

The Kentucky Pure Seed Law and Its Administration

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GOOD SEEDS are those that are adapted, have a high percentage of pure seed, a high percentage of germination, and are free of noxious and other weed seeds and bulblets. Such seeds are indispensable in the production of satisfactory agricultural crops. It is the purpose of the Kentucky pure seed law to enable farmers and others who desire good seed, to obtain it, by making full use of the information furnished on the official seed tag provided in the act.

This publication gives a transcript of the law, provides a set of rules and regulations for the administration of the act and furnishes information of interest and value to the seedsman and farmer alike. It should be read by all who are interested in seeds.

The Kentucky Pure Seed Law and Its Administration

June, 1946

250.020 [1376b-23] Sales in violation of KRS*250.020 to 250.170, and false labeling prohibited. No person shall sell, offer or expose for sale any agricultural seeds or mixtures of agricultural seeds for seeding purposes without complying with KRS 250.020 to 250.170, or falsely mark or label any agricultural seeds.

250.030 [1376b-19] Seeds exempt. (1) Agricultural seeds or mixtures of seeds shall be exempt from KRS 250.020 to 250.170 when:

(a) Possessed, exposed for sale or sold for food or feed purposes only;

(b) Sold to merchants to be recleaned before being sold or exposed for sale for seeding purposes;

(c) In store for the purpose of recleaning and not possessed, sold or offered for sale for seeding purposes; and

(d) The seed is grown, sold and delivered by a producer on his own premises to the purchaser himself. If, however, the seed is advertised for sale by the public press, circular or catalogue or if the seed is delivered by a common carrier, the seed and the seller shall be subject to KRS 250.020 to 250.170.

(2) Lawn grass seed mixtures sold in quantities of five pounds or less shall be exempt from subsection (4) of KRS 250.040, subsection (4) of KRS 250.050 and subsection (5) of KRS 250.060.

250.040 [1376b-15] Label requirements of agricultural seeds. Every lot of agricultural seeds, when in bulk or a container of one pound or more, or in the case of tobacco seed of one-quarter ounce or more, shall have affixed, in a conspicuous place on the exterior of the container of the seeds, a label in plainly written or printed English, in a manner prescribed by the director, stating:

(1) The commonly accepted name of the seeds;

(2) The approximate percentage by weight of purity, which means the freedom of the seeds from inert matter and from other seeds distinguishable by their appearance;

* Kentucky Revised Statutes.

(3) The approximate total percentage by weight of noxious weed seeds;

(4) The name and approximate number per ounce of each kind of noxious weed seeds present, per ounce of agricultural seeds;

(5) The approximate percentage of germination of agricultural pure seeds designated, together with the month and year the seeds were tested;

(6) The full name and address of the seller of the seed; and

(7) The name of the state where the seed was grown, and if this is unknown, a statement to that effect.

Provided, however, that the Seal of Certification of the Kentucky Seed Improvement Association approved by the University of Kentucky showing the year the seed was grown shall be accepted in lieu of the written or printed tag or label required herein. (1942, c. 160, 3).

250.050 [1376b-16] Label requirements of mixtures of agricultural seeds. Mixtures of agricultural seeds which contain two or more kinds of such seeds, each present in excess of five percent by weight of the total mixture, shall, when sold, offered or exposed for sale as mixtures in containers of more than one pound, have affixed, in a conspicuous place on the exterior of the container of such mixtures, a label in plainly written or printed English, stating:

(1) That the seed is a mixture;

(2) The name and approximate percentage by weight of each kind of agricultural seed present in excess of five percent by weight of the total mixture;

(3) The approximate percentage by weight of total noxious weed seeds;

(4) The name and approximate number per ounce of each kind of noxious weed seeds present;

(5) The approximate percentage of germination of each kind of agricultural seed present in the mixture, if it is in excess of five percent by weight, together with the month and year the seed was tested;

(6) The full name and address of the seller of the mixture; and

(7) The name of the state where the seed was grown, and if this is unknown, a statement to that effect.

250.060 [1376b-17] Label requirements of special mixtures.

Special mixtures of agricultural seeds, except as specified in KRS 250.050, shall when sold, offered or exposed for sale in bulk, or containers in excess of one pound, have affixed in a conspicuous place on the exterior of the container of the mixture a label in plainly written or printed English, stating:

- (1) That the seed is a mixture;
- (2) The name of each kind of agricultural seed present in proportion of five percent or more of the total mixture;
- (3) The approximate total percentage by weight of noxious weed seeds;
- (4) The approximate percentage, by weight, of inert matter;
- (5) The name and approximate number per ounce of each kind of noxious weed seeds present; and
- (6) The full name and address of the seller of the mixture.

250.070 [1376b-26] Sale of labels; price. The labels specified in KRS 250.040 to 250.060 shall be purchased from the director or his agent. Prices of the labels shall be eight cents each for one hundred pound labels, six cents each for seventy-five pound labels, four cents each for fifty pound labels and two cents each for twenty-five pound labels for alfalfa, sweet clover and all grass and clover seeds or mixtures of any of these, and four cents each for one hundred pound labels, three cents each for seventy-five pound labels, two cents each for fifty pound labels, and one cent each for twenty-five pound labels, for all other agricultural seeds.

250.080 [1376b-27] Label to be delivered to purchaser of seed. The label specified in KRS 250.040 to 250.060 shall be delivered to the purchaser with every sale of agricultural seed, if the sale amounts to one pound or more, whether the sale is in bulk or in package.

250.090 [1376b-20] Station to maintain laboratory; assistants.

(1) The experiment station shall maintain a laboratory with the necessary equipment and shall employ such analysts, inspectors

Note: By mistake the word "noxious" appears in Section 250.040, Subsection (3); Section 250.050, Subsection (3); and Section 250.060, Subsection (3).

and assistants as may be necessary for the proper enforcement and carrying out of KRS 250.020 to 250.170.

(2) The director shall, with the approval of the Board of Trustees of the University of Kentucky, fix salaries of the analysts, inspectors and assistants.

250.100 [1376b-20] Director to enforce KRS 250.020 to 250.170 and make regulations. The director or his agents shall enforce and carry out the provisions of KRS 250.020 to 250.170. The director or his agent, upon notice to the seed trade of this state, may adopt such regulations as may be deemed necessary to secure the efficient enforcement of KRS 250.020 to 250.170.

250.110. [1376b-21] "Approximate" to be defined by director. The director or his agent shall in the regulations made by him define the word "approximate," as it is used in KRS 250.020 to 250.170, and in defining the word he shall be guided by the "Rules and Methods of Testing" adopted and approved by the Association of Official Seed Analysts of North America.

250.120 [1376b-20] Director may seize improperly labeled seed. The director or his agent may seize any seed sold or offered for sale which is not properly labeled, and may hold it until proper labeling is effected by the shipper or seller of the seed.

250.130 [1376b-22] Director to inspect and test seeds; may take samples. The director through his authorized agents shall inspect, examine, analyze and test any agricultural seeds sold, offered or exposed for sale within this state at such time and place, and to such extent, as the director may determine. He may, in person or by his agents, take for analysis a sample of agricultural seeds from any premises or vehicle. If a sample upon test or analysis is found to fall below the statement on the label attached to the lot from which the sample was secured, or to violate any of the provisions of KRS 250.020 to 250.170, the buyer or consignee of that lot of seed shall be notified and a copy of the notice mailed to the person whose label was found affixed to the lot.

250.140 [1376b-20] Director to publish results of seed tests. The director or his agent at his discretion shall publish or cause to

be published the results of the examination, analysis and tests of any and all samples of agricultural seed or mixtures of that seed, drawn as provided in KRS 250.130, together with any other information he may deem advisable.

250.150 [1376b-25] Free tests for residents; tests for non-residents. (1) Any resident may submit to the experiment station samples of agricultural seed for test and analysis, subject to regulations by the director. The director may by such regulations fix the maximum number of samples that may be tested free of charge for any one citizen in any one period of time and fix charges for tests of samples submitted in excess of those tested free of charge.

(2) In the case of nonresidents, a fee for the test of purity and for germination shall be paid in advance to the director. Fees for nonresidents shall be fixed by the director or his agent in his regulations.

250.160 [1376b-24] Prosecutions; hearings; evidence. (1) If the director or his agent finds upon examination, analysis or test, that any person has violated any of the provisions of KRS 250.020 to 250.170, he or his agent may institute proceedings to have that person convicted, or the director or his agent at his discretion may report the results of the examination to the Attorney-General, together with the sworn and acknowledged statement of the analyst and such other evidence of the violation as he deems necessary. The Attorney-General, acting personally or through the attorney representing the Commonwealth in the county, district or city in which the violation occurred, shall institute proceedings at once against the person charged with violation.

(2) Prosecutions shall be instituted only in the following manner: When the director or his agent finds that any of the provisions of KRS 250.020 to 250.170 have been violated, he shall give notice to the person in whose hands the seed was found, designating a time and place for a hearing. This hearing shall be private and the person involved may introduce evidence either in person, by agent or by attorney. If, after the hearing, or without the hearing, in case the person fails to appear, the director or his agent decides that the evidence warrants prosecution, he shall proceed as provided in this section.

(3) In any prosecution arising from KRS 250.020 to 250.170 a certified analysis or test by the experiment station shall be considered as competent evidence, but upon motion of the accused, the analyst whose signature is attached to the certificate of analysis shall be required to appear as a witness and be subjected to cross-examination, or as a witness for the accused.

RULES AND REGULATIONS

For the Administration of the Kentucky Pure Seed Law Authorized by Section 250.100 KRS.

1. The official labels are made in three forms: Form "A" is manilla. It is to be used on unmixed alfalfas, clovers, and grasses. Form "B" is yellow. It is to be used on cereal, garden, and truck crop seed, including seed potatoes. Form "C" is blue. It is to be used only for seed mixtures. Form "C" will be green after the present supply of blue tags is exhausted.
2. Labels must be attached to bags or other seed containers.
3. Charges for tags in excess of the 100 pound denomination will be at a proportionate rate.
4. The list of noxious weed seeds or bulblets referred to in Section 250.040 (4) includes, quack-grass (*Agropyron repens*), dodder (*Cuscuta sp.*), sorrel (*Rumex acetosella*), buckhorn (*Plantago lanceolata*), corncockle (*Agrostemma githago*), wild onion (*Allium vineale*), Canada thistle (*Cirsium arvense*), ox-eye-daisy (*Chrysanthemum leucanthemum*) and Johnson grass (*Sorghum halepense*).
5. The word "approximate" as used in this law shall mean: within the "allowable variation" or "tolerance" shown in the Table of Allowable Variations on page 9.
6. Seeds, seized under Section 250.120 KRS may be moved and stored in a warehouse selected by the enforcement agent. Storage charges are to be paid by the seedsman in whose possession the seeds are found.
7. Eight samples of seed may be tested free of charge for any one citizen (or any one firm or corporation) resident in the state, during

TABLE OF ALLOWABLE VARIATIONS

Purity claimed, percent	Variation allowed (a), percent	Germination claimed, percent	Variation allowed (b), percent	Weed seed claimed, No. per oz.	Variation allowed (c), No. per oz.
99	.4	99	6	5	21
98	.6	98	6	10	22
97	.8	97	6	15	23
96	1.0	96	6	20	24
95	1.2	95	6	25	25
94	1.4	94	6	30	26
93	1.6	93	6	35	27
92	1.8	92	6	40	28
91	2.0	91	6	45	29
90	2.2	90	6	50	30
89	2.4	89	7	55	31
88	2.6	88	7	60	32
87	2.8	87	7	65	33
86	3.0	86	7	70	34
85	3.2	85	7	75	35
84	3.4	84	7	80	36
83	3.6	83	7	85	37
82	3.8	82	7	90	38
81	4.0	81	7	95	39
80	4.2	80	7	100	40
79	4.4	79	8	110	42
78	4.6	78	8	120	44
77	4.8	77	8	130	46
76	5.0	76	8	140	48
75	5.2	75	8	150	50
74	5.4	74	8	160	52
73	5.6	73	8	170	54
72	5.8	72	8	180	56
71	6.0	71	8	190	58
70	6.2	70	8	200	60
69	6.4	69	9	210	62
68	6.6	68	9	220	64
67	6.8	67	9	230	66
66	7.0	66	9	240	68
65	7.2	65	9	250	70
64	7.4	64	9	260	72

(a) In this table the allowable variation for purity is computed from the formula adopted by the Association of Official Seed Analysts of North America. This formula is: allowable variation = $0.2\% + 1/5(100 - \text{Purity})$.

(b) Allowable variation for germination is the same as that adopted by the Association of Official Seed Analysts of North America.

(c) Allowable variation for noxious weed seeds is computed from the formula $V = 1/5F + 20$. V=allowable variation. F=number of seeds claimed per ounce. This formula is indicated by our experience in the Seed Laboratory

any calendar year, provided that not more than 2 such samples are submitted in any one calendar month. Samples in excess of this number will be treated as charge items subject to billing under the following schedule of charges. Final reports will not be rendered until such charges are paid.

SCHEDULE OF CHARGES

Purity tests

Alfalfa	\$1.00
Bent Grasses	2.00
Bermuda Grass	1.00
Bluegrass	2.00
Bromes	1.00
Cane	1.00
Cereals .....	.50
Clovers (Including Sweet and Bur)	1.00
Coriander	1.00
Crested Dogstail	1.00
Fescue, Meadow .....	.75
Fescue, all others	1.00
Flax .....	.50
Hemp .....	.50
Lawn and Mixed Grasses	3.00
Lespedezas	1.00
Meadow Grasses	1.50
Millet (Broomcorn or Hog) .....	.50
Millet (Foxtail, Japanese, Pearl) .....	.75
Mixtures	3.00
Oat Grass	1.00
Orchard grass	2.00
Rape .....	.75
Redtop	2.00
Reed's Canary Grass	2.00
Ryegrass .....	.75
Sudan Grass	1.00
Timothy .....	.75
Vetches .....	.75
Vernal Grass	1.00
Tests for Non-residents	\$3.00

For "Interstate" samples, double the charge mentioned above.
A proportionate charge will be made for seeds not enumerated.

Germination Tests

Bluegrass and Meadow Grass	\$.50
All others .....	.25
Tests for Non-residents	\$1.00

8. Hard seeds are those which, on account of the toughness of the seed coat, do not absorb enough moisture for prompt germination.

The percent of such seeds should be indicated on the tag, but must not be included in the germination percentage.

9. It is illegal to sell seeds without the official label (except Kentucky certified seeds and those coming under exemption Section 250.030 KRS) or to counterfeit the official label or to use a counterfeit in lieu of the official label, or to use the same label a second time.

10. The seal of Certification of the Kentucky Seed Improvement Association as approved by the University of Kentucky became effective September 25, 1944.

This seal may be used on seeds certified in Kentucky in lieu of the official label provided in Sections 250.040, 250.050 and 250.060, KRS. This seal must show the year the seeds were grown and it may carry a serial number. It (the seal) may not be used in connection with any other statement, tag, or form.

11. Hybrid seed corn offered for sale in Kentucky must bear, on the label, the name of the hybrid, so that the enforcement agencies can determine the inbreds composing it. If the hybrid is not well known, the inbreds composing it shall be reported to the enforcement officer in charge of the Pure Seed Law before it is offered for sale in Kentucky. The approximate number of days required for maturity shall also be reported.

GENERAL INFORMATION

The seed law enacted and revised by the General Assembly of Kentucky, and published in the first part of this bulletin, is a statute of importance to every citizen of the state who is interested in agricultural seeds. In order that the Act may be better understood, the essential features of its provisions and requirements and the main points of its operation are given herein.

Enforcing Agent

W. A. Price, Head of the Department of Entomology and Botany, has been designated by the Director of the Kentucky Agricultural Experiment Station to direct the work as enforcing agent. All communications relating to the operation of the law and all seed samples for analysis should be directed to him, or to the Seed Laboratory, Experiment Station, Lexington, Ky.

Exemptions

Seeds sold for food or to recleaners, or seeds in stock for recleaning, and seeds grown, sold, and delivered by the producer, on his own premises, to the purchaser himself, are excepted; also one-pound quantities of mixtures and less than one-pound lots of all seed except tobacco are exempt from the provisions of the law.

Label Requirements

Agricultural seeds sold or offered for sale in quantities of one pound or more, whether in bulk, packages or other containers, must have affixed to them official Kentucky labels of the proper kind and denomination, giving the following information:

On front of label

Name and address of vendor or dealer.
Commonly accepted name of seed and variety.
Approximate percentage of purity by weight.
Approximate percentage of germination.
Approximate percentage of hard seed.
Date of germination test.
Name of state or place where the seeds were grown.
Approximate percentage of inert matter in special mixtures.

On back of label

Approximate number per ounce of each kind of noxious weed seeds or bulblets.
Approximate percentage of weed seeds by weight.

Rules for Taking Samples of Seed for Analysis*

No matter how accurately a seed analysis is made, it can show only the quality of the sample submitted for analysis. Every effort should be made to insure that the sample sent to the analyst *shall represent the bulk of seed in question*. Anyone contemplating the sale of seed should draw samples according to directions given below.

1. **Weight of Sample to be Submitted for Analysis**

The following are minimum weights of samples to be submitted for analysis:

(a) Two ounces of grass seed not elsewhere mentioned, white or alsike clover, or seeds not larger than these.

* Taken from U. S. D. A. Department Circular No. 406.

(b) Five ounces of red or crimson clover, alfalfa, ryegrasses, brome grasses, millet, flax, rape, or seeds of similar size.

(c) One pound of cereal, vetches, or seeds of similar or larger size.

(d) If means of weighing are not available, samples may be measured as follows: Grass seed, one heaping teacup; alfalfa and clovers, one teacup; cereals (corn, wheat, rye, and seeds of similar size), three teacups.

If the sample is to be examined for origin at least five times the quantities here specified should be submitted.

2. Methods of Taking the Sample

The sample must be taken in such a way that it represents as accurately as possible the bulk lot being sampled. To this end it is important that equal quantities be taken from each container sampled, and from each place in a container, in a given lot of seed.

(a) Bags, closed or open, should be sampled—

(1) With a trier or bag sampler long enough to reach the center of the bag; in small lots, approximately equal quantities should be taken from near the top, the middle, and the bottom of each bag; but when more than five bags are sampled, it should be sufficient to take from one place in each bag sampled (see 4); or

(2) With a long trier or probe which should extend the length of the bag.

(b) Bulk seeds in bins, cars, or other containers are to be sampled with a long trier or probe extended through the bulk in several places.

(c) In the case of packet seeds, the entire packet of each should be taken.

3. Alternative Methods

When better means are not available, open bags of cereals, or other large seeds, or seeds in small bins, or other packages, may be sampled by hand, taking approximately equal quantities from different places including the top and opposite sides as near the bottom as practicable. Any portion of seed which has been opened and exposed for sale should be considered as liable to contamination and should be sampled with special care.

4. Number of Bags to be Sampled

In lots of five bags or less, each bag should be sampled. In larger lots, every fifth bag should be sampled, but never less than five bags. Whenever there is evidence of lack of uniformity in a lot of seed, each bag should be sampled separately. The samples from each bag may be kept separate or they may be combined in composite samples as circumstances require.

5. Dividing the Sample

The total quantity of seed drawn may be in excess of that required for a sample. It is very important that the seeds should be thoroughly mixed before taking the sample that is to be sent for analysis; if possible a mechanical divider should be used to obtain the desired quantity.

How to Send Samples

After the samples have been drawn they should be analyzed. If they are to be sent away for the tests, follow these directions. Samples should be sent in strong manilla seed envelopes, preferably 4 by 6 inches in size, or cotton bags. Bottles, cardboard boxes, thin envelopes and paper bags are likely to get broken in the mail. Each sample must have a label showing the name and address of sender and kind of seed, and must state whether purity test, or germination test, or both are wanted. This information should be plainly written on the envelope or on a card placed inside the container with the seed.

Analysis

It takes from one to three hours to make a purity test of most seeds. Samples are analyzed in the order in which they are received and reports are made as promptly as the work permits. The time required for germination tests of field seeds is indicated below.

Bluegrass	28 days
Fescue, Bermuda grass, bent grass	21 days
Tobacco, orchard grass, lespedeza, ryegrass	14 days
Cowpeas, redtop, oatgrass	10 days
Soybeans, field peas	8 days
Most other field seeds	6 days

The Kentucky Seed Laboratory will be guided by the recommendations of the Association of Official Seed Analysts of North America in making purity and germination tests.

Tagging

After samples have been analyzed, purity and germination reports are made. With these reports and information already in possession of the seedsman, tags previously obtained in blank from the Director of the Experiment Station must be filled in carefully on both sides by the vendor or dealer. They may be printed or typed or written legibly in longhand with ink. Each bag should carry a tag giving required information. The poundage in the bag should be completely covered by the poundage on the tag, i.e., a hundred pound bag should carry a hundred pound tag. The front of the tag is made to show, among other things, the percent of purity, percent of germination, percent of crop seed, date of germination, hard seed, and place where grown. The reverse side of the label bears a list of noxious weed seeds with blank spaces in which must be shown the number of each of these seeds per ounce in the lot of seed to which it is attached. There is a space at the bottom on which must be shown the approximate total percentage of weed seed.

Official Forms of Label

The official seed labels are made in three forms: Form "A" is manilla. It is to be used on unmixed alfalfas, clovers and grasses. Form "B" is Yellow. It is to be used on cereal, seed potatoes, garden and truck-crop seed. Form "C" is now blue, but is to be changed to green. It is to be used only for seed mixtures.

Denominations

Each form of label is issued in 25-, 50-, 75-, and 100-pound denominations. The law makes no provision for labels below the 25-pound denomination, therefore each package of seed from one to 25 pounds should carry a 25-pound tag. Tobacco seed from $\frac{1}{4}$ ounce to 25 pounds should carry a 25-pound tag.

Cost of Labels

The law fixed the price of labels. Forms "A" (for grasses and clovers) and "C" (for mixtures), will be furnished at the rate of eight (8c) cents for each 100-pound label, six (6c) cents for each 75-pound label, four (4c) cents for each 50-pound label, and two (2c) cents for each 25-pound label. Form "B", label (for cereals, seed potatoes and truck-crop seed), will be furnished at the rate of four (4c) cents for each 100-pound label, three (3c) for each 75-

pound label, two (2c) cents for each 50-pound label and one (1c) cent for each 25-pound label.

Purchasing Official Labels

All official seed labels must be obtained from the Director of the Kentucky Agricultural Experiment Station, Lexington, Kentucky. Dealers should anticipate their needs by getting the proper labels to be used on their seed packages in advance of sales. An order should be for not less than \$2.00 worth of labels. It is illegal to sell seeds without the official label or to counterfeit the official label or to use a counterfeit in lieu of the official label, or to use the same label a second time.

It is the desire of the enforcement agents to be helpful to farmers and others in their efforts to secure good seed, and to assist seedsmen, where necessary, in their endeavour to properly tag the seeds offered for sale to the public.