

12 KAR 4:130. Investigational allowances.

RELATES TO: KRS 250.366(19), 250.391(3), 250.396(1), (2), 250.401

STATUTORY AUTHORITY: KRS 250.421

NECESSITY, FUNCTION, AND CONFORMITY: KRS 250.421 requires the director to promulgate administrative regulations necessary to implement KRS 250.361 through 250.461. This administrative regulation establishes scientifically sound and fair investigational allowances as a basis for declaring a fertilizer sample deficient in its guaranteed analyses and to detail the calculation of the index value of a fertilizer.

Section 1. A fertilizer shall be deemed deficient if the analysis of an official sample for any primary nutrient is below the guarantee by an amount exceeding the values in the table established in this section.

Guaranteed	Total	Available	Soluble
percent	Nitrogen (N)	Phosphate	Potash (K ₂ O)
	percent*	(P ₂ O ₅) percent*	percent*
05 or less	0.37	0.65	0.39
06	0.47	0.71	0.47
07	0.59	0.77	0.56
08	0.72	0.82	0.63
09	0.81	0.86	0.70
10	0.89	0.89	0.76
12	1.03	0.95	0.87
14	1.18	1.02	0.96
16	1.29	1.12	1.05
18	1.43	1.19	1.12
20	1.57	1.32	1.18
22	1.62	1.39	1.22
24	1.65	1.46	1.26
26	1.66	1.53	1.29
28	1.58	1.59	1.33
30	1.28	1.67	1.36
32 or more	1.28	1.67	1.36

For guarantees not listed, calculate the appropriate value by interpolation.

*For these investigational allowances to be applicable, the procedures recommended by AOAC International for obtaining samples, preparation and analysis shall be used. These are described in the 15th Edition (1990) of the Official Methods of Analysis of the AOAC International. In evaluating replicate data, Table 19, page 935, Journal of the Association of Official Analytical Chemists, Volume 49, No. 5, October, 1966, shall be followed.

Section 2. A fertilizer shall be deemed deficient in the overall index value if the overall index value is less than ninety-seven (97) percent.

(1) The overall index value shall be calculated by comparing the value guaranteed with the value found. Unit values of the nutrients used shall be those referred to in KRS

250.401.

(2) Overall index value. Example of calculation for a 10-10-10 grade found to contain ten and one-tenth (10.1) percent Total Nitrogen (N), ten and two-tenths (10.2) percent Available Phosphate (P_2O_5) and ten and one-tenth (10.1) percent Soluble Potash (K_2O). Nutrient unit values shall be assumed to be three (3) dollars per unit N, two (2) dollars per unit (P_2O_5), and one (1) dollar per unit K_2O .

10.0 units N	x3= 10.0
10.0 units P_2O_5	x2= 20.0
10.0 units K_2O	x1= 10.0
Commercial Value Guaranteed =	60.0
10.0 units of N	x3= 30.3
10.2 units of P_2O_5	x2= 20.4
10.1 units K_2O	x1= 10.1
Commercial Value Found =	60.8
Overall Index Value =	$100(60.8/60.00) = 101.3\%$

Section 3. Secondary and minor elements shall be deemed deficient if the analysis of an official sample for any of these elements is below the guarantee by an amount exceeding the values in the table established in this section.

Element	Investigational Allowance
Calcium	) 0.2 unit + 5% of guarantee
Magnesium	) 0.2 unit + 5% of guarantee
Sulfur	) 0.2 unit + 5% of guarantee
Boron	) 0.003 unit + 15% of guarantee
Molybdenum	) 0.0001 unit + 30% of guarantee
Chlorine	) 0.005 unit + 10% of guarantee
Copper	) 0.005 unit + 10% of guarantee
Iron	) 0.005 unit + 10% of guarantee
Manganese	) 0.005 unit + 10% of guarantee
Sodium	) 0.005 unit + 10% of guarantee
Zinc	) 0.005 unit + 10% of guarantee

The maximum allowance calculated in accordance with this table shall be one (1) unit (1 percent).

Section 4. Incorporation by Reference.

(1) The following material is incorporated by reference:

- (a) "15th Edition (1990) of the Official Methods of Analysis of the AOAC International", 1990; and
- (b) "Table 19, page 935, Journal of the Association of Official Analytical Chemists, Volume 49, No. 5", October, 1966

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(11 Ky.R. 512; eff. 11-13-1984; Am. 21 Ky.R. 457; 1027; eff. 9-28-1994; 114, 935; eff. 11-18-2020.)