

HYBRID SORGHUM/SUDANGRASS

Sorghum sp.

Seed Certification Standards in California

GENERAL STANDARDS -- The standards on this sheet are in part condensed and apply to hybrid sorghum. For open-pollinated sorghum refer to sorghum standards. For greater detail and additional provisions, see the General Standards.

DEFINITIONS OF TERMS -- Breeder Seed - as applied to hybrid varieties, is seed of male-sterile, maintainer, and restorer lines maintained by the breeder. Foundation Seed - as applied to hybrid varieties, is seed of male-sterile, maintainer, and restorer lines produced from Breeder or Foundation seed. Commercial Hybrid Seed (Certified Class) - is seed that is planted for any use except seed production, and is the first generation of seed of a cross produced by controlling the pollination and by combining two (2) or more lines, varieties, or species. Controlling pollination is the use of a method which will produce pure seed which is at least seventy-five percent (75%) hybrid seed.

PLANTING STOCK -- Breeder or Foundation seed must be planted to produce Foundation seed. Foundation seed, as applied to hybrid varieties, is seed of male-sterile, maintainer, and restorer lines. Breeder or Foundation seed must be planted to produce the Certified class of a commercial hybrid. Seed planted to produce any class of certified seed must be treated for seed-borne diseases.

APPLICATION -- Applications should be submitted electronically on CCIA's website (<http://ccia.ucdavis.edu>) no later than three (3) weeks after planting. New applicants should contact the CCIA office for instructions.

FIELD ELIGIBILITY -- Hybrid sorghum may be grown for certification only on land where no other cultivated variety of annual sorghum, including sudangrass, has been grown the previous two (2) years.

ISOLATION -- All fields or portions of fields grown for the Foundation class of seed must be 990 feet from any other sorghum (including Johnsongrass). Fields being grown for production of the Certified class of seed must be 660 feet from any other sorghum (including Johnsongrass), except that the distance must be 990 feet for Certified sudangrass from grain sorghum and 1,320 feet for Certified grain sorghum from sudangrass.

FIELD INSPECTION -- Every field should be rogued to remove any plants of another crop or variety prior to anthesis. Certified and Foundation seed production shall be given at least three

(3) field inspections, the first during early bloom, the second during full bloom, and the last inspection, before harvest but after the seed begins to assume mature color.

Off-Types -- Varieties cannot always be differentiated at field inspection. When differences can be distinguished, the maximum mixture of other varieties permitted is the following:

	Definite	Doubtful	Pollen Shedding Female Plants
Foundation	1:50,000	1:20,000	1:3,000
Certified	1:20,000	1:1,000	1:1,500

Weeds --Fields must be free of any prohibited noxious weeds. Restricted noxious weeds, and common weeds difficult to separate must be controlled. Prohibited and Restricted noxious weeds are listed in the California Seed Law/CA Code of Regulations/Sections 3854 and 3855.

Diseases -- Head and kernel smut must not exceed one (1) head per 10,000 heads. Fields may be refused certification due to unsatisfactory appearance caused by weeds, poor growth, poor stand, disease, insect damage, and any other condition which prevents accurate inspection or creates doubt as to identity of the variety. A field inspection report will be sent to the applicant. If the field is approved, a certification number will be assigned. This number must be on all containers of seed before they leave the field. It is the responsibility of the applicant to make sure his field has been inspected before it is harvested.

HARVESTING -- Harvesting is subject to the supervision of the County Agricultural Commissioner who must be contacted prior to harvest. Any seed moved out of the county for conditioning must be accompanied by an Intercounty Permit or Interstate Transfer of Seed Certificate issued by the commissioner.

CONDITIONING AND SAMPLING -- Conditioning of seed for certification may be done only in facilities approved for this purpose by the California Crop Improvement Association. It is the responsibility of the applicant to determine if the plant is eligible before delivering seed for conditioning. Conditioning, sampling, reconditioning, and blending must be supervised by the County Agricultural Commissioner. Conditioning equipment must be free from contaminating seed to the satisfaction of the supervising inspector.

SEED INSPECTION -- All seed must be sampled and tested after conditioning and the seed lot must meet or exceed seed certification standards for that crop. A seed lab using the Association of Official Seed Analyst "Rules for Testing" must test the sample. A Registered Seed Technologist must sign each lab analysis. In addition to AOSA rules, specific seed testing may be required to meet CCIA seed certification standards.

The conditioner is required to submit a 500 gram sample to the laboratory for analysis. In some instances, varietal identity cannot be determined by visual seed inspections. Seed must be well screened and graded, bright in color, of good appearance and meet the following standards:

	Foundation	Registered
Pure Seed (Minimum)	98.00%	98.00%
Inert Matter (Maximum)	2.00%	2.00%
Inert matter shall not include more than 0.5% of material other than seed fragments of the variety under consideration.		
Weed Seed (Maximum)	0.10%	0.10%
Noxious Weed Seed	None	None
Total Other Crop Seed (Maximum)	0.01%	0.06%
Other Varieties (Maximum)	0.005%	0.01%
Other kinds (Maximum)	0.005%	0.05%
Other kinds shall not exceed two (2) seeds per pound in the Foundation class and ten (10) seeds per pound in the Certified class.		
Germination (Minimum)	85.00%	85.00%

RETAINED SAMPLES – The conditioner must also retain in storage a 500 gram sample of each lot certified. These shall be maintained for one year and be made available for any CCIA audits and reference testing.

FINAL CERTIFICATION AND TAGGING -- If the seed sample meets all standards a seed inspection report is issued. Before certification is complete, however, each container must have an official tag or label attached. Certified seed may be sold to a grower in bulk without tagging if a properly filled out Bulk Sale Certificate accompanies the shipment. The tags and Bulk Sale Certificates are issued by the California Crop Improvement Association to the County Agricultural Commissioner who supervises their attachment.

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