

To: Walnut Handlers

As the official walnut inspection agency, we have the responsibility to inspect walnuts handled by each processor throughout the state.

We staff each of our offices to meet the anticipated needs in each area, therefore, if your requirements change, please notify your nearest DFA office. When calling for an inspector, be sure to give the office at least 24 hours notice. We cannot guarantee that inspection personnel will be available without this notice.

It is the processor's responsibility to provide an adequate inspection facility including a table, chair, heat, necessary sanitation facility, and sufficient light (with a minimum of 95 foot-candles) at the inspection level. If you need assistance in meeting these requirements, please contact the Modesto office at 209.544.1414. DFA will provide the inspection personnel, any necessary equipment, forms, the inspection stamp, and W-12 tags.

Keep in mind, when designing your inspection area, DFA is mandated to personally draw all samples or have all samples drawn under our direct line of sight supervision.

If you have any questions, please contact the DFA Corporate office at 916.561.5900.

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# **Manual and Handbook For Inspecting Inshell & Shelled Walnuts**

## **Introduction**

Instructions in the following Manual and Handbook for inspecting walnuts and completing the W-4 and W-3 forms should be followed by all inspectors for the sake of uniformity. However, there are times when certain deviations are necessary because of plant procedures.

An inspector is responsible to inspect, grade and certify walnuts. New inspectors will be given all possible information and assistance, not only by the inspector in charge, but by all experienced inspectors or analysts with whom they may work. It is unethical to criticize other inspectors and their work, in fact, all criticism is discouraged. Arguments between inspectors should be avoided, and any difference in the interpretation of the inspection procedures or grades should be brought to the attention of the supervisor in charge.

All inspectors are required to read and understand the Employee Handbook.

## **Field Inspections**

As soon as the local DFA inspector is notified of a new handler, it is important to notify the DFA Corporate Office immediately with the new handler's name, address and telephone number, prior to any inspection.

## INSPECTING INSHELL WALNUTS

### Sampling and Testing

A sample is defined as that unit of walnuts taken to represent a designated portion of a lot and is added to other samples from that lot to form a composite from which a 100 nut test is drawn.

When drawing a composite sample, observe the general appearance of the nuts in each container sampled. If the walnuts in any single container or number of containers appear distinctly different in quality from those in the majority of the lot, they should be inspected separately and reported on separate work sheets. The handler should be advised of the variation in the lot and the inspector's decision to inspect those containers separately.

All lots of inshell walnuts tendered for inspection shall be made readily accessible for the inspector by handler.

No lot should be more than 50,000 lbs.

### Sampling and Testing Merchandise Packed Prior to Inspection

#### Floor Stock

Where merchandise has been packed prior to inspection, sample at least the number of units in the following schedule:

<u>Units in Lot (bags, cartons)</u>	<u>Units Sampled</u>	<u>Pallets</u>
5	3	1-5 pallets
10	4	2 bags per pallet
25	5	
50	8	5 + pallets
75	9	1 bag/pallet
90	10	
100 or more	square root of the number of units	

Sampling tubs or bins shall be performed with a trier or the bins decanted and not less than 3 drafts drawn from each bin (top, middle and bottom).

The COMPOSITE sample should be drawn several times larger than the amounts required for analysis. Approximately 3 lbs. of inshell walnuts will equal 100 nuts. The composite for each test should be thoroughly mixed either by mechanical mixer or by pouring the nuts from one container into another. No lot should be more than 50,000 lbs.

## **Sampling In-Line**

When inspection is being conducted on an in-line basis, samples must be drawn and analyzed continuously so that the handler may be informed at all times regarding conformity with the intended grade. This will permit the handler to segregate and withdraw portions of a lot which fail to make the grade. Tests should be on even segments of a lot, so in averaging, a larger portion might not be certified to a higher grade because of better quality on the smaller portion.

A hand scoop shall be used to draw samples. Inspectors must draw their own samples or have them drawn in their presence and under their direction.

In no case should a 100-nut test represent more than 15,000 lbs. of inshell product. For lots of less than 15,000 lbs. a 100-nut test shall be made.

## **Reinspection**

Reinspections (Code 2 previously certified material) - should be treated as a new inspection - therefore sampling and testing should be done as for an original inspection.

Retest - previously rejected material

Testing After Rejection - Any rejected lot may be tested one additional time if it rejects a second time, the integrity of the lot must be changed prior to any other inspection.

## **Labeling**

At times, a foreign buyer may require that product be shipped in unmarked bags or cartons. Shipping product in unmarked bags or cartons is a violation of labeling requirements. If a customer requires an unmarked bag or container, the handler should require a written agreement from the buyer that the buyer will comply with all labeling requirements upon receipt of the product, and the handler should be able to produce this agreement if requested by authorities.

## **Sealing, Stamping and Identifying Lots of Inshell Walnuts**

Inspected and certified merchantable inshell walnuts in bags must have a W-12 tag attached. Tags may be issued to packing house representatives in numerical order to cover a definite number of bags. Damaged tags must be replaced. Numbers of tags - including the letters - attached to the lot and those destroyed, should be recorded on the lines of the W-4.

Inspected and certified walnuts in cartons shall be marked with an official Walnut Marketing Board stamp. The stamping must be under the supervision of the inspector. The stamping equipment must remain under the inspector's control.

Any container of inshell walnuts that had been previously tagged or stamped may be repackaged into new containers, a new W-12 tag will be issued or the new container stamped with the pack date only under the supervision of the inspector.

When a handler repackages walnuts from an open container, the inspector must have positive lot identification before issuing W-12's or stamping the new containers. If the lot cannot be positively identified, it must be reinspected.

When a reinspection is requested for sacking, new W-12 numbers will be assigned and these are to be registered on the worksheet portion of the W-4.

When a lot of inshell walnuts or a segment of a lot is rejected, all W-12 tags shall be removed from the bags within 24 hours and returned to the inspector, who must account for the applicable numbers.

### **Applications of Tolerances**

**Floor Stock** - In testing merchandise packed prior to inspection (floor stock), if the first test passes well within tolerance, the walnuts shall be certified. If not, continue to make a second and a third test. If the average of the three tests is within tolerance, the lot shall be certified. In averaging the tests it is important to remember that not only the defects must average, but also the tests. At least two of the three tests must be within grade.

Prior to cracking, the inspector will test and score each lot for size in accordance with the U.S. Standards. Unless the first sample examined scored at least 2 percentage points less than the tolerances permitted for nuts larger or smaller than the size indicated on the containers, additional samples must be examined and the results averaged.

**In-Line** - Under in-line inspection with samples being analyzed continuously, the average of these tests constitutes the grade of the total pack. However, individual samples containing higher percentages of defects indicate a lower quality pack at that time, which, if averaged with the tests of other samples, might bring the entire lot out of grade. Therefore, it is necessary to limit the amount of defects allowed in any portion of a lot to allow that lot to be certified as meeting the

grade. When any test is found to contain defects in excess of 1-1/2 times any maximum allowed tolerance of 5 percent or more, or defects in excess of double any maximum tolerance allowed under 5 percent, the containers covered by the test shall be considered a separate lot and reported separately as failing to meet the intended grade. When two or more segments of a lot are analyzed consecutively and each is scored as a lower grade than the lot as a whole, not more than one segment may be averaged in, even though all segments are averagable. Record as a new or different lot the lower grade segments.

A handler may request a portion of a lot not be averaged into the whole lot even though it is averagable.

No lot shall be certified for any given grade unless at least 50% of the tests for the lot meet the requirements of that grade. Portions of a lot containing a high percentage of defects may be withdrawn in order to qualify the balance of the lot for a higher grade.

### **Rejections**

Should any analysis exceed the acceptable tolerances in any defect group, that portion of the lot from which the sample was drawn must be removed from the pack and recorded as a rejection on a separate W-4. Therefore, samples must be positively identified with the segments of the pack from which it was drawn.

### **Handler Rejections**

A handler always has the option to reject a lot or portion of a lot for whatever reason even though it meets the minimum standards. To do so the handler must notify the DFA inspector, who will remove the W-12's or obliterate the WMB case stamps. The inspector will send a correction sheet to the Sacramento office.

### **Tolerance For Grade Defects**

All percentages shall be determined on the basis of count.

When judging a specimen containing more than one scorable defect, always score it in the column of the work sheet which represents its most serious defect.

### **Example:**

When grading for external appearance a nut may be found to contain a broken shell and have an adhering hull affecting more than 1/8 of its surface area. This nut should be scored on the work sheet under SERIOUS DAMAGE for adhering hull.

A kernel damaged by shriveling and rancidity should be scored on the work sheet under SERIOUS DAMAGE from rancidity.

Any combination of defects, the seriousness of which exceeds the maximum allowed for any defect, shall be scored as DAMAGE or SERIOUS DAMAGE.

## **Size**

Special provision is made in the U.S. Standards for the size grading of Large Eureka variety and Eureka-type walnuts. To use this special grading, at least 90% of the walnuts must be of the Eureka variety or type walnuts.

### **Size:**

On size a tolerance of 1 1/2 times is allowed.

Mammoth	not over 12% pass through a 96/64" round opening.
Jumbo	not over 12% pass through a 80/64" round opening.
Large	not over 12% pass through a 77/64" round opening.
Large Eureka	not over 12% pass through a 76/64" round opening.
Medium	88% pass through 77/64" of which not over 12% pass through 73/64".
Standard	not over 12% pass through a 73/64% round opening.
Baby	88% pass through 74/64% of which not over 10% pass through 60/64".

When inshell walnuts do not meet the requirements for a specified size, certify:

Large with too many mediums - as Standard;

Medium with too many Large - as Standards;

Babies w/too many Peeweels - as Reject;

Babies with too many oversize are not a USDA size therefore must be rejected or further screened;

Mammoth size walnuts must be inspected and so certified;

No Walnut Marketing Board Certificate for inshell walnuts shall be issued when the walnuts are found to be smaller than the size labeled on the container, or if the container is improperly labeled.

**Baby/Medium Blend** - DFA will certify all nuts in the blend to their specific size prior to blending. DFA will issue two separate certificates for the babies and mediums in the blend.

After certification the handler will be allowed to blend the medium and baby size. The handler will be required to note the blend on the bag sizes. In order to meet labeling requirements. The blend will be designated with the predominate size noted first (i.e. if the blend consists of 30% baby size and 70% medium size the blend would be designated as a MEDIUM BABY blend, and would be so noted on the bag).

	<u>External (Shell)</u>			<u>Internal (Kernel)</u>		
	<u>D</u>	<u>S</u>	<u>Total Defects</u>	<u>D</u>	<u>S*</u>	<u>Total Defects</u>
U.S. #1	5	3	5	10	6	10
Unaverageable Reject	8	7	8	16	10	16
Reject may average up to	7	6	7	15	9	15
<b>Certificate must average</b>	<b>5</b>	<b>3</b>	<b>5</b>	<b>10</b>	<b>6</b>	<b>10</b>

	<u>External (Shell)</u>			<u>Internal (Kernel)</u>		
	<u>D</u>	<u>S**</u>	<u>Total Defects</u>	<u>D</u>	<u>S</u>	<u>Total Defects</u>
U.S. #2	10	10	10	15	8	15
Unaverageable reject	16	16	16	23	13	23
Reject may average up to	15	15	15	22	12	22
<b>Certificate must average</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>15</b>	<b>8</b>	<b>15</b>

\* Six (6) insects is a automatic unaverageable reject.

\*\* Adhering Hull only U.S. #2 (Serious only)

8 is unaverageable reject

6 & 7 is reject but averageable

5 is what lot must average

**NOTE:**

Inline: At least 50% of tests must meet grade applied for.

Floorstock: A majority of the tests must meet or exceed the requirements of  
The grade applied for.

## **External Appearance**

After inspecting for size, examine and score each lot for external appearance and condition in accordance with the U.S. Standards. Unless the first sample examined on merchandise packed prior to inspection scores at least 2% higher than the minimum required for the grade indicated, additional samples shall be examined and the results averaged. The Standards do not require that the walnuts be bleached to be certified as merchantable. Therefore, handlers may tender for inspection unbleached walnuts to be certified as merchantable. However, they must meet the external requirements set forth in the Standards. If the walnuts are unbleached and certified, this information should be on the certificate and worksheet.

Each grade requires the walnuts shell to be dry. However, moisture on the shell following the washing or bleaching process can be disregarded unless the inspector is unable to make a decision as to quality or condition. In this case, postpone examination until a proper determination can be made.

Inshell walnuts have the requirements for external cleanliness, but only U.S. No. 1 Grade is required to be bright. Brightness should be judged for the lot as a whole rather than on an individual basis. This means a fairly light, attractive appearance. A slight, chalky deposit on the shell shall not be considered as affecting brightness. When a lot of walnuts has a large percentage of nuts with sand adhering to the shell or the shell looks as though it has not been properly bleached, the inspector may write "not bright" across the worksheet portion of the W-4, instead of trying to score each nut separately. When an individual nut is dirty, it should be scored under the Rules of Discoloration/Stain.

**Splits** - are walnuts with shells separated at the suture but held together by the kernel.

**Broken shells** - are walnuts from which an area of the shell is missing, greater than the area of a circle 1/4 inch in diameter, or the halves are completely broken apart and separated. Walnuts so affected shall be scored as DAMAGE. Halves completely broken apart and separated shall be scored at the rate of two for one, that is, two halves shall be scored as one defective nut.

**Perforated shells** - are imperfectly developed areas on the shell resembling abrasions and usually including small holes penetrating the shell wall. If the area affected is larger than the area of a circle 1/4", but not more than 3/8" in diameter, score as DAMAGE and if more than 3/8", score as SERIOUS DAMAGE.

**Adhering Hulls** - When affecting more than 1/20 or 5%, but not more than 1/8 or 12.5% of the shell surface, score as DAMAGE. When affecting more than 1/8 or 12.5% of the shell surface, score as SERIOUS DAMAGE.

**Discoloration** - means that the color (either by stain or dirt) of the affected portion of the shell is in pronounced contrast with the color of the rest of the shell. When the area affected is at least 1/5 or 20% but not more than 1/3 or 33% of the shell, in the aggregate, score as DAMAGE. Discoloration which affects more than 1/3 or 33% of the shell shall be scored as SERIOUS DAMAGE.

Darker discoloration covering a smaller area, if the appearance is equally objectionable, should also be scored as DAMAGE or SERIOUS DAMAGE, depending on the amount of the shell affected.

**Other** - defects that materially or seriously detract from the appearance of the individual nut, or the lot as a whole, shall be scored as DAMAGE or SERIOUS DAMAGE, depending upon the amount of the shell affected.

Note: A summary of external defects is shown on Page 14.

TABLE OF INSHELL DEFECT TOLERANCE

**EXTERNAL DEFECTS**

U.S. #1

10%	<u>Splits allowed in each grade</u>	Broken shells greater than 1/4" in diameter.
5%		Perforations aggregating more than 1/4" but not more than 3/8".
DAMAGE		Adhering hulls affecting more than 1/20 or 5% but not more than 1/8 or 12.5% of shell surface.
		Discoloration - affecting more than 1/5 or 20% of shell surface but less than 1/3 or 33%.
		Other _____
		Perforations - aggregating more than 3/8".
3%		Adhering hull - affecting more than 1/8 or 12.5% of shell surface.
SERIOUS		Discoloration - affecting 1/3 or 33% or more of shell surface.
DAMAGE		Other

TOTAL OF 5% INCLUDING NOT MORE THAN 3% SERIOUS DAMAGE.

U.S. #2

10%	Broken shells greater than area 1/4" in diameter.
Damage	Adhering hulls, affecting more than 1/20 or 5% but not more than 1/8 or 12.5% of shell surface.
or	Other.
Serious	Perforated shells aggregating more than 3/8" in diameter.
Damage	Discoloration affecting more than 1/3 or 33% of shell surface.
	Other.

5% Adhering hulls affecting more than 1/8 or 12.5% of shell surface area.

TOTAL OF 10% DAMAGE OR SERIOUS DAMAGE COMBINED, INCLUDING NOT MORE THAN 5% SERIOUS ADHERING HULLS.

**KERNEL DEFECTS**

<u>Tolerances for U.S. No. 1</u>		<u>Tolerances for U.S. No. 2</u>
10%	Dark Discoloration - Darker than Amber	
	Not well dried - pliable & rubbery.	15%
	Shrivel - more than 1/20 or 5% - but not more than 1/8 or 12.5%.	
	Other	
6%	Wet - Undercured - "Green"	8%
	Shrivel - more than 1/8 or 12.5% of both halves: or more than 1/2 or 50% of one of the halves.	
	Rancid - any amount (includes decay or rot).	
	Mold - Conspicuous, any color, any amount.	
	Inconspicuous, white or gray, affecting an aggregate area larger than 1 cm or 1/8 (12.5%) of the entire surface area, whichever is the lesser area.	
	Other _____	
	5% Insect Damage	5%

0 \_\_\_\_\_ Live Insects \_\_\_\_\_ 0

U.S. No.1  
 Kernel 70% Light Amber  
 Color 40% Light included in Light Amber

U.S. No.2  
 60% Light Amber

## **Kernel Quality**

Kernel quality of merchantable inshell walnuts must meet the minimum requirements set forth in the U.S. Standards for No. 1 or No. 2 grade.

**Well Dried** - A normal, well-dried kernel is crisp, brittle and breaks under pressure or bending. Kernels that are rubbery and do not break crisply and easily (due to moisture content) should be scored as damaged because they are not “well dried.” Kernels that are very “green” and wet should be scored as serious damage.

Discolored kernels shall be scored as discolored under DAMAGE when more than 20% or 1/5 of the skin or pellicle is darker than Amber.

**Shriveling** - means the kernel has shrunk sufficiently from the maximum size attained at a previous time in its growth so that the pellicle or skin is noticeably wrinkled and/or part of the kernel tissue has dried. Kernels thin in the cross section but which are otherwise normally developed shall not be considered as damaged.

- A. Score as DAMAGE kernels that are shriveled more than 1/20 or 5% - but not more than 1/8 or 12.5% of the surface of the kernel (including both halves) or a greater area is affected by lesser degrees of shriveling producing an equally objectionable appearance.
- B. Score as SERIOUS DAMAGE kernels that have more than 1/8 or 12.5% of the entire kernel severely shriveled.
- C. If one of the halves of the kernel is not affected by shriveling, the other half must be severely shriveled on more than 1/2 or 50% of its surface before scoring as SERIOUS DAMAGE. Greater areas affected by lesser degrees of shriveling are scored as SERIOUS DAMAGE.

Walnuts are **INSECT DAMAGED** if they contain live or dead insects, if they contain evidence of insect feeding or cutting or if they contain excreta or webbing. Score insect damage as SERIOUS DAMAGE. Under the U.S. Standards for Inshell Walnuts there is no tolerance for live infestation. A lot containing live infestation must be rejected, fumigated and reinspected.

**Rancid Kernels** - usually are somewhat darker colored and may have an oily appearance. However, dark and oily appearing kernels are not necessarily rancid. When in doubt, the unmistakable rancid flavor will be the deciding factor of rancidity. Score as SERIOUS DAMAGE.

**Decay** - Sometimes described as “rot” - is a deterioration of the nutmeat. It is scored in the same column on the work sheet as rancidity, under SERIOUS DAMAGE. Any portion of the kernel that has become rancid or decayed is scored as a defect. Spots of decay or rancidity observed on the knobs or areas of attachment between the two halves must be scored regardless of degree.

**MOLD** - Score when attached to the kernel and conspicuous, or when inconspicuous white or gray mold affects an aggregate larger than one square centimeter or 1/8 (12.5%) of the entire surface of the kernel, whichever is less.

### **Other Scorable Defects**

The following kernel defects are not specifically described in the Standards, but should be scored as “Other Defects.”

Walnut kernels of inshell lots may be subject to discoloration of the meat or flesh due to the release of oil, oxidation, bleach, etc. A light yellowish-brown oily appearance of the flesh is fairly common and is not a defect as long as there is no rancidity. Discoloration which is a bright yellow, orange, brown, medium gray, or any objectionable color, shall be scored as DAMAGE or SERIOUS DAMAGE to the kernel, depending on the amount of the kernel affected. Kernels that are discolored but not rancid, score as follows:

- A. Score in the “Other” column as DAMAGE any kernel that is affected by discoloration or bleach to the extent it materially detracts from the appearance, edibility or shipping quality of the nut approximately 1/4 or 25% kernel). Put a small “b” on the work sheet for kernels affected by bleach.
- B. Score in the “Other” column as SERIOUS DAMAGE any kernel affected by discoloration or bleach to the extent it seriously detracts from the appearance, edibility or shipping quality of the nut (approximately 1/2 or 50% of the kernel). Put a small “b” on the work sheet for kernels affected by bleach.

Kernels with brown spots and loosened pellicle which detracts from the appearance of the nut should be scored even though the meat or flesh is not noticeably affected. Score as DAMAGE or SERIOUS DAMAGE, depending on the degree of the defect as described above.

**Dirty Kernels** - shall be scored in the “Other” column as SERIOUS DAMAGE, and a letter “d” written after the number to designate the specific defect.

Note: See Page 14 for summary of kernel defects and color requirements.

## **USING THE COLOR CHART**

*When matching the kernels with the color chart (see official color chart), the emphasis should be placed on the lighter areas of skin on the elevated portions of the kernels and some allowance should be made for the darker areas of skin, in the valleys, unless they are noticeably darker.*

Veining and Speckling of the skin is typical of certain varieties of walnuts. They shall be permitted on a kernel in color classification to the extent that they do not materially affect the appearance or darken the overall color. If they materially affect the overall color, they shall be classified in the next lower color group.

Dark Knobs are another form of marking characteristics of some varieties and applies to darker color on the raised knobs or humps on the outer surface of the kernel. The same principle shall be applied in classifying such kernels as in veining and speckling.

Note: See Page 14 for summary of kernel defects and color requirements.

## **Grade Determination**

Final grades for any certificate of merchantable inshell walnuts shall be the lowest grade determined by either external or internal defects, or color.

## **Varieties (Commercial Type)**

The more common varieties of inshell walnuts include the Eureka, Franquette, Hartley, Payne, Trinta, Mayette, Poe and Ashley. If the inspector is assured of the variety and there is at least 90% of that variety in the lot the inspector may certify that specific variety.

The official definition of California Varieties reads as follows, “Commercial type may be a specific variety such as Hartley, Eureka, or any other single certified variety or it may be a mix.” The varieties that may be in the mix are listed below for your review and dissemination.

Amigo, Adams, Ashley, Payne, Eureka, Hartley, Serr, Chandler, Chico, Gustine, Lompoc, Midland, Pedro, Pioneer, Sunland, Tehama, Tulare, Vina, Poe, Carmello, Cascade, Concha, Ehrhardt, Franquette, Howe, Howard, Idaho, Marchetti, Mayette, Maylan, Placentia, Sharkey, Sinensis, Trinta, Waterloo, Westside and other minor varieties.

If a lot is certified as a specific variety, it should be shown in the “Variety” section of the certificate. If the lot is to be “California Variety” this may also be shown in the “Variety” section. You may also leave the “Variety” section blank, under no circumstances should you certify “Mixed”

## **Crop Year**

There is no provision in the Walnut Marketing Order to allow the certification of crop year.

## Worksheets & Certificates For Inshell Walnuts

TYPES:

- W-4 (Page 26) Used in Merchantable inspections should be filled out with the number 1 after “Type” in the box in upper right-hand corner. Record your tests and specify the number of containers each test covers. Any notes that help identify the lot in any way can be written across the face of the worksheet portion of the W-4. Use a continuation sheet rather than another certificate for recording additional tests when there is not adequate room on the original certificate. Only pertinent information that is to be certified shall appear on the certificate. One lot of inshell walnuts shall be recorded on each W-4.
- W-4 (Page 23) Used for a Rejection when merchantable free walnuts do not meet grade, shall be filled in with REJECTION written on the line after “Classification” and the number “3” on the line in the upper right-hand box, after “Type” (on certificate). The tests shall be recorded in the same manner as for a lot that has met grade. Across the worksheet portion and the certificate, write the word “Reject” and place diagonal line across the certificate and cross out the word merchantable at the bottom of the certificate. The W-12 tags (Page 21) should be removed from the bags at the time the lot is rejected. If the walnuts are in cartons that have been stamped, the stamp must be obliterated and the lot cleared for return to raw stock.
- W-4 (Page 24) Used for recording a reinspection of a previously certified lot of inshell walnuts and should be made out the same way as for a merchantable inspection, except in the block at the upper right-hand corner, write “Reinspection” after “Type” with a “2” in the box. Across the face of the worksheet portion of the W-4 the word “Reinspection” should be written, along with the original inspection certificate number.
- W-6 (Page 21) Used at the time of grading the walnuts. The tests should be transferred to the W-4 when the lot is finished.
- W-12 (Page 21) Every bag of inshell walnuts must have a W-12 sewn on the bag. If the bag is opened do not reuse - issue a new W-12. All W-12s to be recorded on W-4.

## **Worksheets and Certificates for Inshell Walnuts (cont.)**

For substandard inshell walnuts, tendered for Reserve, use a W-4 (see Page 25) and in the upper right-hand corner write code type number "4". Across the face of the worksheet record the number and type of containers, the percentage of kernels in the lot and lot number. On the face of the certificate write the classification. Obliterate the word "Merchantable" from the bottom part of the certificate before signing it (see Page 23).

The certificate portion of the W-4 is a formal document and should be treated as such.

BE SURE AND CHECK CERTIFICATES FOR ERRORS BEFORE MAILING.

## **Data Processing Codes**

### **WALNUTS IN THE SHELL**

<u>Type of Certificate</u>	<u>Code No.</u>
Merchantable	1
Reinspection- Previously passed	2
Reject	3
Substandard	4
Secondary	6
Void	7

## **Inshell Secondary Certificates**

1. The lot must be positively identified and only the original handler of record may request a secondary.
2. The secondary certificate will cover the original lot only. There will not be any secondary certificates for two or more lots added together.
3. Secondary certificates may only be issued for portions of a lot only if all tests in the original lot made the grade specified.
4. The only changes allowed from the original will be: change of name, type of container and correct weight.
5. The walnuts which are left from an original lot after a secondary certificate is written, must be reinspected and a new certificate written if the handler wants another secondary certificate.
6. Record on the book copy that a secondary was written; show necessary changes in weight, etc.

Note: See Pages 27 & 28.

INSPECTED AND  
 CERTIFIED FOR  
 SHIPMENT  
 Walnut Marketing Board

2V 30125

**DFA OF CALIFORNIA**

Lot 2103 Date 9/2/2000  
 Size J Under 7 Over \_\_\_\_\_  
 W-12 2K 11762 \_\_\_\_\_  
 Variety Hartley Insp. by 547  
 Splits 1 **External**  
 D-Broken & Perf. 2  
 D-Hull \_\_\_\_\_ **3**  
 D-Discolored \_\_\_\_\_  
 S-Perforated \_\_\_\_\_  
 S-Hull 1 **1**  
 S-Discolored \_\_\_\_\_  
**Kernel**  
 D-Not Dried \_\_\_\_\_  
 D-Discolored \_\_\_\_\_  
 D-Shrivel 4 **7**  
 D-Other 1B  
 S-Insect \_\_\_\_\_  
 S-Rancid 2  
 S-Mold \_\_\_\_\_ **2**  
 S-Shrivel \_\_\_\_\_  
 S-Other \_\_\_\_\_  
 Light and light amber 87  
 Light 62  
 Grade U.S. #1  
 Form W-6

**DFA Bin Tags**

DFA Bin Tags are to be placed on each bin for the purpose of identification. These tags may be used for either shelled, inshell, substandard or merchantable meal. These tags are to be filled out as per the following example. Do not stamp bin tags for substandard product.

<b>DFA</b>		BIN # <u>  1  </u>
<b>IDENTIFICATION TAG</b>		
DATE INSPECTED	<u>  10-4-2000  </u>	
LOCATION	<u>  Mr. Nut  </u>	
CERTIFICATE #	<u>  80270  </u>	
NET BIN WEIGHT	<u>  1000  </u>	
NUMBER OF BINS IN LOT	<u>  2  </u>	
SIZE	VARIETY	<u>  Hart-  </u>
COLOR <u>  Light Amber  </u>	GRADE	<u>  U.S. #1  </u>
INSPECTOR	<u>  J. Hartley (002)  </u>	
<b>WHEN BIN IS DUMPED RETURN TO DFA INSPECTOR</b> <b>Place Stamp Below</b>		



**DFA OF CALIFORNIA**  
 710 Striker Avenue  
 Sacramento, CA 95834  
 Official Inspection Service  
 Walnut Marketing Board

**INSHELL WALNUT WORKSHEET**

Cert No. **00002**

DATE **October 4, 2000**

**10-4-00**

DESCRIPTION **Large Hartleys**

HANDLER **Mr. Nut**

**00**

CLASSIFICATION **Merchantable**

TYPE **Reinspection**

**2**

MANIFEST NO. **0-278**

WEIGHT **540/25 Kg. Bags**

**29762**

W-12's USED **3J 11413** **3J 11952**

W-12's USED \_\_\_\_\_

NUMBER AND SIZE OF CONTAINERS	GRADE	SIZE	% UNDER	% OVER	SPLITS	EXTERNAL										KERNEL										% LIGHT			
						BROKEN & CRACKED	ADHERING	DISCOLORATION	OR DIRTY	PERFORATION	ADHERING	DISCOLORATION	OR DIRTY	EX. TOTAL	SERIOUS TOTAL	NOT WELLED	DISCOLORED	SHRIVELED	OTHER	INSECT	OR RANCIID	MOLD	SHRIVELED	OTHER OR UNCURED	KILN/STOVE		TOTAL	SERIOUS TOTAL	% LIGHT & AMOUNT
180/25 Kg. Bags	1	L	8		1		2			1		3	1					3	2			3		8	5	90	52		
180/25 Kg. Bags	1	L	6		1		1			1		2	1					2				1		6	3	87	61		
180/25 Kg. Bags	1	L			3					1	1	2	2					1				1		4	3	89	57		
<b>REINSPECTION</b>																													
<b>ORIGINAL CERT. NO. 82081</b>																													
<b>Total</b>	<b>3</b>		<b>24</b>		<b>5</b>							<b>7</b>	<b>4</b>											<b>18</b>	<b>11</b>		<b>170</b>		
<b>Avg.</b>	<b>1</b>	<b>L</b>	<b>8</b>		<b>2</b>							<b>3</b>	<b>1</b>										<b>6</b>	<b>4</b>	<b>89</b>	<b>57</b>			

**WALNUT MARKETING BOARD  
 CERTIFICATE OF INSHELL WALNUT INSPECTION**

CERT. NO. \_\_\_\_\_

Handler **Mr. Nut** Address **1601 Walnut Way, Modesto, CA 95350**

NUMBER OF CONTAINERS	STYLE OF CONTAINERS	TOTAL NET WEIGHT	GRADE	SIZE	VARIETY	CONTAINER MARKINGS
540	25 Kg. Bags	29762	U.S. #1	Large		Large Hartley Walnuts Mr. Nut Brand

THIS IS TO CERTIFY that on October 4, 2000, a duly authorized inspector of DFA of California, at Modesto, California, carefully examined and tested the above described walnuts, and that they meet the minimum requirements for merchantable walnuts effective pursuant to Federal marketing Order No. 984 in effect on this date. This certificate is issued solely to indicate compliance by handler with said Marketing Order and for the purposes specified therein. The undersigned disclaims responsibility in connection with its use for any other purpose.

By \_\_\_\_\_ Signature and Employee #









## INSPECTION OF SHELLED WALNUTS

The majority of shelled walnut inspections shall be scored under the minimum specifications of the U.S. Commercial Grade, as modified by the Marketing Order. The exceptions to this occur when inspecting and certifying for export or when a handler requests a lot of walnuts to be certified to a specific grade such as U.S. No. 1. When grading shelled walnuts, all percentages shall be calculated on the basis of weight.

### Tolerances for Grade Defects

Grade	Total Defects	Shell and Foreign Material	Very Serious Damage	Serious Damage	Damage
U.S. No. 1	5%	0.05% (Included in 1% Very Serious Damage)	1% (Included in 2% Serious Damage)	2% (Included in 5% Total)	5% Total
U.S. Commercial	8%	0.05% (Included in 1% Very Serious Damage)	2% (Included in 2% Serious Damage)	4% (Included in 8% Total)	8% Total

Size and color must be done for USDA #1  
Size shall be specified for U.S. Commercial

### SAMPLING AND TESTING FLOORSTOCK

On lots of shelled walnuts packed prior to inspection, draw a composite sample with a hand scoop, mix it well before selecting a portion for the analysis. Since it is the tendency for particles and dust to settle toward the bottom of a container, the inspector should take a precaution to secure a representative amount of this in the sample. When drawing a sample, the inspector should notice the general appearance of the kernels in each container sampled. If the quality of the kernels in any container or number of containers sampled is distinctly different from that in the majority of containers sampled, grade them as a separate lot.

#### Sampling Instructions:

All lots of shelled walnuts packed in cases prior to inspection, must be made available to the inspector, so each container can be examined if necessary.

Sampling bins or tubs of walnut meats shall be done by decanting, with a probe, trier or other appropriate method.

Analyze one test of 200 grams for up to a maximum of 5000 pounds for each segment of product.

On bins, tubs or pallets a minimum of 3 samples must be taken (top, middle, bottom).

Always take a larger composite from which the sample for analysis is drawn. A majority of the tests must meet or exceed the requirements of the grade applied for.

If the original test does not pass, the lot is rejected. For retest, open different containers and draw a new sample. The tests from the new sample will stand on their own.

All cases of inspected and certified lots, must be stamped with the official inspection stamp.

#### Mixing and Dividing The Samples Of Lots Of Shelled Walnuts Prior to Inspection

The entire sample should be thoroughly mixed together. If a sample mixer and divider is not available, the meats may be mixed by pouring them gently over the sides of two containers pressed firmly together. - Repeat three times. Reduce the size of the sample to the amount needed for analysis as follows: - Spread the entire sample on a table top, mixing it well to get the large and small pieces evenly distributed. Then quarter the spread with a ruler or some other thin object. With a brush or cloth scrape off as many segments of the sample into the scale pan as are needed to obtain the desired weight for analysis.

#### IN-LINE INSPECTION

Continuous sampling is necessary so that each test is representative of a segment of the lot. Take larger samples so a portion can be taken for analysis. Hand scoops must be used in drawing samples.

From the larger sample draw a 200 gram portion for analysis. For each in-line inspection each 200 gram sample may represent a maximum of 5000 pounds of product.

Retest rejected lots from in-line inspection the same as floor stock.

#### Tolerances:

Defect tolerances on tests of shelled walnuts shall be 1.5 times any tolerance of 5% or more and double any tolerance of less than 5% shall apply. At least 50% of the lot should meet the specified defect tolerances even though the lot as a whole might average within the allowed merchantable tolerances.

On in-line inspection of shelled walnuts a test that does not meet tolerances may be averaged with the next. When a test does not meet the minimum tolerances for defects, be alerted to a possible change in quality. Any segment of a lot that does not come within the defect tolerance should be withdrawn and a rejection written up on that portion. Know the exact number of containers covered by a particular test in case of a rejection. When a test does not meet the tolerances, draw a line through it and record the number of containers it covers on the Rejection W-3 (see page 47 & 48).

The reinspection (Code 2 – previously certified material) for shelled walnuts is the same as for inshell walnuts.

Retest (previously rejected material) Any rejected lot may be tested one additional time. If it rejects a second time, the integrity of the lot must be changed prior to any other inspection.

## **Stamping The Containers**

Every container in a lot of shelled walnuts that has been inspected and passed, must be stamped with the official Walnut Marketing Board stamp.

Any lot of shelled walnuts that has passed inspection and the containers stamped can be repackaged into new containers and stamped with the pack date only under the supervision of the inspector.

Meal or dust - collected from processing of walnuts passing through a 6/64" screen, shall not be certified except for non-merchantable reserve credit (see pages 36 & 51).

## **Screening For Size**

The minimum size provided for in the Marketing Order is 6/64 inch in diameter.

The sample shall be sieved before any sorting is done, so that none of the small particles and dust will be lost. Shake the sieves from side to side until nothing more will pass through the openings. Do not use pressure to force the pieces of kernels through the openings. That portion of the sample that passed through the sieve into the bottom of the pan should then be weighed and the amount recorded on the W-3. This material should then be sorted and any shell or foreign material should be retrieved and weighed with shell or foreign material in the rest of the sample.

## **Handler Rejections**

A handler always has the option to reject a lot or portion of a lot for whatever reason even though it meets the minimum standards. To do so the handler must notify the DFA inspector, who will remove the W-12's and obliterate the WMB case stamps. The inspector will send a correction sheet to the Sacramento office.

## **Application and Definitions of Tolerances**

To be certified as merchantable, shelled walnuts shall be well dried and clean. If a percentage of the meats is not well dried, score them as Defects in the “Damage” category under “Other” and identify the defect with a small “w” next to the number scored. If walnut meat is pliable and leathery, it is not well dried.

Shelled walnuts that are “Uncured”, score in the “Serious” column under “Other” and identify the defect with a small “u” next to the number scored.

**Clean** - means that the individual kernel and lot as a whole is not materially affected by adhering dirt, dust or other foreign material. If the appearance of the kernel portion is materially affected by adhering material, it should be scored as “Damaged” in the “Other” column and identified with a small “d” next to the number scored.

**Color** - Kernels darker than “amber” are scored in the 10% tolerance provided in the color classifications. If more than 1/5 or 20% of the pellicle is darker than amber, the kernel shall be scored as “Darker than Amber.” For speckling and veining, refer to the “Inshell” section of the manual under “Color” and “For reserve export” (see page 42).

**Dust or Meal** - Particles of walnut kernels that pass through a 6/64" size screen, are considered dust or meal. No lot of shelled walnuts shall contain more than the 5% dust or meal.

**Shell - Pieces of shell and center wall** of the walnut found in the tests shall be scored in the .05% tolerance.

**Foreign Material** - This consists of anything in the lot of shelled walnuts that is not part of the nut, such as pieces of wood, metal, stone, dirt, etc. - Score along with shell in the .05% tolerance.

**Insect Injury** - Consists of insects, web, frass or other evidence of insect damage apparent on the kernel. It is classed as “Very Serious Damage” in the 2% tolerance. If insect injury to the kernel is visible, the nutmeat shall be scored regardless of the area affected. Dead worms found in the lot, which are not attached to any kernel should be classed as “foreign material.” There is no tolerance for live infestation. A lot containing live infestation must be rejected, fumigated and retested.

**Decay and rancidity** - Kernels in which the tissue has been broken down, regardless of area affected by dry or wet rot, should be scored as “Decay.” Rancid kernels are often darker in color than the average kernel and may have a yellowish-brown or oily appearance. Decay and rancidity are classed as “Very Serious” in the 2% tolerance.

**Shriveling** - the degree of shriveling on a portion of kernel determines how it should be scored.

- |                      |  |
|----------------------|--|
| Damage:              | When more than 1/8 or 12 1/2% of the kernel portion is severely shriveled. |
| Serious Damage:      | When more than 1/2 or 25% of the kernel portion is severely shriveled.     |
| Very Serious Damage: | When more than 1/2 or 50% of the kernel portion is severely shriveled.     |

When greater areas than specified are affected by shriveling that cannot be considered as severe, they shall be scored as “Damage” or “Serious Damage” if they injure the kernel to the same degree. Shriveling implies that the kernel has shrunk sufficiently from the maximum size so that the pellicle or skin is noticeably wrinkled and/or part of the kernel tissue has dried out and become hard. Kernels thin in the cross section and not wrinkled shall not be considered shriveled.

**Discoloration of the Meat or Flesh of the Kernels** - Exposed flesh of the kernel is subject to discoloration due to release of oil, oxidation, etc. A light yellowish brown, oily appearance of the flesh is fairly common and should not be considered “Damage.” Discoloration which is a bright yellow, orange, brown, medium gray, or some equally objectionable color shall be scored, depending on the amount of the kernel affected.

- Damage: Score kernels when more than 1/8 or 12.5% of the volume is severely discolored or a greater volume is affected by lesser degrees producing an equally objectionable appearance.
- Serious Damage: Score kernels when more than 1/4 or 25% of the volume is severely discolored or a greater volume is affected by lesser degrees producing an equally objectionable appearance.
- Very Serious Damage: Score kernels when more than 1/2 or 50% of the volume is severely discolored.

Discoloration of the meat of flesh of a walnut is often referred to as “discolored” but should not be confused with the “Darker than Amber” color of the skin pellicle.

### **Mold**

- Damage: Mold that is plainly visible.
- Serious Damage: Includes white or gray mold that is plainly visible on more than 1/8 or 12.5% of the surface but not more than 1/4 or 25%.
- Very Serious Damage: White or gray mold that is plainly visible on more than 1/4 or 25% of the surface. All green, black or yellow mold, classed as fruiting molds, are scored in “Very Serious Damage” regardless of degree.

## **Classification of Defects**

### **Very Serious Damage**

Shell and foreign Material (separate tolerance 0.05%);  
Insect Injury;  
Decay & Rancidity  
Mold plainly visible on more than 1/4 or 25% of the surface area;  
Or any Fruiting Mold  
More than 1/2 or 50% of the volume of kernel meat severely discolored;  
More than 1/2 or 50% of kernel portion severely shriveled or lesser degrees causing equally objectionable appearance.

### **Serious Damage**

Mold plainly visible on more than 1/8 or 12% of kernel;  
More than 1/4 or 25% of volume of kernel meat severely discolored;  
More than 1/4 or 25% of kernel severely shriveled, or lesser degrees, causing an equally objectionable appearance;  
Other.

### **Damage**

Mold plainly visible;  
More than 1/8 or 12.5% of volume of kernel meat severely discolored;  
More than 1/8 or 12.5% of kernel severely equally objectionable appearance;  
Not well dried;  
Not clean;  
Other.

**Application of Tolerances For Shelled Walnuts on WMB.**  
**CERTIFICATES W-3**

AVERAGING IS ALLOWED AS FOLLOWS: (see pages 30)

	<b><u>VSD -DOUBLE</u></b>	<b><u>-SD</u></b>	<b><u>D 1 1/2</u></b>
<b><u>U.S. No.1</u></b>	1%	2%	5%
Unaverageable Reject	2.1	4.1	7.6
May average up to	2.0	4.0	7.5
Must average	1%	2%	5%
 <b><u>U.S. COMMERCIAL</u></b>	2%	4%	8%
Unaverageable Reject	4.1	8.1	12.1
May average up to	4.0	8.0	12.0
Must average	2%	4%	8%
 <b><u>SHELL</u></b>			
Unaverageable Reject	0.11		
May average up to	0.10		
Lot must average	0.05		

NOTE:

**Inline:** At least 50% of tests must meet grade applied for.

**Floorstock:** A majority of the tests must meet or exceed the requirements of the grade applied for.

## **Shelled Walnuts For Processing Only (Pgs. 53-54)**

The Marketing Order requires that “no handler shall slice, chop, grind or in any manner change the form of shelled walnuts unless such walnuts have been certified as merchantable or as suitable for processing”. Any lot of shelled walnuts which upon inspection fails to meet the minimum grade standard solely due to excess shriveling may be released for processing provided that the total amount of shrivel does not exceed 20% by weight of the lot.

After the first inspection a worksheet and certificate (Code 5) shall be issued, showing the Analysis of the lot and notation that it is “released for processing only”. At this time the word “merchantable” should be lined out on the certification. All such walnuts must be reinspected after processing and certified as “merchantable” if the processed material meets the minimum standard. When the lot has been processed and offered for inspection, a new worksheet and certificate (Code 1) shall be issued, with reference to the original worksheet and certificate. Shelled walnuts so certified for processing may not be processed by anyone other than the Handler obtaining such certificate.

DFA inspectors will take an even greater part in monitoring the dicing and chopping operations of all handlers and will, on a random basis, review these activities to insure only certified product is being diced or chopped. Potential violations will be reported to the Walnut Marketing Board office for follow-up.

### **PROCESSING MERCHANTABLE SHELLED WALNUTS**

A handler may slice, chop, grind or change the form of shelled walnuts after such walnuts have been inspected and certified as “merchantable”. No inspection after processing is necessary.

## **CERTIFICATION OF MERCHANTABLE WALNUT MEAL**

### **MERCHANTABLE WALNUT MEAL**

Inspectors may certify as merchantable any meal produced under their observation from chopping, dicing or slicing previously certified merchantable shelled walnuts. This material does not have to be analyzed. The certificate shall show the number of containers and the weight of the lot with the notation “Meal produced from merchantable shelled walnuts”. The cases shall be stamped with the official Walnut Marketing Board Stamp.

### **SUBSTANDARD WALNUT MEAL**

For Shelled Walnuts: Any lot of shelled walnuts withheld to meet any part or all of a handler’s reserve obligations, shall have certified kernel weight of kernels 6/64" or larger, of not less than 10% of the total weight of the lot.

At the handlers option merchantable walnut meal may also be certified as substandard with a 100% kernel yield.

DFA inspectors will immediately report to the Board office any possible sale of meal from non-Certified stock.

**FOR PROCESSING ONLY** - Walnuts certified “For Processing Only” shall be coded as “5” and the word “merchantable” on the certificate shall be marked out (see Page 53). Walnuts inspected that fail to qualify for processing stock shall be coded “3”, indicating a reject.

Certification following processing is a “merchantable” inspection and must be coded Type 1 in the upper right-hand box (see Page 54).

When a lot of shelled walnuts is released for Processing Only, the words “Released for Processing Only” must appear on the certificate and the Type coded “5”.

Cartons of chopped, sliced or diced walnuts from previously certified merchantable shelled walnuts, should be stamped with the pack date.

No additional inspection is required.

### **Data Processing Codes**

#### **Type of Certificate**

Merchantable	1
Reinspection - Previously passed	2
Reject	3
Substandard	4
Processing	5
Secondary	6
Void	7

## **Worksheets & Certificates (W-3) For Shelled Walnuts**

Walnut certificates are legal documents and should be treated as such. More than one lot of shelled walnuts may be recorded on the Shelled Walnut forms (W-3).

Only numbers should be placed in the code block in the upper right-hand corner of the W-3. The correct coding for each type certificate is shown in page 37.

**Merchantable** - When a lot of shelled walnuts is certified as “Merchantable” it should be coded Type “1” with the classification “Merchantable”. Write the name of the handler on the worksheet portion of the W-3 (Pages 47 & 52).

When making out the certificate for Merchantable Shelled Walnuts, do not certify for size and color. Record marking and brand (See page 47) or if in bins, record number and weights.

Record the weight of each defect on the worksheet portion of the Shelled Walnut form W-3. If dead or live worm is found, circle the test number in which it was found and make a note accordingly on the worksheet portion of the W-3 (See page 52).

**Reinspections** (previously passed material) - Code the certificate as No. 2 on the “Type” line in the coding block.

On the worksheet portion of the W-3 refer back to the original inspection certificate number (Page 48).

**Rejections** – Code the certificate as No. “3” on the line in the coding block (see pages 49& 51). Write “Reject” on the face of the certificate. Sign the certificate and mark out the word “Merchantable” (See pages 47 & 48). Draw a diagonal line across the face of the certificate.

**Substandard** – A certificate should be made out with the word “Substandard” in the classification section of the worksheet and across the face of the certificate. The lot number, weight, number of containers and kernel content to the nearest full percent (e.g. 33.4% should be 33% and 33.5% should be 34%) should be record on both the worksheet and certificate (see page 51). Draw a line through the word merchantable.

**Export** – At the top of the worksheet for Shelled Walnuts, after “Classification” write the word “Export” to indicate the walnuts meet export requirements. (pages 49 & 52).

Upon handler request for export reserve certification, show size, grade and color of the Shelled Walnuts on the certificate. Code the lot “1” in the code box.

Only one inspection is required, regardless of whether the walnuts are destined for the domestic or export market – provided of course that they meet the minimum standards for Merchantable Shelled Walnuts, and are so certified.

## Secondary Certificates

1. The lot must be positively identified and only the original handler of record may request a secondary.
2. The only changes allowed from the original will be: change of name, type of container, and correct weight.
3. Secondary certificates may be issued when lots previously inspected are added together for shipment only if all tests made the grade specified.
4. Secondary certificates may also be issued for portions of a lot only if all tests in the original lot made the grade specified.
5. The walnuts which are left from an original lot after a secondary certificate is written, must be reinspected and a new certificate written if the handler wants another secondary certificate.
6. Record on the book copy that a secondary was written; show necessary changes in weight, etc.

## **Size Classification**

**Halves** – this classification requires that 85% or more, by weight, of the kernels in a lot be “Halves” and that the remainder be  $\frac{3}{4}$  Halves.

A tolerance of 5% for pieces smaller than  $\frac{3}{4}$  halves is provided including a 1% tolerance for pieces that will pass through a screen with  $\frac{16}{64}$  inch round holes.

**Pieces & Halves** – this classification required that at least 20% of the weight of a lot consists of half kernels. The remainder of the lot may consist of pieces that will not pass through a screen with  $\frac{24}{64}$  inch round holes.

A tolerance of 18% by weight is provided for pieces that will pass through the  $\frac{24}{64}$ <sup>th</sup> inch screen. Included in this 18% tolerance is a 3% tolerance for pieces that will pass through a  $\frac{16}{64}$ <sup>th</sup> inch screen and include in this 3% tolerance is a 1% tolerance for pieces that will pass through a  $\frac{6}{64}$ <sup>th</sup> inch screen. No part of these tolerances may be used to reduce the percentage of halves required.

**Pieces** – A tolerance of 25% by weight is provided for pieces that will pass through a  $\frac{24}{64}$ <sup>th</sup> inch screen. This 25% tolerance includes a 5% tolerance for pieces that will pass through a  $\frac{16}{64}$ <sup>th</sup> inch screen which includes a 1% tolerance for particles that will pass through a  $\frac{6}{64}$ <sup>th</sup> inch screen.

**Small Pieces** - This classification applies to a lot consisting of portions of kernels that will pass through a screen with  $\frac{24}{64}$ <sup>th</sup> inch round openings, but will not pass through a screen with  $\frac{6}{64}$ <sup>th</sup> inch round openings.

A tolerance of 10% by weight is provided for pieces that will not pass through a  $\frac{24}{64}$ <sup>th</sup> inch screen and a separate tolerance of 2% is provided for pieces that will pass through a screen with  $\frac{6}{64}$ <sup>th</sup> inch round openings.

It is possible that a lot(s) of shelled walnuts offered for export will not fall into either the “Pieces” or “Small Pieces” classification. Inspectors should certify such lots of shelled walnuts as “Pieces”.

If a handler requires a more specific designation, the inspector should follow Section 51.2284(d)-“When desired, the actual size ranges within such size ranges may be designated.”

## EXCEPTION

Walnut handlers are selling shelled walnut halves in export. Because of the machine shelling and sorting process, handlers usually cannot produce very many lots of halves that meet the U.S. grade requirement of 85% halves. Accordingly, they make some export sales and guarantee a specified minimum percentage of halves. Therefore, when requested to do so by the handler, such lots may be certified as:

“Halves & Pieces ( \_\_\_\_\_ % Halves”), or

“Shelled Walnuts ( \_\_\_\_\_ % Halves”)

Halves and Pieces – because of machine shelling and the sorting process it is possible that a handler may not produce the minimum 20% halves necessary to be certified as “Halves and Pieces”. Accordingly, they may make some sales and guarantee a minimum percentage of halves. Therefore, when requested to do so by the handler, such lots may be certified as:

“Halves & Pieces”( \_\_\_\_\_ % Halves), needs 20% or more halves.

“Pieces”( \_\_\_\_\_ % Halves), with less than 20% halves.

## **Size Definitions**

**Halves**- Any half of a kernel with not more than 1.8 or 12.5% broken or rubbed off.

**¾ Halves** – Any half of a kernel with more than 1/8 or 12.5%, but not more than ¼ or 25% broken or rubbed off.

**Pieces** – Any portion of a kernel that does not qualify as a “Half” and will not pass through a 6/64<sup>th</sup> inch round opening.

## **When A Reserve Program Is In Effect**

Qualification for Export of inshell Walnuts – All lots of walnuts must qualify for U.S. Grade No. 2 or better and must be certified as to size. Although there is no maximum limiting size on Large in the U.S. Standards, this does not mean that walnuts qualifying as Jumbo may be certified as Large. A lot of walnuts containing 12% or less by count, which will pass through a round opening 80/64<sup>th</sup> of an inch in diameter, are Jumbos and may not be certified as Large.

All Inshell Walnuts certified for Export must show on the certificate the size and grade for which it qualifies.

Certificates must indicate quality as determined or may read at the request of the handler, “Meets Walnut Marketing Board Quality Requirements for Export.”

Inshell Walnuts for export purposes must be inspected and certified not more than 60 days prior to shipment from the handler’s plant.

Shelled walnuts destined for export must be merchantable and must be inspected and certified for grade, color and size. The worksheets and certificates shall record the grade, color and size for which shipment qualifies.

The size screens to be used are the 6/64<sup>th</sup>, 16/64<sup>th</sup>, and 24/64<sup>th</sup> inch in diameter. The color chart to use is the official color chart.

## Color

**Color** – is one of the important factors that determines the market value of shelled walnuts. Color must be reported along with size. The following color classifications with their tolerances are provided to describe the color of any lot of shelled walnuts.

**Extra Light** – Permits a 15% tolerance for kernels darker than Extra light. Included in this 15% tolerance is a 2% tolerance for kernels darker than light.

**Light** – Permits a 15% tolerance for kernels darker than light. Included in this 15% tolerance is a 2% tolerance for kernels darker than Light Amber.

**Light Amber** – permits a 15% tolerance for kernels darker than Light Amber. Included in this 15% tolerance is a 2% tolerance for kernels darker than Amber.

**Amber** – Permits a 10% tolerance for kernels darker than Amber.

**Off Color** – is not a color classification but is a term that may be applied to lots which contain in excess of 10% kernels that are darker than Amber.

When classifying Shelled Walnuts for Color, each kernel shall be judged on the basis of its entire surface and overall color effect, regardless of whether it is a complete half-kernel or a very small piece. Characteristic kernel color should be taken into consideration in comparing the kernel with the color chart. Color markings are natural to some varieties of walnut kernels and reasonable allowances should be made for these markings.

The following table may act as a helpful guide when a decision is difficult to make in regard to color (disregard darker spots at points of attachment):

<b>Color of most of area of skin</b>	<b>Area of “Light Amber” Color</b>	<b>Area of “Amber” Color</b>	<b>Classify Kernel as shown below</b>
“Light”	1 - 10%	1 - 5 %	“Light”
“Light”	11% more	6 - 15 %	“Light Amber”
“Light”		16% or more	“Amber”
“Light Amber”		1 - 15%	“Light Amber”
“Light Amber”		16% or more	“Amber”

Unlike the inshell walnut standards, kernels of shelled walnuts darker than Amber are not scored against the 5% or 8% tolerance for grade defects, but are scored against the separate 2% or 10% tolerance for darker than Amber, provided in the color classification. “Classifying Kernels for Color” will be used when certifying shelled walnuts for Reserve Export.

## **Analysis and Sampling of Substandard Walnuts**

All analyses of substandard walnuts, whether inshell, shelled or a mixture of both, shall be performed on a weight basis for the determination of kernel weight. "Kernel weight" is the weight of the kernels or pieces of kernels of shelled walnuts that will not pass through a sieve with round openings of 6/64 inches in diameter and the total weight of the kernels of inshell walnuts. The kernels do not have to be edible. They may be shriveled, black, worm-damaged, etc. No analysis shall be made upon any lot or portion of a lot that is wet or cursted or caked caused by wetness or mold. All analysis will be based on composite samples. One analysis for each 10,000 pounds of product.

### **Sampling of Sacks and Cartons**

The composite sample used for analysis shall be drawn in the same manner as prescribed for sampling of shelled walnuts packed prior to inspection (See page 6). The number of containers to be opened shall be on the basis prescribed under "Sampling and Testing of Inshell walnuts" (Page 6).

### **Sampling of Tubs or Bins**

Follow the method as prescribed for Inshell Walnuts (See page 6).

No restriction shall be placed upon the size of a lot. However, if the walnut material in any container or group of containers is found to be distinctly different in kernel percentage or kind of material from that of the majority of the lot, such containers should be inspected as a separate lot. Worksheets W-4 and W-3 shall note that no inspection for quality was performed and include only the percentage of kernel as determined. The word "Merchantable" shall be crossed out on the certificate. When determining the kernel percentage fraction shall be rounded to the nearest whole percentage point. For example: 33.5% shall be raised to 34% - 33.4% shall be lowered to 33%.

Any lots of walnuts tendered for Substandard, containing less than 10% kernel weight, shall be recorded as a rejection. Information that should appear on the W-3 or W-4 for Substandard:

1. Name of handler and address
2. Numbers of containers in each lot
3. Style of containers in each lot.
4. Lot or lot numbers
5. Percent of kernel content of each test taken.
6. Average kernel percent of each lot.
7. Total net weight or estimated net weight of each lot.
8. "Substandard" written on both worksheet portion and certificate.
9. Date of inspection.

Inshell lots of walnuts tendered for Reserve will be recorded on W-4's and Shelled Walnuts on W-3's.

DFA inspectors will immediately report to the DFA Corporate Office any possible sale of meal from non-certified stock.

**Table of Shelled Defect Tolerances**  
**Color Grades**

Extra Light, Light and Light Amber grades may contain 15% of the next darker color, including not more than 2% of the second darkest color.

Amber may contain not more than 10% Darker than Amber.

**Size Grades**  
**Size Tolerances**

<b>Halves</b>	5% 1%	At least 85% halves Maximum smaller than 3/4 of one -half Maximum through 16/64"
<b>Halves &amp; Pieces</b>	18% 3% 1%	At least 20% halves Maximum through 24/64" Maximum through 16/64" Maximum through 6/64"
<b>Pieces</b>	25% 5% 1%	Maximum through 24/64" Maximum through 16/64" Maximum through 6/64"
<b>Small Pieces</b>	10% 2%	Maximum above 24/64" Maximum through 6/64"

**Defect Tolerances**

Tolerances For U.S. No. 1

Tolerances For U.S. Commercial

<b>0.05%</b>	Shell	<b>0.05%</b>
<b>1%</b>	Shrivel - more than 1/2 of kernel. Mold over 1/4 of aggregate kernel surface Severe discoloration of more than 1/2 kernel Insect injury Rancidity or decay	<b>2%</b>
<b>2%</b>	Shrivel more than 1/4 but less than 1/2 of kernel. Mold more than 1/8 aggregate kernel surface Severe discoloration of more than 1/2 kernel volume	<b>4%</b>
<b>5%</b>	Shrivel more than 1/8, but less than 1/4 of kernel. Mold when plainly visible. Severe discoloration of more than 1/8, but less than 1/4 of kernel. Not well dried. Dirty.	<b>8%</b>

## DFA Bin Tags

DFA Bin Tags are to be placed on each bin for the purpose of identification. These tags may be used for either shelled, inshell, substandard or merchantable meal. These tags are to be filled out as per the following example. Do not stamp bin tags for substandard product.

<b>DFA</b>	BIN # <u>  1  </u>
<b>IDENTIFICATION TAG</b>	
DATE INSPECTED	<u>  10-4-2000  </u>
LOCATION	<u>  Mr. Nut  </u>
CERTIFICATE #	<u>  80271  </u>
NET BIN WEIGHT	<u>  1245  </u>
NUMBER OF BINS IN LOT	<u>  2  </u>
SIZE	<u>                  </u> VARIETY <u>                  </u>
COLOR	<u>  Light Amber  </u> GRADE <u>  U.S. #1  </u>
INSPECTOR	<u>  J. Hartley (002)  </u>
<b>WHEN BIN IS DUMPED RETURN TO DFA INSPECTOR</b> <b>Place Stamp Below</b>	





















SHELLED WALNUT WORKSHEET

Cert No.	00017
DATE	October 4, 2000
HANDLER	Mr. Nut
TYPE	Merchantable
WEIGHT	120/25 Lb. Cartons
	10-4-00
	00
	1
	3000

DESCRIPTION Light Halves and Pieces  
 CLASSIFICATION Export  
 MANIFEST NO. 0-278

NO. CASES	TEST	UNDER 6 / 64" 5%	BLACK	VERY SERIOUS DAMAGE							SERIOUS DAMAGE				MOLD	DISCOLOR	SHRIVEL	OTHER	8%		
				SHELL	MATERIAL	INSECT	RANCID	OR DECAY	MOLD	DISCOLOR	SHRIVEL	OTHER	2%	MOLD						DISCOLOR	SHRIVEL
1																					
2																					
3																					
4																					
5																					
6																					
30	7	0.1	0.0																		
30	8	0.1	0.0																		
TOTAL	5		0.0																		
AVG.			0.0																		

CERTIFICATE NO. \_\_\_\_\_

**WALNUT MARKETING BOARD**  
**CERTIFICATE OF SHELLED WALNUT INSPECTION**

Handler Mr. Nut Address 1601 Walnut Way, Modesto, CA 95350

NUMBER OF CONTAINERS	STYLE OF CONTAINERS	TOTAL NET WEIGHT	GRADE	SIZE	COLOR	CONTAINER MARKINGS
120	25 Lb. Cartons	3750	U.S. #1	Halves and Pieces	Light	Light Halves and Pieces Mr. Nut Brand
		Secondary Cert. #00018 120 Cartons				

THIS IS TO CERTIFY that on October 4, 2000 a duly authorized inspector of DFA of California, at Modesto, California, carefully examined and tested the above described walnuts, and that they meet the minimum requirements for merchantable walnuts effective pursuant to Federal marketing Order No. 984 in effect on this date. This certificate is issued solely to indicate compliance by handler with said Marketing Order and for the purposes specified therein. The undersigned disclaims responsibility in connection with its use for any other purpose.

By Signature and Employee #

**SHELLED WALNUT WORKSHEET**

Cert No. **00018**

DATE **October 4, 2000**

**10-4-00**

DESCRIPTION **Light Halves and Pieces**

HANDLER **Mr. Nut** **00**

CLASSIFICATION **Export**

TYPE **Secondary** **6**

MANIFEST NO. **0-278**

WEIGHT **270/25 Lb. Cartons** **3000**

NO. CASES	TEST	UNIFORM 6 / 64" 5%	BLACK	VERY SERIOUS DAMAGE							SERIOUS DAMAGE				MOLD	DISCOLOR	SHRIVEL	OTHER	8%
				SHELL 0.05%	MATERIAL FOREIGN	INSECT	RANCID OR DECAY	MOLD	DISCOLOR	SHRIVEL	OTHER	2%	MOLD	DISCOLOR					
1				This is a secondary certificate															
2				150- 25lb. cartons from Original Cert. No. 00016															
3																			
4				120- 25lb. cartons from Original Cert. No. 00017															
5																			
6																			
7																			
8																			
TOTAL																			
AVG.																			

CERTIFICATE NO. \_\_\_\_\_

## WALNUT MARKETING BOARD

### CERTIFICATE OF SHELLED WALNUT INSPECTION

Handler **Mr. Nut** Address **1601 Walnut Way, Modesto, CA 95350**

NUMBER OF CONTAINERS	STYLE OF CONTAINERS	TOTAL NET WEIGHT	GRADE	SIZE	COLOR	CONTAINER MARKINGS
270	25 Lb. Cartons	6750	U.S. #1	Halves and Pieces	Light	Light Halves and Pieces  Mr. Nut Brand

THIS IS TO CERTIFY that on **October 4, 2000** a duly authorized inspector of DFA of California, at **Modesto**, California, carefully examined and tested the above described walnuts, and that they meet the minimum requirements for merchantable walnuts effective pursuant to Federal marketing Order No. 984 in effect on this date. This certificate is issued solely to indicate compliance by handler with said Marketing Order and for the purposes specified therein. The undersigned disclaims responsibility in connection with its use for any other purpose.

By \_\_\_\_\_ **Signature and Employee #**