

Barley Grades and Grade Requirements



Blight Damage



Mold Damage



Injured By Frost



Frost Damage



Germ Damage



Injured By Heat

Grade	Minimum Limits of -		Maximum Limits of -				
	Test Weight per bushel (pounds)	Sound Barley (percent)	Damaged Kernels (percent)	Heat-Damaged Kernels (percent)	Foreign Material (percent)	Broken Kernels (percent)	Thin Barley (percent)
U.S. No. 1	47.0	97.0	2.0	0.2	1.0	4.0	10.0
U.S. No. 2	45.0	94.0	4.0	0.3	2.0	8.0	15.0
U.S. No. 3	43.0	90.0	6.0	0.5	3.0	12.0	25.0
U.S. No. 4	40.0	85.0	8.0	1.0	4.0	18.0	35.0
U.S. No. 5	36.0	75.0	10.0	3.0	5.0	28.0	75.0



Heat Damage



Insect Bored



Injured By Mold



Sprout Damage



Skinned / Broken



Two-Row / Six-Row



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Corn Grades and Grade Requirements



Blue Eye Mold Damage



Purple Plumule (not damage)



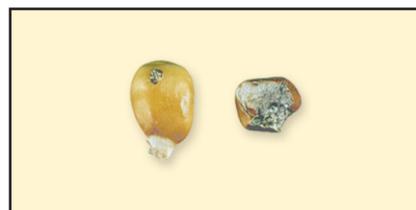
Surface Mold (blight)



Cob Rot Damage



Surface Mold (More than Slight)



Mold Damage

Grade	Minimum Limits of -	Maximum Limits of -		
	Test Weight per Bushel (pounds)	Heat-Damaged kernels (percent)	Damaged kernels total (percent)	Broken Corn and Foreign Material (percent)
U.S. No. 1	56.0	0.1	3.0	2.0
U.S. No. 2	54.0	0.2	5.0	3.0
U.S. No. 3	52.0	0.5	7.0	4.0
U.S. No. 4	49.0	1.0	10.0	5.0
U.S. No. 5	46.0	3.0	15.0	7.0



Not Damage (Dirt)



Heat Damage (drier)



Heat Damage (yellow corn)



Germ Damage



Sprout Damage



Insect Damage

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Oat Grades and Grade Requirements



Badly Ground / Weather Damage



Weather Damaged (Stained)



Germ Damage



Mold Damage

Grade	Minimum Limits of -		Maximum Limits of -		
	Test Weight per bushel (pounds)	Sound Oats (percent)	Heat-Damaged Kernels (percent)	Foreign Material (percent)	Wild oats (percent)
U.S. No. 1	36.0	97.0	0.1	2.0	2.0
U.S. No. 2	33.0	94.0	0.3	3.0	3.0
U.S. No. 3	30.0	90.0	1.0	4.0	5.0
U.S. No. 4	27.0	80.0	3.0	5.0	10.0



Wild Oats



Heat Damage



Insect Damage



Sprout Damage



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Rye Grades and Grade Requirements



Germ Damage

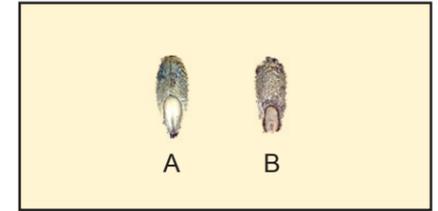


Sprout Damage



Exposed Germs Not Damage

Grade	Minimum Test Weight per bushel (pounds)	Maximum Limits of -				Thin Rye (percent)
		Foreign Material		Damaged Kernels		
		Foreign Matter Other than Wheat (percent)	Total (percent)	Heat-Damaged (percent)	Total (percent)	
U.S. No. 1	56.0	1.0	3.0	0.2	2.0	10.0
U.S. No. 2	54.0	2.0	6.0	0.2	4.0	15.0
U.S. No. 3	52.0	4.0	10.0	0.5	7.0	25.0
U.S. No. 4	49.0	6.0	10.0	3.0	15.0	--



A. Insect Chewed (not damaged)
B. Sprout Socket Damage



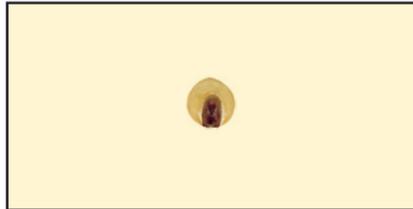
Insect Damage



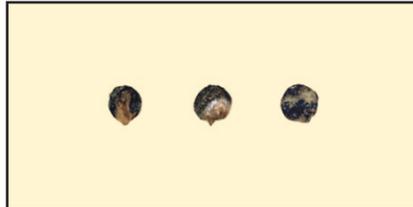
Other Damage

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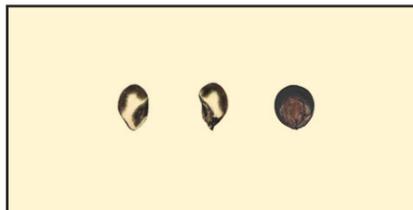
Sorghum Grades and Grade Requirements



Germ Damage (bleached)



Ground/ Weather Damaged



Heat Damage



Insect Bored

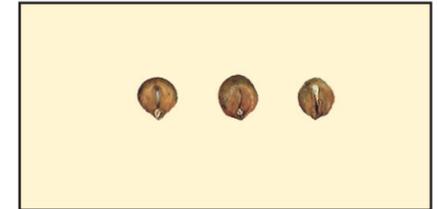


Mold Damage



Mold Damage (internal)

Grade	Minimum Limits of - Test Weight Per Bushel (pounds)	Maximum Limits of -			
		Damaged Kernels		Broken Kernels and Foreign Material	
		Heat (percent)	Total (percent)	Foreign Material (part of total) (percent)	Total (percent)
U.S. No. 1	57.0	0.2	2.0	1.0	3.0
U.S. No. 2	55.0	0.5	5.0	2.0	6.0
U.S. No. 3	53.0	1.0	10.0	3.0	8.0
U.S. No. 4	51.0	3.0	15.0	4.0	10.0



Sprout Damage



Split Germs (sound kernels)



Purple Pigment



Tannin Sorghum



White Sorghum

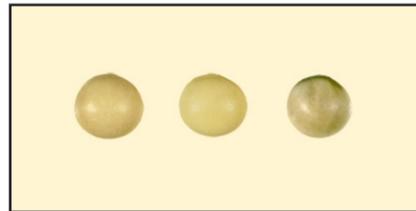


Non-Grain Sorghum

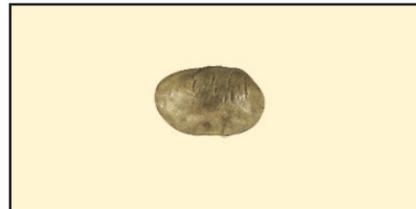


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Soybeans Grades and Grade Requirements



Soybeans of Other Colors



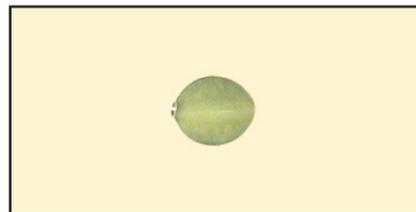
Badly Ground and/or
Weather Damaged



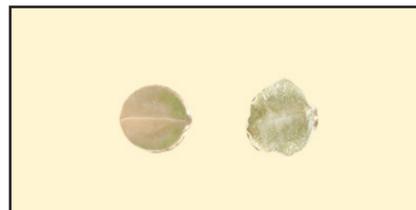
Weather Damage (gray/black)



Sprout Damaged



Green Damage



Frost Damage (Waxy)

Grade	Maximum Limits of -				
	Damaged Kernels		Foreign Material (percent)	Splits (percent)	Soybeans of other colors (percent)
	Heat (part of total) (percent)	Total (percent)			
U.S. No. 1	0.2	2.0	1.0	10.0	1.0
U.S. No. 2	0.5	3.0	2.0	20.0	2.0
U.S. No. 3	1.0	5.0	3.0	30.0	5.0
U.S. No. 4	3.0	8.0	5.0	40.0	10.0



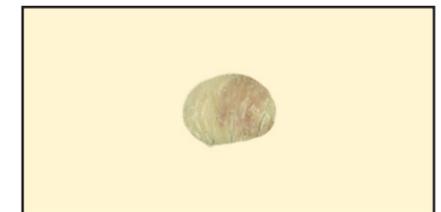
Insect Bored Kernels



Insect Stung Kernels



Mold Damage



Mold Damage (Pink)



Heat Damage



Damaged by Heat



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Wheat Grades and Grade Requirements



Black Tip Fungus



Scab Damage



Frost Damage (Blistered)



Frost (Flaked)

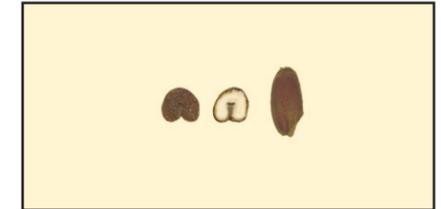


Germ Damage



Mold Damage

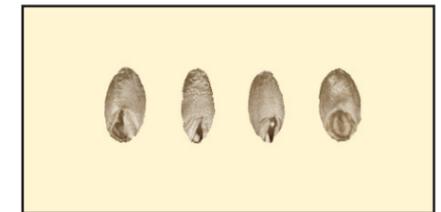
Grade	Minimum limits of—		Maximum Limits of -						
	Test Weight Per Bushel		Damaged kernels		Foreign Material (percent)	Shrunken and Broken Kernels (percent)	Defects (percent)	Wheat of Other Class	
	Hard Red Spring wheat or White Club wheat (pounds)	All Other Classes and Subclasses (pounds)	Heat Damage (part of total) (percent)	Total (percent)				Contrasting Classes (percent)	Total (percent)
U.S. No. 1	58.0	60.0	0.2	2.0	0.4	3.0	3.0	1.0	3.0
U.S. No. 2	57.0	58.0	0.2	4.0	0.7	5.0	5.0	2.0	5.0
U.S. No. 3	55.0	56.0	0.5	7.0	1.3	8.0	8.0	3.0	10.0
U.S. No. 4	53.0	54.0	1.0	10.0	3.0	12.0	12.0	10.0	10.0
U.S. No. 5	50.0	51.0	3.0	15.0	5.0	20.0	20.0	10.0	10.0



Heat Damage Other Than Durum



Heat Damage (Durum)



Sprout Damage



Insect Chewed (not damage)



Insect Bored



Green Immature

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Canola Grades and Grade Requirements

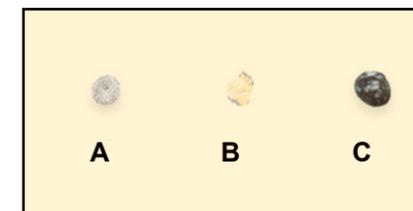


Distinctly Green

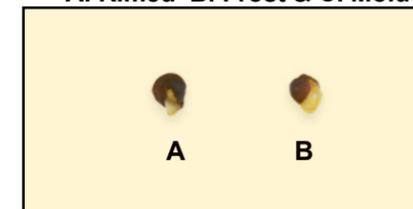


Heat Damage

Grade	Maximum Limits of -							Inconspicuous Admixture (percent)
	Damaged Kernels			Conspicuous Admixture				
	Heat Damaged (percent)	Distinctly Green (percent)	Total (percent)	Ergot (percent)	Sclerotinia (percent)	Stones (percent)	Total (percent)	
U.S. No. 1	0.1	2.0	3.0	0.05	0.05	0.05	1.0	5.0
U.S. No. 2	0.5	6.0	10.0	0.05	0.10	0.05	1.5	5.0
U.S. No. 3	2.0	20.0	20.0	0.05	0.15	0.05	2.0	5.0



Other Damage
A. Rimed B. Frost & C. Mold



Sprout Damage
A. Damage B. Not Damage

Sunflower Seed

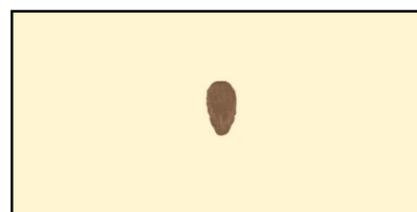
Grade	Minimum Limits of - Test Weight per Bushel (pounds)	Maximum Limits of -		
		Damaged Kernels		Dehulled Seed (percent)
		Heat Damage (percent)	Total (percent)	
U.S. No. 1	25.0	0.5	5.0	5.0
U.S. No. 2	25.0	1.0	10.0	5.0

Flaxseed

Grade	Minimum Limits of - Test Weight per Bushel (pounds)	Maximum Limits of -	
		Heat-Damaged Kernels (percent)	Damaged Kernels Total (percent)
U.S. No. 1	49.0	0.2	10.0
U.S. No. 2	47.0	0.5	15.0



Damaged by Heat



Heat Damaged



Surface Mold



Damaged Flaxseed (Bee's Wings)



Damaged by Heat



Heat Damage

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Bean Grading Mat



Badly Damaged



Green Damage (Chickpea)



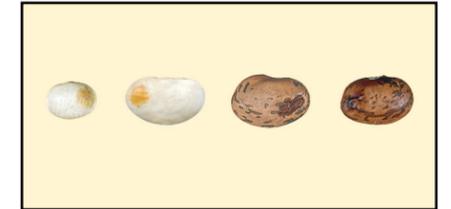
Insect Stung Damage (White Beans)



Worm Eaten Damage



Mold Damage (Pink/Brown)



Water Blistered Damage



Clean-Cut Weevil-Bored



Insect Stung Damage (Blackeye)



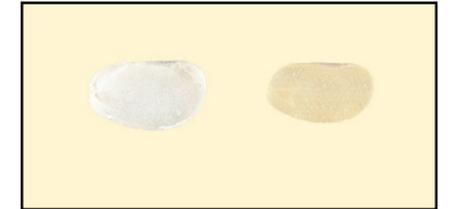
Insect Webbing or Filth



Mold/Mildew Damage



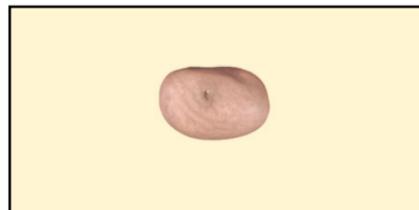
Nightshade Damage



Internal (Respiration) Damage



Visible Window Damage (Weevil)



Insect Stung Damage (Other Beans)



Frost Damage



Machine Damage



Sprout Damage



Water Blistered Damage (Pink Beans)



Dirt and Grime Pea Beans (Not Damage)



Dirt and Grime Damage (Other than Pea Beans)



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Damaged (Pieces)

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Pea/Split Pea Grading Mat

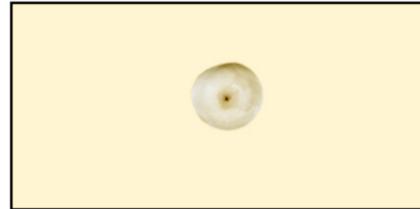


Lygus Damaged Hail Damaged Bruised Not Damaged

Damage (Chalky) (Pea/Split Pea)



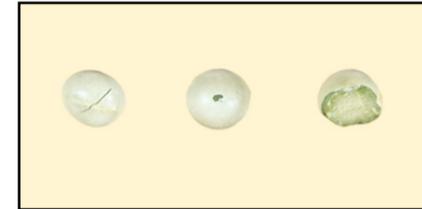
Weevil Damage (Pea)



Weevil Damage (Sting) (Pea)



Bleached (Green Peas) (Pea/Split Pea)



Cracked Seed Coats (Pea)



Stained (Yellow) (Split Pea)



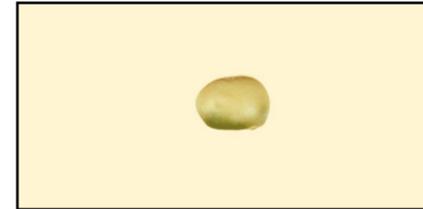
Damage (Dirt / Grime) (Pea)



Weevil Damage (Cavity) (Split Pea)



Frost Damage (Pea)



Bleached (Yellow Peas) (Pea/Split Pea)



Stained (Green) (Split Pea)



Shriveled (Smooth) (Pea)



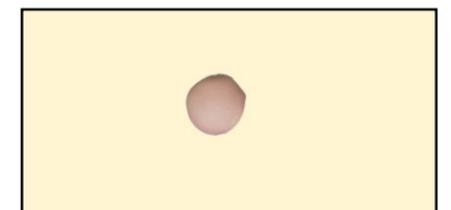
Heat Damage (Pea/Split Pea)



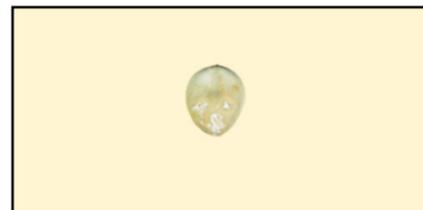
Shriveled (Wrinkled) (Pea)



Damaged by Heat (Pea/Split Pea)



Bacterium/Fungal Stain (Pea)



Mold/Mildew Damage (Pea)



Weather Damage (Pea)



Sprout Damage (Pea)



Whole Dry Pea (Split Pea)

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Lentil Grades and Grade Requirements



Insect-stung Damage



Blight (Ascochyta) Damage



Frost Damage



Heat Damage

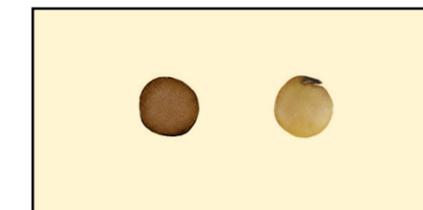


Sprout Damage

Grading Factors	Grades U.S. Nos.		
	1	2	3
Defective Lentils			
Total	2.0	3.5	5.0
Weevil-Damaged Lentils	0.3	0.8	0.8
Heat-Damaged Lentils	0.2	0.5	1.0
Foreign Material			
Total	0.2	0.5	0.5
Stones	0.1	0.2	0.2
Skinned Lentils	4.0	7.0	10.0
Contrasting Lentils	2.0	4.0	>4.0
Inconspicuous Admixture	0.5	0.8	1.0
Minimum Requirements for Color	Good	Fair	Poor



Mold Damage



Damaged by Heat



Dirt / Grime

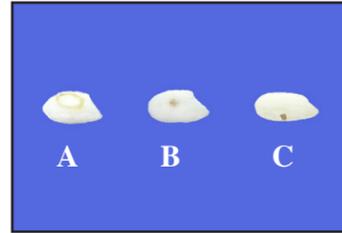


Skinned



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Brown Rice Grades and Grade Requirements



Water, Stain, & Peck
Damaged (Glutinous Rice)



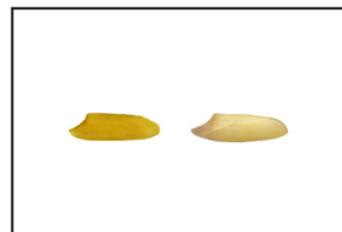
Non-Objectionable Seeds



Lightly Stained
(Not Damage)



Damage by Heat
(Stain)



Heat Damage

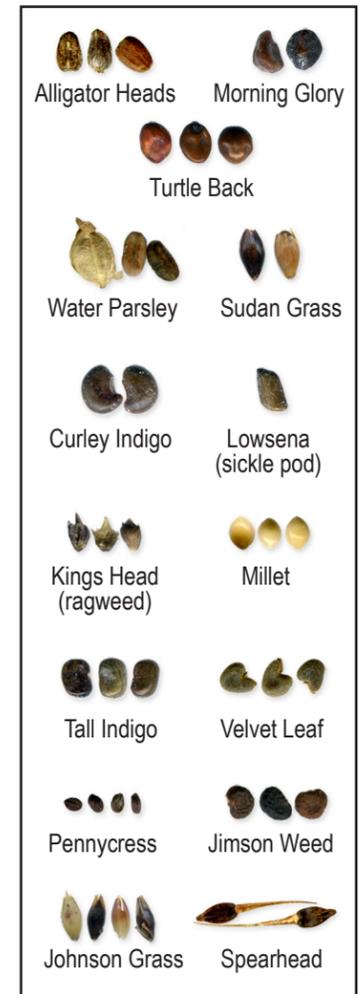
Grade	Maximum number in 500 grams				Maximum limit (percent)					
	Paddy Kernels	Seeds and Heat-Damaged Kernels Total (Singly or Combined)	Heat- Damaged Kernels	Objectionable Seeds	Paddy Kernels	Red Rice and Damaged Kernels (Singly or Combined)	Chalky Kernels	Broken Kernels Removed by a 6 Plate or 6 Sieve	Other Types	Well-Milled Kernels
U.S. No. 1	20	10	1	2	-	1.0	2.0	1.0	1.0	1.0
U.S. No. 2	-	40	2	10	2.0	2.0	4.0	2.0	2.0	3.0
U.S. No. 3	-	70	4	20	2.0	4.0	6.0	3.0	5.0	10.0
U.S. No. 4	-	100	8	35	2.0	8.0	8.0	4.0	10.0	10.0
U.S. No. 5	-	150	15	50	2.0	15.0	15.0	6.0	10.0	10.0



Pecky Kernels Damage



Smut Damage

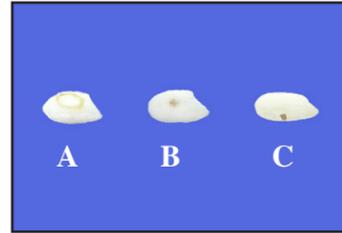


Objectionable Seeds

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Rice Grades and Grade Requirements



Water, Stain, & Peck Damaged (Glutinous Rice)



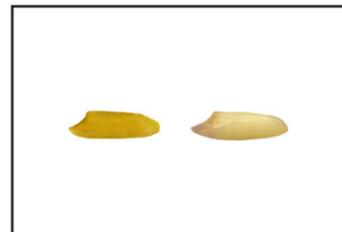
Non-Objectionable Seeds



Lightly Stained (Not Damage)



Damage by Heat (Stain)



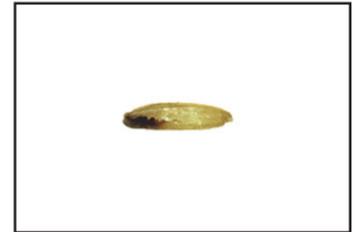
Heat Damage

Grade	Maximum number in 500 grams		Maximum limit (percent)									Minimum level	
	Seeds, Heat Damaged, and Paddy Kernels Total (Singly or Combined)	Heat-Damaged Kernels and Objectionable Seeds (Singly or Combined)	Red Rice and Damaged Kernels (Singly or Combined)	Chalky Kernels		Broken Kernels				Other Types		Color Requirement	Milling Requirement
				In Long Grain	In Medium or Short Grain	Total	Removed by a 5 plate	Removed by a 6 plate	Through a 6 sieve	Whole kernels	Whole and broken kernels		
U.S. No. 1	2	1	0.5	1.0	2.0	4.0	0.04	0.1	0.1	--	1.0	Shall be white or creamy	Well Milled
U.S. No. 2	4	2	1.5	2.0	4.0	7.0	0.06	0.2	0.2	--	2.0	May be slightly gray	Well Milled
U.S. No. 3	7	5	2.5	4.0	6.0	15.0	0.1	0.8	0.5	--	3.0	May be light gray	Reasonably Well Milled
U.S. No. 4	20	15	4.0	6.0	8.0	25.0	0.4	2.0	0.7	--	5.0	May be gray or slightly rosy	Reasonably Well Milled
U.S. No. 5	30	25	6.0	10.0	10.0	35.0	0.7	3.0	1.0	10.0	--	May be dark gray or rosy	Lightly Milled
U.S. No. 6	75	75	15.0	15.0	15.0	50.0	1.0	4.0	2.0	10.0	--	May be dark gray or rosy	Lightly Milled

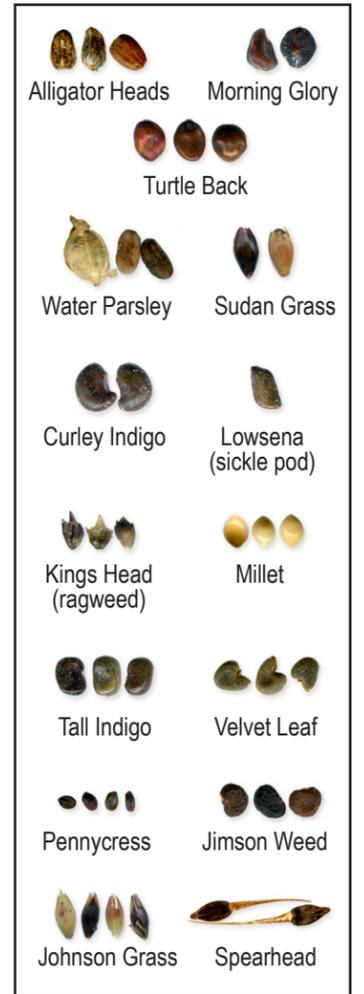
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Pecky Kernels Damage



Smut Damage



Objectionable Seeds

These images have been enlarged and are presented without the required written guidance provided with USDA's Official Interpretive Lines. More information on the Official Interpretive Lines can be found on the GIPSA website (www.gipsa.usda.gov) under the Topic "Education & Outreach."