AND FREEZING (Continued)

E Packing.

Plums are packed in various sized containers for freezing, of which the most common is the 30 pound enameled can with friction type lid.

Table III shows approximate percentages of the frozen plum pack by container size.

TABLE III

Approximate Percentage of Frozen Plum Pack by Container Size

Size Container	Approximate Percentage
30 pounds	82.0%
10 pounds and under	0.5%
Other sizes over 10 pounds	5.5%
Barrels	11.0%

The plums are packed with or without a packing medium. The packing medium may consist of dry sugar, sugar sirup, plum puree or plum puree sweetened with sugar. Usually, when dry sugar is added, the fruit sugar ratio will vary from 7 parts fruit plus 1 part sugar to 15 parts fruit plus 1 part sugar. The sugar may be mixed with the fruit or placed on top of the fruit. In some cases, part of the sugar is placed in the middle of the can and the remainder on top of the fruit. The main purpose in adding sugar is to retard oxidation, however, other substances permitted by Food and Drug may be used as an antioxidant in lieu of sugar or mixed with the sugar.

F. Freezing and Storage.

The most common method of freezing the larger containers (28 pound up to and including barrels) is accomplished by stacking the containers in such a manner as to allow the air to circulate freely around the individual container. The temperature is held at 0° F. or below in regular freezer storage or in freezing rooms equipped with high powered fans to circular the cold air around the containers.

Retail size containers are usually frozen at temperatures of minus 20° F. to minus 40° F. The product should be stored at temperatures of 0° F. or below.

IV INSPECTION

A. Sampling.

It is equally as important to draw representative samples as it is to accurately examine and classify the samples as to quality. Make sure that the best possible sampling job has been done so that the samples will reflect a true value of the lot being inspected.

The sampling rates prescribed in the Regulations Governing Inspection and Certification of Processed Fruits and Vegetables and Related Products and other inspectors instructions and memoranda should be followed when drawing samples for the inspection of frozen plums.

All pertinent information regarding the lot being sampled should be recorded in detail on the Certificate of Sampling. This information should include the condition of the container and cases, the room temperature if held above 0° F. and any other information that may affect the quality or sale ability of the produce.

B. General Inspection Procedure.

1. Setting up the Score Sheet.

Record all pertinent information concerning the inspection on the score sheet in addition to the packers name and address, date, and inspectors signature. Such information also includes net weights, when taken, style of pack, size and type of containers, code marks, and all significant information taken from the labels.

2. Thawing the Product.

Samples of frozen plums should be thawed in accordance with current Memoranda which include the following procedure.

- a. Consumer-size packages should be thawed in the unopened container until the product is sufficiently free from ice so that the individual units may be easily handled. If packed in sealed containers they may be placed in water at not to exceed 86° F. to expedite thawing or unsealed packages may be placed in a plastic bag, the bag sealed, and thawed in water.

IV INSPECTION (Continued)

B. General Inspection Procedure. (Continued)

2. Thawing the Product. (Continued)

- b. Sub-samples drawn from bulk containers should be thawed in the sampling container until the product is sufficiently free from ice so that the individual units can be easily handled. No. 10 cans or plastic bags should be used as the sampling container for handling the sub-sample. When necessary to thaw entire bulk packages, they should be thawed partially submerged in a both of running water not to exceed 86° F. or thawed in the unopened container. Directing a current of air from a fan on the container may speed up the thawing when water bath is not available.

The utmost care should be exercised not to damage the character of the fruit when transferring it to the grading tray from the container after thawing in the manner described above.

In the event frozen plums show any material increase in oxidation after thawing in the above described manner such oxidation should be scored against the product.

3. Product Description.

The product "frozen plums" is not covered by a Food and Drug Standard of Identity. Therefore, the product description in the United States Standards for Grades of Frozen Plums, defines the product for the purpose of inspection and certification under these standards. The current standard covers all commercial varieties of plums except the Damson variety. Damson's are excluded because it is understood that this variety is frozen as the plums come from the orchard without pitting, washing, and sorting called for by the standard.

The inspector must bear in mind that the first requirement of the standard is that the product meet the product description. If it fails to meet the product description, the product cannot be considered as frozen plums for the purpose of applying the quality requirements.

IV INSPECTION (Continued)

B. General Inspection Procedure. (Continued)

4. Color Types.

The grade standards provide for three color types of frozen plums. It is intended that all frozen plums will clearly belong in one of these color types. However, many varieties of plums exist, and if the inspector should encounter one that is difficult to classify, he should consult his supervisor.

5. Styles.

The U.S. Standards provide for three styles of frozen plums which are most commonly packed.

“Halved” plums are usually hand halved and packed in a limited quantity as a dessert pack.

“Whole pitted” plums are usually hand pitted but the standard includes in this style machine pitted plums which still have the appearance of whole pitted plums and are not excessively crushed or broken.

“Crushed and Broken” plums are usually machine pitted but the standard includes in this style all pitted plums which would fail to meet either “halved” or “whole pitted” styles due to the number of units which are crushed and broken.

6. Drained Weight.

Normally, drained weights are not taken on frozen plums. However, if the applicant requests a drained weight determination or if the containers appear to be very deficient in fruit, a drained weight should be determined by the method and reported to the usual manner on the certificate.

a. Equipment

- (i) U.S. Standard No. 8 sieve - 8 inch diameter for containers 2 pounds or less, 12-inch diameter for containers over 2 pounds.
- (ii) Scale equipped with pan of proper size and form to weigh screen and plums and to catch drainage during weighing.

IV INSPECTION (Continued)

B. General Inspection Procedure. (Continued)

6. Drained Weight. (Continued)

- (iii) Laboratory thermometer.
- (iv) Rack or other device to hold screen in a slightly tilted position during the draining.

b. Procedure

- (i) Thaw samples in closed containers at room temperature. Leave sufficient space around the containers so that air can circulate freely.
- (ii) Open the container periodically and take the temperature at the center of the mass.
- (iii) Drain the plums as soon as possible after the temperature of the product at the center of the container has reached 28° F.
- (iv) Draining.

(1) Containers 2 pounds or less:

Empty contents of container onto a 8 inch diameter screen and allow to drain in usual manner for 5 minutes.

(2) Containers over 2 pounds:

- (a) Open the container and remove any hard caked sugar (if any) from the top and after removing any fruit which may be attached discard the caked sugar. If any loose granulated sugar remains on top, gently stir the top of the liquid to dissolve the sugar.

IV INSPECTION (Continued)

B. General Inspection Procedure. (Continued)

6. Drained Weight. (Continued)

- (b) Place the screen, which has been previously tared, on the scale pan in a horizontal position on the rack, tripod ring, blocks in a sink, or other suitable device and pour most of the free liquid through the screen, this will partially drain the plums.
- (c) Pour approximately 7 pounds of the partially drained plums onto the screen, allow to remain 5 minutes; weigh and discard. (Remove any lumps of undissolved sugar of any appreciable size before weighing).
- (d) Successively drain approximately 6 to 7 pound portions of the remaining partially drained plums as outlined above until all have been drained and weighed. (This will be 3 drainings for 30 pound net cans).
- (e) The sum of the weights thus obtained is the drained weight of the plums.

7. Fruit-sugar Ration.

The subject of fruit-sugar ratio is outlined in detail in a separate memorandum and "Inspectors Instructions for Frozen Fruits, Determination of Fruit-Sugar Ratio or Proportion of Fruit to Liquid Packing Media", and should be followed. Excerpts from those instructions follow:

No satisfactory method has been devised to accurately determine the fruit-sugar ratio of the finished product. However, an estimate of the fruit-sugar ratio may be calculated by the following equation as outlined in the previously mentioned instructions:

IV INSPECTION (Continued)

B. General Inspection Procedure. (Continued)

7. Fruit-Sugar Ratio (Continued)

$$R = \frac{100 - P_s}{P_s - F_s}$$

R = Ratio of fruit to sugar.

$P_s$  = Brix of finished product.

$F_s$  = Average Brix of in-going fruit.

In calculating the fruit sugar-ratio of the finished product, use the following average values for frozen plums.

- a. Italian variety - 20.0° Brix.
- b. Red varieties - 12.5° Brix.

C. Factors of Quality.

1. Factors Not Rated by Score Points.

The factors not rated by score points are definite quality requirements of the grade standard. Any sample failing to meet these requirements should be classified as Substandard.

a. Varietal Characteristics.

When two or more varieties of plums are packed together and are not readily distinguishable, the plums should be considered as possessing similar varietal characteristics. If the plums are definitely different due to color, shape, or any other reason, they are not of similar varietal characteristics and should be classified as Substandard.

IV INSPECTION (Continued)

C. Factors of Quality. (Continued)

b. Flavor.

The frozen product should be checked at time of sampling for any off odors present which may dissipate during thawing. This is especially important when sub-samples are being drawn since an entire 30 pound can of frozen plums may emit a slight off-odor which may not be detectable on examination of the thawed sub-sample. In cases where any doubt exists at time of sampling, additional cans should be examined and full cans containing suspected off flavors or odors should be taken as samples.

The flavor and odor should be rechecked on the thawed product. Any off flavors and odors in either the frozen or thawed product will justify classifying the product Substandard.

It should be noted that normal flavor is defined in part as "characteristic flavor and odor." This means that a product lacking a recognizable plum flavor for the type would also be Substandard.

2. Factors Rated by Score Points.

a. Color.

Color should be determined immediately after the product is thawed to the extent that it is free from ice crystals. Oxidation may occur in varying degrees on the exposed flesh of the plums soon after thawing. For the purposes of application of the grade standards in scoring color under normal inspection procedures, oxidation should be classified according to the degree that the appearance of the product may be affected. Inspectors should separate and score oxidized plums by degrees as follows:

(i) Whole or Halved.

- (1) "Slight oxidation" - a slight browning of the exposed flesh of the plums that does not more than slightly affect the



IV INSPECTION (Continued)

3. Factors of Quality. (Continued)

appearance or edibility of the product. This degree of oxidation may be expected to normally occur in frozen plums during the thawing out period or soon after the product is thawed. Slight oxidation is not scored against Grade A color.

(2) “Moderate oxidation” - a browning of the exposed flesh or skin, or both, of the plums that more than slightly affects but does not materially affect the appearance or edibility of the plums. Permit 5 percent, by count, in Grade A and 15 percent, by count, in Grade B.

(3) “Serious oxidation” - a browning of the exposed flesh or skin, or both, of the plums that materially affects the appearance or edibility of the plums. Permit none in Grade A and 5 percent, by count, in Grade B. Serious oxidation should also be considered under the factor of defects.

(ii) Crushed or Broken.

When scoring color for plums that are crushed and broken to the extent that a count is impossible to obtain the foregoing tolerances would not be applicable. Therefore, consideration is given to the over all appearance of the product. In the Grade A classification for color the appearance or edibility of the product is not more than slightly affected by oxidation. In the Grade B classification for color the appearance or edibility of the product is not materially affected by oxidation.

In addition to the foregoing, consideration should also be given to the following when scoring color:

(1) The uniformity of color,

IV INSPECTION (Continued)

(iii) Factors of Quality. (Continued)

- (2) The brightness of color,
- (3) Whether or not the color is typical for:
  - (a) Well ripened plums,
  - (b) Properly prepared and properly processed plums, and
  - (c) Plums of similar varietal characteristics.

b. Size. - (Halved and Whole Pitted)

Size is determined on a weight basis after removing from consideration 10 percent, by count, of the units which are the most variable in size. This 10 percent may be all large units or all small units or any combination of large and small units.

Inspectors must use good judgement in determining the rating for the factor of size.

As an example, assume we have a sample containing 100 units and the weights vary from 17 to 40 grams as follows:

- 3 units - 17, 20 and 24 grams.
- 90 units - 25 grams to 35 grams.
- 7 units - 37 grams to 40 grams.

Rating the factor of size correctly, the 7 largest units and the three smallest units should be removed which would leave in the remaining 90 percent a largest unit of 35 grams against a smallest unit of 25 grams and the sample would be assigned a score in the Grade A classification.

If this procedure is not followed, an erroneous classification (and possible degrading of the product) may occur as in the illustrations that follow.

IV INSPECTION (Continued)

If only the 10 largest units are removed from consideration, there may be remaining some largest units of 35 grams against some smallest units of 17 grams and we would classify the factor of size in the Substandard classification which would not allow the sample to grade above Grade B because of the partial limiting rule. If the 10 smallest units are removed, there may be remaining some largest units of 40 grams against some smallest units of 25 grams and the factor of size would be scored into the Grade B classification.

c. Defects.

(i) General

Defects are defined in the grade standards and a definite percentage of crushed and broken units, blemished and seriously blemished units is provided for the different grade classifications. Harmless extraneous material, and other defects are limited only by degree as they affect the appearance or edibility either singly or in combination with other defects.

(ii) Pitted Material.

The grade standards indicate under Grade A and Grade B that "the product is practically free from pit material". Since a definite tolerance is not provided in the Grade-Standards this administrative guide for both pits and pieces of pits should be followed and is applicable to all styles of frozen plums.

(1) Officially Drawn Samples.

In determining compliance with the United States Standards in accordance with this administrative guide, the pieces of pits, regardless of size, and whole pits are averaged from all sample units examined and the allowances are based on ounces

IV INSPECTION (Continued)

of net contents. The allowances outlined herein show the maximum limits for the average of pieces and pits and whole pits as well as the maximum limits for individual sample units. The average limits apply, provided the limits for individual sample units are not exceeded. The allowances for pieces of pit are in addition to allowances for whole pits.

OFFICIALLY DRAWN SAMPLES

GRADES	WHOLE PITS		PIECES OF PITS	
	Individual Samples	Average	Individual Samples	Average
Grades A and B "Practically free from pit material"	(Maximum) 1 per 48 ozs.	(Maximum) 1 per 96 ozs.	(Maximum) 5 per 48 ozs. or proportionate thereto	(Maximum) 1 per 32 ozs.

(2) Unofficially submitted samples.

The pieces of pit and whole pits are considered for each individual container. Since samples that are unofficially submitted are not averaged, the following maximum limits apply for each sample unit. The allowances for pieces of pit are in addition to allowances for whole pits.

UNOFFICIAL SAMPLES

GRADES	WHOLE PITS	PIECES OF PITS
Grades A and B "Practically free from pit material"	(Maximum) No pits in sample units smaller than 96 ounces.  1 pit per 96 ounces in sample units of 96 ounces or larger.	(Maximum) No pieces in sample units smaller than 48 ounces.  1 piece per 48 ounces in sample units of 48 ounces or larger.

IV INSPECTION (Continued)

C Factors of Quality. (Continued)

2. Factors Rated by Score Points. (Continued)

c. Defects. (Continued)

(iii) Harmless Extraneous Material.

Normally, when the full tolerance of crushed or broken units and blemished and seriously blemished units are present the product would at least be approaching the point where the appearance and eating quality are affected to the extent permitted in the grade. It then stands to reason that very little else in the way of harmless extraneous material and other defects could be present before the over all appearance and eating quality would warrant scoring the product into the next lower grade.

Although a definite tolerance for harmless extraneous material is not provided in the grade standards, inspectors should be guided by the following:

- (1) For Grade A not more than 1 piece of harmless extraneous material may be present for each 40 ounces of net weight on an average.
- (2) For Grade B not more than 1 piece harmless extraneous material may be present for each 20 ounces of net weight on an average.

(iv) Other Defects.

As defined in the grade standards other defects means growth cracks, doubles, or other abnormalities which materially affect the appearance or eating quality of the unit.

Growth cracks should be considered as a defect if they are not caloused or discolored. Very small caloused or discolored growth cracks should be considered as insignificant.

IV INSPECTION (Continued)

C Factors of Quality. (Continued)

2. Factors Rated by Score Points. (Continued)

c. Defects. (Continued)

(v) Crushed or Broken, Blemished, and Seriously Blemished.

Definite tolerances for crushed or broken, blemished, and seriously blemished units are provided in the different grade classifications in the grade standards.

Seriously oxidized or otherwise seriously discolored plums are scored as a defect as well as against color and should be included in the group scored as seriously blemished.

d. Character.

As in most fruit, the factors of Color and Character usually go hand in hand. The exceptions in frozen plums normally occur when oxidation or discoloration has affected the character without harm to the color.

It should be noted that the tolerance provided in the Grade A classification does not permit any units that are less than reasonably well ripened but includes units with shriveled areas that materially affect the appearance of the unit.

The tolerance provided in the Grade B classification permits units that are less than reasonably well ripened in addition to units with shriveled areas that materially affect the appearance of the unit.

V. CERTIFICATION

A. General.

The certification of frozen plums and preparation of inspection reports shall be in accordance with applicable general instructions as contained in Chapter IV of Instructions for Certification of Processed Products. The instructions in this section relative to certification are those which may differ or supplement such instructions as they apply to frozen plums.

V. CERTIFICATION (Continued)

B. Mandatory Requirements.

Although at present no standards of identity, fill of container, or quality have been established by Food and Drug for frozen plums, there are certain minimum requirements the product must meet in order that seizure may be avoided. Inspectors should be guided by the latest (proposed or finalized) Food and Drug Standards for Frozen Fruits accompanying applicable memoranda for information relative to definitions, standards of identity, and standards of fill of container for frozen fruits.

In addition to the requirements of the grade standards, frozen plums must also meet the mandatory requirements of the Federal Food, Drug, and Cosmetic Act.

1. Wholesomeness.

Plums used for freezing must be prepared from clean, sound, fresh fruit, which are sorted, washed, drained and pitted in accordance with good commercial practice.

If a product is found to contain objectionable foreign material such as rot, decay, insects or insect fragments, any type of earthy material, or any other type of foreign material the product is certified as "Grade Not Certified".

2. Adequate Draining.

Frozen plums should be properly drained after washing as frozen fruits that contain excess water are subject to seizure by the Food and Drug Administration for adulteration.

3. Recommended Fill of Container.

Normally, no mention is made on the certificate regarding fill of container if the lot meets acceptable criteria for properly filled containers.

Inspectors should be guided further by the instructions contained in Chapter IV, Certification of Processed Products for the method of determining fill of container for frozen fruits and vegetables.

C. Terminology.

For purposes of uniformity, inspectors should use exactly the same terminology as that used in the grade standards when writing certificates.

In the heading of the certificate the product inspected should be designated as FROZEN PLUMS, and not designated as FROZEN PRUNES OR FROZEN PRUNE PLUMS.

Inspectors should follow the order of the score sheet for information included in the body of the certificate.

When certifying the color types of frozen plums, include the full terminology as that contained in the grade standards, exclusive of the suggested varieties.

When certifying the count, state the count per container for containers 2 pounds or less. For containers over 2 pounds state the average count per pound.

Occasionally, the applicant may request additional information to appear on the certificate that may be included in the body. In such cases, the requested information should follow the last item that is normally included in the body.

VI. INSPECTION DURING PACKING OPERATIONS

A. Sanitation.

When inspection is conducted during packing operations as in continuous inspection or plant inspection-pack-certification, inspectors are responsible for ascertaining compliance with the requirements of sanitary operations and report any deviations from good sanitary practices which cannot be corrected by regular plant contacts.

B. Operations.

In order that an inspector may assure himself of the quality of the final product, certain points must be observed during the packing operations. The following are some of the most important points of the operation to observe:



B. Operations. (Continued)

1. Raw Material.

- A. The general condition of the raw product.
- B. Prevalence of defective units.
  - (i) Presence of excessive amounts of extraneous material or foreign material.
  - (ii) Presence of damaged or crushed fruit.
  - (iii) Presence of rot, decay, or other foreign material.
- C. Presence of green or over-mature fruit.

2. Preparation.

- a. Check effectiveness of shaker for removal of extraneous material.
- b. Check effectiveness of washer for removal of spray residues and any soil adhering to the fruit.
- c. Check adequacy of draining of fruit. See separate memoranda for subject of adequacy of draining frozen fruits and vegetables.
- d. Check effectiveness of removing defective, immature and over mature fruit.

3. Packing.

- a. Check filling operation. Although net weights of bulk containers are not certified except on request, inspectors should make sure the plant is meeting its obligation of properly filled containers.
- b. Check fruit sugar-ratio.
- c. Make sure all containers are properly and legible coded.

4. Freezing.

The finished product should be placed in the freezer as soon after packing as possible. Freezer and storage temperatures should be held at or below 0° F. The freezer and storage rooms should be free from objectionable odors of any kind.

C. Recommendations.

When any abnormal or unsatisfactory condition is observed in either the sanitation, preparation, or packing, it should be brought to the attention of the management. Written reports should be made to the management whenever it appears necessary with subsequent follow up procedures.

Constructive suggestions and recommendations should be made for overcoming objectionable conditions and improving plant operations.

The inspector should keep his supervisor informed and whenever serious problems arise he should consult his supervisor for advice.

The inspector must be alert, tactful and diplomatic at all times.

He must also keep in mind that he is assigned to render a helpful service and has no regulatory authority.