



United States  
Department of  
Agriculture

Agricultural  
Marketing  
Service

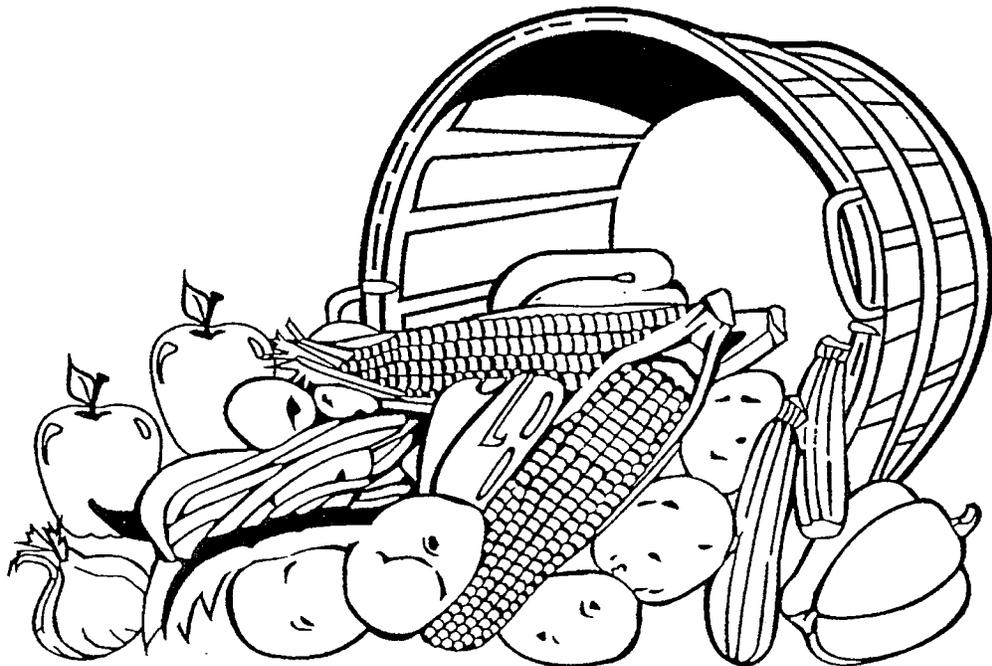
Fruit and  
Vegetable  
Programs

Fresh Products  
Branch

September 1997

# Onions

## Shipping Point and Market Inspection Instructions





# Shipping Point and Market Inspection Instructions for Onions

These inspection instructions are specifically developed and designed by the Fresh Products Branch to assist officially licensed inspectors in the interpretation and application of the U.S. Standards for Grades of Onions (Other Than Bermuda-Granex-Grano and Creole Type), Sections 51.2830 and the U.S. Standards for Grades of Bermuda-Granex-Grano Type Onions, Sections 51.3195.

These instructions do not establish any substantial rule not legally authorized by the official grade standards. This publication supersedes any previously issued inspection instructions.

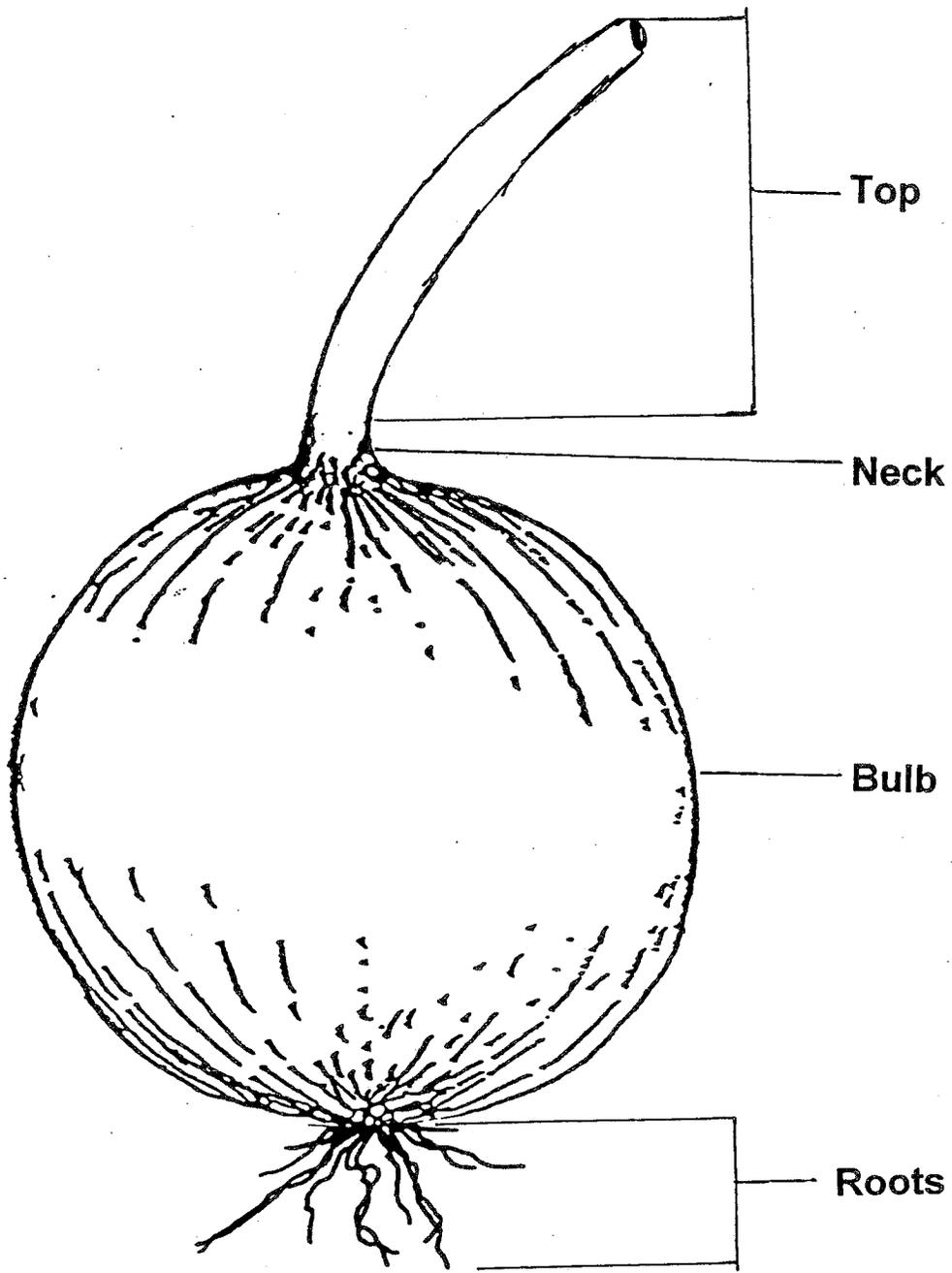
Refer to General Inspection Instructions for additional information pertaining to date, inspection point, carrier, condition of carrier, lading, etc., not covered in these instructions. Reference to "General Inspection Instructions" in all Fresh Products Branch publications refers to any one or all of the following - General Shipping Point Inspection Instructions, General Market Inspection Instructions, or Fresh Fruit and Vegetable Certificate Writing Handbooks.

Any portion of these instructions beginning with a section number such as §51.--- and followed by **bold** print are sections or portions of sections copied directly from U.S. standards.

**September 1997**

*This replaces Market Inspection Instructions for Onions (Other Than Bermuda-Granex-Grano Type) dated June 1978, Market Inspection Instructions for Bermuda-Granex-Grano Type Onions dated March 1963, and Shipping Point Inspection Instructions for Onions (Other Than Bermuda-Granex-Grano Type) dated May 1962, and Shipping Point Inspection Instructions for Bermuda-Granex-Grano Type Onions dated May 1962*

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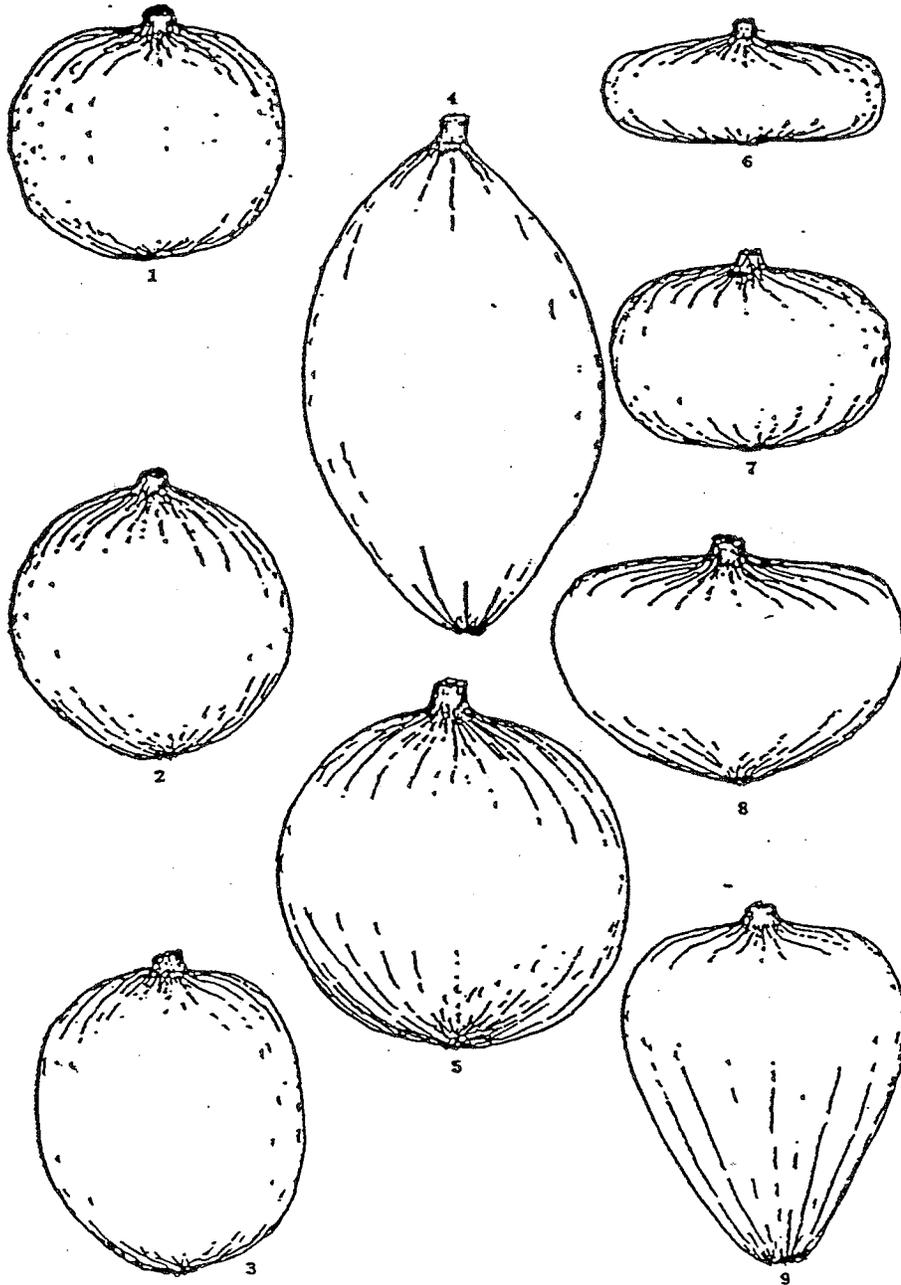
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### Appendix I - U.S. Standards for Grades of Onions (Other Than Bermuda-Granex-Grano and Creole Type)

### Appendix I - U.S. Standards for Grades of Bermuda-Granex- Grano Type Onions

### Appendix II - Certificate and Notesheet Examples



Onions shapes: (1) flattened globe; (2) globe; (3) high globe; (4) top; (5) Spanish; (6) flat; (7) thick flat; (8) Granex; (9) top. (From Onions, by Dr. Henry A. Jones, published by Dessert Seed Co., used by permission)

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## (1) General

These inspection instructions apply to onions **Other Than** Bermuda-Granex-Grano and Creole type (**Other Than**) and Bermuda-Granex-Grano Type Onions (**BGG**).

There are many factors to consider when determining which standard to apply to a load or lot of onions. First is the appearance of the onions. **Other Than** type onions are mostly globe shaped with dry outer papery scales. **BGG** type are mostly flat or top shaped with practically no dry outer papery scales.

Second, the 35<sup>th</sup> parallel is a guide that may distinguish between **BGG** onions and **Other Than** onions. The **Other Than** onions are generally grown north of latitude 35° which runs south of Bakersfield, California; Flagstaff, Arizona; Albuquerque, New Mexico; and Amarillo, Texas; and, north of Little Rock, Arkansas; Atlanta, Georgia; and, Columbia, South Carolina. The **BGG** onions are generally grown south of the latitude 35°, and include such States as Texas, Arizona, New Mexico, California, and southern Georgia.

Third, the inspector must consider statements made by applicants, time of year, and curing. If the inspector is not sure which type of onions are to be inspected and if the applicant states which standard to apply to a particular load or lot of onions, the inspector shall report in the REMARKS section, "Onions inspected on U.S. Standards for Grades of \_\_\_\_\_ at applicants request." During certain times of the year one type of onion may be more prominent than another. Generally, during the spring and summer the **BGG** type onions are more prominent than **Other Than** type onions. In contrast, generally during the late summer and early fall the **Other Than** type onions are more prominent than the **BGG** type onions. The curing of **BGG** type onions is generally a short duration which does not give the outer scales an opportunity to become dry and papery. However, **Other Than** type onions curing is generally of a longer duration, allowing the outer scales of these onions to generally become dry and papery, except when shipped as "mid-season."

It is sometimes difficult to determine which standard to apply from the above factors. For example, onions grown in the Bakersfield, California area may be grown in fields that are both north and south of the dividing line. If the inspector is not sure after considering all of the above factors, check with your Supervisor. If still not sure which standard to apply, use the **BGG** standards.

**Import Certification at Port of Entry.** For import requirement certification of onions at port of entry, inspect the onions based on the standard the onions most closely resemble. If the onions are mostly globe type with dry outer papery scales, apply the **Other Than** standards. However, if the onions are mostly of the flat or top shaped with practically no dry outer papery scales, apply the **BGG** standards. Then during the regulation period, the grade, tolerances and sizes for the marketing order that is in effect at that time will be applied to determine compliance or non-compliance with the U.S. Import Requirements. (See the following table to determine which import regulation is in effect for the specified regulation period.)

For example: The inspector determines, based on appearance, that the onions are **BGG** type onions. However, the date of the inspection is August 5, which is during the time that the import regulation for **M.O. No. 958** is in effect for import certification. Therefore, the inspector inspects the onions based on the **BGG** standards and tolerances (minimum of U.S. No. 2 grade and size requirements) based on **M.O. No. 958** in determining whether the lot meets Import Requirements; meaning that these **BGG** onions would be allowed 10% total defects against the U.S. No. 2 grade, including 2% for decay (see "Note"). If they were **Other Than** onions the **Other Than** standards and tolerances will apply, provided that they meet at least U.S. No. 2 and the size requirements.

The inspector determines, based on appearance, that the onions are **Other Than** onions. The date of the inspection is during the March 10 through June 4 period, when the import regulation for **M.O. No. 959** is in effect for import certification. The inspector inspects the onions based on the **Other Than** standards not to exceed 20% defects of U.S. No. 1, including not more than 10% serious damage, including not more than 2% decay. If they were **BGG** onions, base the inspection on the **BGG** standards not to exceed 20% defects of U.S. No. 1, including not more than 10% serious damage, including not more than 2% decay.

U.S. Import Regulation based on Marketing Order	Regulation Period	Grade	Size
M.O. No. 958 - Idaho & Malheur County	June 5 through March 9	At least U.S. No. 2 Apply the tolerance for the standards being applied.	Red varieties 1-1/2 inch minimum diameter. White varieties 1 inch minimum diameter. All others 1-3/4 inches.
M.O. No. 959 - counties in South Texas	March 10 through June 4	Not to exceed 20% defects of U.S. No. 1. Serious damage shall not exceed 10%, including not more than 2% decay.	White varieties 1 inch minimum diameter. Other varieties 1-3/4 inches.

\*\*\*\*

\*\*\*\*

**NOTE:** Onions with transit time from country of origin to entry into the United States of ten or more days may be entered if they meet an average tolerance for decay not to exceed five percent. (The "application of tolerances" sections do not apply to this special 5% decay tolerance; there are no restrictions as to amount of decay in individual samples, provided that the average is not more than 5%. For other tolerances [total defects and off-size] the "application of tolerances" sections do apply.)

Inspections requested for non-domestic (imported) onions other than at port of entry shall be based on the standards that the onions most closely resemble based on appearance and curing. The tolerances for the standards being used shall apply; for example: BGG onions, BGG tolerances apply.

For further information on import requirements or marketing orders for onions, please contact the Field Operations Section.

See Appendix II for examples of Import Certification statements.

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## **(2) Sampling**

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### **Representative Sampling**

Representative sampling is just as important as correct interpretation of defects and other factors. Accurate determination of these factors is only possible if the samples examined are truly representative of the entire lot or accessible portion. All portions of a lot or load should receive the same attention in sampling regardless of the difficulty involved in reaching the more inaccessible layers or parts of a load.

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### **Size of Sample**

The tolerances for the U.S. Standards for Grades of Onions (Other Than Bermuda-Granex-Grano and Creole Types) and the U.S. Standards for Grades of Bermuda-Granex-Grano Type Onions are determined on the basis of weight. The size of the sample will depend on the size of the container and the size of the onions. The samples for grade and size determination are separated into two groups. One group is for packages which contain 20 pounds or more, and the other group is for packages which contain less than 20 pounds. The application of tolerances is based on individual samples. The size of samples shall be as follows:

For packages which contain 20 pounds or more and the size of the onions are Large or Jumbo size or larger, the size of the sample shall be the individual package. For packages which contain 20 pounds or more and the size of the onions are larger than 2-1/4 inches maximum diameter, the size of the sample shall be at least 20 pounds. For packages which contain 20 pounds or more and the size of the onions are 2-1/4 inches maximum or smaller, the size of the sample shall be at least 20 pounds. However, anytime the sample consists of less than the entire package and the sample tolerance(s) are exceeded, the entire contents of at least one package must be analyzed. When it is impractical to run the entire contents, as in the case of "boilers" or "pickler" onions, the sample size must be at least doubled.

For packages which contain less than 20 pounds, and the size of the onions are larger than 2-1/4 inches maximum, the size of the sample shall be at least 20 pounds. For packages which contain less than 20 pounds and the size of the onions are 2-1/4 inches maximum or smaller, the size of the sample shall be the individual package or 20 pounds. If a composite sample is obtained from a sufficient number of adjoining packages and the sample tolerance(s) are exceeded, in this case, the sample size shall **not** be doubled and the lot is out of grade because of the sample tolerance(s) being exceeded.

SIZE OF PACKAGE:	20 lbs. or More			Less than 20 lbs.	
SIZE OF ONIONS:	2-1/4 in. max. or smaller	Larger than 2-1/4 in. max.	Large or Jumbo Size or Larger	Larger than 2-1/4 in. max.	2-1/4 in. max. or smaller
SAMPLE SIZE:	20 lbs.	at least 20 lbs.	individual package	at least 20 lbs.	20 lbs. or individual package

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### Number of Samples

Due to potential variations in size, quality, condition, or all of these, no definite rule can be provided as to a required number of samples to examine. A minimum of 1 percent of the packages within a load or lot is recommended. It is the inspector's responsibility to examine enough samples to ensure an accurate picture of the entire load and/or lot. However, at the market loads and/or lots containing less than 100 containers, a minimum of three samples shall be inspected.

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### Sampling to Determine Internal Defects

Superficial examination alone is not sufficient to determine internal defects in onions. Defects such as Watery Scales, Translucent Scales, Internal Papery Scales, decay in the necks and other defects cannot be detected without cutting the onions. The inspector may need to cut the neck of the onion to determine if there are defects and then may also need to cut the onion crosswise at the center (perpendicular from stem to root end) to determine if there are other internal defects.

The number of specimens cut for internal defects is discretionary. Caution should be taken to avoid unnecessary cutting. At the same time, inspectors are empowered to cut as many onions as necessary in order to make an informed decision on the internal quality of the onions.

\*\*\*\* It is the responsibility of the inspector to cut a sufficient number of onions to accurately determine the percentage of defects. When internal defects are found, percentages are determined based upon the **entire sample** inspected and not on the number of onions that were cut. When the individual onion has a combination of external and internal defects, score quality defects first, then the more serious defects. Do **not** score the onion more than once unless the defects are cross referenced on the certificate. For example: "...4% decay, including 2% above as quality defects."

\*\*\*\*

**If the applicant requests the inspector to report the number of fleshy scales and/or the number of hearts, a ten pound "cut sample" shall be used. In this case, report the results based on "Cut Samples" on the certificate.**

### (3) Tolerances

#### OTHER THAN

§51.2837 Tolerances...(a) For defects...(1) U.S. No. 1, U.S. Export No. 1, U.S. No. 1 Boilers and U.S. No. 1 Picklers grades. (i) Not more than 10 percent of the onions in a lot may be damaged by peeling; and, (ii) Not more than 5 percent of the onions in a lot may be below the remaining requirements of these grades, but not more than two-fifths of this tolerance, or 2 percent, may be allowed for onions which are affected by decay or wet sunscald.

(b) For off-size...(1) U.S. No. 1, U.S. No. 1 Boilers, U.S. Commercial, and U.S. No. 2 grades. Not more than 5 percent of the onions in a lot may be below the specified minimum size, and not more than 10 percent may be above any specified maximum size.  
(2) U.S. No. 1 Pickler grade. Not more than 10 percent of the onions in a lot may be above the maximum size specified for this grade.

#### BGG

§51.3199 Tolerances...(a) For defects...(1) U.S. No. 1 and U.S. No. 2 grades. (i) Not more than 10 percent of the onions in a lot may fail to meet the requirements of these grades, but not more than one-fifth of this tolerance, or 2 percent, may be allowed for onions which are affected by decay or wet sunscald.

(b) For off-size...(1) Not more than 5 percent of the onions in a lot may be smaller than the minimum diameter specified. In addition, not more than 10 percent of the onions in a lot may be larger than the maximum diameter specified.

#### SUMMARY OF TOLERANCES FOR U.S. NO. 1 ONIONS

##### OTHER THAN

5%	Undersize
10%	Oversize
10%	Damage by Peeling
5%	Total Defects, <i>including</i>
2%	Decay or Wet Sunscald

##### BGG

5%
10%
—
10%
2%

## (4) Application of Tolerances

**§51.2839/51.3201 Application of Tolerances.** Individual samples are subject to the following limitations: (a) Samples which contain more than 20 pounds shall have not more than one and one half times a specified tolerance of 10 percent or more, and not more than double a specified tolerance of less than 10 percent, except that at least one defective and one off-size onion may be permitted in any sample: Provided, that en-route or at destination when onions in containers of 50 pounds or more are packed to a minimum size of 3 inches or larger not more than three onions or more than 4 percent (whichever is the larger amount) may be affected by decay or wet sunscald: And provided further, that the averages for the entire lot are within the tolerances specified for the grade; and,

(b) Samples which contain 20 pounds or less shall have not more than double the tolerance specified, except that at least one defective and one off-size onion may be permitted in any sample; Provided, that the averages for the entire lot are within the tolerances specified for the grade.

### SUMMARY OF APPLICATION OF TOLERANCES

Samples containing more than 20 pounds:	Samples containing 20 pounds or less
10% tolerance - not more than 1-1/2 times tolerance	Individual samples shall not have more than double the tolerance specified, except at least 1 defective and 1 off-size onion in any sample.
Less than 10% tolerance - not more than double specified tolerance, except at least 1 defective and 1 off-size onion in any sample	
<b>En Route or At Destination:</b> Packages of 50 pounds or more and minimum size of 3 inches or larger - not more than 3 onions or more than 4% (whichever is larger) may be affected by decay or wet sunscald.	
<b>Provided, that the averages for the entire lot are within the tolerances specified for the grade.</b>	

**NOTE:** Application of tolerances does **not** apply to the defects that are based on lot allowances, such as: Dirt or staining, surface mold, excessive tops, (Both **BGG** and **Other Than**) dry roots and sunburn (**Other Than**).

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## (5) Products Inspected

The following information shall be given:

- Commodity, Type or Variety
- Type of Container
- Distinguishing Marks
- Origin (if marked)
- Quantity Inspected

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### Commodity, Type or Variety

For **market** certificates, "Northern ONIONS" shall be used to describe **Other Than** onions in the "PRODUCTS" heading on the notesheet and certificate. "BGG ONIONS" shall be used to describe **BGG** onions. Color, such as "red," "white," or "yellow" may be used in the "LOT ID" section or in conjunction with "Northern ONIONS" or "BGG ONIONS" in the "PRODUCTS" heading.

For **shipping point** certificates, the color and the type of onions shall be described in the "PRODUCT / VARIETY" heading. For example, "Yellow ONIONS," "Red BGG type ONIONS," "White ONIONS Granex-Grano type," etc.

When containers are marked with a varietal name, the variety shall be quoted. If the applicant requests variety certification, the request should be declined with an explanation that the law under which the Inspection Service operates does not authorize variety certification.

White, yellow or red color will usually give sufficient information to satisfy the applicant. If requested, the inspector may give descriptive terms of shape such as flat, top-shaped or globe. For **market** certificates, descriptive terms for shape may be used in the "OTHER" or "LOT ID" section of the certificate. For **shipping point** certificates, descriptive terms for shape may be used in the "DESCRIPTION OF PRODUCT" or "PRODUCT / VARIETY" section on the certificate. The word "type" should not be used in conjunction with shape. When a mixture of shapes are found, give a general description of the shapes. For example: "Yellow ONIONS, mostly flat, some top-shaped," or "Red ONIONS Granex-Grano type, many top-shaped, some globe, some flat." Intermediate shapes may also be encountered. However, it is not permissible to use intermediate terms to describe onion shapes such as semi-globe or semi-top-shaped.

It will be permissible to certify as "U.S. No. 1" lots of onions showing a mixture of globe, flat and top-shaped onions, provided only the color and type (Northern or BGG) of onion is used to identify the product. For example, "Yellow BGG type ONIONS." However, it would not be proper to certify as "U.S. No. 1" lots of onions showing a mixture of globe, flat, and top-shaped onions if the onions were described to be of only one shape. For example, if "Yellow globe Northern ONIONS" or "Yellow flat BGG type ONIONS" or "Yellow top-shaped BGG type ONIONS" were used to identify the product and the onions in the lot had a mixture of shapes, they could not be certified as "U.S. No. 1."

White, yellow or red onions may not be mixed in the same container unless the different colors are separated by a divider within the package or segregated into rows or layers within the package. If **product is segregated**, an inspection may be requested for one or more of the products in a package. Each individual product shall be inspected separately and the results reported as separate lots.

If the **product is not segregated**, then the inspector will have to make a determination as to the "characteristic" color for the lot. Onions showing color(s) that are not characteristic for the lot shall be scored as a defect. Occasionally, a lot of yellow or white colored onions will have some bulbs showing pink or reddish fleshy scales that may be due to reversion or varietal crossing. These onions shall be scored against all grades for not meeting the requirement of similar varietal characteristics (or in the case of U.S. No. 2 **Other Than** onions, the requirement of one type) and shall be reported as "**dissimilar varietal characteristics.**"

Off-color fleshy scales which are not characteristic for the variety are generally visible from the outside of the onion and shall be scored on sight. However, if upon the normal course of cutting the onions for other defects the inspector happens to discover inner scales that are not the characteristic color for the variety being inspected these onions shall also be scored and reported as "**dissimilar varietal characteristics.**"

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If the off-color affects the **papery scales only**, report and/or score on the same basis as **staining**. See section "Dirt or Staining and Surface Mold."

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### Type of Container

Open mesh sacks, crates and cartons are the most widely used containers for shipments of onions. Consumer size mesh bags or film bags are packed in master containers. When the inspector encounters any other type of container it shall be mentioned under the "NUMBER OF CONTAINERS" heading.

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## Distinguishing Marks

Whenever a container is labeled, printed, tagged or marked with a brand or grade, it shall be reported under the "BRAND / MARKINGS" heading on the **market certificate** and under the "DESCRIPTION OF PRODUCT" heading on the **shipping point certificate**. This also includes lot numbers, varieties, sizes, weight or other distinguishable information "marked" on the containers. If the containers bear no brand, grade or any other marking, it shall be stated "No Brand."

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## Origin

The inspector should not make a positive statement on their own authority, but when container markings list the State or country of origin, it should be quoted in the appropriate space on notesheets and certificates. This policy is necessary because some firms may use one mark on the same product in two or three States and the inspector can certify only to the marks and has no means of knowing in what State or country the onions are grown. If packages are not marked or the onions are in bulk, refer to the General Inspection Instructions.

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## Quantity Inspected

The number of containers shall always be reported. The count of large lots certified in a warehouse or on a platform may be reported on the authority of someone other than the inspector. However, it is advisable in such instances for the inspector to make a rough check to determine that a substantial number of the containers reported in the lot are present.

At market, small lots (100 containers or less) shall be reported on the inspector's authority as "inspector's count."

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## (6) Temperature of Product

Refer to the General Inspection Instructions for information not covered in this section.

Inspectors would not normally determine or report temperatures at shipping point. However, due to the importance of the pulp temperature of fresh fruits and vegetables, when in transit or in a market, it is essential that the inspector accurately read and report the temperature or range in temperatures on each lot. Pulp temperature shall be reported regardless of the location of the product, whether in the carrier, warehouse, or stacked on the platform.

It is essential in obtaining an accurate temperature of onions to precool the thermometer before taking the official reading. To precool the thermometer insert it near the center of the onion for approximately 30 seconds before moving it to a contiguous onion or location for the official reading.

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## (7) Condition of Pack

When onions are packed in open mesh sacks the pack shall not be reported. When onions are packed in crates or cartons, the following terms shall be used to describe pack on the notesheet:

**Bulge.** Excessively high bulge on cartons or crates shall be reported. In reporting the bulge, the measurement is the distance from the bottom of the container to the bottom edge of the cover when in place.

**Well filled** -- meaning that the container is filled so that the onions are in contact with the cover.

**Level full** -- meaning that the onions are level with the top edge of the container.

**Fairly well filled** -- meaning that the container is filled so that the onions are slightly below the top edge, but not more than 1/2 inch below.

**Slack** -- meaning that the onions are more than 1/2 inch below the top edge of the container. This term must be qualified by showing how much the onions are below the top edge in fractions of an inch or inches.

**Weight.** If requested to certify as to a specified or a marked net weight on either a stationary lot or on in-line sampling, the procedures described in the General Inspection Instructions must be followed.

**(8) Size**

OTHER THAN

BGG

§51.2830 U.S. No. 1...(e) Size. Unless otherwise specified the diameter shall be not less than 1-1/2 inches, and yellow, brown, or red onions shall have 40 percent or more, and white onions shall have 30 percent or more, by weight, of the onions in any lot 2 inches or larger in diameter.

(f) When a percentage of the onions is specified to be of any certain size or larger, no part of any tolerance shall be allowed to reduce the specified percentage, but individual packages in a lot may have as much as 25 percentage points less than the percentage specified, except that individual packages containing 10 pounds or less shall have no requirements as to percentage of a certain size or larger: Provided, that any lot, regardless of package size, shall average within the percentage specified.

§51.2836 Size classifications. The size of onions may be specified in accordance with one of the following classifications.

§51.3198 Size classifications...Size shall be specified in connection with the grade in terms of minimum diameter, range in diameter, minimum diameter with a percentage of a certain size or larger, or in accordance with one of the size classifications listed below:

Provided, that unless otherwise specified, onions shall not be less than 1-1/2 inches in diameter, with 60 percent or more 2 inches or larger in diameter.

§51.3199 Tolerances...(b) For size:... (2) When a percentage of the onions is specified to be a certain size and larger, individual packages containing more than 10 pounds may have not less than one-half of the percentage specified: Provided, that the entire lot averages within the percentage specified.

Size Designation	Minimum Diameter		Maximum Diameter	
	Inches	Millimeters	Inches	Millimeter
Small	1	25.4	2-1/4	57.2
Repacker/Prepacker <sup>1</sup>	1-3/4	44.5	3	76.2
Medium	2	50.8	3-1/4	82.6
Large or Jumbo	3	76.2	(2)	—
Colossal	3-3/4	95.3	(2)	—

<sup>1</sup>In addition to the sizes specified, a lot of onions designated as Repacker or Prepacker shall contain at least 60 percent or more 2 inches or larger in diameter.

<sup>2</sup>No requirement.

OTHER THANBGG

**§51.2833 U.S. No. 1 Boilers...Size:**  
**The diameter of onions of this grade shall be not less than 1 inch nor more than 1-7/8 inches.**

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**§51.2834 U.S. No. 1 Picklers...Size:**  
**The maximum diameter of onions of this grade shall not be more than 1 inch.**

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Onions may be marked "Pearl." Based on Marketing Order 958 - Onions Grown in certain designated counties in Idaho, and Malheur County, Oregon, "Pearl onions" means that the maximum diameter of these onions shall not be more than 1-3/4 inches.

Size will be determined based on the sample size as indicated in §§51.2838 and 51.3200 not on the container. When a percentage of onions are specified to be of a certain size or larger, the determination of how many percentage points below the specified tolerance that the individual sample can be, is made using the size of the container for a reference.

Usually the size on which a lot of onions is to be certified is specified by the applicant. However, sometimes the inspector will have to determine the size designation which is best suited to the lot. Statements describing size shall show the range of size in terms of minimum and maximum diameters. When lots are certified as meeting a grade, the appropriate "within tolerance" statements (well within tolerance, within tolerance, and average within tolerance) may be made in reporting off-size, unless the applicant requests that the percentage be reported. When the lot fails to meet the size specified in connection with the grade, the range and average of off-size must be reported unless the applicant requests certification on another size that will permit the lot to be within the size tolerance. However, when one of the size classifications are used or the size is marked on the container the inspector can not change these requirements. If a percentage of U.S. No. 1 quality is reported, the off-size must be reported in percentages so that it may be added to the grade defects to determine the percentage of U.S. No. 1 quality.

When a percentage of a specified diameter or larger is required by the grade or is specified in connection with the grade or if maximum size is specified in connection with the grade, **the size statement should show whether the lot meets or fails to meet these requirements.**

If the range in size is one-half inch or more, a "mostly" range may be given instead of reporting the percentage of a specified size or larger, being sure that over

55% of the onions are within the range stated and that compliance with the size requirements is clearly indicated.

Diameters shall be reported in 1/4 inch variations except in the case of "Boilers" and "Picklers" or when other variations are specified in the sales contract, as is sometimes done for export shipments. In those instances diameters shall be reported in 1/8 inch variations. An exception to this policy may be made when the inspection shows that the tolerance for a specified maximum size has been exceeded but no onions are found 1/4 inch larger in diameter than the specified maximum. Such a lot may be certified as meeting the next 1/8 inch larger size than the specified maximum, provided the tolerance for oversize is not exceeded. Another exception to this policy may be made when the inspector does not have a sizing ring graduated in 1/8 inch variations, in this case 1/4 inch variations is acceptable. If a caliper is available the inspector may use it to report the size of the onions in variations specified.

#### OTHER THAN

The U.S. No. 1 grade requires a 1-1/2 inch minimum (unless otherwise specified) with at least 40% 2 inches or larger for yellow, brown and red onions, and 30% 2 inches or larger for white onions. However, individual samples may have as much as 25 percentage points less than the specified percentage of 2 inches or larger in diameter, except for individual packages containing 10 pounds or less shall have no requirements as to the percentage of 2 inches or larger in diameter. Therefore, the inspector will have to refer to the size of the package to determine whether to apply the 25 percentage points less than the specified percentage (for packages containing more than 10 pounds) or no requirement (for packages containing 10 pounds or less).

Once that has been determined, the inspector will apply the requirement to the sample. For example: A lot of yellow onions in 50 pound sacks cannot be reported as an unqualified U.S. No. 1

#### BGG

Unless otherwise specified, onions shall not be less than 1-1/2 inches in diameter, with at least 60% 2 inches or larger. However, individual samples may have not less than one-half of the percentage specified of 2 inches or larger in diameter, except for individual packages containing 10 pounds or less shall have no requirement as to percentage of 2 inches or larger in diameter. Therefore, the inspector will have to refer to the size of the package to determine whether to apply the one-half of the percentage specified (for packages containing more than 10 pounds) or no requirement (for packages containing 10 pounds or less).

Once that has been determined, the inspector will apply the requirement to the sample. For example: A lot of yellow onions in 50 pound sacks cannot be reported as an unqualified U.S. No. 1 if any package contains less than 30% 2 inches or larger, regardless of the average. However, if this same

**OTHER THAN (continued)**

**BGG (continued)**

\*\*\*\*  
 if any sample contains less than \*\*\*\*  
 15% 2 inches or larger, regardless of  
 the average. However, if this same  
 example was in 3 pound consumer bags  
 within master containers, the 20 pound  
 sample could contain 0% 2 inches or  
 larger and still meet an unqualified  
 U.S. No. 1 grade, provided that the  
 average for the lot was at least 40%.

example was in 3 pound consumer bags  
 within master containers, the 20 pound  
 sample could contain 0% 2 inches or  
 larger and still meet an unqualified U.S.  
 No. 1 grade, provided that the average  
 for the lot was at least 60%.

When a minimum size smaller than 1-1/2 inches is specified, the requirement as to the percentage of 2 inches or larger does not apply unless the applicant requests it.

**OTHER THAN**

**BGG**

When onions are inspected on the basis of a minimum smaller than 1-1/2 inches, and a percentage of 2 inches or larger is specified, the percentage point variation below the specified percentage of 2 inches or larger applies. For example: A lot of 50 pound sacks were sold as U.S. No. 1, 1-1/4 inch minimum with 50% 2 inches or larger, no individual sample could contain less than 25% 2 inches or larger. However, if this same lot was 3 pound consumer units within master containers, the individual sample could have 0 percent 2 inches or larger, provided that the average for the lot was 50% 2 inches or larger.

When onions are inspected on the basis of a minimum smaller than 1-1/2 inches, and a percentage of 2 inches or larger is specified, the percentage point variation below the specified percentage of 2 inches or larger applies. For example: A lot of 50 pound sacks were sold as U.S. No. 1, 1-1/4 inch minimum with 40% 2 inches or larger, no individual containers could contain less than 20% 2 inches or larger. However, if the same lot was 3 pound consumer units within master containers, the individual sample could have 0% 2 inches or larger, provided that the average for the lot was 50% 2 inches or larger.

Also, under the "unless otherwise specified" clause, greater amounts of 2 inches or larger may be specified. For example, "U.S. No. 1, 60% 2 inches or larger." In this example no sample may go below 35% 2 inches or larger,

Also, under the "unless otherwise specified" clause, greater amounts of 2 inches or larger may be specified. For example: "U.S. No. 1, 70% 2 inches or larger." In this example no sample may go below 35% 2 inches or larger,

**OTHER THAN (continued)**

(unless they are in individual packages of 10 pounds or less, then individual samples could have 0% 2 inches or larger, provided that the average for the lot was 60% 2 inches or larger).

In stating the average percentage of 2 inches or larger in diameter, report the exact percent when specifically requested by the applicant, otherwise simply state that the requirements were met. (For example, "over 40% 2 inches in diameter and larger.") However, be sure to keep exact percentages on the notesheet. For example, if notes show an average of 77% 2 inches or larger in diameter, report "Average 77% 2 inches or larger in diameter." When a percentage of 2 inches or larger is less than the 40% required by the U.S. No. 1 grade, the range, as well as the average percentage must be reported. It is necessary to show the range regardless of the average percentage if any samples fall more than 25 percentage points below the average percentage of 2 inches and larger in diameter.

U.S. Commercial and U.S. No. 2 grades require the same minimum diameter as U.S. No. 1, but do not require a percentage 2 inches in diameter or larger. Therefore, when a percentage of 2 inches or larger is specified by the applicant in connection with these grades, there is no limit as to how much individual samples may fall below the percentage of 2 inches or larger; because the 25 percentage points limitation does not apply to these lower grades.

**BGG (continued)**

(unless they are in individual packages of 10 pounds or less, then individual samples could have 0% 2 inches or larger, provided that the average for the lot was 70% 2 inches or larger).

In stating the average percentage of 2 inches or larger in diameter, report the exact percent when specifically requested by the applicant, otherwise simply state that the requirements were met. (For example, "over 60% 2 inches in diameter and larger.") However, be sure to keep exact percentages on the notesheet. For example, if notes show an average of 77% 2 inches or larger in diameter, report "Average 77% 2 inches or larger in diameter." When a percentage of 2 inches or larger is less than the 60%, the range, as well as the average percentage must be reported.

It is necessary to show the range regardless of the average percentage if any samples fall below the one-half of the percentage specified average percentage of 2 inches and larger in diameter.

U.S. Combination and U.S. No. 2 grades have the same size requirements as the U.S. No. 1 grade.

It must be remembered that when a maximum size is specified, the qualifying term "generally" may not be used when the oversize, or a combination of oversize and undersize exceeds 10% as defined for the term "generally." When the oversize and undersize has exceeded 10%, the term "mostly" shall be the term used to qualify the size range. Also, the term "off-size" may be used to report a combination of undersize and oversize when the individual tolerances are not exceeded.

For specific information on reporting these defects see "General Inspection Instructions and see Appendix II for some examples.

### Metric Sizes

For onions marked with metric sizes, use the following metric conversion chart to determine compliance to marked sizes. If a lot fails to meet size as marked due to excessive off-size, report failing to meet the requirements based on the English equivalent, but do not state that it fails to meet marked size. However, be sure to report this to PACA as a possible misbranding. See certificate example in Appendix II.

**Metric Conversions – Millimeters to Inches**

Millimeters	Inches	Millimeters	Inches
3.2	1/8	79.4	3-1/8
6.4	1/4	82.6	3-1/4
9.5	3/8	85.7	3-3/8
12.7	1/2	88.9	3-1/2
15.9	5/8	92.1	3-5/8
19.1	3/4	95.3	3-3/4
22.2	7/8	98.4	3-7/8
25.4	1	101.6	4
28.6	1-1/8	104.8	4-1/8
31.8	1-1/4	108.0	4-1/4
34.9	1-3/8	111.1	4-3/8
38.1	1-1/2	114.3	4-1/2
41.3	1-5/8	117.5	4-5/8
44.5	1-3/4	120.7	4-3/4
47.6	1-7/8	123.8	4-7/8
50.8	2	127.0	5
54.0	2-1/8	130.2	5-1/8
57.2	2-1/4	133.4	5-1/4
60.3	2-3/8	136.5	5-3/8
63.5	2-1/2	139.7	5-1/2
66.7	2-5/8	142.9	5-5/8
69.9	2-3/4	146.1	5-3/4
73.0	2-7/8	149.2	5-7/8
76.2	3	152.4	6

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## (9) Quality and Condition

Statements pertaining to firmness, maturity, shape, color, the amount and type of defects, and the amount of decay are shown under the appropriate headings. Those factors noted with the letter (C) shall be reported as **CONDITION** factors on market certificates. Those factors noted with (Q or C) may be considered **QUALITY** or **CONDITION**, depending on the circumstances. Factors noted with a (Q) are considered **QUALITY** only.

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### Maturity (Q)

#### OTHER THAN

The U.S. No. 1, U.S. Commercial and U.S. No. 2 grades all require that the onions are to be mature.

**§51.2841 Mature...means well cured. Midseason onions which are not customarily held in storage shall be considered mature when harvested in accordance with good commercial practice at a stage which will not result in the onions becoming soft or spongy.**

Onions will ordinarily be considered "mature" if the tops have dried back and the outer scales are thin and papery. **At market**, firmness, dryness and curing are considered as Condition Factors.

The definition for mature makes exception for the "mid-season" onions. Mid-season onions are those that are harvested during the summer for immediate shipment and consumption in only a fairly well cured state.

#### BGG

The U.S. No. 1 grade requires that onions must be mature.

**§51.3203 Mature...means that the onion is fairly well cured, and at least fairly firm.**

Immature onions lack firmness and yield readily to slight pressure. The outer scales may be somewhat wrinkled, and in pronounced cases they may be stripped off easily by pressure of the thumb. Such onions are usually dull in color. When immature onions are reported, a further description shall be given, thus: "Onions immature, generally very spongy with outer scales slightly wrinkled."

Dryness and curing are included in the definition of "mature." If the onions make a dry, crackling sound, this is a good indication that they are mature, dry and well cured. In some cases, freshly harvested onions may not show these indications, yet still may be mature but only fairly well cured.

**OTHER THAN (continued)**

The term "mid-season" shall always be included in the "GRADE" statement, thus: "U.S. No. 1, Mid-season onions," except when the onions are mature and well cured. If the onions are mature and well cured, which is usually the case during the latter portions of early onion harvesting, then no mention shall be made in the "GRADE" statement as to the onions being "mid-season."

Immature onions lack firmness and yield readily to slight pressure. The outer scales may be somewhat wrinkled, and in pronounced cases they may be stripped off easily by pressure of the thumb. Such onions are usually dull in color. When immature onions are reported, a further description shall be given, thus: "Onions immature, generally very spongy with outer scales slightly wrinkled."

Do not confuse immaturity with the slippery condition usually indicating the early stages of Bacterial Soft rot, which often occurs as a result of the onions being overheated.

**BGG (continued)**

The U.S. No. 2 grade requires that onions not be soft and spongy.

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**Dryness and Curing (C)**

Dryness and curing are included in the definition of "mature" meaning that the onions are well cured for **Other Than** and fairly well cured for **BGG**. In many cases, particularly in the early fall, the onions may be slightly damp, have outer skins adhering closely to the bulb and an unusual amount of moisture present in the neck. Such onions may properly be certified as "Mid-season" without reference to dryness or curing. It is generally recognized that poorly cured onions may dry out under proper storage.

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### Firmness (C)

The U.S. No. 1 grade requires that the onions shall be "fairly firm."

\*\*\*\* Firm means that the onion does not yield slightly to moderate pressure. \*\*\*\*

**§51.2843/51.3204 Fairly firm...means that the onion may yield slightly to moderate pressure but is not appreciably soft or spongy.**

The U.S. Commercial (Other Than) and U.S. No. 2 grades specify that onions shall not be soft or spongy.

When describing firmness the following terms may be used: "Firm," "fairly firm," or "soft and spongy." Keep in mind that mature onions may lack firmness due to freezing injury, sprouts or other factors. However, when scoring an onion that is not fairly firm, it shall be based on maturity.

---

### Shape (Q)

#### OTHER THAN

In the U.S. No. 1 grade onions are required to be **fairly well shaped**. The U.S. Commercial grade requires onions to be **not badly misshapen**. There are no requirements for shape in the U.S. No. 2 grade.

The term **well shaped** is not a requirement of any grade, but is a descriptive term applied to onions having a smooth uniform shape characteristic of the variety.

**§51.2844 Fairly well shaped...means having the shape characteristic of the variety, but onions may be slightly off-type or slightly misshapen.**

**§51.2851 Badly misshapen...means that the onion is so misshapen that its appearance is seriously affected.**

#### BGG

In the U.S. No. 1 grade onions are required to be **fairly well shaped**. There are no requirements for shape in the U.S. No. 2 grade.

The term **well shaped** is not a requirement of any grade, but is a descriptive term applied to onions having a smooth uniform shape characteristic of the variety.

**§51.3205 Fairly well shaped...means that the onion shows the characteristic shape, not appreciably three-, four- or five- sided, thick necked or badly pinched.**

Onions may be described as well shaped, fairly well shaped or misshapen. For interpretation of the definitions of shape, refer to the official models and photographs. Onions that do not meet the requirements of fairly

**OTHER THAN (continued)**

Onions may be described as well shaped, fairly well shaped, misshapen or badly misshapen.

Some onions, especially **Sweet Spanish** onions have a tendency to be somewhat elongated. This elongated growth is mainly due to the seed. When such onions are encountered, they are considered to be fairly well shaped as long as the length is no more than **twice** as long as the diameter. For example: An onion that is 3 inches in diameter could be 6 inches in length.

The red **torpedo-shaped** onions will be considered fairly well shaped as long as the length is not more than **three** times the diameter.

For interpretation of the definitions of shape, refer to the official models and photographs.

**BGG (continued)**

well shaped shall be reported as "misshapen."

Since there are no requirements for the U.S. No. 2 grade, the shape of the onions may be described but shall not be scored as a defect.

Onions affected with abnormally thick necks and well developed bulbs shall be scored as "misshapen" under the appreciably thick neck requirement. The lower left onion in Photograph No. 15 is to be scored as a "thick neck" against the U.S. No. 1 grade.

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**Peelers (Q)**
**OTHER THAN (ONLY)**

**§51.2849 Damage...(i) Peeling when more than one-half of the thin papery skin is missing, leaving the underlying fleshy scale unprotected.**

Peelers are onions which have more than one-half of the thin papery skin missing, leaving the underlying fleshy scale unprotected. Peelers should not be confused with onions that have the papery outer scales cracked, but still attached. As long as the outer papery skin is present on at least one-half of the onion, even though it is loose, it cannot be scored as a peeler. Keep in mind that the thin papery skin may be tight to the onion in the process of drying and as light as tissue paper, especially early in the season. If the outer skin is removed and it is obviously not an edible fleshy scale, then it shall be considered a thin papery skin.

Peelers are scored against the separate 10% tolerance provided for them in the U.S. No. 1 grade. There are no requirements or additional tolerances for peelers in the U.S. Commercial or U.S. No. 2 grades.

When determining the percentage of U.S. No. 1 quality, the percentage of all peelers must be added to the percentage of other grade defects and off-size.

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## Defects

The definitions of damage or serious damage are based on how the individual onion(s) is affected, except for the following defects: Dirt or Staining, Surface Mold, Excessive Tops, Dry Roots and Sunburn for **Other Than** onions; Dirt or Staining, Surface Mold and Excessive Tops for **BGG** onions, which are based on lot allowances.

The application of tolerances does **not** apply to the defects that are based on lot allowances. An individual sample could contain 100% of these defects and still meet a U.S. No. 1 grade, provided that the average for the lot was within the specified allowance. For example, a lot of onions could meet a U.S. No. 1 grade even if an individual sample contained 100% of the onions with tops 3 inches or more in length, but averaged less than 30% with tops 3 inches or more in length. Only when the lot allowance is exceeded for Dirt or Staining, Surface Mold, Excessive Tops, Dry Roots, or Sunburn (Other Than) and Dirt or Staining, Surface Mold or Excessive Tops (BGG) will the lot fail to grade U.S. No. 1.

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## Dirt or Staining and Surface Mold (Q or C)

The U.S. No. 1 grade contains a requirement that onions must be "free from damage" by dirt or staining. The U.S. Commercial and U.S. No. 2 grades contain requirements that onions must be "free from serious damage" by dirt or staining. Surface mold is considered as "other foreign matter" within the definition of dirt or staining. Although generally referenced together, dirt (cleanness), staining (brightness), and surface mold are different though closely related factors. For this reason, the defects (dirt, staining and surface mold), shall be kept separately on the notesheet. They are scored against the same lot allowance. On both **market and shipping point certificates**, the percentage of dirt or staining shall be reported together on the certificate because they are both quality defects; surface mold shall be reported separately because it is a condition defect.

When reporting the overall appearance of the lot, the cleanness and brightness shall be reported separately, for example: "mostly fairly clean and fairly bright, some slightly dirty and slightly stained." A lot that is appreciably to badly stained may be clean or fairly clean; or a lot that is dirty may be bright or fairly bright. Statements combining the factors such as "mostly fairly clean, some slightly stained" are incorrect.

**§51.2849/51.3209 Damage...Dirt, staining or other foreign matter when more than 20 percent of the onions in a yellow, brown or red lot, or more than 15 percent of the onions in a white lot are appreciably stained. Onions with adhering dirt or other foreign matter shall be judged on the same basis as stained onions.**

**§51.2852/51.3210 Serious damage...Dirt, staining or other foreign matter when more than 25 percent of the onions in a lot are badly stained. Onions with adhering dirt or other foreign matter shall be judged on the same basis as stained onions.**

This means that an individual onion is scored as dirty, or appreciably or badly stained, or appreciably or badly affected by surface mold when exceeding the amount shown on visual aid C-10 or C-11, respectively. If the average for the lot of dirty onions; appreciably and badly stained onions; and, appreciably and badly affected by surface mold exceeds 20% for yellow, brown or red onions, or more than 15% for white onions, then the lot is considered **damaged** and fails to grade U.S. No. 1.

These defects shall be reported on the certificate only when the lot is damaged (exceeds the allowance) by the defects or if requested by the applicant when the lot is not damaged. When the defects do not exceed the lot allowance and the applicant requests them to be reported, use the general quantity terms unless the applicant specifically requests that the percentages be reported. In this case, state "not affecting grade, reported at applicant's request." For specific information on reporting these defects see "General Inspection Instructions" and examples in Appendix II.

**Dirt - Clean. (Q)** The following terms shall be used in describing freedom from dirt on onions.

"Clean" means that the onion is practically free from dirt or other foreign material.

**"Fairly clean"** means that there is some dirt or foreign material but only enough to slightly affect the appearance of the onion.

**"Slightly dirty"** means there is considerable dirt or foreign material but not sufficient to materially affect the appearance of the onion.

**"Dirty"** means that the onions have dirt affecting the individual onions to the same degree as appreciably stained or badly stained onions. See Photographs C-10 for appreciably stained and C-11 for badly stained onions.

**Staining - Brightness. (Q)** Brightness is so closely related to staining that the two shall be considered together. This factor shall be judged from the standpoint of the natural color of the outer scales, and the affect that staining, discoloration, adhering dirt, and foreign material have upon it. Furthermore, the inherent characteristic of the variety shall also be considered. Certain varieties by their very nature are not as bright as other varieties. When brightness is irregular, a combination of descriptive terms shall be used such as "mostly bright, some fairly bright."

Brightness and staining shall be described with the following terms:

**"Bright"** means that the general appearance of the individual onion is bright.

**"Fairly bright"** means that the individual onion has some slight staining or discoloration caused by weathering or other means.

**"Slightly stained"** means that the individual onion has considerable staining or discoloration caused by weathering or other means but not sufficient in severity to score the onion against the grade.

**"Appreciably stained"** means that there is sufficient staining or discoloration caused by weathering or other means to materially affect the appearance of the individual onion. See Photograph C-10.

**"Badly stained"** means that there is sufficient staining or discoloration caused by weathering or other means to seriously affect the appearance of the individual onion. See Photograph C-11.

\*\*\*\*

### Pinkish-Red Discoloration (Q)

This defect has generally been affecting white onions, however, it may affect yellow onions too. It appears as though the white onions have been rubbed against red onions and the red pigment has stained the outer papery scales of the onions. Some onions also appear as though the pinkish-red color is "bleeding" through the papery scales or a very faint, cloudy pink color.

The cause of this defect is unknown. Therefore, describe the defect as "pinkish-red discoloration" and score it on the same basis as staining. Do not peel the onions in order to score them, base it on the appearance of the onion unless it is thought that the fleshy scales are affected. If the fleshy scales are affected, score the onion as dissimilar varietal characteristics. See section "Commodity, Type or Variety."

Keep this defect in a separate column from dirt, staining, silvery-whitish discoloration, and surface mold but score against the same allowance. Score as a quality factor when the onion is "appreciably affected by pinkish-red discoloration" or "badly affected by pinkish-red discoloration," use Photo C-10 and Photo C-11 as guides. The allowance for staining would have to be exceeded before the lot is out of grade.

See section "Reporting Dirt or Staining, Surface Mold, Excessive Tops, Dry Roots and Sunburn."

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Surface Mold (C)

A number of different fungi occur as surface mold on onions. These surface molds may be black, blue, gray or other colors. These fungi can also occur between the scales (see section on "Black Mold Between the Scales"). If the proper conditions are present surface mold can result in decay. If the tissue of the onion is broken down it shall be scored as decay (see section on "Decay").

Surface mold shall be scored on the basis of the individual onion. The presence of surface mold on onions shall be considered and reported on the same basis as "damage by staining or dirt."

Surface mold shall be described using the following terms:

**"Slightly affected by surface mold"** means that the individual onion has some surface mold, but not sufficient in severity to score the onion against the grade.

**"Appreciably affected by surface mold"** means that there is sufficient surface mold to materially affect the appearance of the individual onion. See Photograph C-10.

**"Badly affected by surface mold"** means that there is sufficient surface mold to seriously affect the appearance of the individual onion. See Photograph C-11.

\*\*\*\*

Silvery-Whitish Discoloration (Q)

This defect has generally been affecting red onions. It appears as though the red onions have lost their pigmentation, leaving a silvery-whitish discoloration which mostly occurs around the neck and sides of the onions. Some onions also show black pimply-like areas, and some onions may have a dry sunken appearance.

The cause is thought to be from feeding by insects (thrips), however, it has not been confirmed by a pathologist. Therefore, describe the defect as "silvery-whitish discoloration" and score it on the same basis as staining. Do not peel the onions in order to score them, base it on the appearance of the onions.

Keep this defect in a separate column from dirt, staining, and surface mold but score against the same allowance. Score as a quality factor when the onion is "appreciably affected by silvery-whitish discoloration" or "badly affected by silvery-whitish discoloration," (use Photo C-10 and Photo C-11 as guides). The allowance for staining would have to be exceeded before the lot is out of grade.

If the areas are dry and sunken, they shall be scored the same as "dry sunken areas." See "Dry Sunken Areas" for scoring guides.

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See Section "Reporting Dirt or Staining, Surface Mold, Excessive Tops, Dry Roots and Sunburn."

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**Excessive Tops (Q)**

**§51.2849/51.3209 Damage...Tops when more than 30 percent of the onions in a lot have tops 3 inches or more in length.**

The U.S. No. 1 and U.S. Commercial grades must be free from damage by excessive tops. This term applies to long dry tops which have not been detached from the onions.

The individual onion is scored when the top is 3 inches or more in length. This is recorded on the notesheet in a separate column from other defects. When the average for the lot exceeds 30%, the lot is considered damaged.

See Section "Reporting Dirt or Staining, Surface Mold, Excessive Tops, Dry Roots and Sunburn."

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**Dry Roots (Q)**

**OTHER THAN (ONLY)**

**§51.2849 Damage...(e) Dry roots when more than 20 percent of the onions in a lot have practically all roots 2 inches or more in length.**

The U.S. No. 1 and U.S. Commercial grades must be free from damage by dry roots. Occasionally a lot of onions will show abnormally long, thick heavy dry roots. See Onion Photo No. 1, to identify "dry roots." Do not confuse dry roots with new roots, see Section for "New Roots."

The individual onion is scored when practically all roots (95% or more) are 2 inches or more in length. This applies to roots that are on the onion and not the entire root system. This is recorded on the notesheet in a separate column from other defects. When the average for the lot exceeds 20%, the lot is considered damaged.

See Section "Reporting Dirt or Staining, Surface Mold, Excessive Tops, Dry Roots and Sunburn."

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**Sunburn (Q)**

**OTHER THAN (ONLY)**

**§51.2849 Damage...(g) Sunburn when more than 33 percent of the onions in a lot have a medium green color on one-third of the surface.**

The U.S. No. 1 and U.S. Commercial grades must be free from damage by sunburn. Sunburn is a greenish discoloration caused by exposure to the sun without actually killing the tissues. Often yellow and white onions have a greenish cast on one side of the onion in the first fleshy outer scale.

In judging the amount of green color in a lot of onions, the **outer scales shall not be removed**. The individual onion is scored when more than 1/3 of the surface of the onion is affected by sunburn with a medium green color. This defect is recorded on the notesheet in a separate column from other defects. When the average for the lot exceeds 33%, the lot is considered damaged.

See section "Reporting Dirt or Staining, Surface Mold, Excessive Tops, Dry Roots and Sunburn."

\*\*\*\*

Visual Aid: Color Chip (ONS-CC-2).

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**Reporting Dirt or Staining, Surface Mold, Excessive Tops, Dry Roots and Sunburn for Other Than Onions; Reporting Dirt or Staining, Surface Mold and Excessive Tops for BGG Onions**

Dirt or staining, surface mold, excessive tops, dry roots and sunburn all have lot allowances for each defect for **Other Than** onions, and dirt or staining, surface mold and excessive tops have lot allowances for each defect for **BGG** onions. (See the section that pertains to each defect for their allowances.)

These defects shall be reported on the certificate only when the lot is damaged by (exceeds the allowance) one or more of these defects or if requested by the applicant when the lot is not damaged. For specific information on reporting these defects see "General Inspection Instructions and examples in Appendix II."

When the above defects do not exceed their allowances and the applicant requests them to be reported, use the general quantity terms unless specifically requested by the applicant to report percentages. Also, state that the defect does "not affect grade and reported at applicant's request."

When these defects exceed their allowance the lot is considered damaged or seriously damaged and fails to grade. **At market**, report the total amount of appreciably stained onions (or damage for other defects) in the "AVERAGE DEFECTS" column, and include the percentage of badly stained onions (or serious damage for other defects) in the "SERIOUS DAMAGE" column on the certificate. On the **shipping point** certificate report the range and average including serious damage in the "DESCRIPTION OF PRODUCT" section.

**Reporting U.S. No. 1 Quality.** When a lot allowance has been exceeded, only the amount in excess of the allowance shall be deducted from 100% to determine the percentage of U.S. No. 1 Quality. The percentage of other defects shall be deducted in the usual manner. For example, a lot having 5% defects, 20% dry roots, 35% excessive tops, and no undersize; the percentage of U.S. No. 1 quality is 90% for **Other Than** and 70% for **BGG**. The percentage of U.S. No. 1 quality is different between the two standards because dry roots is based on a lot allowance for the **Other Than** standards and is based on the total tolerance for the **BGG** standards.

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### **Dry Roots (Q)**

#### **BGG (ONLY)**

**§51.3209 Damage...(j) Dry roots when practically all roots are 2 inches or more in length.**

The U.S. No. 1 grade requires that **individual** onions must be free from damage by dry roots. Occasionally a lot of onions will show abnormally long, thick heavy dry roots. See Onion Photo No. 1, to identify "dry roots." Do not confuse dry roots with new roots, see Section for "New Roots." Be sure that practically all of the roots (95% or more) on an individual onion have a length of 2 inches or more, before scoring as damage. Do not score if only a few of the roots on an individual onion are two inches or longer. Score against the total tolerance for the grade.

There are no requirements for the U.S. No. 2 grade. However, the onion may be scored as serious damage when seriously detracting from the appearance. Score against the total tolerance for the grade.

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### **Sunburn (Q)**

#### **BGG (ONLY)**

**§51.3209 Damage...(d) Sunburn when dark green in color and affecting an area equivalent to that of a circle 1 inch in diameter on an onion 2-3/4 inches in diameter or correspondingly smaller or larger areas on smaller or larger onions, or when medium to light green in color and affecting more than 10 percent of the surface of the onion.**

The U.S. No. 1 grade requires that **individual** onions must be free from damage by sunburn. Sunburn is a greenish discoloration caused by exposure to the sun without actually killing the tissues. Often yellow and white onions have a greenish cast on one side of the onion in the first fleshy outer scale. This is a natural condition and shall not be reported as sunburn. Rough handling or thin skinned onions will usually result in a considerable amount of this greenish cast showing. In judging the amount of green color, the **outer scales shall not be removed.**

Green veining in white and yellow onions is common and characteristic. However, if the flesh shows solid areas of medium to light green discoloration affecting more than 10% of the surface or more than a 1 inch circle of dark green color, the onion shall be scored as damage. When onions are scored as damage they are scored against the total tolerance for the grade.

There are no requirements for the U.S. No. 2 grade.

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### **Bottlenecks (Q)**

**§51.2847/51.3208 Bottlenecks...are onions which have abnormally thick necks with only fairly well developed bulbs.**

A bottleneck is not necessarily misshapen or elongated. Whether or not an onion is a bottleneck is not determined by its shape, but by the fact that it has an abnormally thick neck in proportion to the size of the bulb. Refer to Onion Photograph No. 15 for the **Other Than** standards only.

Bottlenecks are free from defects of the U.S. No. 1 and U.S. Commercial grades in the **Other Than** standards. Therefore, report any bottleneck as damage against the U.S. No. 1 and U.S. Commercial grades. Do not report as serious damage or score bottlenecks against the U.S. No. 2 grade.

Bottlenecks are free from defects of the U.S. No.1 and U.S. No. 2 grades in the **BGG** standards. Therefore, report any bottleneck as serious damage on **BGG** onions. However, bottlenecks for **BGG** standards shall be scored when the appearance of the onion is worse than the onion in the lower right corner of Photograph No. 15 for "Northern Grown Onions."

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**Closely Trimmed Necks (Q)**

The practice of trimming the necks to look for the presence of decay in the neck during the packing process is very prevalent. However, it is possible that in doing this the onions may be damaged.

As a guide, score as damage when the cut surface resulting from a closely trimmed neck exceeds the area of 3/4 inch circle on a 3 inch onion. In no instance may the depth of the cut be below the natural attachment of the neck to the bulb. If so, score as damage regardless of the area affected. Correspondingly greater or lesser areas allowed on larger or smaller onions. Score as serious damage when seriously detracting from the appearance.

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**Cracked Papery Scale (Q)**

Cracking of the thin papery skins is not considered as damage and shall be disregarded unless specifically requested by the applicant; report "not affecting grade reported at applicant's request." However, if the lot has an excessive amount of these scales present to an extent that materially affects the appearance of the lot, this factor shall be reported. (As a guide, when more than 20 percent of the onions in a lot are affected to the same degree or worse than Onion Photo No. 14, the lot will be considered damaged.)

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**Cracked Fleshy Scales (Q)**

Score as damage when one or more of the fleshy scales of an onion are cracked or when affecting an onion to the same degree or worse than Onion Photo No. 14. Score as serious damage when seriously affecting the appearance of the onion.

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**Cuts (Q)**

Cuts may be caused by mechanical means, or during the harvesting, packing or handling methods of the onions.

**§51.2849/51.3209 Damage...Mechanical when any cut extends deeper than one fleshy scale, or when any bruise breaks a fleshy scale.**

**§51.2852/51.3210 Serious damage...Mechanical when any cut extends deeper than two fleshy scales, or when cuts seriously damage the appearance of the onion.**

Cuts shall be scored as damage if they affect more than one fleshy scale. Superficial cuts which do not affect more than one fleshy scale and which do not materially affect the appearance of the onions shall not be scored as damage. However superficial cuts affecting only one scale and more than 3/4 inch in length on a 3 inch onion, shall be considered as damage. When cuts seriously damage the appearance of the onion (more than 1-1/2 inches in length on a 3 inch onion) or affect more than two fleshy scales, they shall be scored as serious damage.

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### **Insects or Insect Damage (Q or C)**

**Insect Damage.** All types of injury caused by worms or insects shall be reported as "insect damage" when severe enough to be scored against the grade. The onion shall be scored as insect **damage** when it materially affects the appearance of the onion or worm holes penetrate more than one or two fleshy outer scales, depending on the size of the hole. The onions shall be scored as serious damage by insects when seriously detracting from the appearance of the onion.

When injury caused by the Onion Maggot is found, it will usually be necessary to cut to determine the extent of the injury since decay and severe tunneling frequently will be found in connection with a small entry hole. Small worm holes in or around the base of the onions should not be scored as severely as those affecting the side and fleshy scales.

**Insects.** If insects (aphids/thrips) are discovered during the process of inspection (do not peel scales to look for insects), the following scoring guide will apply: Score as **damage** when more than 5 insects are present. Score as **serious damage** when more than 15 insects are present.

At **market**, if the insects are live or there is evidence of fresh frass that occurred during transit, treat as a **condition** factor. If the insects are dead or the insect damage is old, treat as a **quality** factor. If both live and dead insects are present, treat as a **condition** factor.

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**Scallions (Q)**

**§51.2848 Scallions...are onions which have thick necks and relatively small and poorly developed bulbs.**

Scallions differ from bottlenecks in that they have small and poorly developed bulbs. Scallions are defects in all grades.

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**Seedstems (Q)**

**§51.2849/51.3209 Damage...Seedstems which are tough or woody, or which are more than 1/4 inch in diameter.**

**§51.2852/51.3210 Serious damage...Seedstems when more than 1/2 inch in diameter.**

Transplanted onions are susceptible to seedstems during the latter part of their growth. When harvested, the seedstems are cut or broken off leaving thick, tough stems extending through the center of the onions.

The U.S. No. 1 and U.S. Commercial (**Other Than**) grades require that onions be free from damage by seedstems. The U.S. No. 2 grade requires that onions be free from serious damage by seedstems.

**NOTE:** Seedstems shall be measured at shoulder level of the onion, and the seedstem shall be restored to a round shape if it has become flattened.

See Onion Photo No. 2 and Photo No. 3.

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**Splits and Doubles (Q)**

**§51.2846/51.3207 Doubles...means onions which have developed more than one distinct bulb joined only at the base.**

**OTHER THAN**

**§51.2849 Damage...(b) Splits when onions with two or more hearts are not practically covered by one or more outer scales.**

**BGG**

**§51.3209 Damage...(b) Splits when well cured onions are not practically covered by an outer scale, or when fairly well cured onions are not completely covered by one outer scale.**

A **split** is distinguished by the fact that the two or more distinct bulbs are only partially covered by an outer scale. A **double** is two or more bulbs joined only at the base.

Based on the definition of damage by splits, onions shall be considered damage by splits when **well cured** onions are not **practically** covered by one outer scale, or when **not well cured** (fairly well cured) onions are not **completely** covered by one outer scale.

Split onions that are materially misshapen shall be reported as "**splits**" and not "misshapen." Splits shall be reported as damage against the U.S. No. 1 grade. Do not score splits against the U.S. Commercial (**OTHER THAN**) and the U.S. No. 2 grades. (See "Shape" section.)

Doubles are always scored against the U.S. No. 1 and U.S. Commercial (**OTHER THAN**) grades as damage and reported as "**doubles**." Do not score doubles against the U.S. No. 2 grade.

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**Dry Sunken Areas (Q or C)**

**§51.2849/51.3209 Damage...Dry sunken areas when the affected areas exceed the equivalent to that of a circle 1/2 inch in diameter on an onion 2-3/4 inches in diameter which does not have the outer papery scale covering the affected areas or when the affected areas exceed the equivalent to that of a circle 3/4 inch in diameter on an onion 2-3/4 inches in diameter which has the outer papery scale covering the affected areas. Correspondingly lesser or greater areas are allowed on smaller or larger onions.**

**§51.2852/51.3210 Serious damage...Dry sunken areas when extending deeper than one fleshy scale, or when affecting an area equivalent to that of a circle 1 inch in diameter on an onion 2-3/4 inches in diameter, or correspondingly lesser or greater areas on smaller or larger onions.**

Onions grown in regions where the temperatures are high during the harvest period are sometimes affected with dry sunken areas. This injury takes place at harvest time when clods of dirt injure the bulbs or the bulbs are exposed to the heat and bright sunlight. The injury is most common in midseason onions. The tissues of the exposed area of the onion are killed and become soft and slippery. However, when temperatures are reduced and the onions are exposed to the air, the scalded tissue will lose moisture rapidly by evaporation so that sunken, leather-like areas are produced, which are usually bleached almost white. Dry sunken areas are entry ways for decay during transit and marketing or storage.

Dry sunken areas on **Other Than** onions that are shipped without being stored shall be handled as a **condition factor**. As a guide, onions will be considered as "non-storage" onions until **October 31** of the year of production, and dry sunken areas shall be a condition defect. Onions will be considered "storage" onions from **November 1** until the end of the growing season, and dry sunken areas shall be considered a **quality defect**.

Dry sunken areas on **BGG** onions that are shipped without being stored shall be handled as a **condition factor**. If onions are stored, dry sunken areas shall be considered a quality factor. However, BGG type onions are generally not stored, except **BGG** type onions shipped from the Vidalia, Georgia area after **July 1** each season.

**NOTE:** Imported onions shall be treated as a condition factor.

### **Wet Necks (C)**

\*\*\*\* Sometimes by exerting pressure, water or juice can be squeezed from the neck of an onion. Wet necks alone will not cause onions to be damaged. "Mid-season" onions may have wet necks and will not be considered as a defect (see "Dryness and Curing" section). However, if there is enough moisture affecting the bulb, consider the onions "wet," score as damage (see "Moisture-Wet" section).

If the wet neck has a sour smell or if the scales are discolored and/or slick but not decayed, score as serious damage by "wet necks."

\*\*\*\*

Dampness or wetness of the neck does not necessarily mean that an onion is decayed and care shall be taken not to confuse it with decay. Decay may develop later, but such onions shall not be scored as decay unless decomposition has actually begun. This can generally be determined by cutting open the neck of the onion. If decay is present, decomposition of some of the inner scales is usually evident.

### Loose Skins or Chaff (Q)

In most shipments loose skins are of no commercial importance, and are an indication that the stock is mature and well cured. Unless the amount is excessive and the general appearance of the lot is appreciably affected, this factor shall not be reported. As a guide, if more than 1/10 of the containers in a lot have more than 8 ounces of loose skin per container, the lot shall be considered as damaged and reported as follows: "Lot contains excessive loose skins which damage the general appearance of the lot."

This defect should not affect **BGG** type onions. They peel naturally with curing and handling. If requested report as not affecting grade.

### Internal Papery Scales (Q)

Occasionally lots of onions will have light brown papery scales between adjacent inner fleshy scales (and/or discolored scales in the process of drying), extending into the bulb from the neck. To determine if onions are damaged by internal papery scales, cut the neck of the onion as close as possible to the point of attachment. If the papery scale extends into the onion more than 1/2 inch on onions 1/2 to 2 inches; more than 3/4 inch on onions 2 to 3 inches; and, more than 1 inch on onions 3 inches and larger in diameter, the onion is considered damaged. Score as serious damage when the internal papery scales seriously detract from the appearance.

### Moisture-Wet (C)

Moisture-Wet is listed in the **BGG** standards under "damage." Even though the condition is not listed in the **Other Than** onions standards, it shall be considered as "Damage by other means." Onions may not be properly cured, or may absorb moisture during storage or in transit under humid conditions. **BGG** onions are not normally stored, but recent practices are resulting in more **BGG** onions being stored. Onions taken from a cool storage into warm humid conditions, or unloaded from refrigerated cars or trailers during summer weather, may result in the onions being damp. This dampness as well as dampness due to lack of maturity and shall not be scored for moisture-wet.

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\*\*\*\*

Dampness of onions due to moisture from condensation or rain should be described and should not be considered as damaging the onions unless drops of moisture are present to an extent that the lot may be reported as wet. If the onions are not considered "wet" and the applicant requests the inspector to report the dampness of onions due to moisture from condensation or rain, report in general terms "not affecting grade, reported at applicant's request." Because of the possibility of the development of surface molds, an accurate description of the various degrees of dryness is important. The following terms shall be used when reporting dryness: "dry," "fairly dry," "damp," and "wet."

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### **Watery Scales and Translucent Scales (C)**

Watery Scales and Translucent Scales are defects that look very similar. However, Watery Scales may be distinguished from Translucent Scales by the "off-color" of the scales. Therefore, onions must be cut to determine whether they are damaged by Watery Scales or Translucent Scales.

It is the responsibility of the inspector to cut a sufficient number of onions to accurately determine the percentage of Translucent Scales or Watery Scales. The percentage of Translucent Scales or Watery Scales is determined based upon the **entire sample** inspected and not on a "cut" sample. (See "Sampling To Determine Internal Defects" section.)

**A sharp knife must be used when cutting** to determine damage by Watery Scales or Translucent Scales. A dull knife or a cerate edged knife can cause injury to tissue, creating more watersoaked appearance and resulting in the reporting of a higher percentage of damage than justified.

To determine if onions are damaged by Watery Scales or Translucent Scales they should first be cut crosswise at the center. If at least one entire outer fleshy scale is affected, (two for Translucent Scales) in cross section, the onions must then be cut lengthwise from stem to root end. Although two or more scales may be affected to some extent, the onions must not be considered damaged unless the **total volume** affected is more than what is allowed in the definition of damage for Watery Scales or Translucent Scales. An onion could have a watersoaked condition several scales deep and not be scored as damage, provided that it did not exceed the total volume allowed for damage by Watery Scales or Translucent Scales.

The color of the scales will determine how the defects are to be scored and reported. If there is **no discoloration** of the scales, the onions will be reported and scored based on the guidelines for **Translucent Scales**. If there is **discoloration** of the scales, the onions will be reported and scored based on the guidelines for **Watery Scales**.

When determining damage by Watery Scales **always remove the dry outer scales** before deciding the extent of discoloration present. This is very important because very often the brown color of the dry outer scale is apparent through the somewhat transparent flesh and gives a brown appearance when there may not be any discoloration of the fleshy scales. Frequently the appearance of discoloration is not noticeable after the dry outer scales are removed. (See photograph C-1.)

**§51.2849/51.3209 Damage...Watery scales when more than the equivalent of one entire outer fleshy scales are affected by an off-colored, watersoaked condition. The off-color must be of some shade of brown or yellow.**

**§51.2852/51.3210 Serious damage...Watery scales when more than the equivalent of two entire outer fleshy scales are affected by an off-colored, watersoaked condition. The off-color must be of some shade of brown or yellow.**

**Watery Scales.** Onions maybe affected by Watery Scales directly from the field, in storage, or in onions which may have been frozen. Onions with Watery Scales have an "off-color," watersoaked appearance when cut crosswise. Watery Scales are very similar to Translucent Scales, except for the "**off-color**" of the scales. Onions shall be reported as Watery Scales when there is discoloration associated with the watersoaked condition. When no discoloration is present, the onions shall be reported and scored as Translucent Scales.

See photograph C-1, "Cut Onion: Scale Present & Removed."

**§51.2849/51.3209 Damage...Translucent scales when more than the equivalent of two entire outer fleshy scales have a watersoaked condition.**

**Translucent Scales** is a physiological disease, with characteristics very similar to Watery Scales. When the onions have a watersoaked appearance and **no discoloration** is present, the onions shall be reported and scored as Translucent Scales. However, when there is discoloration associated with the watersoaked condition, they will be reported as Watery Scales and scored according to the guidelines as stated in the previous section.

The U.S. No. 1 and U.S. Commercial (**OTHER THAN**) grades require that onions must be free from damage by translucent scales. Score as damage against the U.S. No. 1 and U.S. Commercial (**OTHER THAN**) grades when more than the equivalent of two entire outer fleshy scales have a watersoaked condition.

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### **Number of Fleshy Scales (Q)**

This factor will be reported only at applicant's request. If the applicant requests the inspector to report the number of fleshy scales, a **ten pound** "cut sample" shall be used. Be sure to report the results based on "Cut Samples" on the certificate. (See Appendix II for examples.)

The fleshy scales shall be those outside a specified center diameter. Percentage of fleshy scales in the "cut sample" shall be reported in the "OTHER" section on **market** certificates, and in the "DESCRIPTION OF PRODUCT" section on the **shipping point** certificate. However, for both **shipping point and market** certificates, be sure to state in the "REMARKS" section that "Range and average number of fleshy scales outside a \_\_\_ inch diameter or from the heart of the onion were determined and reported at applicant's request, not affecting grade."

Example: "Cut samples: 7 to 12, average 9 fleshy scales per onion outside a specified one inch center diameter."

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### **Number of Hearts (Q)**

This factor will be reported only at applicant's request. If the applicant requests the inspector to report the number of hearts, a **ten pound** "cut sample" shall be used. Be sure to report the results based on "Cut Samples" on the certificate. (See Appendix II for examples.)

"Single hearts" consist of concentric layers of fleshy scales from outer most fleshy scale to a singular center of the onion. Onions with more than one center or heart shall be referred to as "multiple heart" onions. Percentages of single and/or multiple hearts shall be determined based on a specified diameter center of the onions. The percentages of single and/or multiple hearts in the "cut sample" shall be reported in the "OTHER" section on **market** certificates, and in the "DESCRIPTION OF PRODUCT" section on the **shipping point** certificate.

However, for both **shipping point and market** certificates, be sure to state in the "REMARKS" section that "Percentages of multiple hearts inside a \_\_\_\_ inch center diameter were determined and reported at applicant's request, not affecting grade."

Example: "Cut samples: 65% single hearts and 35% multiple hearts inside a 1-1/2 inch center diameter."

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### **Frozen Onions (C)**

At **shipping point**, onions shall be considered frozen when ice crystals are present. Score frozen onions against all grades, and describe the number of scales affected.

At **shipping point**, if ice crystals are not present, score based on the appearance of the onions at the time of inspection. For example: if the onions are translucent and watersoaked in appearance, score as **Translucent Scales** or **Watery Scales** and use the scoring guidelines defined in the standards. However, if the scales are decayed, score as decay. (See "Watery Scales and Translucent Scales" section.)

At **market**, if there are ice crystals present or if there is a pattern in the load that is indicative that the onions were frozen in transit, report according to General Inspection Instructions indicating the extent of the freezing injury in the load, in the container, and the individual specimen affected. If there are **no ice crystals** present and **no pattern** in the load, score as **Watery Scales** or **Translucent Scales** and use the scoring guidelines defined in the standards. (See "Watery Scales and Translucent Scales" section.)

At **market**, if the onions are not on the trailer but there are ice crystals present or there is a pattern in the package indicative of freezing, report according to the General Inspection Instructions indicating the extent of the freezing injury. If there is **no pattern** or **no ice crystals** present, score as **Watery Scales** or **Translucent Scales** and use the scoring guidelines defined in the standards. (See "Watery Scales" and "Translucent Scales" section.)

## **Sprouts (C)**

Onions that are affected by sprouting are generally onions that have been in storage.

### **OTHER THAN**

**§51.2849 Damage...(h) Sprouts when visible, or when concealed within the dry top and more than 3/4 inch in length on an onion 2 inches or larger in diameter, or proportionately shorter on smaller onions.**

### **BGG**

**§51.3209 Damage...(e) Sprouting when any sprout is visible, or when concealed within the neck scales and more than 3/4 inch in length on an onion 2 inches or larger in diameter, or proportionately shorter on smaller onions.**

**§51.2852/51.3210 Serious damage...Sprouts when the visible length is more than 1/2 inch.**

All visible sprouts are scored as damage against the U.S. No. 1 grade regardless of length. Visible sprouts are scored as serious damage against the U.S. No. 2 grade when visible sprouts are more than 1/2 inch in length.

The length of a concealed sprout shall be measured from its tip back to the point where the sprout emerges from the bulb into the neck. The portion of the sprout that is within the bulb shall not be considered in the measurement. There is no limit on length of concealed sprouts in the U.S. No. 2 grade.

When the percentage of sprouts exceeds 5%, it is necessary to show the length of the sprouts as well as indicate whether the sprouts are "visible," "concealed in the neck" or both. **Example:** Sprouts range from 1/2 to 2-1/2, mostly 1 to 2 inches in length, mostly visible, some concealed in the neck.

Occasionally, internal sprouts may be encountered when cutting onions to determine other defects. Internal sprouts grow from the center of the onion out into the fleshy scales and do not occur in the neck.

Score any internal sprout that penetrates a fleshy scale and report it as damage by "internal sprouts." Score as serious damage when the internal sprout penetrates more than two fleshy scales.

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**New Neck Growth (C)**

New neck growth is a continuation of the growth of the neck after harvesting and is either green or white in color. It usually occurs in "non-storage" onions that have been harvested a little too early, causing the onion to continue to grow. It shall be scored on the same basis as visible sprouts. (See "Sprouts" section for scoring guide.)

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**Black Mold Between the Scales (C)**

The indications of this disease is the presence of black, powdery spore masses of the fungus between the outer fleshy scale and the adjacent papery scale or between the layers of papery scales. The spore masses are usually heaviest around the neck of the onion and have a tendency to follow the veins down the sides. On onions with thin or light papery scales these spore masses are usually visible through the scales.

Onions that have black mold between the scales are very susceptible to Black Mold Rot. Therefore, when black mold between the scales occurs, score as **damage** when the aggregate area of a circle exceeds 3/4 inch in diameter on an onion 3 inches in diameter. Score as **serious damage** by black mold between the scales when the aggregate area of a circle exceeds 1-1/4 inches in diameter on an onion 3 inches in diameter. Correspondingly greater or lesser areas are allowed on larger or smaller onions.

**At shipping point**, if the spores are wet or damp and the adjacent scales are moist and slick but decay is not yet present, any amount shall be scored as damage.

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**Bruising (C)**

Harvest bruising in onions is becoming more prevalent as the use of mechanical harvesters increases and storage is handled in large tote bins. For purposes of clarification, bruising is classified into four categories and the following guides shall be used:

1. Impact bruises which soften an area several scales deep but do not break the fleshy scales will be scored as **damage** when more than 2 fleshy scales are definitely soft and the aggregate area affected exceeds 5 percent of the surface. Score as **serious damage** when more than 4 fleshy scales are soft and the aggregate area exceeds 10 percent of the surface.
2. Bruises where the fleshy scales have been broken are scored as **damage** when any bruise breaks 1 fleshy scale and **serious damage** when any bruise breaks 2 or more fleshy scales.
3. Bruises causing a portion of one fleshy scale to be removed (gouge) materially injures the appearance and is **damaged**. Such injury into the second fleshy scale is **serious damage**.
4. Pressure bruises caused from compression in storage or transit and lack of firmness shall be scored on an appearance basis related to shape. Many times these onions will "puff" outward if held a few days and return to near normal shape. Such onions will generally be classed as fairly firm when this situation occurs.

**NOTE:** If there is a pattern to the bruising in the lot, a description of bruised onions, location in the pack and load should be recorded on the notesheet.

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### **New Root Growth (C)**

New roots are frequently found in shipments that have been held in storage during the late winter or spring. Slight new root growth does not affect grade and shall not be mentioned on the certificate unless specifically requested by the applicant; in which case it will be "reported at applicant's request, not affecting grade."

**§51.2849/51.3209 Damage...New roots when most roots on an individual onion have grown to a length of 1 inch or more in length.**

Score as **damage** when most roots (over 55%) on the individual onion are 1 inch or more in length.

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### Purple Blotch (C)

Infection of onions with Purple Blotch may occur at harvest time, usually at the neck of the topped bulbs or through wounds elsewhere on the bulbs. These lesions are semi-watery at first, becoming papery as they dry. The color of the lesion is the most characteristic symptom. The fungus appears to secrete a pigment that diffuses through the scale tissue in advance of the hyphae. These tissues are yellow at first, later becoming red, then brown, and finally almost black as the dark-colored hyphae fill the old parts of the lesions. Under humid atmospheric conditions Purple Blotch may develop into a decay, Purple Blotch Rot. Inspectors may distinguish between Purple Blotch as a blemish and as a decay; if the tissue of the onion is broken down and disintegrates readily when rubbed between the fingers, it shall be scored as decay.

Damage by Purple Blotch shall be judged on the basis of appearance of the individual onions. Purple Blotch is more conspicuous and therefore more objectionable on white onions than on yellow, red or brown varieties. Purple Blotch shall be scored as **damage** when definite areas exceed an aggregate area of 1/2 inch in diameter on white onions or aggregate 3/4 inch in diameter on other varieties. Score as serious damage when seriously detracting from the appearance of the onion.

See Identification photographs ONS-IDENT-1 and ONS-IDENT-2.

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### Smudge (C)

Smudge attacks onions at the time of harvest and blemishes the scales. The fungus may continue to develop in transit and storage. Under very moist conditions the fungus not only causes blemishes but also may lead to deterioration of the outer scales.

Smudge is characterized by black blotches or aggregations of minute black or dark green dots on the outer scales. These dots are often arranged in concentric rings, though they may be grouped in other ways. In severe cases, the Smudge spots are so extensive that the side of the onion appears smoked. Generally the lesions are on the outer scales, but they may be found on the inner scales. On fleshy scales the fungus produces sunken, yellowish spots which enlarge slowly. Smudge rarely occurs on yellow or red varieties, and then only on the uncolored portion of the outer scales at the neck of the bulb. The disease occurs widely but only white varieties are seriously affected.

When Smudge occurs as sunken spots score on the same basis as dry sunken areas and report as "Smudge." (See "Dry Sunken Areas" section.) When Smudge occurs similar to staining, score on the same basis as staining and report as "slightly affected," "appreciably affected," or "badly affected by Smudge." (See "Dirt or Staining and Surface Mold" section.)

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### **Wet Sunscald (C)**

All grades require that onions be free from wet sunscald. Therefore, any amount will be scored as serious damage against the 2% tolerance for decay or wet sunscald.

Onions that are harvested when the bulbs are exposed to heat and bright sunlight may be affected by wet sunscald. If the scalded area is soft, mushy, sticky or wet, it shall be scored as "wet sunscald;" any amount will be scored as **serious damage** against the 2% tolerance for decay or wet sunscald.

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### **Sour Skin (C)**

This disease commonly attacks **Other Than** onions, but may also attack **BGG** onions. It usually affects the outer fleshy scales of the bulb, although not necessarily the outermost one. Scales affected usually have a sour vinegar-like odor, and are yellow to brown in color. They also feel oily and slick to the touch. Any amount of sour skin will be scored as serious damage against the total tolerance in all grades.

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### **Decay (C)**

All grades require that the onions be "free from decay." Therefore, any amount will be scored as serious damage against the 2% tolerance for decay in all grades. (See "Tolerances" and "Application of Tolerances" sections for further clarification.)

Decay can affect different areas of onions; some may occur in the necks, the inner scales, on the outside of the bulb generally when scales are cut or injured, or between the papery scales. Be sure to cut the necks or make a cross-section cut of the onions to determine whether there is decay "internally" affecting the onions. It is the responsibility of the inspector to cut a sufficient number of onions to accurately determine the percentage of decay. The percentage of decay is determined based upon the **entire sample** inspected and not on a "cut" sample. (See "Sampling To Determine Internal Defects" section.)

The most common types of decay that affect onions include Bacterial Soft Rot, Black Mold Rot, Blue Mold Rot, Fusarium Bulb Rot or Gray Mold Rot. However, inspectors do not have to identify the type of decay, a description of the stages is all that is needed; early, moderate or advanced stages.

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## (10) Grade

Under this heading a statement shall be made showing whether or not the lot(s) inspected meet the requirements of the grade or other specifications on which the application was based.

When inspecting **BGG** type onions, always report with the grade "Granex-Grano" to indicate that the **BGG** standard is being applied. For example: "U.S. No. 1 Granex-Grano" or "Fails to grade U.S. No. 1 Granex-Grano account condition" or "Fails to grade U.S. No. 1 Granex-Grano account quality defects."

**Size in Connection with Grade Statements.** When the minimum or maximum size, or the percentage of 2 inches in diameter and larger onions is requested by the applicant to be other than that specified in the grade, or the lot fails to meet the size specification, the "Grade" statement must be qualified to indicate the variation in one of the following ways. For example: "Fails to grade U.S. No. 1, 3 inch minimum, Granex-Grano account of condition."

Reporting Minimum Size Other Than 1-1/2 Inches. The minimum size specified in connection with the grade is 1-1/2 inches in diameter, however, greater or lesser minimums may be specified to qualify the grade. When a larger or smaller minimum is specified, it must be reported in the "Grade" statement.

Example: "U.S. No. 1, 1-1/4 inches minimum" or "U.S. No. 1 Granex-Grano, 1 inch minimum."

Maximum Size. No maximum size is required by the grades, however, the applicant may specify a maximum size. When a maximum size is specified, it shall be indicated in connection with the grade.

Example: "U.S. No. 1, 3 inches maximum" or "U.S. No. 1 Granex-Grano, 5 inches maximum."

When the Lot Fails to Contain the Specified Average of 2 Inches and Larger Onions. If a lot of yellow, brown or red **Other Than** onions certified on the basis of a U.S. No. 1 grade fails to contain the required average of 40% (30% for white onions or other specified average) 2 inches in diameter and larger, report it as failing to grade. Also, if a lot of yellow, brown or red **BGG** onions certified on the basis of U.S. No. 1 fails to contain the average 60% 2 inches or larger, report it as failing to grade.

Example: "Fails to grade U.S. No. 1 account of averaging less than 40% 2 inches in diameter and larger onions," or "Fails to grade U.S. No. 1 Granex-Grano account of averaging less than 60% 2 inches in diameter and larger onions."

#### **OTHER THAN (ONLY)**

When Lot Contains the Required Average of 2 Inches and Larger but Individual Containers Show More Than 25% Below the Average. If the percentage of yellow, brown or red onions 2 inches in diameter and larger in individual containers is irregular and any container is found to be more than 25% below the required average of 40% of 2 inches and larger, (30% for white onions or other specified average), the "Grade" statement must be qualified to indicate this variation.

Example: "Fails to grade U.S. No. 1 account less than the required percentage of 2 inches and larger in few samples."

#### **BGG (ONLY)**

When Lot Contains the Required Average of 2 Inches and Larger but Individual Containers Show More Than One-Half of the Percentage Below the Average. If the percentage of yellow, brown or red onions 2 inches in diameter and larger in individual containers is irregular and any container is found to be more than one-half of the percentage below the required average of 60% of 2 inches and larger, the "Grade" statement must be qualified to indicate this variation.

Example: "Fails to grade U.S. No. 1 Granex-Grano account less than the required percentage of 2 inches and larger in few samples" or "U.S. No. 1 Granex-Grano 60%, 2 inches and larger."

For any further information refer to General Inspection Instructions.

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**(11) Remarks**

Under this heading any explanatory or qualifying statements that are necessary to complete the certificate shall be made.

**Example:** "Maximum size reported at applicant's request," or "Percentage of multiple hearts inside a 1 inch center diameter were determined and reported at applicant's request."

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# Inspection Instructions for Certifying Onions for Export

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## (1) General

The U.S. Standards for Grades of Onions (**Other Than** Bermuda-Granex-Grano and Creole Type) include a U.S. Export No. 1 grade. This grade is designed for use in foreign trade. However, the existing domestic grades may still be used for onions for export. The U.S. No. 1 and the U.S. Export No. 1 have the same requirements except for those listed below.

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### Dormancy (C)

The U.S. Export No. 1 grade requires onions to be dormant.

**§51.2842 Dormant...means that at least 90 percent of the onions in any lot show no evidence of growth as indicated by distinct elongation of the growing point or distinct yellow or green color in the tip of the growing point.**

Dormancy is required in order to reduce the possibility of sprouting during overseas shipment. The domestic U.S. No. 1 grade has no dormancy requirements. Onions which are damaged by sprouts shall be scored as not dormant and against the 5% tolerance for defects.

The "Application of Tolerances" does not apply to the dormancy definition. There is no limit on the percentage of onions in individual samples or containers which are not dormant, provided that at least 90% of the onions in the lot are dormant.

See photograph C-2, "Onions Showing Dormancy & New Growth."

**Use of Sprout Inhibitor.** Effective sprout inhibitors have been developed and are being widely used. Because of this it appears advisable to mention the usual characteristics of onions which have been treated with sprout inhibitor and those which have not. We can not certify as to whether onions have been treated with sprout inhibitor, but if requested will describe the state of dormancy.

**Non-treated Onions.** Usually by January or February common storage onions which have not been treated will show a slight yellowing or yellowish-green color in the heart. The growing point of the sprout will generally extend up into the upper two-thirds of the bulb. If exposed to light for even a short time, the yellow center turns green, especially near the tip. Untreated onions may also show enlarged, discolored vascular bundles. Cut a thin slice from the root end to observe this. Non-treated onions usually have a slightly elongated appearance at the base as the root end of the onion begins to swell. This usually takes place after the vascular bundles begin to enlarge and change color.

**Effectively treated Onions.** If onions are effectively treated, they have a distinctly white center. Very small air spaces are noticeable around the sprout because it has not enlarged or grown. The sprout seldom extends into the upper two-thirds of the bulb. Bulbs usually appear more round, particularly in the Yellow Globe varieties as no swelling of the root end is noticeable.

When specifically requested, the stage of dormancy will be reported. If the applicant requests the inspector to report dormancy, a **ten pound** "cut sample" shall be used. Be sure to report the results based on "Cut Samples" on the certificate. Approximate the amount, if any, present that show evidence of complete dormancy. They can be described on the certificate as: "Generally show evidence of complete dormancy;" "About 3/4 of stock shows evidence of complete dormancy, 1/4 show yellowish-green hearts;" or "Stock generally shows green hearts."

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### Size (Q)

There are no size requirements for the U.S. Export No. 1 grade. Therefore, size may be specified in accordance with one of the sizes in the size classification section of the standards or based on the sizes specified by the applicant. Be sure to include the size in the "Grade" statement.

Example: "U.S. Export No. 1 Large."

See "Tolerances" and "Application of Tolerances" sections.

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**Export Packing Requirements (Q)**

**§51.2831 U.S. Export No. 1...(d) Unless otherwise specified onions are packed in accordance with Export Packing Requirements set forth in §51.2840.**

**§51.2840 Export packing requirements. Onions specified as meeting Export Packing Requirements shall be packed in containers having a net capacity of 25 kilograms (approximately 56 pounds).**

Unless otherwise specified, onions must be packed in 25 kilogram containers (approximately 56 pounds). When other containers are used, such as 50 pound sacks, the weight of such containers must be shown following the grade statement.

Example: "U.S. Export No. 1, Medium. Onions packed in 50 lb. sacks."

When 25 kilogram containers are used, no such qualifying statement is necessary.

**For defects see related paragraphs in the previous sections.**



# Appendix I

U.S. Standards







United States  
Department of  
Agriculture

Agricultural  
Marketing  
Service

Fruit and  
Vegetable  
Division

Fresh  
Products  
Branch

# United States Standards for Grades of Onions (Other Than Bermuda-Granex-Grano and Creole Type)

Effective October 10, 1995  
*(Reprinted - January 1997)*

**United States Standards for Grades of Onions (Other Than  
Bermuda-Granex-Grano and Creole Types)**

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**Grades**

- 51.2830 U.S. No. 1.
- 51.2831 U.S. Export No. 1.
- 51.2832 U.S. Commercial.
- 51.2833 U.S. No. 1 Boilers.
- 51.2834 U.S. No. 1 Picklers.
- 51.2835 U.S. No. 2.

**Size Classifications**

- 51.2836 Size classifications.

**Tolerances**

- 51.2837 Tolerances.

**Samples for Grade and Size Determination**

- 51.2838 Samples for grade and size determination.

**Application of Tolerances**

- 51.2839 Application of tolerances.

**Export Packing Requirements**

- 51.2840 Export packing requirements.

**Definitions**

- 51.2841 Mature.
- 51.2842 Dormant.
- 51.2843 Fairly firm.
- 51.2844 Fairly well shaped.
- 51.2845 Wet sunscald.
- 51.2846 Doubles.
- 51.2847 Bottlenecks.
- 51.2848 Scallions.
- 51.2849 Damage.
- 51.2850 Diameter.
- 51.2851 Badly misshapen.
- 51.2852 Serious damage.
- 51.2853 One type.

**Metric Conversion Table**

- 51.2854 Metric conversion table.

**Grades**

**§51.2830 U.S. No. 1.**

"U.S. No. 1" consists of onions which meet the following requirements:

- (a) Basic requirements:
  - (1) Similar varietal characteristics;

- (2) Mature;
- (3) Fairly firm; and,
- (4) Fairly well shaped.

(b) Free from:

- (1) Decay;
- (2) Wet sunscald;
- (3) Doubles;
- (4) Bottlenecks; and,
- (5) Scallions.

(c) Free from damage caused by:

- (1) Seedstems;
- (2) Splits;
- (3) Tops;
- (4) Roots;
- (5) Dry sunken areas;
- (6) Sunburn;
- (7) Sprouts;
- (8) Freezing;
- (9) Peeling;
- (10) Cracked fleshy scales;
- (11) Watery scales;
- (12) Dirt or staining;
- (13) Foreign matter;
- (14) Mechanical;
- (15) Translucent scales;
- (16) Disease;
- (17) Insects; and,
- (18) Other means.

(d) For tolerances see §51.2837.

(e) Size. Unless otherwise specified the diameter shall be not less than 1 1/2 inches, and yellow, brown, or red onions shall have 40 percent or more, and white onions shall have 30 percent or more, by weight, of the onions in any lot 2 inches or larger in diameter.

(f) When a percentage of the onions is specified to be of any certain size or larger, no part of any tolerance shall be allowed to reduce the specified percentage, but individual packages in a lot may have as much as 25 percentage points less than the percentage specified, except that individual packages containing 10 pounds or less shall have no requirements as to percentage of a certain size or larger: **Provided**, that any lot, regardless of package size, shall average within the percentage specified. (See §§51.2836 and 51.2837)<sup>1</sup>

**§51.2831 U.S. Export No. 1.**

"U.S. Export No. 1" consists of onions which meet the following requirements:

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<sup>1</sup> Any lot of onions quoted as being of size smaller than 1-1/2 inches minimum, such as "U.S. No. 1, 1-1/4 inches min." is not required to meet the percentages which shall be 2 inches or larger as specified in the U.S. No. 1 grade.

- (a) Basic requirements:
  - (1) Similar varietal characteristics;
  - (2) Mature;
  - (3) Dormant;
  - (4) Fairly firm; and,
  - (5) Fairly well shaped.
- (b) Free from:
  - (1) Decay;
  - (2) Wet sunscald;
  - (3) Doubles;
  - (4) Bottlenecks; and,
  - (5) Scallions.
- (c) Free from damage caused by:
  - (1) Seedstems;
  - (2) Splits;
  - (3) Tops;
  - (4) Roots;
  - (5) Dry sunken areas;
  - (6) Sunburn;
  - (7) Sprouts;
  - (8) Freezing;
  - (9) Peeling;
  - (10) Cracked fleshy scales;
  - (11) Watery scales;
  - (12) Dirt or staining;
  - (13) Foreign matter;
  - (14) Mechanical;
  - (15) Translucent scales;
  - (16) Disease;
  - (17) Insects; and,
  - (18) Other means.
- (d) Unless otherwise specified onions are packed in accordance with Export Packing Requirements set forth in §51.2840. (See §51.2837.)

**§51.2832 U.S. Commercial.**

"U.S. Commercial" consists of onions which meet the following requirements:

- (a) Basic requirements:
  - (1) Similar varietal characteristics;
  - (2) Mature;
  - (3) Not soft or spongy; and,
  - (4) Not badly misshapen.
- (b) Free from:
  - (1) Decay;
  - (2) Wet sunscald;

- (3) Doubles;
- (4) Bottlenecks; and,
- (5) Scallions.

(c) Free from damage caused by:

- (1) Seedstems;
- (2) Tops;
- (3) Roots;
- (4) Dry sunken areas;
- (5) Sunburn;
- (6) Sprouts;
- (7) Freezing;
- (8) Cracked fleshy scales;
- (9) Watery scales;
- (10) Mechanical;
- (11) Translucent scales;
- (12) Disease;
- (13) Insects; and,
- (14) Other means.

(d) Free from serious damage caused by:

- (1) Staining;
- (2) Dirt; and,
- (3) Other foreign matter.

(e) For tolerances see §51.2837.

(f) Size. Unless otherwise specified, the diameter shall be not less than 1 1/2 inches. (See §§51.2836 and 51.2837.)

**§51.2833 U.S. No. 1 Boilers.**

"U.S. No. 1 Boilers" consists of onions which meet all the requirements for the U.S. No. 1 grade except for size. (See §51.2830.)

Size: The diameter of onions of this grade shall be not less than 1 inch nor more than 1 7/8 inches. (See §51.2837.)

**§ 51.2834 U.S. No. 1 Picklers.**

"U.S. No. 1 Picklers" consists of onions which meet all the requirements for the U.S. No. 1 grade except for size. (See §51.2830.)

Size: The maximum diameter of onions of this grade shall be not more than 1 inch. (See §51.2837.)

**§51.2835 U.S. No. 2.**

"U.S. No. 2" consists of onions which meet the following requirements:

- (a) Basic requirements:
  - (1) One type;
  - (2) Mature; and,
  - (3) Not soft or spongy.
- (b) Free from:
  - (1) Decay;

- (2) Wet sunscald; and,
- (3) Scallions.
- (c) Free from serious damage caused by:
  - (1) Watery scales;
  - (2) Dirt or Staining;
  - (3) Foreign Matter;
  - (4) Seedstems;
  - (5) Sprouts;
  - (6) Mechanical;
  - (7) Dry sunken areas;
  - (8) Disease;
  - (9) Freezing;
  - (10) Insects; and,
  - (11) Other means.
- (d) For tolerances see §51.2837.
- (e) Size. Unless otherwise specified, the diameter shall not be less than 1 1/2 inches. (See §§51.2836 and 51.2837.)

**Size Classifications**

**§51.2836 Size classifications.**

The size of onions may be specified in accordance with one of the following classifications.

Size Designation	Minimum Diameter		Maximum Diameter	
	Inches	Millimeters	Inches	Millimeters
Small.....	1	25.4	2 1/4	57.2
Repacker/ Prepacker <sup>1</sup> .	1 3/4	44.5	3	76.2
Medium.....	2	50.8	3 1/4	82.6
Large or Jumbo.....	3	76.2	(2)	.....
Colossal...	3 3/4	95.3	(2)	.....

<sup>1</sup> In addition to the sizes specified, a lot of onions designated as Repacker or Prepacker shall contain at least 60 percent or more 2 inches or larger in diameter.

<sup>2</sup> No requirement.

**Tolerances**

**§51.2837 Tolerances.**

In order to allow for variations incident to proper grading and handling in each of the foregoing grades the following tolerances, by weight, are provided as specified:

(a) For defects:

(1) **U.S. No. 1, U.S. Export No. 1, U.S. No. 1 Boilers and U.S. No. 1 Picklers grades.**

(i) Not more than 10 percent of the onions in a lot may be damaged by peeling; and,

(ii) Not more than 5 percent of the onions in a lot may be below the remaining requirements of these grades, but not more than two-fifths of this tolerance, or 2 percent, may be allowed for onions which are affected by decay or wet sunscald (see §51.2839.)

**(2) U.S. Commercial and U.S. No. 2 grades.**

(i) Not more than 5 percent of the onions in a lot may be below the requirements of these grades, but not more than two-fifths of this tolerance, or 2 percent, may be allowed for onions which are affected by decay or wet sunscald. (See §51.2839.)

(b) For off-size:

(1) **U.S. No. 1, U.S. No. 1 Boilers, U.S. Commercial, and U.S. No. 2 grades.** Not more than 5 percent of the onions in a lot may be below the specified minimum size, and not more than 10 percent may be above any specified maximum size. (See §51.2839.)

(2) **U.S. No. 1 Pickler grade.** Not more than 10 percent of the onions in a lot may be above the maximum size specified for this grade. (See §51.2839.)

**Samples for Grade and Size Determination**

**§51.2838 Samples for grade and size determination.**

Individual samples shall consist of at least 20 pounds for onions packed to meet larger than 2 1/4 inches maximum diameter. When individual packages contain 20 pounds or more and the onions are packed for Large or Jumbo size or larger the package shall be the sample. When individual packages contain less than 20 pounds, a sufficient number of adjoining packages are opened to provide at least a 20 pound sample, except that for onions packed to meet 2 1/4 inches maximum diameter or smaller, the sample may consist of either 20 pounds or the individual package.

**Application of Tolerances**

**§51.2839 Application of tolerances.**

Individual samples are subject to the following limitations:

(a) Samples which contain more than 20 pounds shall have not more than one and one half times a specified tolerance of 10 percent or more, and not more than double a specified tolerance of less than 10 percent, except that at least one defective and one off-size onion may be permitted in any sample: **Provided**, that en-route or at destination when onions in containers of 50 pounds or more are packed to a minimum size of 3 inches or larger not more than three onions or more than 4 percent (whichever is the larger amount) may be affected by decay or wet sunscald: **And provided further**, that the averages for the entire lot are within the tolerances specified for the grade; and,

(b) Samples which contain 20 pounds or less shall have not more than double the tolerance specified, except that at least one defective and one off-size onion may be permitted in any sample: **Provided**, that the averages for the entire lot are within the tolerances specified for the grade.

**Export Packing Requirements**

**§51.2840 Export packing requirements.**

Onions specified as meeting Export Packing Requirements shall be packed in containers having a net capacity of 25 kilograms (approximately 56 pounds).

**Definitions**

**§51.2841 Mature.**

"Mature" means well cured. Midseason onions which are not customarily held in storage shall be considered mature when harvested in accordance with good commercial practice at a stage which will not result in the onions becoming soft or spongy.

**§51.2842 Dormant.**

"Dormant" means that at least 90 percent of the onions in any lot show no evidence of growth as indicated by distinct elongation of the growing point or distinct yellow or green color in the tip of the growing point.

**§51.2843 Fairly firm.**

"Fairly firm" means that the onion may yield slightly to moderate pressure but is not appreciably soft or spongy.

**§51.2844 Fairly well shaped.**

"Fairly well shaped" means having the shape characteristic of the variety, but onions may be slightly off-type or slightly misshapen.

**§51.2845 Wet sunscald.**

"Wet sunscald" means sunscald which is soft, mushy, sticky or wet.

**§51.2846 Doubles.**

"Doubles" means onions which have developed more than one distinct bulb joined only at the base.

**§51.2847 Bottlenecks.**

"Bottlenecks" are onions which have abnormally thick necks with only fairly well developed bulbs.

**§51.2848 Scallions.**

"Scallions" are onions which have thick necks and relatively small and poorly developed bulbs.

**§51.2849 Damage.**

"Damage" means any specific defect described in this section; or any equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which materially detracts from the appearance, or the edible or marketing quality of the onions. The following specific defects shall be considered as damage:

- (a) Seedstems which are tough or woody, or which are more than 1/4 inch in diameter;
- (b) Splits when onions with two or more hearts are not practically covered by one or more outer scales;
- (c) Tops when more than 30 percent of the onions in a lot have tops 3 inches or more in length;
- (d) New roots when most roots on an individual onion have grown to a length of 1 inch or more in length;
- (e) Dry roots when more than 20 percent of the onions in a lot have practically all roots 2 inches or more in length;
- (f) Dry sunken areas when the affected areas exceed the equivalent to that of a circle 1/2 inch in diameter on an onion 2 3/4 inches in diameter which does not have the outer papery scale covering the affected areas or when the affected areas exceed the equivalent to that of a circle 3/4 inch in diameter on an onion 2 3/4 inches in diameter which has the outer papery scale covering the affected areas. Correspondingly lesser or greater areas are allowed on smaller or larger onions;
- (g) Sunburn when more than 33 percent of the onions in a lot have a medium green color on one-third of the surface;
- (h) Sprouts when visible, or when concealed within the dry top and more than 3/4 inch in length on an onion 2 inches or larger in diameter, or proportionately shorter on smaller onions;
- (i) Peeling when more than one-half of the thin papery skin is missing, leaving the underlying

fleshy scale unprotected;

(j) Cracked fleshy scales when one or more of the fleshy scales are cracked;

(k) Watery scales when more than the equivalent of the entire outer fleshy scale is affected by an off-color, watersoaked condition. The off-color must be of some shade of brown or yellow;

(l) Dirt, staining or other foreign matter when more than 20 percent of the onions in a yellow, brown or red lot, or more than 15 percent of the onions in a white lot are appreciably stained. Onions with adhering dirt or other foreign matter shall be judged on the same basis as stained onions;

(m) Mechanical when any cut extends deeper than one fleshy scale, or when any bruise breaks a fleshy scale; and,

(n) Translucent scales when more than the equivalent of two entire outer fleshy scales have a watersoaked condition.

**§51.2850 Diameter.**

"Diameter" means the greatest dimension measured at right angles to a straight line running from the stem to the root.

**§51.2851 Badly misshapen.**

"Badly misshapen" means that the onion is so misshapen that its appearance is seriously affected.

**§51.2852 Serious damage.**

"Serious damage" means any specific defect described in this section; or any equally objectionable variation of any one of these defects, any other defect, or any combination of defects, which seriously detracts from the appearance, or the edible or marketing quality of the onions. The following specific defects shall be considered as serious damage:

(a) Watery scales when more than the equivalent of two entire outer fleshy scales are affected by an off-colored, watersoaked condition. The off-color must be of some shade of brown or yellow;

(b) Dirt, staining or other foreign matter when more than 25 percent of the onions in a lot are badly stained. Onions with adhering dirt or other foreign matter shall be judged on the same basis as stained onions;

(c) Seedstems when more than 1/2 inch in diameter;

(d) Sprouts when the visible length is more than 1/2 inch;

(e) Mechanical when any cut extends deeper than two fleshy scales, or when cuts seriously damage the appearance of the onion; and,

(f) Dry sunken areas when extending deeper than one fleshy scale, or when affecting an area equivalent to that of a circle 1 inch in diameter on an onion 2 3/4 inches in diameter, or correspondingly lesser or greater areas on smaller or larger onions.

**§51.2853 One type.**

One type means that the onions are within the same general color category.

**Metric Conversion Table**

**§51.2854 Metric conversion table.**

Inches	Millimeters (mm)
1/8.....	3.2
1/4.....	6.4
3/8.....	9.5
1/2.....	12.7
5/8.....	15.9
3/4.....	19.1
7/8.....	22.2
1.....	25.4
1 1/4.....	31.8
1 1/2.....	38.1
1 3/4.....	44.5
2.....	50.8
2 1/2.....	63.5
2 3/4.....	69.9
3.....	76.2
3 1/2.....	88.9
4.....	101.6



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# United States Standards for Grades of Bermuda-Granex-Grano Type Onions

Effective October 10, 1995  
*(Reprinted - January 1997)*

# United States Standards for Grades of Bermuda-Granex-Grano Type Onions

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## **Grades**

51.3195 U.S. No. 1.

51.3196 U.S. Combination.

51.3197 U.S. No. 2.

## **Size Classifications**

51.3198 Size classifications.

## **Tolerances**

51.3199 Tolerances.

## **Samples for Grade and Size Determination**

51.3200 Samples for grade and size determination.

## **Application of Tolerances**

51.3201 Application of tolerances.

## **Definitions**

51.3202 Similar varietal characteristics.

51.3203 Mature.

51.3204 Fairly firm.

51.3205 Fairly well shaped.

51.3206 Wet sunscald.

51.3207 Doubles.

51.3208 Bottlenecks.

51.3209 Damage.

51.3210 Serious damage.

51.3211 Diameter.

## **Metric Conversion Table**

51.3212 Metric conversion table.

## **Grades**

### **§51.3195 U.S. No. 1.**

"U.S. No. 1" consists of onions which meet the following requirements:

- (a) Basic requirements:
  - (1) Similar varietal characteristics;
  - (2) Mature;
  - (3) Fairly firm; and,
  - (4) Fairly well shaped.
- (b) Free from:
  - (1) Decay;
  - (2) Wet sunscald;
  - (3) Doubles; and,
  - (4) Bottlenecks.

(c) Free from damage caused by:

- (1) Seedstems;
- (2) Splits;
- (3) Dry sunken areas;
- (4) Sunburn;
- (5) Sprouting;
- (6) Staining;
- (7) Dirt or foreign material;
- (8) Mechanical;
- (9) Tops;
- (10) Roots;
- (11) Translucent scales;
- (12) Watery scales;
- (13) Moisture;
- (14) Disease;
- (15) Insects; and,
- (16) Other means.

(d) For size and tolerances see §§51.3198 and 51.3199.

**§51.3196 U.S. Combination.**

"U.S. Combination" consists of a combination of U.S. No. 1 and U.S. No. 2 onions: **Provided**, that at least 50 percent, by weight, of the onions in each lot meet the requirements of U.S. No. 1 grade. (See §§51.3198 and 51.3199.)

**§51.3197 U.S. No. 2.**

"U.S. No. 2" consists of onions which meet the following requirements:

(a) Basic requirements:

- (1) Similar varietal characteristics; and,
- (2) Not soft or spongy.

(b) Free from:

- (1) Decay;
- (2) Wet sunscald; and,
- (3) Bottlenecks.

(c) Free from serious damage caused by:

- (1) Seedstems;
- (2) Dry sunken areas;
- (3) Sprouting;
- (4) Staining;
- (5) Dirt or other foreign material;
- (6) Mechanical;
- (7) Watery scales;
- (8) Insects;
- (9) Disease; and,
- (10) Other means.

(d) For size and tolerances see §§51.3198 and 51.3199.

## Size Classifications

### §51.3198 Size classifications.

Size shall be specified in connection with the grade in terms of minimum diameter, range in diameter, minimum diameter with a percentage of a certain size or larger, or in accordance with one of the size classifications listed below: **Provided**, that unless otherwise specified, onions shall not be less than 1 1/2 inches in diameter, with 60 percent or more 2 inches or larger in diameter.

Size Designation	Minimum Diameter		Maximum Diameter	
	Inches	Millimeters	Inches	Millimeters
Small.....	1	25.4	2 1/4	57.2
Repacker/ Prepacker <sup>1</sup> .	1 3/4	44.5	3	76.2
Medium.....	2	50.8	3 1/4	82.6
Large or Jumbo.....	3	76.2	( <sup>2</sup> )	.....
Colossal...	3 3/4	95.3	( <sup>2</sup> )	.....

<sup>1</sup> In addition to the sizes specified, a lot of onions designated as Repacker or Prepacker shall contain at least 60 percent or more 2 inches or larger in diameter.

<sup>2</sup> No requirement.

## Tolerances

### §51.3199 Tolerances.

In order to allow for variations incident to proper grading and handling in each of the foregoing grades the following tolerances, by weight, are provided as specified:

(a) For defects:

(1) **U.S. No. 1 and U.S. No. 2 grades.**

(i) Not more than 10 percent of the onions in a lot may fail to meet the requirements of these grades, but not more than one-fifth of this tolerance, or 2 percent, may be allowed for onions which are affected by decay or wet sunscald.

(2) **U.S. Combination grade..**

(i) When applying the foregoing tolerances to this grade no part of any tolerance shall be allowed to reduce, for the lot as a whole, the 50 percent of onions of the U.S. No. 1 grade, but individual containers shall have not less than 40 percent of the U.S. No. 1 grade.

(b) For size:

(1) Not more than 5 percent of the onions in a lot may be smaller than the minimum diameter specified. In addition, not more than 10 percent of the onions in a lot may be larger than the maximum diameter specified.

(2) When a percentage of the onions is specified to be a certain size and larger, individual packages containing more than 10 pounds may have not less than one-half of the percentage specified: **Provided**, that the entire lot averages within the percentage specified.

## Samples for Grade and Size Determination

### § 51.3200 Samples for grade and size determination.

Individual samples shall consist of at least 20 pounds for onions packed to meet larger than 2 1/4

inches maximum diameter. When individual packages contain 20 pounds or more and the onions are packed for Large or Jumbo size or larger the package shall be the sample. When individual packages contain less than 20 pounds, a sufficient number of adjoining packages are opened to provide at least a 20 pound sample, except that for onions packed to meet 2 1/4 inches maximum diameter or smaller, the sample may consist of either 20 pounds or the individual package.

#### **Application of Tolerances**

##### **§51.3201 Application of tolerances.**

Individual samples are subject to the following limitations:

(a) Samples which contain more than 20 pounds shall have not more than one and one half times a specified tolerance of 10 percent or more, and not more than double a specified tolerance of less than 10 percent, except that at least one defective and one off-size onion may be permitted in any sample: **Provided**, that en-route or at destination when onions in containers of 50 pounds or more are packed to a minimum size of 3 inches or larger not more than three onions or more than 4 percent (whichever is the larger amount) may be affected by decay or wet sunscald: **And provided further**, that the averages for the entire lot are within the tolerances specified for the grade; and,

(b) Samples which contain 20 pounds or less shall have not more than double the tolerance specified, except that at least one defective and one off-size onion may be permitted in any sample: **Provided**, that the averages for the entire lot are within the tolerances specified for the grade.

#### **Definitions**

##### **§51.3202 Similar varietal characteristics.**

"Similar varietal characteristics" means that the onions in any container are similar in color, shape and character of growth.

##### **§51.3203 Mature.**

"Mature" means that the onion is fairly well cured, and at least fairly firm.

##### **§51.3204 Fairly firm.**

"Fairly firm" means that the onion may yield slightly to moderate pressure but is not appreciably soft or spongy.

##### **§51.3205 Fairly well shaped.**

"Fairly well shaped" means that the onion shows the characteristic shape, not appreciably three-, four- or five- sided, thick necked or badly pinched.

##### **§51.3206 Wet sunscald.**

"Wet sunscald" means any sunscald which is soft, mushy, sticky or wet.

##### **§51.3207 Doubles.**

"Doubles" means onions which have developed more than one distinct bulb joined only at the base.

##### **§51.3208 Bottlenecks.**

"Bottlenecks" means onions which have abnormally thick necks with only fairly well developed bulbs.

##### **§51.3209 Damage.**

"Damage" unless otherwise specifically defined in this section, means any defect which materially affects the appearance, or the edible or shipping quality of the onions. Any one of the

following defects, or combination of defects the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as damage:

- (a) Seedstems which are tough or woody, or which are more than 1/4 inch in diameter;
- (b) Splits when well cured onions are not practically covered by an outer scale, or when fairly well cured onions are not completely covered by one outer scale;
- (c) Dry sunken areas when the affected areas exceed the equivalent to that of a circle 1/2 inch in diameter on an onion 2 3/4 inches in diameter which does not have the outer papery scale covering the affected areas or when the affected areas exceed the equivalent to that of a circle 3/4 inch in diameter on an onion 2 3/4 inches in diameter which has the outer papery scale covering the affected areas. Correspondingly lesser or greater areas are allowed on smaller or larger onions;
- (d) Sunburn when dark green in color and affecting an area equivalent to that of a circle 1 inch in diameter on an onion 2 3/4 inches in diameter or correspondingly smaller or larger areas on smaller or larger onions, or when medium to light green in color and affecting more than 10 percent of the surface of the onion;
- (e) Sprouting when any sprout is visible, or when concealed within the neck scales and are more than 3/4 inch in length on an onion 2 inches or larger in diameter, or proportionately shorter on smaller onions;
- (f) Staining, dirt or other foreign material when more than 20 percent of the onions in a yellow, brown or red lot, or more than 15 percent of the onions in a white lot are appreciably stained. Onions with adhering dirt or other foreign matter shall be judged on the same basis as stained onions;
- (g) Mechanical when any cut extends deeper than one fleshy scale, or when any bruise breaks a fleshy scale;
- (h) Tops when more than 30 percent of the onions in a lot have tops 3 inches or more in length;
- (i) New roots when most roots on an individual onion have grown to a length of 1 inch or more;
- (j) Dry roots when practically all roots are 2 inches or more in length;
- (k) Translucent scales when more than the equivalent of two entire outer fleshy scales have a watersoaked condition; and,
- (l) Watery scales when more than the equivalent of the entire outer fleshy scale is affected by an off-color, watersoaked condition. The off-color must be of some shade of brown or yellow.

**§51.3210 Serious damage.**

"Serious damage" unless otherwise specifically defined in this section, means any defect which seriously affects the appearance, or the edible or shipping quality of the onions. Any one of the following defects, or any combination of defects the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as serious damage:

- (a) Seedstems when more than 1/2 inch in diameter;
- (b) Dry sunken areas when extending deeper than one fleshy scale, or when affecting an area equivalent to that of a circle 1 inch in diameter on an onion 2 3/4 inches in diameter, or correspondingly lesser or greater areas on smaller or larger onions;
- (c) Sprouting when any visible sprout is more than 1/2 in length;
- (d) Staining, dirt or foreign material when more than 25 percent of the onions in any lot are badly stained. Onions with adhering dirt or other foreign matter shall be judged on the same

basis as stained onions;

(e) Mechanical when any cut extends deeper than two fleshy scales, or when cuts seriously damage the appearance of the onion; and,

(f) Watery scales when more than the equivalent of two entire outer fleshy scales are affected by an off-colored, watersoaked condition. The off-color must be of some shade of brown or yellow.

**§51.3211 Diameter.**

"Diameter" means the greatest dimension of the onion at right angles to a line running from the stem to the root.

**Metric Conversion Table**

**§51.3212 Metric conversion table.**

Inches	Millimeters (mm)
1/8.....	3.2
1/4.....	6.4
3/8.....	9.5
1/2.....	12.7
5/8.....	15.9
3/4.....	19.1
7/8.....	22.2
1.....	25.4
1 1/4.....	31.8
1 1/2.....	38.1
1 3/4.....	44.5
2.....	50.8
2 1/2.....	63.5
2 3/4.....	69.9
3.....	76.2
3 1/2.....	88.9
4.....	101.6



# Appendix II

## Certificate & Notesheet Examples





# **Shipping Point Notesheets and Certificates**



INSPECTION STARTED: M M D D Y Y Hour Min.: A/P  
 015 214 917 019:010 A M

INSPECTION COMPLETED: M M D D Y Y Hour Min.: A/P  
 015 214 917 110:010 A M

U.S. DEPARTMENT OF AGRICULTURE  
 AGRICULTURAL MARKETING SERVICE  
 FRUIT AND VEGETABLE DIVISION

FEDERAL - STATE INSPECTION NOTESHEET

APPLICANT: Dowdy Farms CITY/STATE: Reidsville, GA PLE: \_\_\_\_\_

INSPECTION POINT: Same OTHER ID: P.O. # 216123

CONVEYANCE NO.: Lot Inspection TYPE: \_\_\_\_\_ CERTIFICATE NO.: EXAMPLE #1

Product/Variety, Number, & Size of Container, Description of Product (Brand, Markings, Size, etc.), Grade Marked:  
 Yellow ONIONS, Granex-GRAND type, "The Fresh 1, Produce of USA, 50 lbs net wt., 22.68 Kilos, Jumbo Vidalia, Sweet Onions, Packed for The Fresh One Marketing Inc., Los Angeles, CA"  
 72 cartons

SAMPLE SIZE (lbs.)	DEFECTS				SIZE		ADDITIONAL INFORMATION					REMARKS						
	TOTAL DEFECTS	INCLUDING		RESTRICTIVE TOLERANCES	ADDITIONAL TOLERANCES	DESCRIPTION OF DEFECTS	MIN.	MAX.	Cleaness	Curing	Brightness		Firmness	Shape				
		SHRINK / SER. DAM.	DECAY / OTHER				UNDER SIZE	OVER SIZE										
50	3.50	1.50		0		sb, cts, bsa	3/4	4/4										
50	4.25	1.75		1.50		sa, cts	0	0										
50	3.75	1.50		.75		ss, cts w/c	0	0										
150	11.50	4.75		2.25			0	0										
	(8%)	3%		(2%)														
U.S. No. 1 Large Granex-Grand																		

INSPECTOR'S SIGNATURE: John Doe DATE: 5/24/97 PAGE 1 OF 1

FV - 184 - 13 (2/94)



INSPECTION STARTED: M M D D Y Y Hour Min AIP  
 0 1 5 2 1 3 9 1 7 0 1 4 : 0 1 0 P M

INSPECTION COMPLETED: M M D D Y Y Hour Min AIP  
 0 1 5 2 1 3 9 1 7 0 1 4 : 5 1 0 P M

U.S. DEPARTMENT OF AGRICULTURE  
 AGRICULTURAL MARKETING SERVICE  
 FRUIT AND VEGETABLE DIVISION

FEDERAL - STATE INSPECTION NOTESHEET

APPLICANT: Dry Branch Farms CITY/STATE: Collins, GA  
 PLE: U.S. Insp. # 81  
 Lot A: 061346 GA Fed-state  
 INSPECTION POINT: Same OTHER ID: Sealed w/ FSIS A-278897-  
 Lot B: 869-866-841.  
 CONVEYANCE NO.: Lot Inspection TYPE: CERTIFICATE NO.: EXAMPLE # 2

Product/Variety, Number & Size of Container, Description of Product (Brand, Markings, Size, etc.), Grade Marked:  
 Yellow ONIONS, Granex-Grano type "Vidalia Sweet Onions, Produce of USA, net wt. 50 lbs. (22.68 kg.)  
 G+P by Dry Branch Farms " 51 cartons. - Large.  
 Yellow ONIONS, Granex-Grano type "Vidalia Genuine Sweets, 5 lbs net wt., Produce of USA, Dry-  
 Branch Farms, Collins, GA" 40 master sacks - 10/5 Medium.

SAMPLE SIZE (165)	DEFECTS					SIZE		ADDITIONAL INFORMATION					CWT : FEE \$ OT \$ EXPENSES \$ TOTAL \$				
	TOTAL DEFECTS	INCLUDING			RESTRICTIVE TOLERANCES	ADDITIONAL TOLERANCES	DESCRIPTION OF DEFECTS		MIN. 3"	MAX. 4 1/2"	CLEANNESS	CURING		BRIGHTNESS	FIRMNESS	SHAPE	
		DAMAGE / SER. DAM.	SEEDING / SER. DAM.	DECAY / SOFTENING			MOSTLY	OTHER									UNDERSIZE
50	1.25	1.25	X	0			ct, ssk	0	0	3/4-4	C	F	W	B	F	W	Meets GA Dept. of Agri. 1997 Vidalia Onion Grade Requirements
50	3.25	.75	X	.50			DSA, ssk	0	0	Mostly	✓	✓	✓	✓	✓	✓	
50	.50	.50	X	0			ct	0	0		✓	✓	✓	✓	✓		
150	5.00	2.50	X	.50				0	0								
	(3%)	(2%)		(-1/2)													
US No 1 Large Granex Grano																	
20	.75	0	X	0			DSA	.25	1.00	3/4	L	F	W	B	F	W	Fails to meet GA Dept. of Agri. 1997 Vidalia Onion Grade Requirements. Account offsize in excess of tolerance. (must meet medium size).
20	.25	0	X	0			SB	.25	7.50	0	✓	✓	✓	✓	✓	✓	
20	1.50	1.00	X	0			CS, WN	0	3.00	0	✓	✓	✓	✓	✓	✓	
60	2.50	1.00	X	0				.50	11.50	0							
	(4%)	(2%)		(0)				(1%)	(19%)	(0)							
US No 1 - 2 1/2" min. dia. 3 1/2" MAX dia. Granex Grano																	
Army order No. SPD-300-97-A-EH37.																	

INSPECTOR'S SIGNATURE: Jane Egan DATE: 5/23/97 PAGE 1 OF 1

FV-184-13 (2/94)

FEDERAL-STATE INSPECTION CERTIFICATE

SUBLOT

INSPECTION STARTED: M M D D Y Y 0 1 5 2 1 3 9 1 7	Hour Min. AP 0 1 4 : 0 1 0 P M	This certificate is issued pursuant to the Agricultural Marketing Act of 1946, as amended and is admissible as prima facie evidence in all courts of the United States. WARNING: Any person who knowingly shall falsely make, issue, alter, forge, or counterfeit this certificate, or participate in any such actions, is subject to a fine of not more than \$1,000 or imprisonment for not more than one year, or both.
INSPECTION COMPLETED: M M D D Y Y 0 1 5 2 1 5 9 1 7	Hour Min. AP 0 1 4 : 5 1 0 P M	

APPLICANT: Dry Branch Farms	CITY/STATE: Collins, GA	FILE: USDA Insp. # 81 Lot A: 061346 GA Fed-SMK
INSPECTION POINT: Same		OTHER ID: Sealed w/FSIS A-278847- Lot B 869-866-841
CONVEYANCE NO.: Lot Inspection	TYPE:	NOTESHEET NO.:

PRODUCT/VARIETY	*NUMBER AND SIZE OF CONTAINER	DESCRIPTION OF PRODUCT (Brand, Markings, Size, Quality/Condition, etc.)	GRADE
Yellow ONIONS Granex - Grano type	51 CARTONS	"Vidalia Sweet Onions, Produce of USA, net wt 50 lbs (22.68kg) G&P by Dry Branch Farms, Collins, GA"  Generally 3 to 4 1/2, mostly 3 1/4 to 4 inches in diameter. No undersize.	U.S. No 1 Large Granex - Grano
		Grade defects well within tolerance. Less than 1/2 of 1% decay.	
Yellow ONIONS Granex - Grano type	40 master 0/M 5x	"Vidalia Genuine Sweets 5 lbs net wt Produce of USA, Dry Branch Farms, Collins, GA"  Generally 2 1/2 to 3 1/2, mostly 2 3/4 to 3 1/4 inches in diameter. Offsize well within tolerance.	U.S. No. 1, 2 1/2 inch minimum, 3 1/2 inch maximum diameter. Granex - Grano.
		Grade defects well within tolerance. No decay.	
		Each lot: Clean, Bright, Firm, well shaped.	

ABOVE PRODUCTS MEET REQUIREMENTS OF MARKETING ORDER  
 \* VARIETY OF PRODUCT AND NUMBER OF CONTAINERS ARE PROVIDED BY THE APPLICANT AND ARE NOT BEING CERTIFIED BY THE INSPECTOR UNLESS OTHERWISE NOTED

**FOR DATA ENTRY ONLY**

CORRECTS FV-184 CERTIFICATE NUMBER

APPLICANT

CWT

ON-SITE HOURS

TRAVEL MILES

INSPECTED BY

OTHER

REMARKS:

Lot B: Army Order No. SPD-300-97-A-EH37.  
 Lot A Meets Lot B fails GA Dept of Agri. 1997 Vidalia Onion Grade Requirements.

I, the undersigned, a duly authorized inspector of the United States Department of Agriculture, do hereby certify that samples of the herein described product were inspected and the grades as shown by said samples were as herein stated.

INSPECTOR'S SIGNATURE: *Jane Doe*

DATE ISSUED: 5/23/97

FEE: \$  
 O.T.: \$  
 EXP.: \$  
 ESTIMATED TOTAL: \$

FV-184 (10-93) (Previous versions may be used)





INSPECTION STARTED: M M D D Y Y Hour Min. AIP  
 01 2 21 4 9 17 01 8:010 A M

INSPECTION COMPLETED: M M D D Y Y Hour Min. AIP  
 01 2 21 7 9 17 01 4:215 P M

U.S. DEPARTMENT OF AGRICULTURE  
 AGRICULTURAL MARKETING SERVICE  
 FRUIT AND VEGETABLE DIVISION

FEDERAL - STATE INSPECTION NOTESHEET

APPLICANT: J. C. Watson Co. CITY/STATE: PARMA, ID

PL: \_\_\_\_\_  
 OTHER ID: \_\_\_\_\_

INSPECTION POINT: SAME

CONVEYANCE NO.: MO 956-663 TYPE: Refrig. Trailer. Unit ON

CERTIFICATE NO.: EXAMPLE #14

Product/Variety, Number & Size of Containers, Description of Product (Brand, Markings, Size, etc.), Grade Marked:  
 Yellow ONIONS "Green Giant, Produce of USA, U.S. No. 1, 16/3 lb, mesh " (4000-316) 2.50 Master sacks.  
 Yellow ONIONS "Green Giant, Produce of USA, U.S. No. 1, 50 lb mesh sacks" 100 sacks.

SAMPLE SIZE (lbs.)	TOTAL DEFECTS	DEFECTS INCLUDING				RESTRICTIVE TOLERANCES	ADDITIONAL TOLERANCES	DESCRIPTION OF DEFECTS	SIZE		ADDITIONAL INFORMATION							SWT :	
		DAMAGE / SER. DAM.	SCR. / SER. DAM.	DECAY / SER. DAM.	Peelers				MIN.	MAX.	CLEANNESS	BRIGHTNESS	FIRMNESS	MATURITY	FEE	OT			
															EXPENSES	TOTAL			
21	.50	.50	0	0	.50	Bruises	2 1/4	3 3/4	3"	TOPS	SHAPE	C	FB	F	M	REMARKS			
21	.75	0	0	0	.50	Cuts	2 1/4	3 3/4	3"	FW	SHAPE	C	FB	F	M	2 1/4" min.			
21	1.00	1.00	0	0	1.75	MS	2 1/4	3 3/4	3"	FW	SHAPE	C	FB	F	M				
21	.75	.75	0	.75	1.50	Seed skins	2 1/4	3 3/4	3"	FW	SHAPE	C	FB	F	M				
21	0	0	0	0	1.50	Bruises	2 1/4	3 3/4	3"	FW	SHAPE	C	FB	F	M				
105	3.00	2.25	0	.75	5.75		2 1/4	3 3/4	3"	FW	SHAPE	C	FB	F	M				
	(3%)	(2%)	(41%)	(5%)															
50	1.50	1.00	0	0	1.50		2 1/4	3 3/4	3"	FW	SHAPE	C	FB	F	M	2 1/4" min.			
50	2.00	1.50	0	1.00	1.00		2 1/4	3 3/4	3"	FW	SHAPE	C	FB	F	M				
50	1.75	1.25	0	0.50	1.25		2 1/4	3 3/4	3"	FW	SHAPE	C	FB	F	M				
150	5.25	3.75	0	1.50	3.75		2 1/4	3 3/4	3"	FW	SHAPE	C	FB	F	M				
	(4%)	(3%)	(1%)	(3%)															

Bo. H. ts: Meets M.O. No. 958

Restricted to above manifest only, Remainder of load onions, which are not covered by this inspection.

INSPECTOR'S SIGNATURE: Jane Inspector

DATE: 2/27/97

PAGE 1 OF 1

FV-184-13 (2/94)

EXAMPLE #4  
 S-

FEDERAL-STATE INSPECTION CERTIFICATE

SUBLOT

INSPECTION STARTED: M M D D Y Y Hour Min. A/P  
 01224917 018:010 A M

INSPECTION COMPLETED: M M D D Y Y Hour Min. A/P  
 01227917 014:215 P M

This certificate is issued pursuant to the Agricultural Marketing Act of 1946, as amended and is admissible as prima facie evidence in all courts of the United States.  
 WARNING: Any person who knowingly shall falsify, make, issue, alter, forge, or counterfeit this certificate, or participate in any such actions, is subject to a fine of not more than \$1,000 or imprisonment for not more than one year, or both.

APPLICANT: J. C. Watson Co. CITY/STATE: PARMA, ID PU: \_\_\_\_\_

INSPECTION POINT: SAME OTHER ID: \_\_\_\_\_

CONVEYANCE NO.: MO 956-663 TYPE: Refrig. Trailer (Unit ON) NOTESHEET NO.: \_\_\_\_\_

PRODUCT VARIETY	NUMBER AND SIZE OF CONTAINER	DESCRIPTION OF PRODUCT (Brand, Markings, Size, Quality/Condition, etc.)	GRADE
Yellow ONIONS	250 muske SACKS	Green Giant, 16/31b.	U.S. No. 1 2 1/4 in. min.
Yellow ONIONS	100 SACKS	Green Giant, 501b.	U.S. No. 1 2 1/4 in. min.
<del>Empty rows</del>			

ABOVE PRODUCTS MEET REQUIREMENTS OF MARKETING ORDER 958  
 VARIETY OF PRODUCT AND NUMBER OF CONTAINERS ARE PROVIDED BY THE APPLICANT AND ARE NOT BEING CERTIFIED BY THE INSPECTOR UNLESS OTHERWISE NOTED

**FOR DATA ENTRY ONLY**  
 CORRECTS FV-184 CERTIFICATE NUMBER

APPLICANT: \_\_\_\_\_

GWT: \_\_\_\_\_

ON SITE HOURS: \_\_\_\_\_

O.T. (hrs.): \_\_\_\_\_

TRAVEL MILES: \_\_\_\_\_

O.T. (hrs.): \_\_\_\_\_

OTHER: \_\_\_\_\_

INSPECTED BY: \_\_\_\_\_

\$ \_\_\_\_\_

REMARKS: Restricted to above manifest only. Remainder of load onions, not covered by this inspection.

I, the undersigned, a duly authorized inspector of the United States Department of Agriculture, do hereby certify that samples of the herein described product were inspected and the grades as shown by said samples were as herein stated.

INSPECTOR'S SIGNATURE: Jane Inspector DATE ISSUED: 2/27/97

FEE: \$ \_\_\_\_\_  
 O.T.: \$ \_\_\_\_\_  
 EXP.: \$ \_\_\_\_\_  
 ESTIMATED TOTAL: \$ \_\_\_\_\_

FV-184 (10-93) (Previous versions may be used)

INSPECTION STARTED: **MMDDYY** 03/12/97 Hour: Min: 10:30 A/P **AM**  
 INSPECTION COMPLETED: **MMDDYY** 03/12/97 Hour: Min: 03:00 P/A/P **PM**

U.S. DEPARTMENT OF AGRICULTURE  
 AGRICULTURAL MARKETING SERVICE  
 FRUIT AND VEGETABLE DIVISION

FEDERAL - STATE INSPECTION NOTESHEET

APPLICANT: **APPLETON Produce INC.** CITY/STATE: **WEISER, ID**

PLI: \_\_\_\_\_

INSPECTION POINT: **SAME**

OTHER ID: \_\_\_\_\_

CONVEYANCE NO.: **ID CB1981** TYPE: **Refrig. Trailer** Unit off

CERTIFICATE NO.: **EXAMPLE #5**

Product/Variety, Number & Size of Container, Description of Product (Brand, Markings, Size, etc.), Grade Marked:  
**Yellow ONIONS in cardboard bins with No marks.**

36 bulk bins.  
 Bins weigh approx. 1200/lbs.

SAMPLE SIZE	TOTAL DEFECTS	DEFECTS					DESCRIPTION OF DEFECTS	SIZE		ADDITIONAL INFORMATION						REMARKS
		INCLUDING			RESTRICTIVE TOLERANCES	ADDITIONAL TOLERANCES		MIN. 3"	MAX. 4 1/4"	TOPS 13"	SHAPE	CLEANNESS	BRIGHTNESS	FIRMNESS	MATURITY	
		BURMS / SER. DAM.	SEED-DAMAGED / UNUSUAL	DECAY / ROT												
50	0	0	0	0	0			0	0	0	W	C	FB	F	M	
50	0	0	0	0	0			0	0	1.0	✓	✓	✓	✓	✓	
50	1.0	1.0	1.0	0	0	cuts bruises		0	0	6.0	✓	✓	✓	✓	✓	
50	1.0	0	0	0	0	cuts bruises		0	0	2.5	✓	✓	✓	✓	✓	
50	0	0	0	0	0			0	0	3	✓	✓	✓	✓	✓	
50	0	0	0	0	0			0	0	2.5	✓	✓	✓	✓	✓	
50	1.0	0	0	0	0	cuts bruise		0	0	1.0	✓	✓	✓	✓	✓	
50	1.0	0	0	0	0	ms		0	0	3.0	✓	✓	✓	✓	✓	
400	4.0	1.0	1.0	0	0			0	0	19	W	C	FB	F	M	
	(1%)		(-1/2 of 1%)							(5%)						

Meets M.O. 958

US No 1  
 3" min.

INSPECTOR'S SIGNATURE: **J. M. Inspector**

DATE: **3/12/97**

PAGE **1** OF **1**

FV-184-13 (2/94)



INSPECTION STARTED: M M D D Y Y Hour Min. AIP  
 011117917 018:010 A M

INSPECTION COMPLETED: M M D D Y Y Hour Min. AIP  
 011218917 110:310 A M

U.S. DEPARTMENT OF AGRICULTURE  
 AGRICULTURAL MARKETING SERVICE  
 FRUIT AND VEGETABLE DIVISION

FEDERAL - STATE INSPECTION NOTESHEET

APPLICANT: **BOWMAN Produce Inc.** CITY/STATE: **Marsing, ID** PLE: \_\_\_\_\_

INSPECTION POINT: **SAME** OTHER ID: \_\_\_\_\_

CONVEYANCE NO.: **IN L84812** TYPE: **Refrig. Trailer** Unit off  
 CERTIFICATE NO.: **EXAMPLE #6**

Product/Variety, Number & Size of Container, Description of Product (Brand, Markings, Size, etc.), Grade Marked:  
**Yellow ONIONS "Bowman, 50 lb. mesh sacks" 555 SACKS**  
**Yellow ONIONS "Babe, 50 lb. mesh sacks" 210 SACKS**  
**Red ONIONS "Bowman, 25 lb mesh sacks" 95 SACKS**

SAMPLE SIZE	TOTAL DEFECTS	DEFECTS					SIZE		ADDITIONAL INFORMATION							CMT:
		INCLUDING			RESTRICTIVE TOLERANCES	ADDITIONAL TOLERANCES	DESCRIPTION OF DEFECTS	MIN.	MAX.	Tops	Shape	Cleaness	Brightness	Firmness	Maturity	
		DAMAGE / SER. DAM.	SCR. DAM. / SER. DAM.	DECAY / SURFACE				3"	4 3/4"							
50	1.5	0	0	0	0	B. Mold	0	0	11.0	FW	C	FB	F	M	US No. 1	
50	2.25	0	0	0	0	Br. Cuts	0	0	12.5	FW	✓	✓	✓	✓	Bowman	
50	2.00	.75	0	.75	1.0	Cl. Tr. Neck	.50	0	10.5	FW	✓	✓	✓	✓		
50	2.25	0	0	0	0	MS B. Mold	1.0	0	9.5	FW	✓	✓	✓	✓		
50	2.5	.75	0	.75	0	Cl. Tr. Neck	0	0	11.0	FW	✓	✓	✓	✓		
50	2.5	0	0	0	1.0	B. Mold	.5	0	11.0	FW	✓	✓	✓	✓		
300	13	1.5	0	1.5	3.0		2	0	14.5	FW	L	FB	F	M		
	(4%)	(1%)		(2 of 1%)	(1%)		(1%)		(2%)							
50	1.75	.75	0	.75	1.50	Cl. Tr. Neck	0	0	10.5	FW	L	FB	F	M	US No. 1	
50	1.25	0	0	0	0	MS	0	0	3.5	FW	✓	✓	✓	✓	Babe	
50	1.50	0	0	0	.50	Cl. Tr. Neck	0	0	7.5	FW	✓	✓	✓	✓		
150	4.50	.75	0	.75	1.0	Cl. Tr. Neck	0	0	7.5	FW	C	FB	F	M		
	(3%)	(1%)		(2 of 1%)	(1%)				(14%)							
25	1.25	0	0	0	0	Cl. Tr. Neck	0	0	5.0	FW	C	FB	F	M	Red Onions	
25	.75	.75	0	.75	0	Cl. Tr. Neck	0	0	4.0	FW	✓	✓	✓	✓	Bowman	
25	1.00	0	0	0	0	rust/bruise	.50	0	7.0	FW	✓	✓	✓	✓	US #1	
75	3.00	.75	0	.75	0		.50	0	11.0	FW	C	FB	F	M		
	(4%)	(1%)		(1%)			(1%)		(4%)							

All lots: Meets M.O. 958.

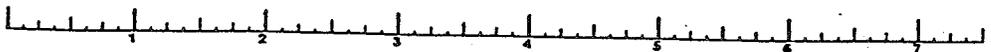
INSPECTOR'S SIGNATURE: **J. M. Inspector** DATE: **1/17/97** PAGE 1 OF 1

FV-164-13 (2/94)



CARRIER IDENTIFICATION		LOADING	INSPECTION NOTESHEET	
Z.P 61.23.456 NY		U.L	U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE FRUIT & VEGETABLE DIVISION	
PREFIX	NUMBER	STATE	CERTIFICATE NUMBER: EXAMPLE #1	
Carrier No. Stated by: APPLICANT			INSPECTION STARTED: m m d d y y Hour Min. A/P 0 2 0 3 9 7   1 0 : 1 5   A M	
Additional Lot ID.:			Inspection Completed: m m d d y y Hour Min. A/P 0 2 0 3 9 7   1 2 : 0 0   P M	
Carrier Type / Name:			APPLICANT: My Produce Co.	
Refrigeration Unit: <input type="checkbox"/> ON <input type="checkbox"/> OFF	Doors: <input type="checkbox"/> OPEN <input type="checkbox"/>		Address: Washington, DC	
Condition of Carrier:			SHIPPER: Best Onions	
Inspection Site: Applicant's Warehouse			Address: Somewhere, ID	
A: PRODUCT: Yellow ONIONS Northern NUMBER OF CONTAINERS: 200 master sacks TEMPERATURES: 45 to 52°F		BRANDS / MARKS: "B40 Brand ONIONS, US No. 1, 3 lbs net wt. Produce of USA, Best Onions, Somewhere, ID. Packed in open mesh master sacks with no distinguishing marks." (Pre-pack)		
B: PRODUCT: Red ONIONS Northern NUMBER OF CONTAINERS: 200 sacks TEMPERATURES: 46 to 48°F		"B40 Brand ONIONS, 25 lbs net wt. Best Onions, Somewhere, ID, Produce of USA." (Med.)		
C: PRODUCT: White ONIONS Northern NUMBER OF CONTAINERS: 100 sacks TEMPERATURES: 47 to 50°F		"S&L Brand ONIONS, 20 lbs net wt. Best Onions, Somewhere, ID, Produce of USA" (1 1/2" w/30" l. 2" l/s)		
D: PRODUCT: Yellow ONIONS Northern NUMBER OF CONTAINERS: 300 sacks TEMPERATURES: 45 to 47°F		"Geisha ONIONS, US No 1, 50 lbs net wt. Best Onions, Somewhere, ID, Produce of USA." (1 1/8)		
Condition of Load & Containers: <input checked="" type="checkbox"/> STACKED ON PALLETS AT ABOVE LOCATION ( ) INTACT THROUGH LOAD ( ) PARTLY UNLOADED				

FORM FV-300-N (3-93)



A	B	C	D
X	X	X	X
Gen 1 3/4 to 3" AVE. 58% 2" or 1gr.	(M) 2 to 3 1/4"	Gen 1 1/2 to 3" AVE. 38% 2" or 1gr.	Gen 3 to 4 1/2" (M) 3 1/4 to 4"

SCORE SHEET				UNDER	OVER	UNDER	OVER	DK	TOPS	OVER	QUALITY
PU Number	Other ID.	TEMP	Sample Wt	1 3/4"	3"	2"	3 1/4"		3"		
A. None	—	45°	21	2.5	0	15.0	0	0	4.75	TOPS	1.0
None	—	48°	21	1.0	.5	10.5	.25	.25	6.50	3 1/4 to 6"	.75
None	—	52°	21	0	1.0	0	0	0	12.25	(5)	.50
None	—	49°	21	.50	.5	9.5	0	0	2.50	(12)	.75
			84	4.0	3.0	35.0	.25	.25	26.0		cuts 3
				(5%)	(3%)	(42%)	(7 1/4%)		(31%)		int. repud 4 1/2
								DK early, not Gen F + Dry			scales
B. None	—	46°	25	0	4.0	(1)	0	0	.50	brushing	0
None	—	46°	25	0	2.25	0	1.50	0	.75		.50
None	—	48°	25	0	1.50	0	.75	.75	.25		0
None	—	47°	25	0	2.75	0	1.0	1.0	0		0
			100	0	10.50	0	3.25	Gen F + Dry	1.5	scattered	1.25
				(0)	(11%)		(3%)	early 1-2outh scales	(2%)	through	(1%)
											seed stems
C. None	—	48°	20	.75	15.25	(12)	0	0	4.25	1.00	1.50
None	—	50°	20	1.00	11.75	0	.75	0	2.50	.75	1.00
None	—	47°	20	.50	10.0	50	.25	.25	2.00	0	.75
			60	2.25	37	0	1.00	0	8.25	1.75	3.25
				(4%)	(62%)		(2%)		(15%)	(3%)	(5%)
								Gen F + Dry			(1%)
								DK early - not			cuts
D. None	—	46°	50	1.5	(3)	0	10.50	3.00	5.00	.75	1.00
None	—	45°	50	6.0	(12)	1.00	9.25	1.25	4.75	1.00	.50
None	—	47°	50	2.25	0	0	6.75	.75	3.25	.75	.50
None	—	46°	50	2.50	0	0	4.50	0	2.00	1.50	0
			200	12.25	0	1.50	31	5	15	3	2
				(6%)		(1%)	(11%)	(3%)	(8%)	(2%)	(1%)
								Gen early stages			Musty

Certificate Example #1-A

Certificate Example #1-B

REMARKS / RESTRICTIONS / SPI

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CARLOT Basis: _____ HOURLY Basis: _____ TRAVEL Time: _____ EXPENSES: _____ EST. TOTAL: _____	REPORTED TO: <u>George</u> DATE: <u>2/3/97</u> TIME: <u>12:00 pm</u> REQUESTED BY: <u>Larry John</u> DATE: <u>2/3/97</u> TIME: <u>8:00 Am</u>	INSPECTED BY: <u>J. M. Inspector</u> ASSISTED BY: _____
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U.S. Government Printing Office: 1980 - 306-138

U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
**INSPECTION CERTIFICATE**  
**EXAMPLE #1-A**

<b>APPLICANT</b> 206123456 NY	<b>SHIPPER</b> U.L.	<b>APPLICANT'S NAME</b> My Produce Co. Washington, DC	<b>SHIPPER'S NAME</b> Best Onions Somewhere, ID	<b>APPLICANT'S ADDRESS</b> Applicant's Warehouse	<b>SHIPPER'S ADDRESS</b> 200 masters 200 sacks
<b>LOT TO BE INSPECTED BY APPLICANT</b>	<b>LOT TO BE INSPECTED BY SHIPPER</b>	<b>LOT TO BE INSPECTED BY INSPECTOR</b>	<b>LOT TO BE INSPECTED BY BUYER</b>	<b>LOT TO BE INSPECTED BY OTHER PARTY</b>	<b>LOT TO BE INSPECTED BY OTHER PARTY</b>
<b>REGISTRATION UNIT</b>					
<b>LOT</b>	<b>GRADE</b>	<b>QUANTITY</b>	<b>WEIGHT</b>	<b>DESCRIPTION</b>	<b>REMARKS</b>
A	45	53	45	ONIONS, Northern	<p>Lot A: Generally 1 3/4 to 3" average 58% 2 inches or larger.</p> <p>Lot B: Mostly 2 to 3 1/4 inches. Decay in early stages affecting 1 to 2 outer scales</p>
B	46	48	48	ONIONS, Northern	
C					
D					
<b>INSPECTION RESULTS</b>					
A	42	00		Under 3" (9 to 11%)	<p>Remarks: Lot A: Fails to grade US No 1. Prepacker account size and quality (excessive tops). Lot B: Fails to grade US No 1, Medium account oversize and condition. FOR REMAINDER OF LOAD see Certificate EXAMPLE #1-B.</p>
	05	00		Under 1 3/4" (0 to 13%)	
	03	00		Over 3"	
	31	00		Tops over 3" in length (2 to 8%)	
	04	00		Quality (cuts, internal paper scales)	
	-1/2	-1/2		Decay	
	85	-1/2		Checksum	
B	11	00		Over 3 1/4" (6 to 16%)	
	00	00		Under 2"	
	01	00		Quality (seed stems)	
	02	00		Bruising	
	03	03		Decay (0 to 6%)	
	17	03		Checksum	

**REMARKS:** Lot A: Fails to grade US No 1. Prepacker account size and quality (excessive tops).  
Lot B: Fails to grade US No 1, Medium account oversize and condition.  
FOR REMAINDER OF LOAD see Certificate EXAMPLE #1-B.

**WARNING:** Any person who knowingly shall falsely make, issue, alter, forge, or counterfeit this certificate, or participate in any such actions, is subject to a fine of not more than \$1,000 or imprisonment for not more than one year, or both.

Inspector's Signature: *J. M. Inspector*  
Inspector's Title: *Wash, DC*  
ESTIMATED TOTAL: \$ *X*

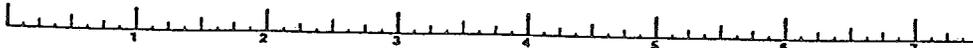


# **Market Notesheets and Certificates**



CARRIER: LOT IDENTIFICATION: <i>S.H.I.P.</i>		LOADING: A.G. P.U. U.L.	INSPECTION NOTESHEET U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE FRUIT & VEGETABLE DIVISION
PREFIX NUMBER STATE		CERTIFICATE NUMBER: <i>EXAMPLE # 2</i>	
Carrier No. Stated by: <i>APPLICANT</i>		INSPECTION STARTED: m m d d y y Hour Min. A/P <i>0 8   0 5   9 6   1 0 : 0 0   A M</i>	
Additional Lot ID.:		Inspection Completed: m m d d y y Hour Min. A/P <i>0 8   0 5   9 6   0 2 : 0 0   P M</i>	
Carrier Type / Name: <i>S/S AMERICAN STAR</i>		APPLICANT: <i>My Produce Co.</i>	
Refrigeration Unit: <input checked="" type="checkbox"/> ON <input type="checkbox"/> OFF	Doors: <input type="checkbox"/> OPEN <input type="checkbox"/>	Address: <i>Pier, PA</i>	
Condition of Carrier:		SHIPPER: <i>ONIONS, INC.</i>	
Inspection Site: <i>APPLICANTS Warehouse</i>		Address: <i>Santiago, Chile</i>	
A: PRODUCT: <i>Yellow ONIONS BGG</i> NUMBER OF CONTAINERS: <i>1000 sacks</i> INSP. COUNT: <i>N</i> TEMPERATURES: <i>55° to 60°F</i>		BRANDS / MARKS: <i>"Chile's Best, 50 lbs net wt., Onions, Inc., Santiago, Chile, Produce of Chile, inserts 76 mm - 114 mm"</i>	
B: PRODUCT: <i>Red ONIONS BGG</i> NUMBER OF CONTAINERS: <i>1000 sacks</i> INSP. COUNT: <i>N</i> TEMPERATURES: <i>55° to 58°F</i>		<i>"C &amp; B Brand, 50 lbs net wt., Onions, Inc., Santiago, Chile, Produce of Chile, inserts 50 mm - 82 mm"</i>	
C: PRODUCT: NUMBER OF CONTAINERS: INSP. COUNT: TEMPERATURES:			
D: PRODUCT: NUMBER OF CONTAINERS: INSP. COUNT: TEMPERATURES:			
Condition of Load & Containers: <input checked="" type="checkbox"/> STACKED ON PALLETS AT ABOVE LOCATION ( ) INTACT THROUGH LOAD ( ) PARTLY UNLOADED			

FORM FV-300-N (3-93)



A	B	C	D
<del>PACK</del>	<del>PACK</del>	<del>PACK</del>	<del>PACK</del>
<del>GEN</del>	<del>GEN</del>	<del>GEN</del>	<del>GEN</del>
<del>Gen 3(76.2)-4 1/2(114.3)</del>	<del>Gen 2(50.8)-3 1/4(82.6)</del>	<del>GEN</del>	<del>GEN</del>
<del>M 3 1/2(88.9)-4(101.6)</del>	<del>M 2 1/4(57.2)-3(76.2)</del>	<del>GEN</del>	<del>GEN</del>

SCORE SHEET									
PLI Number	Other I.D.	TEMP	Depth 155	INDEX 3" (76.2mm)	DK	Basis			Quality
A. None	-	57'	50	0	1.00	.75			.75
None	-	55'	50	0	10.00	0			2.25
None	-	58'	50	.50	5.00	1.00			0
None	-	59'	50	0	1.25	2.25			3.50
None	-	58'	50	1.00	.75	1.25			1.25
None	-	57'	50	.50	2.25	0			1.75
None	-	55'	50	1.75	6.50	2.75			2.50
None	-	60'	50	0	0	.75			.50
None	-	58'	50	1.25	5.75	3.00			1.00
None	-	60'	50	.75	0	1.50			1.50
			50	5.75	32.5	13.25			15
				(1%)	(7%)	(3%)			(3%)
				Gen	5 ABV				seed stems cut
				F+Dry	effective needs + 1-2 outer scales				
				INDEX 3" (76.2mm)					Quality
B. None	-	56'	20	.50	.75	.50			.50
None	-	58'	20	0	1.25	.75			1.00
None	-	57'	50	1.00	7.00	2.25			1.50
None	-	55'	20	.75	0	1.25			.75
None	-	58'	20	0	1.50	.75			.50
None	-	55'	20	.50	.75	.50			1.00
None	-	58'	20	1.25	1.75	1.50			.75
None	-	56'	20	0	.50	1.75			1.25
None	-	57'	20	.75	1.50	0			0
None	-	57'	20	.50	1.75	1.0			0
			10	2.5	6.5	4.7			3.5
				(3%)	(7%)	(5%)			(3%)
				Gen	early				seed stems cut
				F+Dry	effective + 2 outer scales				

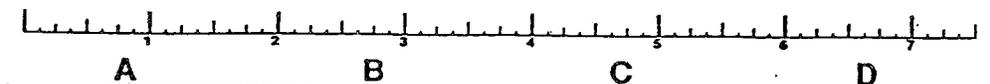
REMARKS / RESTRICTIONS / SPI Applicant states shipment was in transit for more than 10 days.

CARLOT Basis: _____ HOURLY Basis: _____ TRAVEL Time: _____ EXPENSES: _____ EST. TOTAL: _____	REPORTED TO: George DATE: 8/5/96 TIME: 2:10 pm REQUESTED BY: John DATE: 8/4/96 TIME: 3:30 pm	INSPECTED BY: J. M. Inspector ASSISTED BY: _____
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GRADE		TEMPERATURES		WETNESS		DAMAGE		DEFECTS		REMARKS	
LOT	TEMPERATURES	WETNESS	DAMAGE	DEFECTS	REMARKS	DEFECTS	REMARKS	DEFECTS	REMARKS	DEFECTS	REMARKS
A:	55	60	0	0	ONIONS BGG	0.1	00	Under 3"	Quality (Seed stems, cuts)	0.3	00
B:	55	58	0	0	ONIONS BGG	0.3	00	Bruising	Decay (0 to 20%)	0.7	07
C:						0.7	07	Chickens		14	07
D:											
<p>U.S. DEPARTMENT OF AGRICULTURE                  AGRICULTURAL MARKETING SERVICE                  INSPECTION CERTIFICATE  <b>EXAMPLE #2</b></p> <p>Applicant: <u>My Produce Co.</u>                  Address: <u>Pier, PA</u>                  Shipper: <u>Onions, Inc.</u>                  Address: <u>Santiago, Chile</u>                  Intra Site: <u>Applicant's Warehouse</u></p> <p>Grade: <u>U.S. No. 1 Large, Bronx-Hand</u>                  Additional Lot ID: <u>None</u></p> <p>Regulation Unit: <u>Open</u></p> <p>Temp: <u>55</u> / <u>60</u></p> <p>Wetness: <u>0</u></p> <p>Damage: <u>0</u></p> <p>Defects: <u>0.1</u> / <u>0.3</u> / <u>0.3</u> / <u>0.7</u> / <u>14</u></p> <p>Remarks: <u>Lot A: Generally 3 (16.2mm) to 4 1/2 (14.3mm) mostly 3 1/2 (88%) to 4 (10.6mm) inches in diameter decay mostly early, some advanced stages, affecting nets and 1 to 2 outer scales.</u>  <u>Lot B: Generally 2 (50.8mm) to 3 1/4 (89.6mm) inches in diameter decay in early stages affecting 1 to 2 outer scales.</u></p> <p>Grade: <u>Lot A: Fails to grade U.S. No. 1 Large, Bronx-Hand account of condition. Fails to meet U.S. Import Requirements of Section 608e of the Agricultural Marketing Act of 1937 as amended. Lot B: Fails to grade U.S. No. 1 Medium, Bronx-Hand account of condition. Meets U.S. Import Requirements of Section 608e of the Agricultural Marketing Act of 1937 as amended.</u></p> <p>Remarks: <u>Applicant states shipment was in transit more than ten days.</u></p> <p>WARNING: Any person who knowingly shall falsely make, issue, alter, forge, or counterfeit this certificate, or participate in any such actions, is subject to a fine of not more than \$1,000 or imprisonment for not more than one year, or both.</p> <p>Inspector's Signature: <u>J. M. Anagnoste</u>                  Market Office: <u>Pier, PA</u></p> <p>ESTIMATED TOTAL: \$ <u>1000</u></p>											

CARRIER/LOT IDENTIFICATION: <b>S.T. 1.2345, 1PA</b>		LOADING: <b>L.O.</b>	<b>INSPECTION NOTESHEET</b> U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE FRUIT & VEGETABLE DIVISION	
PREFIX NUMBER STATE: <b>PO = 111</b>		CERTIFICATE NUMBER: <b>EXAMPLE #3</b>		
Carrier No. Stated by: _____		INSPECTION STARTED: m m d d y y Hour Min. A/P <b>0.3   1.7   9.7   0.1 : 0.0   P M</b>		
Additional Lot ID.: <b>PO = 111</b>		Inspection Completed: m m d d y y Hour Min. A/P <b>0.3   1.7   9.7   0.3 : 1.5   P M</b>		
Carrier Type/Name: <b>Mech. Refrig.</b>		APPLICANT: <b>My Produce Co.</b>		
Refrigeration Unit: <input type="checkbox"/> ON <input checked="" type="checkbox"/> OFF Doors: <input type="checkbox"/> OPEN <input checked="" type="checkbox"/> <b>Rear</b>		Address: <b>Washington, DC</b>		
Condition of Carrier: _____		SHIPPER: <b>Some Kinda Shipper</b>		
Inspection Site: <b>Applicant's Dock</b>		Address: <b>Anywhere, CA.</b>		
A: PRODUCT: <b>Yellow ONIONS B66</b> NUMBER of CONTAINERS: <b>800 sacks</b> INSP. COUNT: <b>N</b> TEMPERATURES: <b>48° to 52° F</b>		BRANDS / MARKS: <b>"Best Brand US No. 1, Colossal, 50 lbs net wt., Some Kinda Shipper, Anywhere, CA, Produce of USA."</b>		
B: PRODUCT: <b>Yellow ONIONS B66</b> NUMBER of CONTAINERS: <b>600 sacks</b> INSP. COUNT: <b>N</b> TEMPERATURES: <b>52° to 55° F</b>		<b>"SKS Brand 50 lbs net wt., Some Kinda Shipper, Anywhere, CA, Produce of USA."</b> (Colossal)		
C: PRODUCT: _____ NUMBER of CONTAINERS: _____ INSP. COUNT: _____ TEMPERATURES: _____		_____ (1g)		
D: PRODUCT: _____ NUMBER of CONTAINERS: _____ INSP. COUNT: _____ TEMPERATURES: _____		_____		
Condition of Load & Containers: <input type="checkbox"/> STACKED ON PALLETS AT ABOVE LOCATION <input checked="" type="checkbox"/> INTACT THROUGH LOAD <input type="checkbox"/> PARTLY UNLOADED				
<b>6 to 7 layers, 5 to 7 rows, lengthwise and crosswise.</b>				

FORM FV-300-N (3-93)



A	B	C	D
X	X	X	X
Gen 3 3/4 - 6 (m) 4 1/4 to 5"	Gen 3 - 5 (m) 4 - 4 3/4"		

**SCORE SHEET**

A.

PLI Number	Other ID.	TEMP	Depth 105	UNDERS 3 3/4	DK	Bruising B.D. S.D.	Purple Blotch	Quality
None	—	48'	50	0	1.25	2.50 0	1.25	1.00
"	—	52'	50	1.00	0	4.25 1.00	1.75	2.25
"	—	49'	50	2.00	0	.75 0	.75	0
"	—	50'	50	1.25	.75	3.25 .75	2.00	2.50
			200	4.25	3.00	10.75 1.75	5.75	5.75
				(2%)	(1% early Gen F:0 in neck)	(5% 11% scuffed throughout pack)	(3%)	(3%) seeds stems cuts
				10	3.75	6.25		
				10	4.25	5.75		
				10	5.25	4.75		
				10	3.50	6.50		
			40	16.25	25.25			
				(42%)	(58%)	Inside a 1" diameter		

B.

PLI Number	Other ID.	TEMP	Depth 105	UNDERS 3"	DK	Bruising	Quality									
None	—	54'	50	.75	0	1.00	0									
"	—	52'	50	1.25	1.00	0	1.00									
"	—	53'	50	0	2.75	1.25	1.75									
"	—	52'	50	1.50	.75	0	1.25									
"	—	55'	50	1.00	1.25	0	0									
"	—	54'	50	.75	0	.75	0									
			300	5.25	5.25	3.00	3.00									
				(27%)	(2%)	(11%)	(11%) cuts									
				Flushy Scales from Heart of Onion												
			30	5	6	7	8	9	10	11	12	13	14	15	16	17
			10			1	11		11	1	1	1				
			10	1		111		1	1	1						
			10		1		1	11	11	1		1				
			10		1	1	1	11	1	11		1				
			10			11	1	1	1	11	1	1	1			
			10			1	11	11	1	11						

REMARKS / RESTRICTIONS / SPI 1 2 6 8 8 6 3 6 3 2 2 2 6 13.7

Range 5 to 17, ave. 10 flushy scales per onion  
 Restricted to 4 upper layers of leaf.

CARLOT Basis: _____	REPORTED TO: J. J. _____	INSPECTED BY: J. M. Inspector
HOURLY Basis: _____	DATE: 3/17/97	TIME: 3:30 pm
TRAVEL Time: _____	REQUESTED BY: J. J. _____	ASSISTED BY: _____
EXPENSES: _____	DATE: 3/17/97	TIME: 7:00 am
EST. TOTAL: _____		

U.S. Government Printing Office: 1993 - 306-138

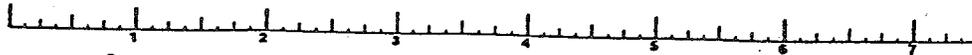
CLASSIFICATION		APPLICANT		U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE	
SHIPMENT NUMBER	SHIPMENT DATE	NAME	ADDRESS	INSPECTION CERTIFICATE	
5712345	1A	LO	My Produce Co. Washington DC	EXAMPLE #3	
CARRIER/LOT TO BE SHIPPED BY	ADDITIONAL LOT ID	SHIPPER	ADDRESS		
	80 # 111	Some Kinosh Shipper Anywhere CA			
CARRIER TYPE / NAME	REFRIGERATION UNIT	INSPECTION UNIT	INSPECTION DATE		
Mech	Refrigerator	0317197	01:00 P		
LOT	DESCRIPTION	QUANTITY	GRADE		
A: 48	ONIONS BGG	53	CA Yellow	200 sacks	
B: 52	ONIONS BGG	55	CA Yellow, large	600 sacks	
C:					
D:					
AVERAGE NUMBER OF DEFECTS PER 100 POUNDS		OTHER DEFECTS		TOTAL	
A	02	UNDER SIZE	Lot A: Generally 3/4 to 6,		
	03	QUALITY (Sedskms cuts)	mostly 1/4 to 5 inches in		
	05	BREWING (2 to 9%)	diameter.		
	03	PURPLE BLOTCH	Cut Sample: 42% single hearts		
	01	DECAY	58% Multiple hearts inside a		
	14	CHECKSUM	1" center diameter reported at		
			applicant's request not affecting grade.		
B	02	UNDER SIZE	Lot B: Generally 3 to 5, mostly		
	01	QUALITY (cuts)	4 to 4 1/2 inches in diameter.		
	01	BREWING	Decay in early stages affecting		
	02	DECAY (0 to 6%)	nects.		
	06	CHECKSUM	Cut Sample: RANGE 5 to 17, Average		
			10 Husky stalks per onion, from		
			the heart of the onion. Reported at		
			applicant's request, not affecting grade.		
GRADE: Lot A: Fails to grade US No 1 Granex-Grano, Colossal account of condition.					
Lot B: U.S. No. 1 Granex-Grano, Large.					
REMARKS: Restricted to upper 4 layers of load.					
INSPECTOR'S SIGNATURE: J. M. Inspector				ESTIMATED TOTAL \$ X	
ADDRESS: Wash, DC					

WARNING: Any person who knowingly shall falsely make, issue, alter, forge, or counterfeit this certificate, or participate in any such actions, is subject to a fine of not more than \$1,000 or imprisonment for not more than one year, or both.

FORM FV-300 (10-60) Replaces FV-300 (4-60) and FV-300 (1-60) which are obsolete.

CARRIER IDENTIFICATION: <b>1507XJB MO</b>		LOADING: <b>U.L.</b>	INSPECTION U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE FRUIT & VEGETABLE DIVISION <b>NOTESHEET</b>	
PREFIX: <b>1507XJB</b>	NUMBER: <b>MO</b>	STATE: <b>MO</b>	CERTIFICATE NUMBER: <b>EXAMPLE #4</b>	
Carrier No. Stated by: <b>APPLICANT</b>		INSPECTION STARTED: m m d d y y Hour Min. A/P <b>1 0 0 9 9 6 0 8 3 0 A M</b>		
Additional Lot ID.: <b>710086 D</b>		Inspection Completed: m m d d y y Hour Min. A/P <b>1 0 0 9 9 6 1 1 1 0 A M</b>		
Carrier Type / Name: _____		APPLICANT: <b>My Produce Co.</b>		
Refrigeration Unit: <input type="checkbox"/> ON <input type="checkbox"/> OFF	Doors: <input type="checkbox"/> OPEN <input type="checkbox"/>	Address: <b>Washington, DC</b>		
Condition of Carrier: _____		SHIPPER: <b>GROWERS INC.</b>		
Inspection Site: <b>Applicant's Warehouse</b>		Address: <b>Quincy, WA</b>		
A: PRODUCT: <b>Yellow ONIONS Northern</b> NUMBER of CONTAINERS: <b>850 sacks</b> INSP. COUNT: <b>N</b> TEMPERATURES: <b>54° to 55°F</b>		BRANDS / MARKS: <b>"State Center, Washington Onions, Packed by Kikuchi Bros., Quincy, WA, net wt. 50 lbs., Produce of USA." (Jumbo)</b>		
B: PRODUCT: _____ NUMBER of CONTAINERS: _____ INSP. COUNT: _____ TEMPERATURES: _____		_____		
C: PRODUCT: _____ NUMBER of CONTAINERS: _____ INSP. COUNT: _____ TEMPERATURES: _____		_____		
D: PRODUCT: _____ NUMBER of CONTAINERS: _____ INSP. COUNT: _____ TEMPERATURES: _____		_____		
Condition of Load & Containers: <input checked="" type="checkbox"/> STACKED ON PALLETS AT ABOVE LOCATION      ( ) INTACT THROUGH LOAD      ( ) PARTLY UNLOADED				

FORM FV-300-N (3-93)



A	B	C	D
PAGE: X	PAGE: X	PAGE: X	PAGE: X
SIZE: Gen 3-4 1/2" (M) 3 1/2-4"			

SCORE SHEET		TEMP	WIND	3"	DK	TOPS 100% (M)	Staining	D Qual.	B
PLI Number	Other ID.								
None	—	54'	50	1.25	0	3.0	Appr. Badly	0	50
None	—	54'	50	1.50	5.5	1.5	5.5 .75	0	0
None	—	55'	50	1.50	3.75	14.0	6.0 1.0	1.0	0
None	—	55'	50	3.50	.75	2.0	9.5 1.0	.50	.50
None	—	54'	50	2.0	4.0	6.0	5.5 .50	0	0
None	—	54'	50	.75	1.5	0	3.5 0	0	0
None	—	55'	50	4.0	1.5	1.0	5.0 0	2.0	0
None	—	55'	50	1.0	6.0	.5	6.0 1.0	1.0	0
		400	15.0	23	28	11.5 4.25	2.5 0	.75	0
			(4%)	(6%)	(7%)	(11%) (11%) (2%)		(1%)	(X)
		Gen FIVE dry		(E) ADV		(M) fairly bright to SL Stained		CUTE SPLITS	

EX TOPS 3-7.0

REMARKS / RESTRICTIONS / SPI

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CARLOT Basis: _____ HOURLY Basis: _____ TRAVEL Time: _____ EXPENSES: _____ EST. TOTAL: _____	REPORTED TO: <u>SM</u> DATE: <u>10/9/96</u> TIME: <u>1:10pm</u> REQUESTED BY: <u>FAX</u> DATE: <u>10/9/96</u> TIME: <u>7:30 am</u>	INSPECTED BY: <u>A. M. Inspector</u> ASSISTED BY: _____
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U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
**INSPECTION CERTIFICATE**  
**EXAMPLE #4**

507X JB MA Applicable to State of MA Applicable to State of MA Applicable to State of MA	My Produce Co Washington, DC Geowers Inc. Quincy, WA	Warehouse Applicant's Warehouse State Center # 50 lbs net wt. WA Yellow Jumbo	1009960830A 850 sacks
55 ONIONS Northern UNDER 3" Quality (cuts, splits) Decay (0 to 12%) Checksum	OFFICIAL DEFECTS Generally 3 to 4 1/2, mostly 3 1/2 to 4 inches in diameter. Decay mostly in early stages some advanced stages affecting root end. Mostly fairly bright to slightly stained, some appreciably stained including few badly stained onions, not affecting grade reported at applicant's request.	OTHER DEFECTS None	ESTIMATED TOTAL Wash, DC \$ X

**GRADE:** Fails to grade US No 1 Jumbo account of condition.

**REMARKS:**

**WARNING:** Any person who knowingly shall falsely make, issue, alter, forge, or counterfeit this certificate, or participate in any such actions, is subject to a fine of not more than \$1,000 or imprisonment for not more than one year, or both.

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