

CHAPTER 9

WAREHOUSE-LOT INSPECTION PLAN

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Attachment - Warehouse-Lot Tolerance Tables

9.1 GENERAL INFORMATION

A. A warehouse-lot is a multiple-unit lot of sacked rice, including rice in containers and “tote” bags, or bulk rice in bins, that is at rest in a warehouse, mill, or similar structure.

B. The warehouse-lot inspection plan provides for sampling and inspecting warehouse-lots of rice as a single lot.

1. Rice inspected under this plan is examined for both uniformity in quality and compliance with grade/contract requirements.

2. This plan utilizes established tolerances (i.e., statistically pre-determined limits) for accepting those occasional portions of a lot that, due to known sampling and grading variations, may grade below the desired lot quality.

9.2 APPLICATION FOR INSPECTION

Prior to beginning the inspection, the applicant must submit a form FGIS-955, “Application for Inspection under the Agricultural Marketing Act of 1946,” or an appropriate federal cooperator's form.

A. The application shall declare: (1) the contract requirements (contract grade and other specifications); (2) the approximate quantity of rice in the lot; (3) “Option 1” or “Option 2” certification; and (4) any other needed information.

B. The application must be signed.

9.3 COMPONENTS, BLOCKS, AND SUBLOTS

A. A component is a portion of a block; e.g., 2,000 sacks in a 4,000 sack block.

1. There shall be no less than two components in every block.

2. All components in the lot shall be reasonably uniform in size; i.e., the largest sized component not more than 25 percent larger than the smallest component.

3. Component size shall be established by the official inspection personnel and may not be changed once the inspection has begun.

B. A block is a portion of a subplot consisting of 4,000 to 8,000 sacks of rice, or an equivalent amount in pounds of bulk rice. Component size and composition shall be established by the official inspection personnel and may not be changed once the inspection has begun.

C. A subplot is a portion of the overall lot consisting of one or more blocks.

1. Except for the last subplot, all sublots in the lot must be reasonably uniform in size; i.e., the largest-sized subplot must not be more than 25 percent larger than the smallest subplot, excluding the last subplot.

2. Sublot size shall be established by the official inspection personnel and may not be changed once the inspection has begun.

D. Use the following table (Table 1) when determining the quantity of rice to include in a component, and when determining the number of components in a block, blocks in a subplot, and sublots in a lot.

TABLE 1 - COMPONENTS, BLOCKS, AND SUBLOTS			
SACKS (CWT) ^{1/} IN THE LOT	COMPONENTS ^{2/} IN THE BLOCK	BLOCKS IN THE SUBLOT	SUBLOTS IN THE LOT
1 - 6,000	2 - 6	1	1
6,001 - 18,000	6 - 18	2 - 3	2
18,001 - 36,000	18 - 36	4 - 6	3
36,001 - 78,000	36 - 78	7 - 13	4
78,001 - 150,000	78 - 150	14 - 25	5
150,001 - 300,000	150 - 300	26 - 50	6
300,001 - 600,000	300 - 600	51 - 100	7
600,001 or more	Add one for each 1,000 bags over 600,000	Add one for each 6,000 bags over 600,000	8

^{1/} For bulk lots, equivalent amount in hundredweight or pounds.
^{2/} When a bulk trier is used, consider each probe as a component sample.

- E. After determining the number of components, blocks, and sublots in the lot, identify the rice that will actually comprise each of the blocks.
1. Review the size and physical layout of the lot.
 2. Randomly select a storage area (section, bay, or doorway).
 3. Then, begin physically grouping the rice into blocks and the blocks into sublots; e.g., ex-railcar lot UP 1234 is identified as component 1, components 1, 2, 3, and 4 are grouped together as block 1, and blocks 1 and 2 are combined to form subplot 1.
- F. For sacked rice, determine which blocks must be made fully accessible; i.e., a minimum of one side of each pallet in a block is completely exposed so that a sample may be drawn from any sack facing that side.
1. **For new applicants**, all pallets in each block must be made fully accessible for inspection until 15 consecutive blocks are inspected without noting any non-uniformity.
 2. **For all other applicants**, approximately one-fifth of the blocks must be made fully accessible; provided that, if any non-uniformity is noted in a component, block, or subplot, then all pallets in each of the next 15 consecutive blocks must be made fully accessible.
- NOTE: When some sacks are non-uniform because of water damage, bird droppings, or similar conditions, and these sacks are removed from the lot, the applicant shall not be required to make the next 15 blocks fully accessible.
3. For each lot inspected, a minimum of one block must be made fully accessible.
 4. Use a random number table that has been assigned to the specific applicant to determine which blocks must be made fully accessible.
 - a. Divide the number of blocks in the lot by 5 and select that number of random numbers. Select one additional number if there is a remainder after dividing; e.g., if there are 19 blocks in lot, select 4 random numbers.

b. When a number selected from the random number table is greater than the number of blocks in the lot, select another number.

c. The number selected from the table represent the intervals between blocks that must be made fully accessible.

EXAMPLE: A lot has 20 blocks. Four random numbers are selected: 5, 8, 3, and 6. By using these numbers to plot the intervals between selected blocks, it is determined that blocks 5, 13, and 16 must be made fully accessible.

Blocks #'s ...	1 2 3 4 <u>5</u>	6 7 8 9 10 11 12 <u>13</u>	14 15 <u>16</u>	17 18 19 20
Random #'s...	1 2 3 4 <u>5</u>	1 2 3 4 5 6 7 <u>8</u>	1 2 <u>3</u>	1 2 3 4 5 6

9.4 UNIFORMITY CRITERIA

A. Draw a sample from each component according to the procedures in Chapter 2 of this handbook.

1. When bulk rice is sampled with a compartmented trier, consider each probe as one component sample.

2. Each component shall be approximately equal in size.

a. If the component being sampled is part of a block that must be made fully accessible, a minimum of one sack from each pallet must be sampled.

b. If the component being sampled is part of a block that is not required to be made fully accessible, a minimum of one sack from each pallet **that is accessible** must be sampled.

NOTE: The top pallets of block's selected must be examined for condition.

B. Visually examine each component sample for uniformity of quality; i.e., no factors appear to exceed the grade/contract requirements by more than the grade/contract limit or the established warehouse-lot tolerance (see Attachment 1).

NOTE: Do not examine component samples for milling yield.

C. If the component sample appears to be uniform in quality, combine the sample with other uniform component samples to form a block sample.

D. When the component sample appears to be not uniform in quality, analyze the sample for the potentially nonuniform factor(s).

1. For factors that have warehouse-lot tolerances, make **only** one determination.
 - a. If the results do not exceed the warehouse-lot tolerance, consider the component as being uniform in quality and combine the component sample with other uniform component samples to form a block sample. Do not record the component factor results on the log or form FGIS-911.
 - b. When the results exceed the warehouse-lot tolerance, declare the rice represented by that component sample to be a material portion and certificate it as a separate lot. When this occurs, the next 15 consecutive blocks must be made fully accessible.
 2. For all other factors, make two determinations.
 - a. If the results of either determination are within the grade/contract requirement, consider the component as being uniform in quality and combine the component sample with other uniform component samples to form a block sample. Do not record the component factor results on the log or form FGIS-911.
 - b. If the results of both determinations exceed the grade/contract requirement, declare the rice represented by that component sample to be a material portion and certificate it as a separate lot. Show the average results of the determination on the certificate. When this occurs, the next 15 consecutive blocks must be made fully accessible.
- E. Visually examine each block sample for uniformity of quality; i.e., no factors appear to exceed the grade/contract requirements by more than the grade/contract limit or the established warehouse-lot tolerance (see Attachment 1).

NOTE: Do not examine block samples for milling yield.

- F. If the block sample appears to be uniform in quality, combine the sample with other uniform block samples to form a subplot sample.

NOTE: Since the size of blocks may vary by as much as 4,000 sacks, combine block samples in proportion to their size. For example, if 40 percent of the sacks in the subplot are from block 1, then 40 percent of the subplot sample should be taken from the block 1 sample.

G. When the block sample appears to be not uniform in quality, analyze the sample for the potentially nonuniform factor(s).

1. For factors that have warehouse-lot tolerances, make **only** one determination.

a. If the results do not exceed the warehouse-lot tolerance, consider the block as being uniform in quality and combine the block sample with other uniform block samples to form a subplot sample. Do not record the block factor results on the log or form FGIS-911.

b. When the results exceed the warehouse-lot tolerance, declare the rice represented by that block sample to be a material portion and certificate it as a separate lot. When this occurs, the next 15 consecutive blocks must be made fully accessible.

2. For all other factors, make two determinations.

a. If the results of either determination are within the grade/contract requirement, consider the block as being uniform in quality and combine the block sample with other uniform component samples to form a subplot sample. Do not record the component factor results on the log or form FGIS-911.

b. If the results of both determinations exceed the grade/contract requirement, declare the rice represented by that component sample to be a material portion and certificate it as a separate lot. Show the average results of the determination on the certificate. When this occurs, the next 15 consecutive blocks must be made fully accessible.

H. Analyze each subplot sample for all contract and grade determining factors, and record the results on the log or form FGIS-911.

NOTE: For a factor's average results to be shown on the warehouse-lot inspection certificate, all sublots must be analyzed for that factor and the subplot results must be properly recorded on the log or form FGIS-911.

1. For factors that have warehouse-lot tolerances, make **only** one determination.

a. If the results do not exceed the warehouse-lot tolerances, consider the subplot as being “within contract.”

b. If the results exceed the warehouse-lot tolerance, declare the rice represented by that subplot sample to be a material portion, certificate it as a separate lot, and line through the factor results on the log or form FGIS-911. When this occurs, the next 15 consecutive blocks must be made fully accessible.

NOTE: If the applicant requests “average milling yield,” do not apply warehouse-lot tolerances to the results.

2. For all other factors, make two determinations.

a. If the results of either determination are within the grade/contract requirement, consider the subplot as “within contract.”

b. If the results of both determinations exceed the grade/contract requirement, declare the rice represented by that component sample to be a material portion, certificate it as a separate lot, and line through the factor results on the log or form FGIS-911. Show the average results of the determination on the certificate. When this occurs, the next 15 consecutive blocks must be made fully accessible.

9.5 CORRECTING NON-UNIFORMITY

When non-uniformity of quality is noted within an identified lot, the action required to correct the non-uniformity will vary. Inspection personnel must exercise good reasoning and judgement when at warehouse locations. Questionable or unusual situations shall be discussed with supervisory personnel before taking final action.

NOTE: Whenever non-uniform sacks are found in a lot, inspectors must observe and verify that the affected sacks are removed from the lot and conspicuously marked as rejected.

A. When a component sample is found to be non-uniform in quality, other component samples taken from the block shall be carefully examined before requiring that all pallets in the next 15 consecutive blocks be made fully accessible.

1. If the non-uniformity is limited to only a small number of sacks in the component, the non-uniform sacks shall be removed from the lot and separately certificated.

2. In such circumstances, it would not be necessary to require the next 15 blocks to be made fully accessible. However, if the non-uniformity is prevalent throughout one or more components, accessibility of the next 15 blocks is required.

B. When a component is found to be non-uniform because of conditions such as water damage or bird droppings, the non-uniform sacks shall be removed from the lot and separately certificated. In such circumstances, it would not be necessary to require the next 15 blocks to be made fully accessible. However, the top sacks of the next 15 blocks shall be carefully inspected to insure that all such damaged sacks are found and removed.

C. When insect infestation is found in a component sample of a block that is not fully accessible, the inspector shall record the incident and continue with the inspection.

1. If, by sampling consecutive blocks (fully accessible or not), the inspector continues to find infestation, there would be no need to require that the next 15 blocks be made fully accessible.

2. If the infestation is not prevalent in one or more components of a block, the inspector may require one or more of the next 15 blocks be made accessible to determine the extent of the infestation.

3. If flying moths are found on or about the a block, there would be no need to require that the next 15 blocks be made fully accessible. However, the other blocks should be carefully examined for such infestation.

4. Sacked rice stored in warehouses sometimes becomes infested with larvae, moths and weevils. Often the entire lot is not infested, but only a portion of the lot. Applicants may request that official inspection personnel inspect and segregate the infested rice from the rice that would be acceptable for shipment. Accordingly, the rice may be inspected on a pallet-by-pallet basis, but not on a sack-by-sack basis. The following example illustrates the procedure to be used.

Step 1 The applicant requests an inspection of 100,000 bags of rice on pallets in a warehouse.

Step 2 The warehouse-lot inspection plan is followed, and the rice submitted for inspection is divided into appropriate blocks.

Step 3 The plan calls for 5 sublots, each subplot containing 20,000 bags.

- Step 4** The plan permits the inspector to have 20 blocks for the entire lot. Each block will consist of 5,000 bags.
- Step 5** Each block will have 5 components of 1,000 bags each.(100 components in the total lot.)
- Step 6** The inspector finds a component sample representing 1,000 bags not uniform in quality because of dead insects in the sample or on the bags.
- Step 7** The 4,000 bags that were found uniform in quality are considered as an accepted block, and the sample representing the 4,000 bags will be composited with the subplot sample.
- Step 8** The 1,000 bags of Sample grade rice will be separately certificated and the Food and Drug Administration (FDA) will be contacted in accordance with FGIS Instruction 906-2, "Implementation of the FGIS-FDA Memorandum of Understanding."
- Step 9** Notify the applicant of the above action.
- Step 10** The applicant requests FGIS to perform a pallet-by-pallet inspection to separate the infested pallets from the acceptable pallets.
- Step 11** FGIS informs FDA of the applicant's request, and, if FDA has no objections, FGIS will perform a pallet-by-pallet inspection.
- Step 12** The applicant will make each pallet accessible to the inspector for inspection.
- Step 13** Each pallet will be treated as a single lot inspection and will first be inspected for condition. The minimum number of bags sampled will be in accordance with Chapter 2. More bags may be sampled at the discretion of the inspector, and an individual bag may be sampled more than one time.

Suspected infested areas that can be viewed through the translucent bag material may be sampled to determine if these areas are insects, seeds, or foreign material. Some pallets may be rejected without sampling by a visual examination if webbing, insects, or insect refuse is present on the outside of the bags or is viewed through the bag material. Samples taken shall be sieved to determine if insects are present (one insect per pallet will be sufficient to consider the pallet Sample grade).

NOTE: Samples taken from suspected areas will contain more seeds and foreign material than representative samples. Samples taken at this time are to determine condition only and shall be discarded after sieving.

- Step 14** If the pallets examined for condition are found not to be acceptable, they may be included with other pallets of the same condition. Failing pallets may be certificated as one lot. A portion of the bags on all four sides of the rejected pallet are to be marked with a felt tip marker, chalk, roller stamp, or other suitable means of identification.
- Step 15** Pallets found to be in an acceptable condition (no infestation) are to be immediately sampled for quality. Samples are to be taken in accordance with the procedures in Chapter 2. This sample will be sieved for infestation. (One insect per pallet will be sufficient to consider the pallet Sample grade, as a number of pallets will be combined to constitute a lot.) If no infestation is found, this sample will be composited with other samples of the same quality to make a lot sample.
- Step 16** Issue two separate certificates at the conclusion of the inspection. One certificate representing the pallets found acceptable, one certificate representing the pallets found unacceptable. Show the quality of the rice and condition of the containers on each certificate.
- Step 17** Notify FDA of the location and amount of rice that meets the defect action level.
- Step 18** No further inspection may be performed until the rice is released by FDA.

9.6 TIME LIMITATIONS

If reasonably continuous inspection service is not maintained, a warehouse-lot inspection certificate shall be issue for that portion of the lot inspected prior to the break in inspection service or after each additional break in inspection service.

1. “Reasonably continuous inspection service” can include inactive periods of not more than 88 consecutive hours.
2. To be considered “reasonably continuous service”, at least one block must be inspected during any 88-hour period.

9.7 REVIEW INSPECTIONS

When a subplot's factor results exceed either the grade/contract requirements or the warehouse-lot tolerance, the applicant may request an appeal inspection on that subplot; provided, the applicant withdraws the subplot from the lot.

- a. The warehouse-lot tolerances cannot be applied to a single subplot.
- b. If the appeal inspection determines that the subplot meets grade/contract requirements, the subplot cannot be re-entered in the original lot unless the applicant requests an appeal inspection on all of the other subplots in that lot.

9.8 MATHEMATICAL OR WEIGHTED AVERAGE

After completing the inspection of all subplots, calculate the factor information to be shown on the certificate(s) by one of the following methods:

1. Mathematical Average Method. If the lot is composed of 10 or more “reasonably uniform” 1/ subplots or any number of “uniform” 2/ subplots, mathematically average the subplot factor results (excluding any subplot(s) to be certificated as a separate lot).

2. Weighted Average Method. For all other lots, average the subplot factor results (excluding any subplot(s) to be certificated as a separate lot) in the following manner:

- a. Multiply each subplot factor result by the quantity of rice (sacks or pounds) in the subplot.

For example:

<u>Sublot</u>	<u>Quantity</u>		<u>Factor to be Weighted (Total Broken Kernels)</u>		<u>Product</u>
Sublot No. 1	18,750 sacks	X	19.6	=	3,675,000
Sublot No. 2	18,750 sacks	X	18.9	=	3,543,750
Sublot No. 3	18,750 sacks	X	20.8	=	3,900,000
Sublot No. 4	21,250 sacks	X	19.3	=	4,101,250
TOTAL	77,500 sacks				15,220,000

25 1/ The term “reasonably uniform” means that the largest sized subplot is not more than percent larger than the size of the smallest subplot (excluding the first and last sublots) in the lot.

2/ The term “uniform” means that the components are one standard size or are within 5 percent of the standard.

b. Total the products for each factor column. (In the above example, the total is 15,220,000.)

c. Divide each totaled product by the total quantity; e.g., 15,220,000)
77,500 = 19.64 or 19.6 percent total broken kernels.

NOTE: For subjective factors (e.g., milling degree), show on the certificate the lowest quality determined for one or more sublots.

9.9 CERTIFICATION

A. If the mathematical or weighted average of all factors in the lot are within contract requirements, issue one certificate.

B. When the average of all factors are not within contract requirements, issue separate certificates for each individual subplot. Two or more sublots failing to meet the same contract requirement may be combined and certificated together as a separate lot. Sublots that fail to meet different contract requirements shall be certificated as separate lots.

C. If the applicant requests “average milling yield,” show the average subplot milling yield results for the entire lot and include the following statement in the “Remarks” section of the certificate: “Sublot milling yield results ranged from (lowest) percent to (highest) percent.”

D. Issue an inspection certificate for each warehouse-lot inspection. Show the following information on each certificate:

1. The identification and sampling date(s);
2. The date that the last subplot was graded as the inspection date;
3. The average results for each of the factors determined during inspection;
and
4. The lowest results for subjective quality factors (e.g., milling degree and color) that were determined for one or more sublots.

WAREHOUSE-LOT TOLERANCES

A. Rough Rice.

1. Milling yield (total).
3.0 percent of contract requirement.
2. Milling yield (whole kernels).
percent of contract requirement.
3. Seeds and heat-damaged kernels.
 - a. Total (singly or combined).

<u>U.S. Grade</u>	<u>Grade Limit</u>	<u>Tolerance</u>
U.S. No. 1	4	3
U.S. No. 2	7	4
U.S. No. 3	10	5
U.S. No. 4	27	6
U.S. No. 5	37	8
U.S. No. 6	75	12

- b. Heat-damaged kernels and objectionable seeds.

<u>U.S. Grade</u>	<u>Grade Limit</u>	<u>Tolerance</u>
U.S. No. 1	3	3
U.S. No. 2	5	4
U.S. No. 3	8	4
U.S. No. 4	22	7
U.S. No. 5	32	8
U.S. No. 6	75	12

- c. Heat-damaged kernels.

<u>U.S. Grade</u>	<u>Grade Limit</u>	<u>Tolerance</u>
U.S. No. 1	1	1
U.S. No. 2	2	2
U.S. No. 3	5	4
U.S. No. 4	15	6
U.S. No. 5	25	7
U.S. No. 6	75	13

4. Red rice and damaged kernels (singly or combined).

<u>U.S. Grade</u>	<u>Grade Limit (%)</u>	<u>Tolerance (%)</u>
U.S. No. 1	0.5	0.6
U.S. No. 2	1.5	0.9
U.S. No. 3	2.5	1.1
U.S. No. 4	4.0	1.5
U.S. No. 5	6.0	1.5
U.S. No. 6	15.0 <u>1/</u>	2.5 <u>1/</u>

5. Other types.

<u>U.S. Grade</u>	<u>Grade Limit (%)</u>	<u>Tolerance (%)</u>
U.S. No. 1	1.0	0.5
U.S. No. 2	2.0	0.7
U.S. No. 3	3.0	0.8
U.S. No. 4	5.0	1.1
U.S. No. 5	10.0	1.5
U.S. No. 6	10.0	1.5

B. Brown Rice for Processing.

1. Milling yield (total). 2.0 percent of contract requirement.
2. Milling yield (whole kernels). 3.0 percent of contract requirement.
3. Paddy kernels.

<u>U.S. Grade</u>	<u>Grade Limit</u>	<u>Tolerance</u>
U.S. No. 1	20 count	0.6
U.S. No. 2 - 5	2.0%	1.0%

4. Seeds and heat-damaged kernels.

- a. Total (singly or combined).

<u>U.S. Grade</u>	<u>Grade Limit</u>	<u>Tolerance</u>
U.S. No. 1	10	5
U.S. No. 2	40	10
U.S. No. 3	70	13
U.S. No. 4	100	16
U.S. No. 5	150	17

1/ U.S. No. 6 Rough rice shall contain not more than 6.0 percent damaged kernels. The tolerance for damaged kernels (singly) is 1.5 percent.

b. Heat-damaged kernels.

<u>U.S. Grade</u>	<u>Grade Limit</u>	<u>Tolerance</u>
U.S. No. 1	1	1
U.S. No. 2	2	2
U.S. No. 3	4	3
U.S. No. 4	8	4
U.S. No. 5	15	6

c. Objectionable seeds.

<u>U.S. Grade</u>	<u>Grade Limit</u>	<u>Tolerance</u>
U.S. No. 1	2	2
U.S. No. 2	10	5
U.S. No. 3	20	7
U.S. No. 4	35	10
U.S. No. 5	50	12

5. Red rice and damaged kernels (singly or combined).

<u>U.S. Grade</u>	<u>Grade Limit (%)</u>	<u>Tolerance (%)</u>
U.S. No. 1	1.0	0.7
U.S. No. 2	2.0	1.0
U.S. No. 3	4.0	1.5
U.S. No. 4	8.0	2.0
U.S. No. 5	15.0	2.5

6. Total broken kernels.

<u>Contract Requirement (%)</u>	<u>Tolerance (%)</u>
1.0 - 5.0	1.0
5.1 - 10.0	1.2
10.1 - 15.0	1.5
15.1 - 25.0	2.0
25.1 - 35.0	2.4

7. Other types.

<u>U.S. Grade</u>	<u>Grade Limit (%)</u>	<u>Tolerance (%)</u>
U.S. No. 1	1.0	0.5
U.S. No. 2	2.0	0.7
U.S. No. 3	5.0	1.1
U.S. No. 4	10.0	1.5
U.S. No. 5	10.0	1.5

8. Well-milled kernels.

<u>U.S. Grade</u>	<u>Grade Limit (%)</u>	<u>Tolerance (%)</u>
U.S. No. 1	1.0	0.5
U.S. No. 2	3.0	0.8
U.S. No. 3	10.0	1.5
U.S. No. 4	10.0	1.5
U.S. No. 5	10.0	1.5

C. Milled Rice.

1. Seeds, heat-damaged, and paddy kernels (singly or combined).

a. Total.

<u>U.S. Grade</u>	<u>Grade Limit</u>	<u>Tolerance</u>
U.S. No. 1	2	2
U.S. No. 2	4	3
U.S. No. 3	7	4
U.S. No. 4	20	7
U.S. No. 5	30	8
U.S. No. 6	75	13

b. Heat-damaged kernels and objectionable seeds.

<u>U.S. Grade</u>	<u>Grade Limit</u>	<u>Tolerance</u>
U.S. No. 1	1	1
U.S. No. 2	2	2
U.S. No. 3	5	4
U.S. No. 4	15	6
U.S. No. 5	25	7
U.S. No. 6	75	13

2. Red rice and damaged kernels (singly or combined).

<u>U.S. Grade</u>	<u>Grade Limit (%)</u>	<u>Tolerance (%)</u>
U.S. No. 1	0.5	0.6
U.S. No. 2	1.5	0.9
U.S. No. 3	2.5	1.1
U.S. No. 4	4.0	1.5
U.S. No. 5	6.0	1.5
U.S. No. 6	15.0 <u>1/</u>	2.5 <u>1/</u>

1/ U.S. No. 6 Milled rice shall contain not more than 6.0 percent damaged kernels.
The tolerance for damaged kernels (singly) is 1.5 percent.

3. Total broken kernels.

<u>Contract Requirement (%)</u>	<u>Tolerance (%)</u>
1.0 - 4.0	1.0
4.1 - 7.0	1.2
7.1 - 15.0	1.8
15.1 - 27.0	2.0
27.1 - 35.0	2.4
35.1 - 50.0	2.5

4. Other types.

<u>U.S. Grade</u>	<u>Grade Limit (%)</u>	<u>Tolerance (%)</u>
U.S. No. 1	1.0	0.5
U.S. No. 2	2.0	0.7
U.S. No. 3	3.0	0.8
U.S. No. 4	5.0	1.1
U.S. No. 5	10.0	1.5
U.S. No. 6	10.0	1.5

D. Brewers Milled Rice.

1. Total paddy kernels and seeds.

<u>U.S. Grade</u>	<u>Grade Limit (%)</u>	<u>Tolerance (%)</u>
U.S. No. 1	0.5	0.04
U.S. No. 2	1.0	0.10
U.S. No. 3	1.5	0.20
U.S. No. 4	3.0	0.20
U.S. No. 5	5.0	0.20

2. Objectionable seeds.

<u>U.S. Grade</u>	<u>Grade Limit (%)</u>	<u>Tolerance (%)</u>
U.S. No. 1	0.05	0.02
U.S. No. 2	0.1	0.10
U.S. No. 3	0.2	0.10
U.S. No. 4	0.4	0.20
U.S. No. 5	1.5	0.20

E. Second-Head Milled Rice.

1. Seeds, heat-damaged, and paddy kernels (singly or combined).

a. Total (singly or combined).

<u>U.S. Grade</u>	<u>Grade Limit</u>	<u>Tolerance</u>
U.S. No. 1	15	6
U.S. No. 2	20	7
U.S. No. 3	35	8
U.S. No. 4	50	10
U.S. No. 5	75	12

b. Heat-damaged kernels and objectionable seeds (singly or combined).

<u>U.S. Grade</u>	<u>Grade Limit</u>	<u>Tolerance</u>
U.S. No. 1	5	4
U.S. No. 2	10	5
U.S. No. 3	15	6
U.S. No. 4	25	7
U.S. No. 5	40	9

2. Red rice and damaged kernels (singly or combined).

<u>U.S. Grade</u>	<u>Grade Limit (%)</u>	<u>Tolerance (%)</u>
U.S. No. 1	1.0	0.7
U.S. No. 2	2.0	1.0
U.S. No. 3	3.0	1.2
U.S. No. 4	5.0	1.5
U.S. No. 5	10.0	2.0

F. Special Contract Limit. When the contract requires a factor limit that differs from the grade limit set in the *U.S. Standards for Rice*, use the tolerance established for the next higher quality grade.

EXAMPLE: A contract for U.S. No. 3 Long Grain Brown Rice for Processing limits the percentage of damaged kernels (DK) to a maximum of 1.5 percent. The grade limit for a U.S. No. 1 for red rice and damaged kernels is 1.0 percent, with a tolerance of 0.7 percent. The grade limit for a U.S. No. 2 is 2.0 percent, with a tolerance of 1.0 percent. Use the tolerance for a U.S. No. 1 for red rice and damaged kernels (0.7 percent), establishing the maximum DK for sublots graded under this contract at 2.2 percent.