

RST Quiz 2 [REDACTED]  
Chapter 2 Sampling  
[REDACTED]

Name \_\_\_\_\_

1) Why are seed lots not uniform?

a) \_\_\_\_\_

b) \_\_\_\_\_

c) \_\_\_\_\_

d) \_\_\_\_\_

2) What is meant by free flowing seeds? What is meant by non-free flowing seeds? Give several examples of both.

3) What is a submitted sample?

4) What is a working sample?

5) With the exception of vegetables, the Federal Seed Act requires that all agricultural seed containers be labeled with the following information: (a-n, see next page)

a) \_\_\_\_\_

c) \_\_\_\_\_

b) \_\_\_\_\_

d) \_\_\_\_\_

e) \_\_\_\_\_

j) \_\_\_\_\_

f) \_\_\_\_\_

k) \_\_\_\_\_

g) \_\_\_\_\_

l) \_\_\_\_\_

h) \_\_\_\_\_ m) \_\_\_\_\_  
i) \_\_\_\_\_ n) \_\_\_\_\_

True or False

- 6) No matter how accurately an analysis is made, it can only show the quality of the sample submitted.
- 7) The seed analyst is usually responsible for probing the sample.
- 8) For free flowing seed in bags or bulk, a probe should be used.
- 9) For non-free flowing seed, a probe long enough to sample all portions of the bag should be used.
- 10) SCST (Society of Commercial Seed Analysts) is composed of seed analysts employed by commercial seed firms or testing seed commercially and serves as a liaison between AOSA and the American Seed Trade Association.
- 11) Unless the trier has partitions in the seed chamber, it must be inserted in the bag vertically.
- 12) Only one working sample is required for purity and noxious weed examination.
- 13) The seed used for germination comes from the purity portion of the working sample.
- 14) Give the scientific names for the following:
- |                       |                      |
|-----------------------|----------------------|
| a) white sweet clover | e) crimson clover    |
| b) alsike clover      | f) sericea lespedeza |
| c) white clover       | g) alfalfa           |
| d) rose clover        | h) Korean lespedeza  |

15) To secure a representative sample, \_\_\_\_\_ portions shall be taken from evenly distributed parts of the quantity of seed to be sampled.

16) Composite samples shall be obtained to determine the quality of the seed, such as percentages of \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

17) Non-free flowing seeds difficult to sample with a trier shall be sampled by thrusting a \_\_\_\_\_ into the seed and removing \_\_\_\_\_ portions.

18) When more than one core is drawn from a bag, follow \_\_\_\_\_.

19) For lots of \_\_\_\_\_ to \_\_\_\_\_ bags, sample \_\_\_\_\_ bag and take a total of at least \_\_\_\_\_ cores or handfuls.

20) For lots of more than \_\_\_\_\_ bags, sample \_\_\_\_\_ bags plus \_\_\_\_\_ of the number of bags in the lot. Round numbers with decimals to the nearest whole number.

21) Regardless of the lot size, it is not necessary to sample more than \_\_\_\_\_ bags.

22) Seed in small containers shall be sampled by taking \_\_\_\_\_ containers in sufficient numbers to supply a minimum size sample as required.

23) The following are minimum weights for samples of seed to be submitted for \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ examination.

24) \_\_\_\_\_ (approximately 55 grams) of grass seed not otherwise mentioned, \_\_\_\_\_ or \_\_\_\_\_, or seed not larger than these.

25) One pound of \_\_\_\_\_, \_\_\_\_\_, or seeds of similar size.

26) Vegetable seed samples shall consist of at least \_\_\_\_\_ seeds per sample.

27) Tree and shrub samples shall consist of at least \_\_\_\_\_ seeds pr sample for germination purposes.

Define the following:

28) Raw seed:

29) Inoculated seed:

30) Film coated seed:

31) Coated or encrusted seed:

32) Pelleted seed:

Use Table 1 in the AOSA Rules Handbook to answer the following:

33) What is the minimum weight for purity analysis for

- a) *Arachis hypogea* L.
- b) Korean lespedeza
- c) Crimson clover

34) What is the minimum weight for noxious weed seed examination?

- a) alsike clover
- b) white clover
- c) rose clover

What is the minimum weight for analysis of the following mixtures?

<u>Kind</u>	<u>%</u>	<u>gr</u>
35) Ryegrass	50.00	5
Bluegrass	30.00	1
Agrostis	10.00	.25

36) Red clover	60.10	5
White clover	25.00	2
Alfalfa	10.00	5

37) Sweet clover	30.00	5
Alfalfa	20.00	5
Red clover	20.00	5
White clover	20.00	2

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Chapter 2 Sampling cont.

April 12, 1995

Name \_\_\_\_\_

- 1) To secure a representative sample, \_\_\_\_\_ portions shall be taken from evenly distributed parts of the quantity of seed to be sampled.
- 2) For sampling seeds in bags, a \_\_\_\_\_ long enough to reach \_\_\_\_\_ areas in the bag should be used.
- 3) Unless a trier has partitions in the seed chamber it must be inserted into the bags \_\_\_\_\_.
- 4) When more than one core is drawn from a bag, follow \_\_\_\_\_.
- 5) For lots of more than \_\_\_\_\_ bags, sample \_\_\_\_\_ bags plus at least \_\_\_\_\_ of the number of bags in the lot.
- 6) Regardless of the lot size, it is not necessary to sample more than \_\_\_\_\_ bags.
- 7) For lots of \_\_\_\_\_ to \_\_\_\_\_ bags, sample \_\_\_\_\_ bag and take a total of at least \_\_\_\_\_ cores or handfuls.
- 8) The two "working samples are called the \_\_\_\_\_ and the \_\_\_\_\_ samples.
- 9) The \_\_\_\_\_ sample is the sample on which the purity analysis is made.
- 10) The \_\_\_\_\_ sample is the sample on which the noxious-weed seed examination is made.
- 11) The working purity sample shall be weighed in \_\_\_\_\_ to four significant figures.
- 12) The working purity sample is separated into the following components:
  - a) \_\_\_\_\_
  - b) \_\_\_\_\_
  - c) \_\_\_\_\_
  - d) \_\_\_\_\_

- 13) No matter how accurately an analysis is made, it can only show the quality of the sample submitted.
- 14) The seed analyst is usually responsible for probing the sample.
- 15) For free flowing seed in bags or bulk, a probe should be used.
- 16) For non-free flowing seed, a probe long enough to sample all portions of the bag should be used.
- 17) The seed used for germination comes from the purity portion of the working sample.
- 18) The tables describing purity sample sizes are based on there being approximately 2500 seeds in the working sample.
- 19) The pure seed shall include all seeds of each kind and/or cultivar under consideration which are present in excess of 10% of the whole.
- 20) Immature or shriveled seed are classified as inert matter.
- 21) Seeds that have started to germinate are considered pure seed.
- 22) Broken or damaged seed are always considered as inert matter.
- 23) Free nematode galls or fungus bodies such as sclerotia are classified as inert matter.
- 24) Raw seed is considered any seed that is free from any applied materials.
- 25) Film coated seed changes the shape and size of the raw seed and adds additional weight.
- 26) Chalcid damaged seeds of alfalfa are considered pure seed.
- 27) Give the scientific names for the following:
  - a) white sweet clover
  - b) alsike clover
  - c) white clover
  - d) rose clover
  - e) crimson clover
  - f) sericea lespedeza
  - g) alfalfa
  - h) Korean lespedeza

28) Give examples of true seeds (seed units) for the following:

- a) oats
- b) buckwheat
- c) carrot
- d) mint

29) Define the following:

- a) hilum
- b) glumes
- c) raphe
- d) caryopses
- e) chalcid (chalcid damaged)
- f) fruit
- g) chalaza

Use Table 1 in the AOSA Rules Handbook to answer the following:

30) What is the minimum weight for purity analysis for

- a) *Arachis hypogea* L.
- b) Korean lespedeza
- c) Crimson clover
- d) Sunflower

31) What is the minimum weight for noxious weed seed examination?

- a) alsike clover
- b) white clover
- c) rose clover
- d) sorghum

What is the minimum weight for analysis of the following mixtures?

Kind	% in sample as determined by label, test report or estimate	Weight of purity working sample grams (Table 1)
32) Red fescue	30.00	3
Tall fescue	20.00	5
Ryegrass	10.00	5
Ky. bluegrass	10.00	1
33) Orchardgrass	40.00	3
Alfalfa	30.00	5
Red clover	10.00	5
Sweet clover	5.00	5
34) Red clover	60.10	
White clover	25.00	
Alfalfa	10.00	
35) Sweet clover	30.00	
Alfalfa	20.00	
Red clover	20.00	
White clover	20.00	



Complete the following analysis for purity:

36) Alfalfa	2.415 g
Red clover	2.125 g
Other crop	0.050 g
Inert	0.075 g
Weeds	0.030 g

37) Ky. bluegrass	1.040 g
Other crop	0.020 g
Inert	0.025 g
Weeds	0.010

38) 1000 seed separation of *Poa* spp. (Total percent of bluegrass in regular sample= 88.09%)

	Wt in grams	Percent of sample
430 seeds of <i>P. pratensis</i>	0.1209	
568 seeds of <i>P. compressa</i>	0.0925	
2 seeds of <i>Poa</i> spp. (naked caryopses)	.00004	