KANSAS CROP IMPROVEMENT ASSOCIATION

WHEAT SEED CERTIFICATION STANDARDS

I. APPLICATION AND AMPLIFICATION OF GENERAL CERTIFICATION STANDARDS

The general certification standards, as adopted by the Kansas Crop Improvement Association, are basic and together with the following specific standards constitute the standards for certification of wheat seed.

II. LAND REQUIREMENTS

A field of wheat is not eligible for certification if planted on land which grew wheat or had wheat planted on it during the previous twelve months unless certified seed of the same variety was used. Herbicide tolerance is not a suitable substitute for this restriction.

III. FIELD INSPECTION

A. A field of wheat for certification shall be inspected by a representative of the Kansas Crop Improvement Association after the crop has begun to ripen but before harvest, the crop automatically becoming ineligible for certification if harvested before the field inspection is made.

B. Inspection may be made without giving previous notice to the applicant.

IV. FIELD STANDARDS

A. General Requirements

1. Unit of certification

   The field shall be considered the unit of certification and a field cannot be divided after inspection for the purpose of certification. A field is an area of land clearly defined by distinct lines of demarcation.

2. Isolation

   A field of wheat for certification shall be isolated from any other wheat variety and/or from wheat of the same variety that do not meet the varietal purity and seed history requirements for certification by at least the following distances:

Foundation	50 feet
Registered	30 feet
Certified	20 feet

   A field of wheat for certification shall be separated from rye, triticale or barley by a permanent mark such as a fence or a road, or by a strip of ground, a ditch, or some other distinct line of demarcation.

B. Specific Requirements

1. The following table gives the maximum tolerance of diseases and impurities allowed in a field of wheat eligible for certification:

Factor	Maximum Permitted in Each Class		
	Foundation	Registered	Certified
Other varieties*	1 head in 10,000 (0.01%)	1 head in 5,000 (0.02%)	1 head in 2,500 (0.04%)
Oats/barley (total)	1 head in 10,000 (0.01%)	1 head in 10,000 (0.01%)	2 heads in 10,000 (0.02%)
Common Bunt** *(*Tilletia foetida and T. caries)*	1 plant/acre	3 plants/acre	5 plants/acre
Loose smuts	[1]1 heads in 1,000 (0.10%)	[2]3 heads in 1,000 (0.50%)	[3]10 heads in 1,000 (1.00%)
Other Diseases***	-	-	-

** Other varieties shall include plants (or heads) that can be differentiated from those of the variety being inspected but shall not include variations which are characteristic of the variety.*

*** If this disease is present in the production field but does not exceed the maximum tolerance, the seed must be treated to control seed-borne disease organisms before it is finally approved for distribution as certified seed.*

**** If chemically controlled seed-borne diseases are noted upon field inspection or laboratory examination, proper seed treatment is required. Fields of seed wheat that contain Karnal bunt (Tilletia indica) shall not be eligible for certification.*

[1] Effective seed treatment is required when 1 or more smutted heads per 1000 are present in the field. Seed treatment is recommended if any smutted heads are present.

[2] Effective seed treatment is required when 3 or more smutted heads per 1000 are present in the field. Seed treatment is recommended when 1 smutted head per 1000 are present.

[3] Fields shall be rejected if greater than 10 smutted heads per 1000 are present in the field. Effective seed treatment is required when 5 to 10 smutted heads per 1000 are present. Seed treatment is recommended if 3 smutted heads per 1000 are present.

2. Prohibited weeds

   A field of wheat containing uncontrolled areas of the following prohibited weeds shall not be eligible for certification regardless of the stage of maturity of the weeds at the time of inspection, except the rosette stage of Musk Thistle will not be grounds for rejection:

   Bur ragweed (Ambrosia grayi)

   Canada thistle (Cirsium arvense)

   Field bindweed (Convolvulus arvensis)

   Hoary cress (Cardaria draba)

   Leafy spurge (Euphorbia esula)

   Musk thistle (Carduus nutans)

   Quackgrass (Elytrigia repens)

   Russian knapweed (Acroptilon repens)

   Perennial sorghum including, but not limited to,

   Johnsongrass (Sorghum halepense)

   Sorghum almum (Sorghum x almum)

   A field infested with these weeds may be passed for certification subject to a detailed laboratory examination of a ten-pound cleaned seed inspection sample taken from the cleaned seed and submitted to the Kansas Crop Improvement Association, provided the weeds are plowed under, pulled out, killed by chemical treatment, or otherwise controlled before the time of inspection.

3. Prohibited crops *(continued on next page)*

   A field of wheat containing uncontrolled areas of the following prohibited crops shall not be eligible for certification regardless of the state of maturity of the crops at the time of inspection.

   Rye (Secale cereale subsp. cereale)

Triticale (xtriticosecale) –including hybrid of wheat x triticale

A field infested with these crops may be passed for certification, subject to a detailed laboratory examination of a ten-pound cleaned seed inspection sample taken from the cleaned seed and submitted to the Kansas Crop Improvement Association, if the rye and/or triticale is plowed under, pulled out, killed by chemical treatment, or otherwise controlled before the time of inspection.

4. Objectionable weeds/crops

A field of wheat containing the following objectionable weeds and crops at inspection time may be passed for certification, subject to a detailed laboratory examination of a ten-pound cleaned seed inspection sample taken from the cleaned seed and submitted to the Kansas Crop Improvement Association, except that seed from a field found to contain jointed goatgrass or the wheat x jointed goatgrass hybrid, which will require the use of a length grader or gravity table during conditioning.

Cheat/japanese brome/downy brome (all Bromus spp. except B.inermis)

Dock (Rumex spp.)

Jointed goatgrass (Aegilops cylindrica) – including hybrid of wheat x jointed goatgrass

Hedge bindweed (Calystegia sepium)

Morningglory (Ipomoea spp.)

Pennycress (Thlaspi arvense)

Hairy vetch (Vicia villosa subsp. villosa)

Wild buckwheat (Polyonum convolvulus)

Wild mustard (Brassica spp.)

Wild onion or **wild garlic** (Allium spp.)

Wild oats (Avena fatua L)

V. SEED SAMPLES

A sample of at least ten (10) pounds, representing each lot of seed as it is to be offered for sale, shall be submitted to the Kansas Crop Improvement Association for laboratory analysis. The sample should be taken so as to represent the entire lot of seed.

VI. SEED STANDARDS

A. The cleaned seed inspection sample or subsequently drawn ten-pound samples shall meet the following requirements for certification:

Factor	Standards for Each Class		
	Foundation	Registered	Certified
Pure Seed (minimum)	99.00%	98.50%	98.50%
Inert matter (maximum)	1.00%	1.50%	1.50%
Weed Seed (maximum)	0.05%	0.05%	0.05%
but not to exceed	3/lb.	3/lb.	3/lb.
Prohibited weed and crop seed*	none	none	none
Objectionable weed and crop seed**			
Morningglory or wild buckwheat (maximum total)	1 in 10 lbs.	1 in 10 lbs.	1 in 10 lbs.
Bromus spp. (maximum total)	none	1 in 10 lbs.	2 in 10 lbs.
Harry vetch	none	2 in 10 lbs.	5 in 10 lbs.
Other	none	none	none
Other crop seed			
Oats and barley (maximum total)	1/lb.	1/lb.	1/lb.
All other crops	none	1/lb.	2/lb.
Red wheat in white-seeded varieties*** (maximum)	0.05%	0.10%	0.20%
All other varieties** (maximum)	0.05%	0.10%	0.20%
Germination (minimum)	85.00%	85.00%	85.00%
Test weight (lb./bu.)			
Spring wheat	54	54	54
All other types	56	56	56

**As listed in Section IV.B.2., IV.B.3., and IV.B.4. of these standards.*

***Other varieties shall include seeds that can be differentiated from those of the variety being analyzed but shall not include variations that are characteristic of the variety.*

****Based on potassium hydroxide (KOH) testing of white wheat samples for the presence of red wheat seed. If the breeder's description for a variety allows for red seed variants, those variants are not included in the maximum for that variety.*

B. If rejected because of prohibited weed or crop seed, seed lot will be denied certification with no recourse.

C. Except as noted in Section VI.D, if deferred because of separable objectionable weed seed as listed in Section IV.B.4, or other crop seed, a second sample may be submitted for testing. Upon a second deferral, reconditioning will be required. If reconditioned and made certifiable, subject to a detailed laboratory examination of a ten-pound cleaned seed inspection sample taken from the reconditioned seed and submitted to the Kansas Crop Improvement Association, certification will be granted.

D. Seed deferred due to presence of jointed goatgrass or wheat x jointed goatgrass hybrid must be reconditioned using a length grader or gravity table.

E. Seed lots that contain Karnal bunt (Tilletia indica) shall not be eligible for certification.