Seed Tag Placement

University of Kentucky

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What is the purpose of the seed tag?

Seed lot quality is a primary consideration when planning a crop and purchasing seed. Purity and potential germination are important factors in seed lot quality that directly impact establishment and stand as well as the subsequent harvest. To ensure producers have access to accurate seed lot quality information, seed laws exist at the state and federal levels requiring that specific information be made readily available to the purchaser in the form of a seed label. A purchaser can evaluate the information on the tag to make purchasing decision.

Fig. 1. Example seed tag of an accurately labeled red clover seed lot offered for sale in Kentucky.

RE	ED CLOVER	
INGREDIENTS (VA	ARIETY UNKNOWN)	TEST DATE ORIGIN
99.89 % PURE SEED	80% GERMINATION	1/06 OR
.02 % OTHER CROI	P +10% HARD SEED	
.07 % INERT MATT	ER 90% TOTAL GERMINAT	ION
.02 % WEED SEED	S	AMS535
NOXIOUS WEED SEEDS: NON	EPOUND	
Pre-inoculated with Dormal Lo	t A018CP01Q207	
SKU# 02111580 SC	OUTHERN STATES COOP, INC.	80160
LOT#5.B222.N	CROP DIVISION	71
NET WEIGHT:50 LBS/22.7 KG	P.O. BOX 26234 RICHMOND, VA 23260	533

Fig. 2. Example of a seed tag with missing information offered for sale in Kentucky.

MATERIAL #	204915			DAT	E TESTED:	Jan-06
BATCH#	1625325					
	PURITY	GERM	HS	TTL	ORIGIN	
RENO ALFALFA	79.90%	81%	4%	85%	ID	
TAHOE ALFALFA	19.98%	81%	4%	85%	NV	
CROP:	0.01%					
INERT:	0.10%					
WEEDS:	0.01%					
NOXIOUS:	0.00%					

What information is required on a label?

In Kentucky (and most states), Seed Kind, Variety, Lot Number, Seedsman, Origin, Test Date, Purity, Noxious Weeds, Germination, and Treatment Statement are required on the label. Each of these items provides valuable information to the purchaser.

Seed Kind refers to the crop seed in the bag. Seed kind choice will be depend on the site and intended use. Given the intentions, a mixture may be best.

Variety is a selection of a seed kind that has specific characteristics. In Kentucky, specialists perform field trials to determine which varieties perform best in our area. These suitable varieties are called 'adapted varieties'.

Lot Number is unique numbers and/or letters that identifies a batch of seed.

Seedsman (person or company labeling the seed) must have their name and address on the tag. They must also be registered in Kentucky and are responsible for the quality of the seed in the bag.

Origin is the state or country where the seed was grown.

Test Date identifies when the seed was tested for purity and germination. Seed viability declines with age, so a recent test date is important. In Kentucky, seed must be tested every nine (9) months.

Purity Analysis

Pure Seed identifies the seed in the bag. This is what is wanted and being paid for, so the higher, the

Inert Matter is non-seed materials – chaff, stones, dirt, plant parts– found in the seed lot. A low percentage is best.

Crop Seed refers to other crops kinds present. (Bluegrass in a bag of orchardgrass seed, for example). Usually, a low percentage of other crop seed is desirable.

Weed Seed includes weeds in the bag. Examples include goosegrass, henbit, chickweed and most other common weeds. A low percentage is best – if you have weed problems already, you certainly don't want to plant more!



Noxious Weed Seed identifies the few weed seeds that are so undesirable that they are restricted by law. There are 2 classes of noxious weeds – restricted and prohibited. Restricted noxious weeds (sorrel or wild onion for example) are allowable in small amounts. Prohibited seed cannot be present in a lot (quackgrass or Canada thistle, for example). There are federal noxious weeds and each state determines its own noxious weeds. Kentucky's are:

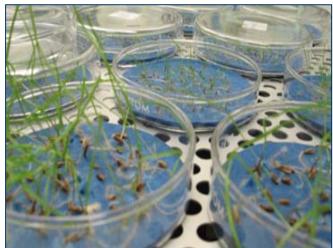
Restricted Noxious Weeds

- Annual Bluegrass
- Buckhorn Plantain
- Corncockle
- Dodder
- Giant Foxtail
- Ox-eye Daisy
- Wild Onion/Garlic
- Sorrel

Prohibited Noxious Weeds

- Balloonvine
- Canada Thistle
- Johnsongrass
- Purple Moonflower
- Quackgrass

Germination is the percentage of seed that should germinate in the field. A high value is best. Total germination (or total viable) may be found on the tag and will be the sum of germination plus any hard or dormant seed.





What is Certified Seed?

Certified Seed goes through rigorous field inspections and must meet specific quality standards. Although sometimes more expensive, purchasing certified seed ensures the producer of varietal purity as well as high quality seed. Kentucky Seed Improvement Association (KSIA) is the certifying agency in Kentucky.



How are the tag values determined?

Laboratory tests are conducted to provide purity and germination information used by seed producers for labeling purposes. Testing protocols are proscribed in the Association of Official Seed Analysts' (AOSA) Rules for Testing Seeds or International Seed Testing Association's (ISTA) International Rules for Seed Testing. A purity analysis is a physical separation of the materials found in a sample. A specific weight of seed is analyzed and classified into pure seed, inert matter, weed seed and other crop seed as well as any noxious weed seed. A standard germination test is a direct evaluation of successful germination of the pure seed component under controlled laboratory conditions which correlates well to establishment under favorable field conditions.

Is seed offered for sale monitored?

Regulatory Services, a department of UK's College of Agriculture, administers a regulatory program to protect the seed industry and consumers through inspection and analysis of seed products in the marketplace. The seed program ensures compliance with the law by inspecting facilities and

sampling seed offered for sale throughout the state. Inspectors sample seed lots and submit those for analysis. Laboratory analyses of official samples are compared to label guarantees to verify that the label is accurate and that seed quality meets a minimum standard. Seed lots not in compliance are restricted from sale until the violation is corrected. Approximately 2500-3000 samples of many seed kinds are tested for regulatory purposes each year in Kentucky.

How can I get more information?

To ask questions about seed regulation and testing, contact our office via email at seed.program@uky.edu.

University of Kentucky

Division of Regulatory Services

103 Regulatory Services Building

Lexington, KY 40546-0275

Laboratory tours can be arranged for groups interested in learning more about seed in Kentucky, (859) 218-2468.

Seed Tags: What they reveal.

The Kentucky Seed Law requires labeling of all agricultural seeds sold, offered or exposed for sale in bulk or a container of one pound or more (tobacco, one-twelfth ounce or more). This labeling is accomplished by attaching an analysis tag or label to each bag or container, stating the following: Kind and variety of crop seed in the container, name and address of the person labeling the seed, where the seed was grown, and a lot number or other lot identification.

The label must also show the quality of the seed as determined by analyzing and testing a sample taken from the lot. The analysis information on the tag or label includes the percentages of pure seed, crop seed, weed seed, inert matter, germination, and hard seed. The month and year the germination test was made and the name and number per pound of weed seed designated noxious in Kentucky must also be shown on the label.

An example of a seed tag is shown below and an explanation of each item on the tag follows:

UK UNIVERSITY OF KENTUCKY College of Agriculture Division of Regulatory Services Form A — For Unmixed Al	Official Kentucky Tag Not good for more than 50 lbs. falfas, Clovers or Grasses		
Lot: 1234	Net Weight: 50 lbs.		
Kind: Tall Fescue	Variety: Johnstone		
Pure Seed: 99.4 %	Germination: 94 %		
Inert Matter: 0.55 %	Hard Seed: 0 %		
Crop Seed: 0.03 %	Date Tested (mo./yr.): 3/2013		
Weed Seed: 0.02 %	Origin: KY		
Noxious Weed Seed per pound: Name a	Noxious Weed Seed per pound: Name and Number per pound		
	Big Blue Seed Co. 2012 National Champion Drive, Sweet, KY 11111		
	An Equal Opportunity University		

KIND AND VARIETY - The kind and variety of crop seed in the container, the proportion of which is indicated by the percentage of pure seed. For example, the illustrated analysis tag shows 99.40% pure seed which means that 99.40% of the contents of the container is Johnstone Tall Fescue; the remainder, 0.60%, is not and in actuality is worthless to the purchaser.

Determine the kind and variety of seed you wish to plant and make certain that you get what you want (read the tag). For maximum yields, only those varieties that are adapted, disease-resistant, and recommended for your locality should be planted. Seed stock of known origin and performance should be used in fulfilling this requirement. It is best to avoid planting mixtures unless you have a specific reason to do so. The best source of planting seed is one of the classes of certified seed, such as registered or certified. At any rate, planting seed stock should not be too far removed from the breeder. If you have questions as to what variety, and perhaps kind, you should consult your county Extension agent for agriculture.

LOT IDENTIFICATION - A number or other identification used primarily by the seedsman, seed dealer, and seed law administrators as a means of identification. The lot number is of no particular significance other than for identification and has no relationship to the quality of the seed as determined by reading the tag unless one has knowledge of the particular lot. It does facilitate tracing a lot of seed from the consumer to the producer. One should choose a simple system and not repeat the series of lot designations more often than every 3 years.

PURE SEED - Percent of the KIND and VARIETY named on the tag or label. When two or more are present, each in excess of 5% of the whole, the kind and variety of each, together with their percentages, will appear on the tag or label. A HIGH percentage of pure seed is desirable.

INERT MATTER-Seed-like structures from both crop and weed plants and other materials not seeds such as dirt, chaff, stones, stems, leaves, pieces of broken seeds one-half or less than the original size, nematode galls, and fungus bodies such as ergot. Amount present is expressed as a percentage. A LOW percentage is desirable.

CROP SEED-Seeds of plants grown as crops, other than the kind and variety named on the tag. Presence is indicated in percentage of the whole. A LOW percentage, preferably none, is desirable.

WEED SEED-Seeds, bulblets, or tubers of plants recognized as weeds by laws, official regulations, custom, or general usage. Their presence is expressed as a percentage. A LOW percentage,

preferably none, is desirable. The Kentucky Seed Law prohibits the sale of seed containing more than 2% weed seed.

GERMINATION Percent of the PURE SEED that germinate and thus are capable of producing a normal plant under favorable field conditions. On the example analysis tag, the germination percentage of 94.00% means that 94% of the pure seed (in this case 99.40%) will germinate under favorable conditions and produce normal plants in the field. The values on the tag reveal that 93.44% (99.40% pure seed x 94% germination) of the total weight of this lot of seed has the potential of producing normal Johnstone. Tall Fescue plants in the field. The planting value, purelive seed (percent germination x percent pure seed) of any seed lot may be this manner. The Kentucky Seed Law (Regulation) prohibits the sale of uncertified seed unless the sum of the germination plus hard seed: percentage is 60% or more. Standards of germination for certified seed are established by the Kentucky Seed Improvement Association.

HARD SEED-Percent of the pure seed that are viable (alive) but do not germinate during the prescribed test period because they do not absorb water owing to impermeability of the seed coat. Most hard seeds eventually germinate and produce a plant. Hard seeds extend the germination over a longer period of time, which may or may not be an advantage. Hard seeds are undesirable when immediate germination is required. Conversely, the presence of hard seeds would be desirable when an extended germination period will increase the chances of a stand. The sum of the germination and hard seed percentages is the total value of the seed lot with respect to plantproducing potential. Hard seed are common in the Legume family (clovers, beans, etc.), the Mallow family (okra, cotton), and certain tree and shrub seeds. The Kentucky Seed Law (Regulation) prohibits inclusion of hard seed in the germination percentage. Percentages of germination and hard seed must be reflected separately on the analysis tag.

DATE OF TEST- The month and year the germination test was made. Generally, the germinating or plant-producing ability of seed declines with age. Consequently, one should hesitate to purchase or plant seed with an old test date. The test should be fairly recent; the more recent the better. The Kentucky Seed Law (Regulation) prohibits the sale of seed with a test date older than 9 months.

ORIGIN (WHERE GROWN) -The state or county in which the seeds were grown (produced). If the place of origin is not known, this fact must be stated on the analysis tag. Origin is of particular importance in certain kinds of seeds since many varieties are adapted to the climatic conditions of only a particular area. These varieties will not perform; indeed, they may not survive outside their area of adaptation. Alfalfa, red clover, white clover, timothy, open pollinated com, and forest tree seeds are examples. Some varieties are susceptible to diseases that are prevalent in areas outside the area of production, thus restricting their distribution. Use of seed of nonadapted kinds, varieties or types of crops may result in severe economic loss and perhaps complete crop failure. Only those varieties that are recommended or proven in your area should be planted. If you have doubts, see your county Extension agent for agriculture.

NOXIOUS WEED SEED -Seeds, bulblets, or tubers of plants that reproduce by seeds, bulblets, or tubers and/or spread by underground roots or stems. Such plants are detrimental to the agriculture of this state, are particularly objectionable in lawns and gardens, and are difficult to control by ordinary good cultural practices when established. Presence of noxious weed seed is indicated on the tag or label by name and number of weed seed per pound of seed. Seed containing no noxious weed seed is most desirable.

Seeds designated noxious in Kentucky and their permitted rate of occurrence per pound of agricultural seed are:

Name of Kind	Allowed Per Pound
Balloon vine (Cardiospermum halicacabum)	0
Purple moonflower (Ipomoea turbinata)	0
Canada thistle (Cirsium arvense)	0
Johnsongrass (Sorghum halepense and sorghum almum) and perennial rhizomatous derivatives of these)	0
Quackgrass (Agropyron repens)	0
Annual bluegrass (Poa annua)	256
Buckhorn plantain (Plantago lanceolata)	304
Corncockle (Agrostemma githago)	192
Dodder (Cuscuta spp.)	192
Giant foxtail (Setaria faberii)	192
Oxeye daisy (Chrysanthemum leucanthemum)	256
Sorrel (Rumex acetosella)	256
Wild onion and wild garlic (Allium spp.)	96

SEEDSMAN - The name of the person, company, or corporation labeling the seed. The address must also be shown. The seedsman may or may not be the same as the person offering the seed for sale in retail or wholesale outlets. The person who exposes for sale, offers for sale, or sells seed is responsible for insuring that analysis tags or labels are attached to each bag or container offered for sale in his warehouse or place of business. It is also his responsibility to make certain the germination test date is current. The person, company, or corporation whose name appears on the tag or label is the source of the information on the tag or label and is responsible for any and all such information.

KNOW WHAT YOU SOW-Read The Tag Attached To The Bag!

Guide for Seed Tag Placement

This guide has been developed to provide information on the relative importance of various characteristics listed on a seed tag. The relative weights assigned will vary somewhat from crop to crop and hence these provide only a general guide. Other factors will often have to be used to differentiate between seed lots

Variety Adapted**- certified Non-adapted – certified Adapted – non-certified Non-adapted – non-certified Not identified	Rating 5 3 1 0	Purity 99-100% 98-98.99% 95-97.99% 90-94.99% 80-89.99% Below 80%	Rating 5 4 3 2 1 0
Germination and Hard Seed 95-100% 90 – 94% 80 – 89% 70-79% 60-69% Below60%	5 4 3 2 1 0	Test Date Within 9 months Older than 9 months	5 O
Origin Kentucky Other State Other Country	5 3 1	Noxious Weeds None Present Present	5 0
Crop Seed 0.00-0.10% 0.11-0.25% 0.26-0.50% 0.51-1.00% Above 1.00%	5 4 3 2 1	Weed Seed 0.00-0.10% 0.11-0.25% 0.26-0.50% 0.51-1.00% Above 1.00%	5 4 3 2 1

^{**} Adapted varieties have been tested in the University of Kentucky Variety Tests for at least two years and have had above average performance (yield, disease resistance, etc...)

List of Adapted Varieties

Red Clover	Lakeland Accl Kenland Reda Renegade Reda	man Cinr	namon	Kenstar Redland I	[
Tall Fescue	KY 31 Bounty Confederate Fawn Astro 2000 Orygum Dixie Green	Cochise Cattle Clu Rebel Kenhy Brightstar Guardian Finelawn,	Finel Wind Starg Cros	stone lawn chester grazer	Falcon Mowless Phyter Shenandoah Triathalawn Duke
Orchardgrass	Potomac Shiloh Lully Warrior	Comet Amba Boone	Hallmark Penlate Sterling	Crov Bend Oxfo	chmark
Wheat	Branson Cardinal Bannor Pacer	Clark Madison Becker Aurther	Wakefield Vern Sawyer Grant	Coke Free Cald	

^{***} The above seed kinds are required by the Kentucky Seed Law and Regulations to have a variety statement <u>or</u> the words "Variety Unknown" on the label and <u>MAY NOT</u> be labeled "Variety Not Stated." ***

Seed Tag Placement

Rules of Thumb





Low Weed/Crop/Inert

Noxious Weeds (especially prohibited – presence of these is always a 'deal-breaker')

High Pure Seed/Germination

Low Pure Seed/Germination

Complete Tag

Missing Information (no variety, no lot #, no

seedsman)

Certified Seed

Low Hard/Dormant Percentage

Recent Test Date (within 9 months)

Old Test Date

Named Variety

'Unknown' Variety

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Seed Tag Placement

Practice Sets

The sample tags are based on the premise that the current date is May 2013.



Division of Regulatory Services Class I Red Clover

Form A – For Unmixed Alfalfas, Clovers or Grasses			
Lot: 1-06		Pears's Seed Company	
			Seedsman
		Pikeville, KY	
			Address
Red Clover		Kenstar	
	Kind		Variety
Pure Seed	92.70 %	Germination	90%
Inert Matter	0.50 %	Hard Seed	2%
Crop Seed	6.40 %	Date of Test	December, 2012
Weed Seed	0.40 %	Where Grown	Canada

Noxious Weed Seeds

If present, number per pound

Annual Bluegrass (Poa annua)

Buckhorn Plantain (Plantago lanceolata)

Corncockle (Agrostemma githago)

Dodder (Cuscuta sp.)

Giant Foxtail (Setaria faberii)

Ox-eye Daisy (Chrysanthemum leucanthemum)

Sorrel (Rumex acetosella)

Wild Onion & Wild Garlic (Allium sp.)

Form A – For	r Unmixed A	Alfalfas, Clovers	or Grasses
Lot: 2-06		Pear's Seed Company	
			Seedsman
		Park City, KY	
			Address
Red Clover		Unknown	
	Kind		Variety
Pure Seed	98.0%	Germination	50%
Inert Matter	0.10%	Hard Seed	44%
Crop Seed	0.95%	Date of Test	February, 2013
Weed Seed	0.95%	Where Grown	Nebraska

Noxious Weed Seeds

If present, number per pound

Annual Bluegrass (Poa annua)

Buckhorn Plantain (Plantago lanceolata)

Corncockle (Agrostemma githago)

Dodder (Cuscuta sp.)

Giant Foxtail (Setaria faberii)

Quackgrass

Sorrel (Rumex acetosella)

Wild Onion & Wild Garlic (Allium sp.)

Form A – For Unmixed Alfalfas, Clovers or Grasses			
Lot: 3-06		Peach's Seed Company	
			Seedsman
		PeeWee, KY	
			Address
Red Clover		Not Stated	
k	Kind		Variety
Pure Seed 9	06.8%	Germination	90%
Inert Matter 0	0.95%	Hard Seed	0%
Crop Seed 2	2.15%	Date of Test	July, 2012
Weed Seed 0	0.10%	Where Grown	Kentucky

Noxious Weed Seeds

If present, number per pound

Annual Bluegrass (Poa annua)

Buckhorn Plantain (Plantago lanceolata)

Corncockle (Agrostemma githago)

Dodder (Cuscuta sp.)

Giant Foxtail (Setaria faberii)

Ox-eye Daisy (Chrysanthemum leucanthemum)

Sorrel (Rumex acetosella)

Wild Onion & Wild Garlic (Allium sp.)

Form A – Fo	or Unmixed	Alfalfas, Clovers	or Grasses	
Lot: 4-06		Pawpaw's See	Pawpaw's Seed Company	
			Seedsman	
		Princeton, KY		
		•	Address	
Red Clover		Certified Kenstar		
	Kind		Variety	
Pure Seed	98.9%	Germination	62%	
Inert Matter	0.10%	Hard Seed	34%	
Crop Seed	0.51%	Date of Test	April, 2013	
Weed Seed	0.49%	Where Grown	Kentucky	

Noxious Weed Seeds

If present, number per pound

Annual Bluegrass (Poa annua)

 $Buckhorn\ Plantain\ ({\it Plantago\ lanceolata})$

Corncockle (Agrostemma githago)

Dodder (Cuscuta sp.)

Giant Foxtail (Setaria faberii)

Ox-eye Daisy (Chrysanthemum leucanthemum)

Sorrel (Rumex acetosella)

Wild Onion & Wild Garlic (Allium sp.)

Canada Thistle (Cirsium arvense)

Seed Tag Placement – Class I 2nd	3rd 4th
Red Clover Seed Lots	
Reasons for placing tag # over tag #	
Reasons for placing tag # over tag #	
Reasons for placing tag # over tag #	
Reasons for placing tag # over tag #	
Violations of the Kentucky Seed Law For each of the seed tags, list all violations for that lot. (Tags may have me the tag has no violations, write in "No Violations" for that seed lot. Tag	
#1	
#2	
#3	
#4	
Name:	

Score: _____

Class II Tall Fescue

Form A – For Unmixed Alfalfas, Clovers or Grasses				
Lot: 2-05		Waterside Seed Company		
			Seedsman	
		Water, KY		
			Address	
Tall Fescue		Kentucky 31		
	Kind		Variety	
Pure Seed	93.10 %	Germination	90%	
Inert Matter	6.50 %	Hard Seed	0%	
Crop Seed	0.20 %	Date of Test	September, 2012	
Weed Seed	0.20 %	Where Grown	Kentucky	

Noxious Weed Seeds If present, number per pound

ii present, number per pound

10

Annual Bluegrass (Poa annua)
Buckhorn Plantain (Plantago lanceolata)

Corncockle (Agrostemma githago)

Dodder (Cuscuta sp.)

Giant Foxtail (Setaria faberii)

Ox-eye Daisy (Chrysanthemum leucanthemum)

Sorrel (Rumex acetosella)

Wild Onion & Wild Garlic (Allium sp.)

Form A – For Unmixed Alfalfas, Clovers or Grasses

Lot: Rainy Day Seed Company Seedsman Sunshine, KY Address Tall Fescue Kentucky 31 Kind Variety Pure Seed 99.3 % Germination 95% **Inert Matter** 0.02 % Hard Seed 0% January, 2012 Crop Seed 0.18 % Date of Test Weed Seed 0.50 % Where Grown Oregon

Noxious Weed Seeds

If present, number per pound

Annual Bluegrass (Poa annua)

Buckhorn Plantain (Plantago lanceolata)

Corncockle (Agrostemma githago)

Dodder (Cuscuta sp.)

Giant Foxtail (Setaria faberii)

Ox-eye Daisy (Chrysanthemum leucanthemum)

Sorrel (Rumex acetosella)

Wild Onion & Wild Garlic (Allium sp.)

Form A – For Unmixed Alfalfas, Clovers or Grasses

Lot: 2-07 Stormy Seed Company Seedsman Thunder, KY Address Tall Fescue Kentucky 31 Kind Variety 97% Pure Seed 98.0 % Germination **Inert Matter** 1.80 % Hard Seed 0% Crop Seed 0.11 % Date of Test March, 2013 Weed Seed 0.09 % Where Grown Kentucky

Noxious Weed Seeds

If present, number per pound

Annual Bluegrass (Poa annua)

Buckhorn Plantain (Plantago lanceolata)

Corncockle (Agrostemma githago)

Dodder (Cuscuta sp.)

Giant Foxtail (Setaria faberii)

Ox-eye Daisy (Chrysanthemum leucanthemum)

Sorrel (Rumex acetosella)

Wild Onion & Wild Garlic (Allium sp.)

Form A – For Unmixed Alfalfas, Clovers or Grasses

Lot: 2-07 Flood's Seed Company Seedsman Dropside, KY Address Tall Fescue Kentucky 31 Kind Variety Pure Seed 90.02 % Germination 52% **Inert Matter** 5.45 % Hard Seed 0% September, 2012 Crop Seed 2.21 % Date of Test Weed Seed 2.32 % Where Grown New Zealand

Noxious Weed Seeds

If present, number per pound

Annual Bluegrass (*Poa annua*) 305 Buckhorn Plantain (*Plantago lanceolata*)

105

Corncockle (Agrostemma githago)

Dodder (Cuscuta sp.)
Giant Foxtail (Setaria faberii)

Ox-eye Daisy (Chrysanthemum leucanthemum)

Sorrel (Rumex acetosella)

Wild Onion & Wild Garlic (Allium sp.)

Canada Thistle (Cirsium arvense)

Seed Tag Placement – Class II	1st 2nd 3rd 4th
Tall Fescue Seed Lots	
Reasons for placing tag # over tage	g #
Reasons for placing tag # over tag	g #
Reasons for placing tag # over tag	g #
Reasons for placing tag # over tag	g #
	<u>Law</u> ons for that lot. (Tags may have multiple violations or no violations.) If <i>Y</i> iolations" for that seed lot.
#1	
#2	
#3	
#4	
	Name:

Score: _____

Class III Wheat

Form B – For All Agricultural Seed Except Alfalfas, Clovers and Grasses						
Lot: 1		Pap's Seed Company				
			Seedsman			
		Lexington, KY				
			Address			
Wheat		Pembroke				
	Kind		Variety			
Pure Seed	99.45%	Germination	80%			
Inert Matter	0.30%	Hard Seed	0%			
Crop Seed	0.20%	Date of Test	February, 2012			
Weed Seed	0.05%	Where Grown	Argentina			

Noxious Weed Seeds

If present, number per pound

Annual Bluegrass (Poa annua)

Buckhorn Plantain (Plantago lanceolata)

Corncockle (Agrostemma githago)

Dodder (Cuscuta sp.)

Giant Foxtail (Setaria faberii)

Ox-eye Daisy (Chrysanthemum leucanthemum)

Sorrel (Rumex acetosella)

Wild Onion & Wild Garlic (Allium sp.)

Form B – For All Agricultural Seed Except Alfalfas, Clovers and Grasses				
Lot: 2		Pip's Seed Company		
			Seedsman	
Lexington, KY				
			Address	
Wheat		Cumberland		
Kind			Variety	
Pure Seed	99.0%	Germination	95%	
Inert Matter	0.50%	Hard Seed	0%	
Crop Seed	0.20%	Date of Test	May, 2013	
Weed Seed	0.30%	Where Grown	Kentucky	

Noxious Weed Seeds

If present, number per pound

Annual Bluegrass (Poa annua)

Buckhorn Plantain (Plantago lanceolata)

Canada Thistle (Cirsium arvense)

Corncockle (Agrostemma githago)

Dodder (Cuscuta sp.)

Giant Foxtail (Setaria faberii)

Ox-eye Daisy (Chrysanthemum leucanthemum)

Sorrel (Rumex acetosella)

Wild Onion & Wild Garlic (Allium sp.)

Form B – For All Agricultural Seed Except Alfalfas, Clovers and Grasses				
Lot: 3		Pop's Seed Company		
			Seedsman	
Lexington, KY				
			Address	
Wheat		Independence		
	Kind		Variety	
Pure Seed	90.0%	Germination	55%	
Inert Matter	4.90%	Hard Seed	0%	
Crop Seed	2.50%	Date of Test	August 2011	
Weed Seed 2.60% Where Grown Ohio				

Noxious Weed Seeds

If present, number per pound

Annual Bluegrass (Poa annua)

Buckhorn Plantain (Plantago lanceolata)

Corncockle (Agrostemma githago)

Dodder (Cuscuta sp.)

Giant Foxtail (Setaria faberii)

Ox-eye Daisy (Chrysanthemum leucanthemum)

Sorrel (Rumex acetosella)

Wild Onion & Wild Garlic (Allium sp.)

Form B – For All Agricultural Seed Except Alfalfas, Clovers and Grasses				
Lot: 4		Pup's Seed Company		
			Seedsman	
		Lexington, KY	ľ	
			Address	
Wheat		Unknown		
	Kind		Variety	
Pure Seed	97.3%	Germination	95%	
Inert Matter	1.60%	Hard Seed	0%	
Crop Seed	0.00%	Date of Test	January, 2013	
Weed Seed	1.10%	Where Grown	Kentucky	

Noxious Weed Seeds

4

If present, number per pound

Annual Bluegrass (Poa annua)

Buckhorn Plantain (Plantago lanceolata)

Canada Thistle (Cirsium arvense)

Dodder (Cuscuta sp.)

Giant Foxtail (Setaria faberii)

Ox-eye Daisy (Chrysanthemum leucanthemum)

Sorrel (Rumex acetosella)

Wild Onion & Wild Garlic (Allium sp.)

	Score:	Score:		
Seed Tag Placement – C	Class III 2nd 3rd	4th		
Wheat Seed Lots				
Reasons for placing tag #	over tag #			
Reasons for placing tag #	over tag #			
Reasons for placing tag #	over tag #			
Reasons for placing tag #	over tag #			
	cky Seed Law all violations for that lot. (Tags may have multiple violations or no e in "No Violations" for that seed lot.	violations.) If		
Tag #1				
#2				
#3				
#4				
	Name:			

Class IV Orchardgrass

Form A – For Unmixed Alfalfas, Clovers or Grasses

Lot: A Ron's Seed Company
Ann
Seedsman
Weasley, KY
Corr
Address
Dod
Orchardgrass
Potomac
Gian

Noxious Weed Seeds

If present, number per pound

Annual Bluegrass (Poa annua)

Buckhorn Plantain (Plantago lanceolata)

Corncockle (Agrostemma githago)

Dodder (Cuscuta sp.)

Giant Foxtail (Setaria faberii)

Form A – For Unmixed Alfalfas, Clovers or Grasses Lot: B Hermione's Seed Company Seedsman Granger, KY Address Certified Benchmark **Orchardgrass** Variety Kind Pure Seed 99.3% Germination 90% 0% **Inert Matter** Hard Seed 0.02% June, 2012 Crop Seed 0.18% Date of Test Weed Seed 0.50% Where Grown Kentucky

Noxious Weed Seeds

If present, number per pound

Annual Bluegrass (Poa annua)

Buckhorn Plantain (Plantago lanceolata)

Corncockle (Agrostemma githago)

Dodder (Cuscuta sp.)

Giant Foxtail (Setaria faberii)

Ox-eye Daisy (Chrysanthemum leucanthemum)

Sorrel (Rumex acetosella)

Wild Onion & Wild Garlic (Allium sp.)

Form A – For Unmixed Alfalfas, Clovers or Grasses Lot: C Harry's Seed Company Seedsman Potter, KY Address Orchardgrass Amba Kind Variety Pure Seed 98.0 % Germination 88% 1.80 % Hard Seed **Inert Matter** 0% 0.09 % Date of Test March, 2013 Crop Seed Weed Seed 0.11 % Where Grown Paraguay

Noxious Weed Seeds
If present, number per pound

Annual Bluegrass (Poa annua) Buckhorn Plantain (Plantago lanceolata)

Corncockle (Agrostemma githago)

Dodder (Cuscuta sp.)

Giant Foxtail (Setaria faberii)

Ox-eye Daisy (Chrysanthemum leucanthemum)

 $Sorrel\ (\textit{Rumex acetosella})$

Wild Onion & Wild Garlic (Allium sp.)

Ragweed (Ambrosia trifida)

217

Form A – For Unmixed Alfalfas, Clovers or Grasses Lot: D Albus's Seed Company Seedsman Dumbledore, KY Address Orchardgrass Certified Amba Kind Variety Pure Seed 99.0% 97% Germination **Inert Matter** 0.50% Hard Seed 0% January, 2013 Crop Seed 0.25% Date of Test Weed Seed 0.25% Where Grown Kentucky

Noxious Weed Seeds
If present, number per pound

Annual Bluegrass (Poa annua)

Buckhorn Plantain (Plantago lanceolata)

Corncockle (Agrostemma githago)

Dodder (Cuscuta sp.)

Giant Foxtail (Setaria faberii)

Ox-eye Daisy (Chrysanthemum leucanthemum)

Sorrel (Rumex acetosella)

Wild Onion & Wild Garlic (Allium sp.)

Canada Thistle (Cirsium arvense)

	Score:
Seed Tag Placement – C	Class IV 2nd 3rd 4th
Orchardgrass Seed Lots	
Reasons for placing tag #	over tag #
Reasons for placing tag #	over tag #
Reasons for placing tag #	over tag #
Reasons for placing tag #	over tag #
	cky Seed Law all violations for that lot. (Tags may have multiple violations or no violations.) It is in "No Violations" for that seed lot.
Tag #1	
#2	
#3	
#4	
	Name:

Seed Tag Placement

Practice Set Answer Keys

The sample tags are based on the premise that the current date is May 2013.

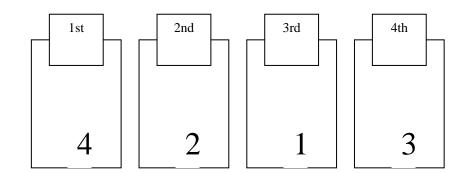


Division of **Regulatory Services**

Score: _____

$\frac{Seed\ Tag\ Placement-Class\ I}{Answer}$

Red Clover Seed Lots



Reasons for placing tag # 4 over tag # 2

Certified, Higher purity, Kentucky origin, No restricted noxious, Recent test date

Reasons for placing tag # 2 over tag # 1

Higher germination, Produced in US, Higher germ

Reasons for placing tag # 1 over tag # 3

Recent test date, Unknown (not 'not stated')

Violations of the Kentucky Seed Law

For each of the seed tags, list all violations for that lot. (Tags may have multiple violations or no violations.) If the tag has no violations, write in "No Violations" for that seed lot.

Tag

#1 – No violations

#2 – No violations

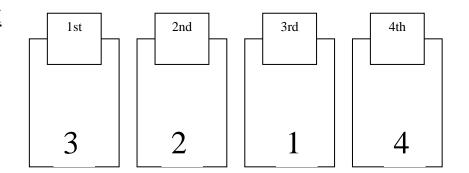
#3 –Expired Test Date (> 9 months), 'Not Stated' as variety

#4 – No violations

Score: _____

$\frac{Seed\ Tag\ Placement-Class\ II}{Answer}$

Tall Fescue Seed Lots



Reasons for placing tag # 3 over tag # 2

High germ, high purity, recent test, Kentucky origin, missing lot number

Reasons for placing tag # 2 over tag # 1

High germ, high purity, expired test date, noxious weeds

Reasons for placing tag # 1 over tag # 4

Expired test, out of country origin, noxious weeds, germination

Violations of the Kentucky Seed Law

For each of the seed tags, list all violations for that lot. (Tags may have multiple violations or no violations.) If the tag has no violations, write in "No Violations" for that seed lot.

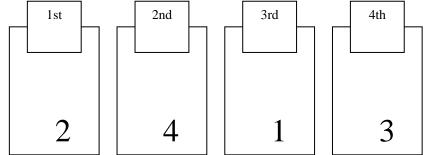
Tag

- #1 Expired test date
- #2 Expired Test Date, missing lot number
- #3 No violations
- #4 Excess Noxious (annual bluegrass > 256), Low Germination (<60%), Expired Test Date

Score: _		
24	4.1	

<u>Seed Tag Placement – Class III</u> <u>Answer</u>

Wheat Seed Lots



Reasons for placing tag # 2 over tag # 4

Adapted cultivar, Higher pure seed

Reasons for placing tag # 4 over tag # 1

Expired test date, Kentucky origin, Higher germination

Reasons for placing tag # 1 over tag # 3

Noxious weeds, Missing tag information, Expired test date, Low germination, High inert matter, Excess weed seed

Violations of the Kentucky Seed Law

For each of the seed tags, list all violations for that lot. (Tags may have multiple violations or no violations.) If the tag has no violations, write in "No Violations" for that seed lot.

Tag

#1 – Expired test date

#2 – No violations

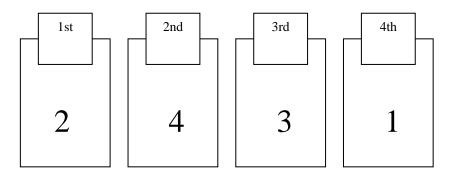
#3 – Expired test date, Germination <60%, Weed seed > 2%

#4 – No violations

Score:

Seed Tag Placement – Class IV

Orchardgrass Seed Lots



Reasons for placing tag # 2 over tag # 4

Certified, high germ, high purity

Reasons for placing tag # 4 over tag # 3

Higher Purity, Kentucky Origin

Reasons for placing tag # 3 over tag # 1

Incomplete Seed Tag (no purity information)

Violations of the Kentucky Seed Law

For each of the seed tags, list all violations for that lot. (Tags may have multiple violations or no violations.) If the tag has no violations, write in "No Violations" for that seed lot.

Tag

#1 – No purity information

#2 – No violation

#3 – No violation

#4 – No violations

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