

UNITED STATES DEPARTMENT OF AGRICULTURE  
CONSUMER AND MARKETING SERVICE



**SWEETPOTATOES  
FOR  
PROCESSING**

**INSPECTION INSTRUCTIONS**

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**FOR USE OF FRESH FRUIT AND VEGETABLE INSPECTORS**

**FRUIT AND VEGETABLE DIVISION  
FRESH PRODUCTS STANDARDIZATION AND INSPECTION BRANCH  
WASHINGTON, D. C.**

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INSPECTION INSTRUCTIONS

FOR

SWEETPOTATOES FOR PROCESSING 1/

GENERAL

This handbook contains instructions pertaining to inspection under the U. S. Standards for Sweetpotatoes for Dicing or Pulping and U. S. Standards for Sweetpotatoes for Canning or Freezing. These standards are similar in many respects. However, there are several factors for which the grade interpretations are different. Whenever this is the case, the instructions pertaining to each are handled separately in this handbook. In all other instances the instructions are combined. (1)

Sweetpotatoes for Canning or Freezing are often the small ones that have been sorted from stock being packed for the fresh market. The medium size sweetpotatoes from these lots are normally marketed in the fresh state. For dicing or pulping the larger size sweetpotatoes are preferred. (2)

INSPECTOR'S RESPONSIBILITY

Contracts between the grower and processor may stipulate a certain price for U. S. No. 1, a lower price for U. S. No. 2 (Dicing or pulping), and nothing for Cull sweetpotatoes and cull material. In other cases some processors may contract on the basis of a flat rate for both U. S. No. 1's and U. S. No. 2's and require only that the percentage of Culls and cull material be determined. (3)

Since inspection certificates provide the basis for payment, it is the inspector's responsibility to determine accurately the grade, size, culls, etc., of each lot which you are requested to inspect. (4)

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1/ This supersedes Shipping Point Inspection of Sweetpotatoes for Processing Handbook dated March, 1952.

- (5) Processors may reserve the right, by contract, to reject all lots which do not meet the minimum requirements provided for in the contract. The Inspection Service does not have the authority to reject lots that fail to meet contract specifications. When a lot fails to meet contract requirements, this should be reported to the processor's representative. Then it is up to the processor to accept or reject such lots.
- (6) The inspector is to be guided by the instructions in this handbook and by additional verbal or written instructions which may be given to him by his supervisor. Occasionally, however, problems may be encountered which are not fully covered by such instructions. In such instances he should contact the supervisor by telephone for further instructions. If it is necessary to take prompt action, he must use his best judgement and immediately advise his supervisor of the action taken in order that corrective measures can be taken if the proper course was not followed.

#### INSPECTION EQUIPMENT

- (7)
1. Inspection certificates.
  2. Grading table.
  3. Four scale containers.
  4. Four direct reading scales (Check frequently to make sure that they read zero when containers are empty).
  5. Water bucket for washing hands.
  6. Towels.
  7. Slide rule or computation chart.
  8. Sizing gauges.
- (8) Construction of Grading Table. The grading table is generally furnished by the processor. The type of table used in inspection of tomatoes for processing generally is satisfactory. Specifications for the construction of the table may be obtained from the Washington Office.

#### SAMPLING

- (9) Representative Sample. Obtaining representative samples is of primary importance. The inspector may be able to grade sweetpotatoes perfectly, but unless the sample is representative of the load the inspection report is worthless. It should be kept in mind at all times that the facts reported on the certificate determine the amount of money the grower will receive and the processor will pay for the load. Therefore, if the sample is not representative, then settlement cannot be equitable.

Some processors may furnish helpers to obtain samples from the conveyance, place sweetpotatoes on the table, etc. Such assistance is often necessary if the inspector is to keep up with deliveries. Although these helpers are expected to do the manual labor, it is the responsibility of the inspector to select representative samples. (10)

He should always remember that he, and not the helper signs the certificate. Regardless of how competent the helper may be, the inspector must compare the samples selected with containers on the remainder of the load. If in his opinion samples selected by the helper are not representative, he should point out other samples to be taken from the load. (11)

In some cases helpers are employees of the processor and many growers may get the impression that these men are working for the interests of their employer unless the inspector by his actions lets it be known that he is supervising the selection of the samples. He should not hesitate to tell helpers to select other samples or point out the containers that he desires. (12)

The inspector should make every effort possible to select containers from all parts of the load, particularly if he has reason to believe that the load has been "stacked". Frequently it is possible to take additional samples when the sweetpotatoes are being unloaded. He should always avoid taking sample containers that are too easily accessible as they may have been placed there for that purpose. It is also good practice to continually vary the positions from which samples are taken from the loads. (13)

Minimum Number of Samples: The following table should be used as a guide in determining the minimum number of samples to draw from various sized loads: (14)

<u>Number of Containers on Load or Equivalent Weights</u>	<u>Number of Samples (Approximately 50 lbs)</u>
10 to 49 (500 - 2,499 lbs.)	2
50 to 149 (2,500 - 7,499 lbs.)	3
150 to 299 (7,500 -14,999 lbs.)	5
300 to 499 (15,000 -24,999 lbs.)	7
500 to 749 (25,000 -37,499 lbs.)	9
750 to 999 (37,500 -49,999 lbs.)	10
1000 or more (50,000 lbs. or more)	12

The above outline should be followed except at stations where it would not be feasible. Where restricted inspections are made the Supervisor should use his discretion as to the number of samples to be selected. (15)



- (16) Grading Samples Selected by Other Parties: In some cases growers bring in loads after the inspection platform has closed and the inspector has gone for the day, and one of the processor's employees selects samples to be graded the following day. It is obvious that the inspector should not grade and certify to the quality of such samples as being "samples of the lot herein described" when he has never seen the lot. However, he may inspect and certify to the grade of samples selected by other parties and it is up to the processor and grower whether settlement for the load will be made on the basis of inspection of the samples.
- (17) Samples which are not selected by the inspector or by the "sample snatcher" working under the direct supervision of the inspector must be considered as submitted samples. The certificate should show under "Number of Containers" only the number of packages in the sample. Do Not show the total number of packages the submitted sample is supposed to represent. Under "Remarks", the identity of the individual responsible for the information regarding the sample shall be shown, and the remarks so worded to show that such individual, and not the inspector, is responsible for all the information.
- (18) Write or stamp on the face of the certificate in red letters - SUBMITTED SAMPLE, and write "over" at the bottom of the certificate. On the back of the certificate show information such as the following under "Remarks": "Richard Roe, fieldman, states this sample is from truck license # \_\_\_\_\_; grower, John Doe; Samples submitted by John Jones". When space for "Remarks" is provided on the face of the certificate, it will not be necessary to write on the back of the certificate.
- (19) Also, in some instances it will not be feasible to separate copies of the certificate in order to write on the back. When it is not possible to do this, it will be permissible to show the information on a mimeographed form attached to the certificate and cross referenced so as to be identified with the sample.
- (20) Irregularity in Loads: In certain locations sweetpotatoes are unloaded at points some distance from where the inspections are made. The unloading of large truckload lots sometimes reveals a different quality in the bottom layers than was found by the inspector in accessible portions of the load. Some processors have requested the inspection Service to place an inspector at the unloading point to send back for further sampling any lots which unloading has shown to be of different quality in the lower layers than in the portions accessible to sampling at the inspection platform. It is not believed proper for

the Inspection Service to undertake this kind of additional service for the processor.

The casual examination of the stock as it is being dumped rapidly from the containers cannot give an accurate idea of how the quality is running, and the Inspection Service shall not assume the responsibility for ordering loads back to the inspection platform on the basis of general impressions of quality obtained by this type of examination. While it recognized that large truckloads may be "framed" by the grower, our inspection regulations require the applicant to make the load on which the inspection is requested available for thorough examination. If facilities are not provided for adequate sampling of all layers, the processor can expect some variation in quality in different parts of a load, and the responsibility of sending loads back for further examination should rest on him. (21)

The Inspection Service should have a definite understanding with the processor to the effect that he may send back a load for regrading if in the process of unloading it is shown that there is a material difference between the upper and lower portions of the load. The same privilege should also be extended to a grower if he feels that he has better sweetpotatoes in the bottom portion of his load. (22)

If the load is sent back to the Inspection platform for examination of portions not accessible for sampling at the time of the first inspection, the weighted average of the two inspections should be given for the load as a whole, and the first certificate should be voided. If the portion of the load returned for re-sampling is to be weighed, it will not be necessary to average the result of the two inspections. A new certificate should be issued on this portion of the load, and treated as a new inspection without any reference to the first inspection. The number of containers shown on the first certificate should be reduced to agree with the number unloaded before the second weighing. (23)

Some processors have stipulated in their contracts with the growers that loads showing a material difference in quality of the sweetpotatoes in the lower portion of the load from that in the upper portion may be re-weighed and sent back to the grading platform for a grading of the lower portion. (24)

#### INSPECTION PROCEDURE

Importance of Rapid Inspection: It is absolutely necessary that the inspector work very rapidly at times in order that factory operations or growers may not be unnecessarily delayed. The inspector should be on hand to make inspections whenever deliveries are made. (25)

When practical, definite hours should be established for receiving sweetpotatoes for inspection. This time may have to be varied as the season advances.

- (26) Adherence to Contract Specifications: The inspector should obtain a copy of the contract between the processor and grower from the cannery plant before inspection is started. He should become thoroughly familiar with the specifications before grading is started.
- (27) Quite frequently processors will deviate from their contract specification as to size or some other factor early in the season when the supply of sweetpotatoes is limited. Some canners may even request the inspector to notify the growers of the deviation from the contract specifications. In no case should the inspector or Inspection Service assume the processor's responsibility of notifying the growers of the variation from or return to the contract. However, inspectors and the Inspection Service should always insist that the processor notify the central Inspection Office within the State in writing of any change from the contract, or a return to the contract specifications once it has been changed. Such changes in specifications should also be posted at the inspector's platform. The Supervisor should instruct the inspector in the methods of handling such changes and inform him regarding the proper notation to be placed on the certificate to cover any deviations from the grades.
- (28) Inspection Under Artificial Light: In many processing plants it is necessary to inspect sweetpotatoes under artificial light in order to handle the volume. While the Department does not favor inspection of sweetpotatoes under artificial light, it must be recognized that frequently it cannot be avoided. In these cases the Inspection Service should insist on the proper lighting facilities for both the grading table and the place where the loads are to be sampled. In circumstances of this kind the inspector should consult with the Supervising Inspector regarding proper lighting facilities.
- (29) Recommended light source for Inspection platforms. The Macbeth type Examolite is recommended as the best for lighting inspection platforms at processing plants and other locations where good illumination is essential. The Examolite comes equipped with new Deluxe Examolite fluorescent tubes. Fixtures purchased prior to November 1, 1956, are not equipped with the Deluxe tubes and tubes in these fixtures should be replaced with the Deluxe tubes in order to produce the type of illumination that is recommended.

We cannot require each grading platform to be fitted with one of these lights but it is the Federal Supervisor's responsibility to see that the inspectors do not work with lighting which is inadequate, either as to quantity or quality. Ordinary fluorescent or incadescent lights do not provide the quality of lighting needed for determining color, although the quantity of light may be more than necessary. (30)

#### INTERFERENCE WITH INSPECTOR'S WORK AND ABUSE OF INSPECTORS

Occasionally growers will attempt to intimidate or influence the inspector by abusive language. In some cases the grower may even go so far as to transfer sweetpotatoes from one compartment to another of higher grade. It should be clearly understood that the Inspection Service, under its official "Regulations Governing Inspection, Certification and Standards for Fresh Fruits, Vegetables, and other Products" (Sections 51.1 to 51.61), has authority to suspend the service under such conditions. Whenever a grower becomes abusive or interferes with the work of the inspector and will not listen to reason the inspector should refuse to grade his load and so advise the grower and processor. It will then be up to the processor and the grower to adjust payment of the load without inspection or properly assure the inspector that the future conduct of the grower will be satisfactory. When such instances occur, the inspector should immediately prepare a written report for the Supervisor setting forth all particulars. (31)

#### METHOD OF INSPECTION

Practices may vary among inspectors as to the compartment in which sweetpotatoes of the various grades or sizes are placed when sorting. It would be advantageous if all inspectors used the same compartments for the same grades. However, some inspectors find it easier to place the No. 1's in the right-hand compartment and culls in the left-hand compartment of the table. Others find it handier to reverse the compartments for these two classifications. The size of the various compartments of previously constructed tables also may determine which shall be used for the various grades. (32)

The cull and cull material compartments may be small, whereas the compartment used for the No. 1's should be large enough to hold most of the sample. However, regardless of which compartment is selected for a particular grade, it should be marked to indicate the grade it contains, primarily for the grower's benefit. (33)

(34) When the sample containers have been selected, one should be emptied into the proper compartment on the grading table, after which the inspector can proceed immediately to segregate the sweetpotatoes into various grade compartments. He should sort the sweetpotatoes as rapidly as possible. Hesitation in scoring individual sweetpotatoes may create the impression among growers and processors that the inspector is not experienced or is not sure of himself. It is better to place a sweetpotato in the wrong compartment quickly than to turn it over and over in the hands while trying to arrive at its correct grade classification. When the inspector becomes aware that a mistake has been made, the sweetpotato should be transferred immediately to the proper compartment.

(35) Experience has demonstrated that it is good practice to first pick out those sweetpotatoes that are distinctly No. 1, No. 2 or culls, and place them in the proper compartments, leaving all borderline specimens for the last. After most of the sweetpotatoes have been segregated in this way, it will be less difficult to place the borderline specimens properly by comparison with those already graded. In following this method it will appear that the inspector is working very rapidly at the time when the grower is most critical. This procedure usually causes the grower to gain confidence in the inspector, and eliminates many arguments. In the past most of the complaints have been made against slow inspectors, even though their work was above average in accuracy. An inspector can often gain the confidence of the grower by first rapidly picking out No. 1 sweetpotatoes about which there can be no doubt.

(36) Dumping Containers: In order to prevent errors in weighing, the containers resting on the scales should usually not be dumped until all of the sweetpotatoes from the sample containers have been sorted. However, if the percentage of a certain grade is high and a container may not hold all the sweetpotatoes in the sample, a second weighing may be necessary. There is generally no necessity for taking more than one weight reading on culls.

#### GRADE REQUIREMENTS

(37) 1. Type. All grades in each set of standards require sweetpotatoes to be of "similar type". For all practical purposes, the definitions of "similar type" are identical. Sweetpotatoes that are dissimilar in type are considered as culls in both standards. Similar type means that dry and moist types are not mixed, and that the color of the flesh of each sweetpotato is the same as the general flesh color of other sweetpotatoes in the lot. White-fleshed varieties shall not be mixed with yellow or orange fleshed varieties.

2. Firmness. The Dicing or Pulping grades require sweetpotatoes to be "firm", meaning not soft, flabby or excessively shriveled. For Canning or Freezing the requirement is "reasonably firm", meaning not soft, flabby or more than slightly shriveled. Thus the only difference is that the Dicing or Pulping standards allow more shriveling than those for Canning or Freezing. Sweetpotatoes not meeting the firmness requirement are scored as Culls. (38)

3. Shape (Dicing or Pulping standards). The No. 1 grade requires "not badly misshapen" This means that not more than 10 percent waste would occur in the ordinary process of trimming in excess of that which would occur if the sweetpotato were perfect. (39)

The No. 2 grade has no shape requirements. However, the general definition of "serious damage" would apply if the sweetpotato was so badly misshapen as to cause over 25 percent waste.

4. Shape (Canning or Freezing standards). The No. 1 grade requires sweetpotatoes to be "fairly well shaped". This means that the sweetpotato is not so curved, crooked, grooved, constricted, flattened or otherwise misshapen that one or more usable pieces cannot be obtained from the potato. (40)

As a guide in considering whether or not a sweetpotato is misshapen, the inspector should try to determine if one or more well formed usable pieces can be obtained from the potato with a minimum amount of cutting. Generally, cutting can only be done at constrictions on the potato where a natural break or cut will occur in preparing the potato for processing. (41)

As used in the "fairly well shaped" definition, usable piece means a portion of the sweetpotato which meets the requirement of the specified minimum length, and which when processed will have essentially the appearance of a whole sweetpotato. Refer to line drawings in the standards illustrating usable pieces of sweetpotatoes having essentially the appearance of a whole sweetpotato. Inspectors should keep in mind that usable pieces must be slightly tapered at each end, and well formed. (42)

Black and white photographs illustrating shapes of sweetpotatoes from which one or more usable pieces may be obtained are printed in the standards. Black lines on the photographs illustrate the trimming points or the point where processing plants will cut in preparing the potato for processing. (43)

- (44) All inspectors must remember that if a sweetpotato yields at least one usable piece, it is considered as fairly well shaped. The entire sweetpotato then will meet the requirement of U. S. No. 1 regardless of the amount which may have to be trimmed away in the processing line.
- (45) 5. Color. In the Dicing or Pulping standards there are no color requirements except within the definition of "similar type". The color requirement of "similar type" applies only to variation in color, not to any minimum color. However, the No. 1 grade in the Canning or Freezing standards not only requires the sweetpotatoes to be of the same general color (under the similar type definition), but also requires that they be "fairly well colored". "Fairly well colored" means that sweetpotatoes of the white-fleshed varieties shall be no lighter in color than a light straw color, and yellow or orange-fleshed varieties shall be no lighter in color than a light salmon-orange color.
- (46) A plexiglas color gradation chart has been developed illustrating a range of 4 colors for the yellow or orange-fleshed varieties. Sweetpotatoes of such varieties, which are lighter in color than the lightest color shown on the gradation chart, shall be considered off-color and scored as culls.
- (47) In judging sweetpotatoes for color, the inspector should make a cross section cut at a point half the distance from each end of the sweetpotato. In judging the color of individual sweetpotatoes the inspector should try to visualize the over-all color by evaluating the aggregate color at the cross section cut and comparing this color with the lightest color shown on the color gradation chart. Never attempt to judge color in direct sunlight.
- (48) Inspectors should cut doubtful specimens as an aid in maintaining proper color judgement but should follow the general rule of reducing cutting to a necessary minimum with the aim of holding the percentage of cut sweetpotatoes within reasonable limitations.
- (49) 6. Defects. The definitions for "damage" in each set of standards, and for "serious damage" in the Dicing or Pulping standards are self-explanatory. It should be noted, however, that the amount of waste permitted in the No. 1 grade for Dicing or Pulping is 10 percent, and only 5 percent for No. 1 Canning or Freezing. The amount of waste permitted under the definition of "serious damage" in the Dicing or Pulping standards is 25 percent.

In making cuts to determine waste, the inspector should consider (50)  
the nature and location of the injury. As a general rule, he should  
be guided by good commercial practices in trimming. It is not expected  
that the inspector will carefully carve out only the defective area,  
however, he should not remove an excessive portion of the uninjured  
flesh along with the defect. Any defect occurring at the end of the  
sweetpotato beyond a point where the diameter is less than five-eighths  
inch should be disregarded since this portion will be removed in the  
normal preparation for processing. If possible, inspectors should  
visit the trimming lines in the plant to observe in-plant procedures.  
Not only to see the actual trimming, but to check on the amount of  
concealed damage that he may have been missing at the grading platform.

A description of some of the defects most frequently encountered  
follows:

(a) Soft rot. All grades require "free from soft rot". Therefore all (51)  
specimens with any soft rot shall be classed as Culls, regardless  
of the area affected. Any rot which is soft, mushy, or in a leaky  
condition is considered soft rot.

(b) Black Rot (Black Shank, Black Root). This disease is of economic (52)  
importance both from the field and market point of view. It af-  
fects the roots in the field to some extent and visibly affected  
sweetpotatoes are generally sorted out at harvest time. The  
greatest losses, however, take place in transit and storage. Con-  
taminated or infected roots showing no lesions may develop the  
disease. The rot may appear as mere superficial blemishes or may  
have developed as deep-seated and extensive dry rot. The disease  
has been reported in all sections where sweetpotatoes are grown.

Lesions of Black Rot on sweetpotatoes generally appear as greenish (53)  
to nearly black, circular, depressed spots, varying in size from  
1/2 to 2 inches in diameter. Spots may be very irregular, occur-  
ring in bruises and injured places. The lesions are usually shal-  
low, rarely penetrating to the heart of a sweetpotato, and the  
affected tissue is quite firm and tough. Generally, there are only  
a few spots on any one potato, although there may be more. In  
time the whole potato becomes affected and worthless for food.  
Often, small black bodies are developed at the center of the lesions  
appearing at times as dense masses of small black bristles. These  
are the fruiting bodies of pycnidia of the fungus. The diseased  
tissues are very bitter and the entire sweetpotato when cooked ac-  
quires a bitter flavor. No varieties are known to be resistant to  
Black Rot. All specimens affected to any degree by Black Rot are  
considered as Culls and scored against all U. S. grades.



- (54) (c) Dry Rot (other than Black Rot). Dry rots, other than Black Rot, are scored under the general definitions of "damage" or "serious damage" on the basis of waste.
- (55) (d) Cork or other internal discoloration. The No. 1 grades specify "free from cork or other internal discoloration". Therefore, any amount is scorable against the No. 1 grades, regardless of the area affected. However, the No. 2 grade of the Dicing or Pulping standards requires free from "serious damage by these factors. In applying the definition of serious damage when internal disorders are involved, it must be remembered that not only waste should be considered, but also whether the processing quality is seriously affected. In other words, even though the defect would not cause over 25 percent waste, it would be scorable as serious damage if the location of the injury was such as to seriously affect the processing quality.
- (56) (e) Weevil. The most common insect injury is that done by a weevil or borer which is whitish in color, and about one-fourth inch long. This borer is known as the "sweetpotato root-borer or weevil", and is the larval form of a snout beetle known as *Cyclas Formiscarius*. The adult beetle lays its eggs in those portions of the root that project above the ground or are at the base of the vine. The larvae carry on their burrowing in the field and in storage. This injury occurs in sweetpotatoes grown in the Gulf States and should be scored on a waste basis. Other insect injury, such as caused by wireworm and flea beetle, are also scored on a waste basis. See Agricultural Handbook No. 329 for additional insects and their descriptions.

#### CULLS

- (57) In each set of standards the definition of Culls is self-explanatory. In the Canning or Freezing standards the words "...other than for size" mean only that no sweetpotato can be classed as a cull simply because it is offsize. In other words a sweetpotato is a cull because it is defective, not because of its size. Although the Dicing or Pulping standards do not mention this, the same policy would apply.

#### CULL MATERIAL

- (58) Cull material means pieces of sweetpotatoes (or pieces other than usable pieces when inspecting on the basis of Canning or Freezing Standards), vines, root crowns, secondary rootlets, loose dirt, adhering

cake dirt, or other extraneous or foreign material. All such material is weighed separately and reported as cull material.

When the contract between buyer and seller calls for delivery of a specific U. S. grade, a tolerance of 5 percent, by weight, is allowed in Canning or Freezing standards. A tolerance of 2 percent, by weight, is provided in the Dicing or Pulping standards. (59)

When the inspection is only to determine percentage of a certain grade, then the inspector will simply determine and report the percentage of cull material in the sample. (60)

#### SIZE

The Dicing or Pulping standards have no size requirements. However, size is usually specified by agreement between buyer and seller. In such cases inspectors will be guided by the provisions of the contract. (61)

The Canning or Freezing standards require the diameter of each sweetpotato or usable piece to be not less than 1 inch or more than 2-1/4 inches, and the length to be not less than 2 inches or more than 7 inches. However, all of these dimensions may be otherwise specified. (62)

Diameter means the greatest dimension of the sweetpotato, or usable piece, measured at right angles to the longitudinal axis. (63)

Length means the dimension of the sweetpotato, or usable piece, measured in a straight line between points at or near each end of the sweetpotato where it is at least 5/8 inch in diameter. (64)

#### TOLERANCES

In most cases sellers will not sort their sweetpotatoes into separate grades or sizes before delivery to the buyer. Under these circumstances inspectors will be guided by the terms of the contract. He will simply record on the certificate the percentages of the specified grade, size, culls, and cull material as they occur in the sample. (65)

(66) However, each set of standards provides tolerances for these factors when contracts between buyer and seller call for delivery of a specific grade. The tolerances are as follows:

Factor	Canning or Freezing	Dicing or Pulping
Grade defects	10 percent, including not more than 2% soft rot or black rot.	10 percent, including not more than 2% soft rot or black rot.
Cull Material	5 percent	2 percent
Off-size	15 percent, including not more than: 3 percent under minimum diameter, 5 percent under minimum length, 10 percent over maximum diameter, 10 percent over maximum length.	15 percent, including not more than: 5 percent under minimum diameter.

(67) Inspectors must remember that whenever contract specifications are not met, the processor (or his representative) is to be notified immediately. Then it is up to the processor to accept or reject such loads. The Inspection Service assumes no responsibility to reject loads of sweetpotatoes failing to meet contract specifications.

#### INSPECTION CERTIFICATE

(68) Care of Certificates. Inspectors should take necessary precautions to prevent blank certificates from falling into hands of persons who have no right to use them. Each Inspector shall be held responsible for the return of all unused certificates to the Supervising Inspector or inspection office at the close of the season or deal. Cannery certificates are to be kept on file for at least two seasons.

Inspectors will receive specific instructions from the Supervising Inspector with reference to mailing copies of the inspection certificates. Some states desire these mailed daily, while others require other arrangements. (69)

Care in Recording. The certificate must be easily legible. All data set down during the process of inspection should be complete, neat in appearance, and clear. All computations should be checked carefully for errors. Inspectors will be held responsible for figures being legible on all copies of the certificate. Remember that the original certificate is sometimes lost, and then it becomes absolutely necessary to use the carbon copies. (70)

Correct Numbers and Name. Most of the processors furnish the growers with a book of forms which are to be filled in by the growers for each load delivered. These forms give the name of grower, date, and number of packages on the individual load. The inspector will transpose this information from this form to the certificate. No excuse will be accepted for failure to record this information correctly on the certificate. The certificates are numbered and may be padded in book form. (71)

Name of Place, Processor, Growers, and Date. The name of the place where the inspection is made, name of processor and grower, time of inspection and date should be filled in on the certificate just before starting the inspection, or immediately after the inspection is made. Where the processors have obtained authority from Washington to print a supply of inspection certificates to be used in their inspections, it will not be necessary to write in the name of the processor since it appears on the face of the certificates. (72)

Recording Weights and Percentages. The form outlined below shows that part of the certificate on which the inspector records weights and percentages. After the sweetpotatoes in each container have been weighed, the results should be recorded on the certificate as illustrated below: (73)

	WEIGHT LBS.	PERCENT
U. S. No. 1	58	55
U. S. No. 2	43	40
CULLS	4	4
CULL MATERIAL	1	1
TOTALS	106	100

(74) Weights should be recorded on the certificate in whole pounds, even though the scale may show a fractional part of a pound. The nearest whole pound should be used, except that when the amount of culls or cull material is 1/2 to 1 pound, it should be reported as one pound on the certificate. When the amount of culls or cull material is less than 1/2 percent it should be ignored and zero should be recorded on the certificate under that column.

(75) In computing percentages from the percentage chart or slide rule, always add or subtract from the No. 2 grade (Dicing or Pulping) in order to make the percentage total 100. This point can best be illustrated by the example below. However, if inspection is on the basis of the Canning or Freezing standards, the adjustment is made on the No. 1 grade (since there is no No. 2 grade in these standards).

	Pounds	Actual Percent	Nearest Whole Percent	Percent to be reported on certificate
U. S. No. 1	52	49.52	50	50
U. S. No. 2	49	46.67	47	46
CULLS	3	2.86	3	3
CULL MATERIAL	1	.95	1	1
TOTAL	105 lbs.	100.0%	101%	100

(76) Signing of Inspection Certificate. The inspector shall sign the certificate exactly the same as is shown on his license to inspect (full name, or the initials of his given name, and his last name in full). This warning is given because some new inspectors have either used initials or simply signed the last name. Legally, either of these signatures would be worthless.

(77) Issuing Restricted Certificates on Large Loads Where it is not Possible to Obtain Samples on All Parts of Loads. Memos restricting the inspection to certain portions of loads may be issued on large loads when the processor refuses, or is unwilling, to make the load accessible. Such is the case when the processor has the inspection

made at outlying receiving stations and then hauls the sweetpotatoes some distance to his processing plant. Naturally, it is usually not practicable to break down large loads to the point of making all parts accessible for sampling before the long haul to the plant. In such instances inspectors may issue certificates restricting the inspection to the accessible portion of the load consisting of the upper 2 layers, or to the doorways or to the rear end of the truck.

Correcting Inspection Certificates. If the corrections are not too conspicuous, minor mistakes which would not affect the credibility of the certificate if presented in court may be changed by crossing out the part in error, and inserting the correct information. No corrections should be made on any certificate unless the inspector has all copies so that all may be corrected at the same time. Whenever an error has been discovered, and the inspector does not have all copies of the certificate, a new certificate should be issued upon which the following statement should be made: "This certificate supersedes certificate No. \_\_\_\_\_, which is in error." (78)

No attempt should be made to erase errors on certificates. All corrections should be initialed to show the authority for the correction. (79)

Distribution of Certificate Copies. The distribution of the original certificate and one copy will depend on the arrangements made by the party requesting the inspection. In most cases this party will be the processor and in all probability the inspector will be requested to give the original and one copy to the grower, who will present these documents to the canner along with the load. The processor usually keeps the original and gives the copy to the grower for his files. The second carbon copy is retained by the inspection office for at least one year, or preferably two years, if feasible. (80)

#### APPEAL INSPECTIONS

Either the grower or the processor may appeal from the inspector's findings. The appeal may be based on either (1) the sampling, or (2) the grading of the sample. (81)

(1) Appeal on Sampling. In some cases the grower or processor may question the accuracy of the inspection owing to the irregularity of quality in the various containers. (82)

In most cases where the grower or processor questions the accuracy of a report, it is not the grade interpretation that is in question but the sampling. Regardless of how careful the inspector is in sampling loads there will be an occasional load in which the sample will not accurately represent the quality of the load. From this standpoint it is necessary to admit the possibility of error in sampling loads of irregular quality. (83)

(84) When the grower or processor questions the accuracy of the sampling but does not question the grade interpretation of the inspector, it will be permissible for the same inspector to select additional samples for analysis. At least 2 additional samples should be taken from different areas in the same portion of the load covered by the original inspection. These samples should be inspected, and the results of the two inspections combined into a weighted average on a new certificate. The first certificate, if issued, should be voided.

(85) (2) Appeal on Grading. If either the processor or grower questions the accuracy of an inspector's report because of grade interpretation, he may request an appeal inspection to verify his contention. Such a request usually cannot be granted at outlying plants or receiving stations where only one inspector is located unless a Keyman or Supervising Inspector happens to be in the immediate vicinity. If either one of the latter is not available, the inspector should endeavor to adjust the difficulty, perhaps by taking additional samples and giving a detailed explanation of the reasons for his scoring. If a processor or grower is still not satisfied with the inspector's interpretation of grade factors, it is of course his privilege to notify the Supervising Inspector of this dissatisfaction. It then becomes the duty of the Supervisor to take such steps as he deems necessary to correct the situation. If an inspector is in doubt as to whether some of his grade interpretations are correct he should so notify his Supervisor and perhaps request an early check-up of his grade interpretations.

(86) At plants or receiving stations where a number of inspectors are working under the direction of a Supervisor or Keyman it is usually feasible to grant the request for an appeal inspection if the request is made within a reasonable time after the first inspection was made, and provided the load has not been out of the inspection yard. The Supervisor, Keyman, or some inspector designated by either of them should make the inspection and issue a regular certificate showing the results with a statement written across the face: "Appeal inspection. This certificate supersedes Certificate No. \_\_\_\_\_."

(87) Certificates issued on an appeal inspection upon request of either a grower or processor should include only the results of the second examination. In other words, results of the appeal inspection should never be averaged with those obtained and reported on the first certificate by the first inspector.

(88) When Second Inspection Not an Appeal. A second inspection is treated as a new inspection:

1. The load has been out of the inspection yard; or
2. Considerable time has elapsed since the first inspection. In this case a material change in the condition of the sweetpotatoes must have occurred.

Make no reference to the first certificate issued.

Growers often regrade their load, either in the yard, or outside (89)  
or they may take it home and regrade it there. All inspections of such  
loads must be treated as new inspections and the results cannot be con-  
sidered as having any bearing on the credibility of the results reported  
on the first certificate.

Number of Samples to be Examined on Appeal or Second Inspection: (90)  
The number of samples to be examined in the case of an appeal or second  
inspection will depend upon the uniformity of the lot in question and  
the character of the defects. If the load shows considerable irregu-  
larity, double the usual number of samples should be taken. If the  
quality is relatively uniform in the different containers, and it is  
only a question of whether there is a difference in interpretation  
between the two inspections, it may be sufficient to examine the same  
number of containers as in the first inspection.

AGREEMENT BETWEEN PROCESSOR AND STATE COOPERATING AGENCY

Unless there is a written agreement between the processor and the (91)  
State cooperating agency, problems may arise which often lead to mis-  
understandings between the processor and the Inspection Service. Ex-  
perience has demonstrated that a clear, concise written agreement  
between the cooperating agency and the processor before the harvest  
season arrives will eliminate most of these misunderstandings.

Conditions will vary at different processing plants, but the fol- (92)  
lowing points generally should be covered in a written agreement signed  
by both parties:

1. Maximum number of hours inspectors shall work each day and the  
time of opening and closing the station (Exceptions may be made with  
the approval of the Supervising Inspector in cases of emergency).
2. Charges for the service and time of payment.
3. List of inspection equipment needed and which party shall furn-  
ish each item, including printing of inspection certificates.
4. A definite agreement for furnishing satisfactory helpers, when  
needed, to work under the direction of the inspector.
5. A definite agreement as to which set of standards is to be used  
in the inspection of the sweetpotatoes. Contracts should specify this  
but often they do not.



PRINTING OF INSPECTION CERTIFICATES BY PROCESSORS

(93) In order to reduce the number of forms, simplify records, and hold costs to a minimum, many processors desire to show weights and the calculations of value of loads as well as other information on the inspection certificate. Under such conditions, processors may be authorized to have their own certificates printed.

The following procedure should be followed where canners have these forms printed:

1. Processors should be advised that before any certificates are printed, a draft must be submitted to the Washington office for approval;

2. The inspection report, including the line for the inspector's signature, should be placed at the upper part of the form. Other information, such as spaces for gross, tare and net weights, calculation of the value of a load and other information should be placed on the lower part of the form headed by a statement to the effect that the information given below is not vouched for by the inspectors; and,

3. After the certificate has been approved and printed, it will also be necessary for the processor to furnish the Washington office with an affidavit from the printer showing the number of sets printed, together with the serial numbers. The following form of affidavit written on the printer's letterhead and sworn to by a notary public will be satisfactory:

New York, N. Y.  
May 25, 1968

John Doe Canning Co.  
1425 York Street  
New Orleans, La.

Dear Sirs:

We hereby certify and affirm we have printed on order C 301, April 1, 1968 for the John Doe Canning Co., New Orleans, La. 50,000 sets of form FV-27, Inspection Certificate, Products Sweetpotatoes, the first serial number for 50,000 sets being A-13041, inclusive, and continued consecutively throughout 50,000 sets, the last number being A-63040.

We further certify that the above statement is true and correct within our knowledge, and that we have not printed any other sets of the form FV-27 bearing any other number, serial or otherwise for this company.

Very truly yours,

Jones Printing Co.  
Samuel Jones  
General Manager

Subscribed and sworn to me this May 25, 1968.

S E A L

Henry Smith  
Notary Public

My Commission Expires  
February 10, 1969.

Some processors in the past have had one certificate form printed with the name of a certain State in the heading and then used it in all states in which they operate. Use of such certificates with an out-of-state heading will not be approved. (94)

Processors who have their own certificates printed should be instructed to have the printer deliver them to the State headquarters of the Inspection Service or to such other offices as those in charge may designate. It is the responsibility of the Inspection Service to distribute inspection certificates to inspectors on location who must account for the use of each certificate. Therefore, every precaution should be exercised by both supervisors and inspectors to see that blank copies of certificates do not fall into the hands of anyone outside the Inspection Service. (95)

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