PURITY ANALYSIS IN THE ADMINISTRATION OF THE ACT

§ 201.45 Obtaining the working sample.

(a) The working sample on which the actual analysis is made shall be taken from the submitted sample in such a manner that it will be representative.

(b) The sample shall be repeatedly divided to the weight to be used for the working sample. Some form of efficient mechanical divider should be used. To avoid damaging large seeds and coated seeds, a divider should be used which will prevent the seeds from falling great distances onto hard surfaces. In case the proper mechanical divider cannot be used or is not available, the sample shall be thoroughly mixed and placed in a pile and the pile shall be repeatedly divided into halves until a sample of the desired weight remains.

[5 FR 32, Jan. 4, 1940, as amended at 20 FR 7929, Oct. 21, 1955; 25 FR 8769, Sept. 13, 1960; 59 FR 64492, Dec. 14, 1994]

§ 201.46 Weight of working sample.

(a) *Unmixed seed.* The working samples for purity analysis and noxiousweed seed examination of unmixed seed shall be at least the weights set forth in table 1.

(b) *Mixtures consisting of one predominant kind of seed or a group of kinds of similar size.* The weights of the purity and noxious-weed seed working samples in this category shall be determined by the kind or group of kinds which compromise more than 50 percent of the sample.

(c) *Mixtures consisting of two or more kinds or groups of kinds of different sizes, none of which comprise over 50 percent of the sample.* The weights of the purity working samples in this category shall be the weighted averages (to the nearest half gram) of the weights listed in table 1 for each of the kinds which comprise the sample determined by the following method: (1) Multiply the percentage of each component in the mixture (rounded off to the nearest whole number) by the sample sizes specified in column 2, table 1, (2) add all these products, (3) total the percentages of all components of the mixtures, and (4) divide the sum in paragraph (c)(2) of this section by the total in paragraph (c)(3) of this section. If the approximate percentage of the components of a mixture are not known they may be estimated. The weight of the noxious-weed seed working sample shall be determined by multiplying the weight of the purity working sample by 10 or by calculating the weighted average in the same manner described above for the purity working sample.

(d) Coated seed.

(1) Unmixed coated seed. Due to variation in the weight of coating materials, the size or weight of the working sample shall be determined separately for each lot. The weight of the working sample shall be determined by weighing 100 completely coated units and calculating the weight of 2,500 coated units for the purity analysis and 25,000 coated units for the noxious-weed seed examination.

(2) Mixtures of coated seed. 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 paragraph (b) or (c) of this section.

(ii) Determine the amount of coating material on 100 coated units by weighing the coated units. Remove the coating material using the methods described in §§ 201.51b (c) and (d). Calculate the percentage of coating material using the following formulas:

Weight of coating material = weight of 100 coated units − weight of 100 decoated units;

The percentage of coating material = weight of the coating material divided by the weight of 100 coated units × 100%.

(iii) The weight of the working sample shall be the product of the weight calculated in paragraph (d)(2)(i) of this section multiplied by 100 percent, divided by 100 percent minus the percentage of coating material calculated in paragraph (d)(2)(ii) of this section.

TABLE 1—WEIGHT OF WORKING SAMPLE

Name of seed	Minimum weight for purity analysis (grams)	Minimum weight for noxious-weed seed examination (grams)	Approximate number of seeds per gram
Agricultural Seed			
Agrotricum	65	500	39
Alfalfa	5	50	500
Alfilaria	5	50	440
Alyceclover	5	50	665
Bahiagrass:			
Var. Pensacola	5	50	600
All other vars.	7	50	365
Barley	100	500	30
Barrelclover	10	100	250
Bean:			
Adzuki	200	500	11
Field	500	500	4
Mung	100	500	24
Beet, field	50	500	55
Beet, sugar	50	500	55
Beggarweed, Florida	5	50	440
Bentgrass:			
Colonial	0.25	2.5	13,000
Creeping	0.25	2.5	13,515
Velvet	0.25	2.5	18,180
Bermudagrass	1	10	3,930
Bermudagrass, giant	1	10	2,950
Bluegrass:			
Annual	1	10	2,635
Bulbous	4	40	585
Canada	0.5	5	5,050
Glaucantha	1	10	.....
Kentucky	1	10	3,060
Nevada	1	10	2,305
Rough	0.5	5	4,610
Texas	1	10	2,500
Wood	0.5	5	4,330
Bluejoint	0.5	5	8,461
Bluestem:			
Big	7	70	320
Little	5	50	525
Sand	10	100	215
Yellow	1	10	1,945
Bottlebrush-squirreltail	9	90	300
Brome:			
Field	5	50	465
Meadow	13	130	190
Mountain	20	200	140
Smooth	7	70	315
Broomcorn	40	400	60
Buckwheat	50	500	45
Buffalograss:			
(Burs)	20	200	110
(Caryopses)	3	30	740
Buffelgrass:			
(Fascicles)	6	66	365
(Caryopses)	2	20	1,940
Burclover, California:			
(in bur)	50	500	.....
(out of bur)	7	70	375
Burclover, spotted			
(in bur)	50	500	50
(out of bur)	5	50	550
Burnet, little	25	250	110
Buttonclover	7	70	365
Canarygrass	20	200	150
Canarygrass, reed	2	20	1,185
Carpetgrass	1	10	2,230
Castorbean	500	500	5
Chess, soft	5	50	555
Chickpea	500	500	2
Clover:			

TABLE 1—WEIGHT OF WORKING SAMPLE—Continued

Name of seed	Minimum weight for purity analysis (grams)	Minimum weight for noxious-weed seed examination (grams)	Approximate number of seeds per gram
Alsike	2	20	1,500
Arrowleaf	4	40	705
Berseem	5	50	455
Cluster	1	10	2,925
Crimson	10	100	330
Kenya	2	20	
Ladino	2	20	1,935
Lappa	2	20	1,500
Large hop	1	10	5,435
Persian	2	20	1,415
Red	5	50	600
Rose	7	70	360
Small hop	2	20	1,950
Strawberry	5	50	635
Sub	25	250	120
White	2	20	1,500
Corn:			
Field	500	500	3
Pop	500	500	3
Cotton	300	500	8
Cowpea	300	500	8
Crambe	25	250	.....
Crested dogtail	2	20	1,900
Crotalaria:			
Lance	7	70	375
Showy	25	250	80
Slenderleaf	10	100	205
Striped	10	100	215
Sunn	75	500	35
Crownvetch	10	100	305
Dallisgrass	4	40	620
Dichondra	5	50	470
Dropseed, sand	0.25	2.5	12,345
Emmer	100	500	25
Fescue:			
Chewings	3	30	900
Hair	1	10	.....
Hard	2	20	1,305
Meadow	5	50	495
Red	3	30	900
Sheep	2	20	1,165
Tall	5	50	455
Flatpea	100	500	25
Flax	15	150	180
Foxtail, creeping	1.5	15	1,736
Foxtail, meadow	3	30	893
Galletagrass:			
(Other than caryopses)	10	100	260
(Caryopses)	5	50	580
Grama:			
Blue	2	20	1,595
Side-oats:			
(Other than caryopses)	6	60	350
(Caryopses)	2	20	1,605
Guar	75	500	35
Guineagrass	2	20	2,205
Hardinggrass	3	30	750
Hemp	50	500	45
Indiangrass, yellow	7	70	395
Indigo, hairy	7	70	435
Japanese lawngrass	2	20	1,325
Johnsongrass	10	100	265
Kenaf	50	500	.....
Kochia, forage	2	20	1,070
Kudzu	25	250	80
Lentil	120	500	14–23
Lespedeza:			
Korean	5	50	525

TABLE 1—WEIGHT OF WORKING SAMPLE—Continued

Name of seed	Minimum weight for purity analysis (grams)	Minimum weight for noxious-weed seed examination (grams)	Approximate number of seeds per gram
Sericea	3	30	820
Siberian	3	30	820
Striate	5	50	750
Lovegrass, sand	1	10	3,585
Lovegrass, weeping	1	10	3,270
Lupine:			
Blue	500	500	7
White	500	500	7
Yellow	300	500	9
Manilagrass	2	20	.....
Medic, black	5	50	585
Milkvetch	9	90	270
Millet:			
Browntop	8	80	315
Foxtail	5	50	480
Japanese	9	90	315
Pearl	15	150	180
Proso	15	150	185
Molassesgrass	0.5	5	7,750
Mustard:			
Black	2	20	1,255
India	5	50	625
White	15	150	160
Napiergrass	5	50	.....
Needlegrass, green	7	70	370
Oat	75	500	35–50
Oatgrass, tall	6	60	417
Orchardgrass	3	30	945
Panicgrass, blue	2	20	1,370
Panicgrass, green	2	20	1,305
Pea, field	500	500	4
Peanut	500	500	1–3
Rape:			
Annual	7	70	345
Bird	7	70	425
Turnip	5	50	535
Winter	10	100	230
Redtop	0.25	2.5	10,695
Rescuegrass	20	200	115
Rhodesgrass	1	10	4,725
Rice	50	500	65
Ricegrass, Indian	7	70	355
Roughpea	75	500	40
Rye	75	500	40
Rye, mountain	28	280	90
Ryegrass:			
Annual	5	50	420
Intermediate	8	80	338
Perennial	5	50	530
Wimmera	5	50	.....
Safflower	100	500	30
Sagewort, Louisiana	0.5	5	8,900
Sainfoin	50	500	50
Saltbush, fourwing	15	150	165
Sesame	7	70	360
Sesbania	25	250	105
Smilo	2	20	2,010
Sorghum	50	500	55
Sorghum almum	15	150	150
Sorghum-sudangrass	65	500	38
Sorgrass [1]	15	150	135
Sourclover	5	50	660
Soybean	500	500	6–13
Spelt	100	500	25
Sudangrass	25	250	100
Sunflower	100	500	.....
Sweetclover:			
White	5	50	570

TABLE 1—WEIGHT OF WORKING SAMPLE—Continued

Name of seed	Minimum weight for purity analysis (grams)	Minimum weight for noxious-weed seed examination (grams)	Approximate number of seeds per gram
Yellow	5	50	570
Sweet vernalgrass	2	20	1,600
Sweetvetch, northern	19	190	130
Switchgrass	4	40	570
Timothy	1	10	2,565
Timothy, turf	1	10	2,565
Tobacco	0.5	5	15,625
Trefoil:			
Big	2	20	1,945
Birdsfoot	3	30	815
Triticale	100	500	.....
Vaseygrass	3	30	970
Veldtgrass	4	40	655
Velvetbean	500	500	2
Velvetgrass	1	10	3,360
Vetch:			
Common	150	500	19
Hairy	75	500	35
Hungarian	100	500	24
Monantha	100	500	.....
Narrowleaf	50	500	60
Purple	100	500	22
Woollypod	100	500	25
Wheat:			
Common	100	500	25
Club	100	500	25
Durum	100	500	25
Polish	100	500	25
Poulard	100	500	25
Wheat×Agrotricum	65	500	38
Wheatgrass:			
Beardless	8	80	275
Fairway crested	4	40	685
Standard crested	5	50	425
Intermediate	15	150	175
Pubescent	15	150	180
Siberian	5	50	.....
Slender	7	70	295
Streambank	10	50	370
Tall	15	150	165
Western	10	100	250
Wildrye:			
Basin	8	80	317
Canada	11	110	190
Russian	6	60	360
Vegetable Seed			
Artichoke	100	500	24
Asparagus	100	500	25
Asparagusbean	300	500	8
Bean:			
Garden	500	500	4
Lima	500	500	2
Runner	500	500	1
Beet	50	300	60
Broadbean	500	500	.....
Broccoli	10	50	315
Brussels sprouts	10	50	315
Burdock, great	15	150	.....
Cabbage	10	50	315
Cabbage, Chinese	5	50	635
Cabbage, tronchuda	10	100	.....
Cardoon	100	500	.....
Carrot	3	50	825
Cauliflower	10	50	315
Celeriac	1	25	2,520
Celery	1	25	2,520
Chard, Swiss	50	300	60
Chicory	3	50	940

TABLE 1—WEIGHT OF WORKING SAMPLE—Continued

Name of seed	Minimum weight for purity analysis (grams)	Minimum weight for noxious-weed seed examination (grams)	Approximate number of seeds per gram
Chives	5	50	.....
Citron	200	500	11
Collards	10	50	315
Corn, sweet	500	500	.....
Cornsalad:			
Vars. Fullhearted and Dark Green Fullhearted	5	50	.....
All other vars	10	50	380
Cowpea	300	500	8
Cress:			
Garden	5	50	425
Upland	2	35	1,160
Water	1	25	5,170
Cucumber	75	500	40
Dandelion	2	35	1,240
Dill	3	50	800
Eggplant	10	50	230
Endive	3	50	940
Gherkin, West India	16	160	153
Kale	10	50	315
Kale, Chinese	10	50	.....
Kale, Siberian	8	80	325
Kohlrabi	10	50	315
Leek	7	50	395
Lettuce	3	50	890
Melon	50	500	45
Mustard, India	5	50	625
Mustard, spinach	5	50	535
Okra	100	500	19
Onion	7	50	340
Onion, Welsh	10	50	.....
Pak-choi	5	50	635
Parsley	5	50	650
Parsnip	5	50	430
Pea	500	500	3
Pepper	15	150	165
Pumpkin	500	500	5
Radish	30	300	75
Rhubarb	50	300	60
Rutabaga	5	50	430
Sage	25	150	120
Salsify	50	300	65
Savory, summer	2	35	1,750
Sorrel	2	35	1,080
Soybean	500	500	6–13
Spinach	25	150	100
Spinach, New Zealand	200	500	13
Squash	200	500	14
Tomato	5	50	405
Tomato, husk	2	35	1,240
Turnip	5	50	535
Watermelon	200	500	11

[1] Rhizomatous derivatives of a johnsongrass×sorghum cross or a johnsongrass×sudangrass cross.

[25 FR 8769, Sept. 13, 1960, and 30 FR 7888, June 18, 1965, as amended at 32 FR 12780, Sept. 6, 1967; 35 FR 6108, Apr. 15, 1970; 41 FR 20156, May 17, 1976; 46 FR 53635, Oct. 29, 1981; 59 FR 64492, Dec. 14, 1994; 65 FR 1707, Jan. 11, 2000]

§ 201.47 Separation.

(a) The working sample shall be weighed in grams to four significant figures and shall then be separated into four parts: (1) Kind or variety to be considered pure seed, (2) other crop seed, (3) weed seed, and (4) inert matter. The components shall be weighed in grams to the same number of decimal places as the working sample. The percentage of each part shall be determined to two decimal places.