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**Rules of**  
**Department of Agriculture**  
**Division 70—Plant Industries**  
**Chapter 35—Seed Regulation**

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**Title 2—DEPARTMENT OF AGRICULTURE**  
**Division 70—Plant Industries**  
**Chapter 35—Seed Regulation**

**2 CSR 70-35.010 Definitions**

*PURPOSE: This rule designates what plants' seeds are agricultural seeds for labeling purposes and also designates restricted weed seeds. Both agricultural seed and restricted weed seeds content must be declared on the label to comply with the statute, but the seed of plants making up these lists are not specified by statute.*

(1) Agricultural Seeds. Agricultural seeds will be those listed as agricultural seeds in the Federal Seed Act, 7 CFR Section 201.2(h), January (1976).

(2) Restricted Weed Seeds.

(A) Prohibited Weed Seeds. The seeds of the following plants: balloon vine (*Cardiospermum halicacabum*), Canada thistle (*Cirsium arvense*), field bindweed (*Convolvulus arvensis*), Johnson grass (*Sorghum halepense*), musk thistle (*Carduus nutans*), serrated tussock (*Nassella trichotoma*) and sorghum alnum (*Sorghum alnum*).

(B) Noxious Weed Seeds. The seeds of the following plants: plants commonly known as docks of the *Rumex species* (red sorrel, curly dock, etc.), dodders (*Cuscuta species*), buckhorn (*Plantago lanceolata*), eastern black night-shade (*Solanum ptycanthum*), giant foxtail (*Setaria faberi*), hedge bindweed (*Convolvulus sepium*), leafy spurge (*Euphorbia esula*), hoary cress (*Cardaria draba*), purple moonflower (*Ipomoea muricata*), quackgrass (*Elymus repens*), Russian thistle (*Salsola pestifer*), slender oats (*Avena barbata*), wild garlic (*Allium vineale*), wild oats (*Avena fatua*), wild onion (*Allium canadense*) and yellow star thistle (*Centaurea solstitialis*) are designated as noxious and are subject to listing on seed labels according to the requirements of the Missouri Seed Law, sections 266.011 to 266.111, RSMo.

(3) Hermetically-Sealed Container. A hermetically-sealed container does not allow water vapor penetration through any wall, including the seals, greater than 0.05 grams of water per twenty-four (24) hours per one hundred (100) square inches of surface at one hundred degrees Fahrenheit (100° F) with a relative humidity (RH) on one (1) side of ninety percent (90%) and on the other side of zero percent (0%). Water vapor penetration (WVP) is measured by the standards of the

United States Bureau of Standards as—gm water/24 hr./100 sq. in./100 F/90% RH v. 0% RH.

(4) Percentage of Germination. The label claim for percent of germination shall be the result of a test of any lot of seed which has been sampled according to and analyzed by the *Rules for Testing Seed*, (Vol. 6, No. 2, 1981, Rev. 1984), Association of Official Seed Analysts.

*AUTHORITY: section 266.091, RSMo 2016. \* Original rule filed June 6, 1952, effective June 16, 1952. Amended: Filed Dec. 23, 1975, effective Jan. 2, 1976. Amended: Filed June 14, 1977, effective Sept. 11, 1977. Rescinded and readopted: Filed Sept. 28, 1979, effective March 13, 1980. Amended: Filed Jan. 17, 1986, effective May 1, 1986. Emergency amendment filed Feb. 1, 1989, effective Feb. 11, 1989, expired June 11, 1989. Amended: Filed March 1, 1989, effective June 12, 1989. Amended: Filed Sept. 16, 1991, effective Jan. 13, 1992. Amended: Filed June 14, 2018, effective Jan. 30, 2019.*

*\*Original authority: 266.091, RSMo 1951, amended 1957, 1978, 1979, 1993, 1995.*

**2 CSR 70-35.020 Seed Labeling Requirements**

*PURPOSE: This rule clarifies permitted ways in which to label noxious weed seed content, requires a complete address of the seed labeler, sets forth labeling requirements for vegetable seed below standard in germination, sets vegetable seed germination standards, requires the purity percentages of seed labeling to equal one hundred percent, requires that labeling information on the seed label be put in a set format, forbids advertising matter on a seed label, forbids extraneous information on a seed label, requires some indication of not for sale on unlabeled seed stored in sales outlets and makes the seed owner responsible for the labeling of bulk and opened bags of seed.*

(1) Labeling Seed as to Noxious Weed Seed Content. Noxious weed seed content must be labeled in one (1) of the three (3) following ways:

(A) None—meaning no noxious weed seed is present;

(B) Not in excess of \_\_\_\_\_ per pound or per 100 grams. The blank is to be filled by a number given in this subsection for that kind of agricultural seed. Example: Timothy—Not in excess of 80 noxious weed seeds per pound or Not in excess of 18 noxious weed seeds

per 100 grams.

Agricultural Seed	Noxious Weed Seed Content Allowed by This Choice of Labeling	
	(per pound)	(per 100 grams)
Agrostis species	80	18
Poa species	80	18
Bermuda grass	80	18
Timothy	80	18
Orchard grass	80	18
Fescues (except meadow and tall)	80	18
Alsids and white clover	80	18
Reed canary grass	80	18
Ryegrasses	48	11
Meadow and tall fescues	48	11
Milletts	48	11
Alfalfa	48	11
Red clover	48	11
Sweet clovers	48	11
Lespedezas	48	11
Brome grass	48	11
Crimson clover	48	11
Rape	48	11
Agropyron species	48	11
Vetches	16	4
Sudan grass	16	4
Wheat	80	18
Oats	80	18
Barley	80	18
Buckwheat	80	18
Sorghums		
(except sudan grass)	80	18
Soybeans	80	18
Cowpea	80	18

(C) Name and number of each kind of noxious weed seed present, when in excess of that stated in subsection (1)(B). The name and number of noxious weed seed present per pound or per one hundred grams (100 gm) may also be used if that quantity is less than the number given in subsection (1)(B); and

(D) An exception of up to one hundred forty-four (144) seeds per pound or thirty-two (32) seeds per one hundred grams (100 gm) of giant foxtail may be present in lespedeza and the noxious weed seed labeling allowed by subsection (1)(B) used, without reference to the giant foxtail seed.

(2) The seed label shall show the name, complete address and zip code of the seed labeler.

(3) Vegetable seed which is below standard according to section (4) shall also be labeled in accordance with the requirements of section 266.051, RSMo (1986) as follows:

(A) Below standard in not less than eight (8)-point type; and

(B) Percentage of germination.

(4) The germination of vegetable seed in packets of one pound (1 lb.) or less must exceed the following standards or read below standard and state the germination percentage. For vegetable seed not given a standard



germination percentage, the germination must be shown on the packet:

Kind of Seed	Percent of Germination
Artichoke	60%
Asparagus	70%
Beans, garden	70%
Beans, lima	70%
Beans, runner	75%
Beet	65%
Broadbean	75%
Broccoli	75%
Brussel Sprouts	70%
Cabbage	75%
Carrot	55%
Cauliflower	75%
Celery and Celeriac	55%
Chicory	65%
Chinese Cabbage	75%
Citron	65%
Collards	80%
Corn	75%
Cowpea	75%
Garden Cress	60%
Water Cress	40%
Cucumber	80%
Eggplant	60%
Endive	70%
Kale	75%
Kohlrabi	75%
Leek	60%
Lettuce	80%
Muskmelon	75%
Mustard	75%
Spinach Mustard	75%
Vegetable Mustard	75%
Okra	50% (including hard seed)
Onion	70%
Parsley	60%
Parsnip	60%
Peas	80%
Pepper	55%
Pumpkin	75%
Radish	75%
Rhubarb	60%
Rutabaga	75%
Salsify	75%
Soybean	75%
Spinach (except New Zealand)	60%
New Zealand Spinach	40%
Squash	75%
Swiss Chard	65%
Tomato	75%
Turnip	80%
Watermelon	70%

(6) The information required on an agricultural seed label should appear in the following format:

Kind or Kind and Variety of Seed		
Pure seed %	Germination %	Net weight
Inert matter %	Hard seed %	Lot #
Other crop %	Total germination and hard seed %	Origin
Weed seed %		Month and year of germination test
Noxious weed seeds per pound or per one hundred grams		

\*The name and address of person or company held responsible for seed labeling should follow other information or should be printed on opposite side of label.

An alternative to the second column labeling may be provided for crops producing hard seed as follows:

Total germination % which includes % of hard seed

(7) No advertising matter of any kind shall be printed on the label.

(8) No printed or written matter of any kind shall be attached to the original label.

(9) Seed in Storage. Any agricultural or vegetable seed, whether in bags, bins or other containers exposed to customers in a retail sales outlet, shall be considered offered or exposed for sale for seeding purposes in Missouri and will be subject to the provisions of the Missouri Seed Law, unless the seed is labeled in one (1) of the following ways: "For Feeding Purposes Only" (with no reference being made to germination, variety or other factors indicating that the seed is suitable for seeding purposes) or "For Processing Only—Not For Sale".

(10) Any treatment of seed regulated by this law must be labeled to show the treatment.

(A) The labeling of a treatment for seed must be done either on a separate tag or on the bag.

(B) If a treatment adds more than one percent (1%) to the weight of the seed, that weight must also be included in the inert matter weight of the seed.

(C) If the amount of treatment on the seed is harmful to man or animal, the label shall name the additive and give a precautionary use statement. In addition, a contrasting colored dye showing evidence of treatment must be used.

(D) If the treatment of the seed is an inoculant, a date of expiration must be stated.

(11) The owner or possessor shall be responsible for properly labeled bulk or opened bags of agricultural seed.

(12) A declaration for the maximum percentage of seed containing the endophyte fungus, *Epichloa typhina (Acremonium coenophialum)*, may be made for a seed lot. For example, "endophyte not more than ten percent (10%)" or "live endophyte not more than ten percent (10%)". When the declaration is for live endophyte, the labeling company must provide to the Missouri Department of Agriculture upon request—

(A) The name of the laboratory performing the grow out and test;

(B) Method of grow out and analytical test used;

(C) The results of the analysis for the lot tested; and

(D) Declarations for the percentage of endophyte should be placed on the label after seed origin.

*AUTHORITY: section 266.091, RSMo 1986. \*Original rule filed June 6, 1952, effective June 16, 1952. Amended: Filed Dec. 23, 1975, effective Jan. 2, 1976. Rescinded and readopted: Filed Sept. 28, 1979, effective March 13, 1980. Amended: Filed Jan. 17, 1986, effective May 16, 1986.*

*\*Original authority: 266.091, RSMo 1951, amended 1957, 1978, 1979, 1993, 1995.*

**2 CSR 70-35.030 Seed Standards**  
(Rescinded March 13, 1980)

*AUTHORITY: section 266.091, RSMo 1969. Original rule filed June 6, 1952, effective June 16, 1952. Amended: Filed Dec. 23, 1975, effective Jan. 2, 1976. Amended: Filed Sept. 15, 1976, effective Dec. 11, 1976. Amended: Filed Dec. 12, 1978, effective March 11, 1979. Rescinded: Filed Sept. 28, 1979, effective March 13, 1980.*

**2 CSR 70-35.031 Licensing**  
(Rescinded January 30, 2019)

*AUTHORITY: section 266.091, RSMo 1994. Original rule filed Sept. 28, 1979, effective March 13, 1980. Amended: Filed April 10, 1995, effective Oct. 30, 1995. Rescinded: Filed June 14, 2018, effective Jan. 30, 2019.*

**2 CSR 70-35.035 What Seeds Are Agricultural Seeds**  
(Rescinded March 13, 1980)

(5) The purity percentages of pure seed, inert matter, other crop and weeds' seed shall total one hundred percent (100%) on the seed tag.



*AUTHORITY: section 266.091, RSMo 1969. Original rule filed Aug. 16, 1976, effective Nov. 11, 1976. Rescinded: Filed Sept. 28, 1979, effective March 13, 1980.*

## 2 CSR 70-35.040 Regulatory Standards (Rescinded March 13, 1980)

*AUTHORITY: section 266.091, RSMo 1969. Original rule filed June 6, 1952, effective June 16, 1952, Amended: Filed Dec. 23, 1975, effective Jan. 2, 1976. Amended: Filed Sept. 15, 1976, effective Dec. 11, 1976. Amended: Filed Dec. 12, 1978, effective March 11, 1979. Rescinded: Filed Sept. 28, 1979, effective March 13, 1980.*

## 2 CSR 70-35.045 Exemptions

*PURPOSE: This rule permits the sale of seed containing more than the normally allowed amount of weed seed when needed for experimental or breeding purposes.*

(1) The director of agriculture may approve the distribution of seed normally in violation of the Missouri Seed Law if requested and the following information is provided to the director:

(A) The name and address of the firm or person responsible for the use of the seed;

(B) Scientific and common name of the seed;

(C) The name and address of the person or firm from whom the seed will be purchased;

(D) The approximate date of purchase of the seed;

(E) Where the seed will be planted;

(F) How seed will be used; and

(G) If the request is for weed seed or crop seed containing more than the allowable amount of weed seed, how spread of the weed seed will be controlled.

*AUTHORITY: section 266.091, RSMo 1986.\* Original rule filed Jan. 17, 1986, effective May 1, 1986. Amended: Filed Oct. 15, 1991, effective Feb. 6, 1992.*

*\*Original authority: 266.091, RSMo 1951, amended 1957, 1978, 1979, 1993, 1995.*

## 2 CSR 70-35.050 Submitting Service Samples

*PURPOSE: This rule specifies who may obtain cost-free seed analysis and how many analyses they may have free of cost. It also sets a cost on samples submitted by persons over this amount and to others who are not*

*eligible for cost-free analysis.*

(1) Complimentary, cost-free seed analyses will be performed and reported by the State Seed Laboratory during the periods from June 1 to August 31 and from November 1 to the following January 15 for those persons who request analyses under the following conditions:

(A) The seed is to be planted on a Missouri farm operated by the requestor;

(B) The seed is not intended for resale; therefore, not subject to labeling requirements of this law;

(C) The pure seed content is greater than ninety percent (90%) when purity analysis is requested; and

(D) The seed should not include more than four (4) samples received from the same family residence within those dates stated in section (1) of this rule beginning on June 1 and ending January 15 of the following year.

(2) Charges for analysis and analytical reports on seed samples not qualifying for free analysis as described in section (1) of this rule will be assessed at the following rates:

(A) A cost of ten dollars (\$10) per hour will be assessed for purity analysis on any seed having less than ninety percent (90%) pure seed;

(B) Purity analysis on seed having greater than ninety percent (90%) of the crop seed to be planted (purity analysis includes percentage measurements on pure seed, other crop, total weed seed and inert matter) shall be—

1. For one (1) cultivar \$12;

and  
2. For more than one (1) cultivar in the same sample \$18;

(C) Germination (per cultivar) \$12;

(D) Tetrazolium \$25;

(E) Highly chaffy seed purity (per hour) \$10;

(F) Highly chaffy seed germination \$14;

(G) Endophyte from growth \$30;

(H) Endophyte from seed staining \$20;

and  
(I) Noxious and prohibitive weed seed \$12.

*AUTHORITY: section 266.091, RSMo 1986.\* Original rule filed June 6, 1952, effective June 16, 1952. Amended: Filed Dec. 23, 1975, effective Jan. 2, 1976. Amended: Filed June 14, 1977, effective Sept. 11, 1977. Rescinded and readopted: Filed Sept. 28, 1979, effective March 13, 1980. Amended: Filed June 28, 1991, effective Jan. 1, 1992.*

*\*Original authority: 266.091, RSMo 1951, amended 1957, 1978, 1979, 1993, 1995.*