Rule Change Proposal 2

Purpose: to clarify rounding in section 2.3 (b) (5) (b) Mixtures of kinds and to further explain section 2.3 (b) (5) (c) Mixtures of coated and uncoated kinds

Present and Proposed Rule: (proposed changes indicated in red text)

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2.3. (b) (5) **Coated, encrusted, and pelleted seed**.

(b) **Mixtures of kinds:** The working weight shall be determined in the following manner:

(i) Calculate the weight of the working sample to be used for the mixture under consideration as though the sample were not coated by following sections 2.3 b (4) (a) and (b).

(ii) Determine the amount of coating material on 100 coated units by weighing the coated units. Then use methods described in section 3.8 e to remove the coating material. Calculate the percentage of coating material by using the following formulas:

Weight of coating material=
Weight of 100 coated units – Weight of 100 de-coated units

% of coating material =
Weight of coating material ÷ Weight of 100 coated units X 100%

(iii) The weight of the working sample shall be the product of the weight calculated in (i) multiplied by 100 percent, divided by 100 percent minutes the percent of coating material calculated in (ii). The product shall be rounded according to the guidelines listed in 2.3 b (4) (b).

The noxious weed seed and bulk examination working weights shall be 10 times the purity working weight (approximately 25,000 coated units) or a maximum of 1000 grams for kinds in Table 2A for which the working sample weight of raw seed is 500 grams.

Example:

Where the weight calculated in (i) = 5 grams and the percentage of coating material calculated in (ii) = 30%:

$$\frac{5 \text{ grams X } 100\%}{(100\% - 30\%)} = \frac{5 \text{ grams X } 100\%}{70\%} = \frac{5}{0.7} = 7.143\text{g}$$

Working sample = 7 grams

(c) **Mixture of coated and uncoated kinds**: The working weight shall be determined in the following manner:

(i) Determine the amount of coating material of each coated kind by weighing 100 coated units of each kind separately in the mixture. Then use methods described in section 3.8 e to remove coating material. Calculate the percentage of coating material for each coated kind by using the following formulas:

Weight of coating material =
Weight of 100 coated units – Weight of 100 decoated units

% of coating material =
Weight of coating material ÷ Weight of 100 coated units X 100%

~~Working weight of coated kind =~~
~~Weight from Table 2A X 100 % ÷ (100% - % of coating material)~~

(ii) The working weight of the coated kind shall be the product of the weight from Table 2A of the coated kind multiplied by 100 percent divided by 100 percent minus the percentage of the coated material calculated in (i). The product shall be rounded according to the guidelines listed in 2.3 b (4) (b).

Working weight of coated kind =
(Weight from Table 2A X 100 %) ÷ (100% - % of coating material)

(iii) Calculate the weight of the working sample to be used for the mixture under consideration, using the weights calculated above for the coated kinds instead of the amounts from Table 2A. Follow sections 2.3 b (4) (a) and (b).

Remove current example

Example: A mixture containing coated *Poa pratensis* and uncoated *Festuca rubra*

Step 1: Calculate the percent of coating material for the coated kind in the mixture. In this example, 100 coated units of *Poa pratensis* weighs 0.0834g, and after removing the coating material weighs 0.0457g.

Weight of coating material =
0.0834g ~~(weight of 100 coated units)~~ – 0.0457g ~~(weight of 100 de-coated units)~~ = 0.0377g

% coating material =
0.0377 ~~(weight of coating material)~~ ÷ 0 .0834 ~~(weight of 100 coated units)~~ X 100% = 45.20%

Step 2: Recalculate the purity working weight for *Poa pratensis* by the following equation, then round the product according to the guidelines listed in 2.3 b (4) (b).

Weight from table 2A X 100%
100% - % of coating material

1g X 100% = 1
100% - 45.20% = 0.548 = 1.824 grams

Working weight of *Poa pratensis* = 1.8 grams

Step 3: Calculate the weight of the working sample for the mixture as in 2.3 b (4) (b), but substitute the calculated purity working weight for the coated kind. In this example *Poa pratensis* is coated, so substitute 1.8 grams (from step 2) for the normal 1g listed in Table 2A.

Kind	Percentage in sample as determined by label, test report, or estimate [a]	Percentage of kinds of different size (rounded to nearest whole percent)		Weight of purity working sample (Table 2A)		Results of percentage X Weight of purity sample
COATED *Poa pratensis*	30.87	31	X	**1.8 (from Step 2)**	=	55.8
Festuca rubra	60.23	60	X	3 (from table 2A)	=	180
		91				235.8

Weighted average = 235.8/ 91 = 2.591g.

The product shall be rounded according to the guidelines listed in 2.3 b (4) (b).

Working sample for mixture = 2.6g.

Harmonization Statement: This rule proposal contains an added guideline for clarification purposes and does not affect the current Federal Seed Act or AOSA rules. The examples were updated in order to show rounding procedures.

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Revised submission date: 11/25/19