



Technical Specifications for CANADA BUCKWHEAT

Specification reference: **Canada Buckwheat No 2**

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1. SCOPE

This specification applies to **Canada buckwheat grains, Grade No 2 (Buckwheat)** purchased by WFP.

2. DEFINITIONS

Dehulled buckwheat is buckwheat with its hulls removed

Immature kernels:

- Do not contain a groat or have a severely shriveled groat
- Have a hull which collapses under pressure

Damage includes all dehulled seeds and seeds that are frosted, mouldy, or otherwise unsound. The hull of damaged kernels collapses under pressure, as when rolled between the thumb and forefinger.

Cereal grains in buckwheat include wheat, rye, triticale, barley, oats and groats, including wild oat groats that remain in the clean sample.

Ergot is a plant disease producing elongated fungal bodies that have a purplish-black exterior, a purplish-white to off white interior, and a relatively smooth surface texture.

Matter other than cereal grains includes weed seeds and other grains that are not readily removable and may include peas, lentils, beans, corn, and other domestic or wild seeds that remain in the cleaned sample.

Sclerotinia sclerotiorum is a fungus producing hard masses of fungal tissue, called *sclerotia*. The sclerotia vary in size and shape, have a coarse surface texture, vary in exterior color from dark black to gray to white and have a pure white interior.

Stones are hard shale, coal, hard earth pellets, and any other non toxic materials of similar consistency. Fertilizer pellets are assessed as stones when constituting 1.0% or less of the net sample weight. (See *Fertilizer pellets* for specific procedures to be followed when samples contain fertilizer pellets.)

3. REFERENCE

Codex Standard for wheat and durum wheat CODEX STAN 199-1995.

Official Grain Grading Guide- 13. Buckwheat_Canada Grain commission, August 1, 2013.

4. PRODUCT SPECIFICATION

4.1 General requirements

Moisture	14.0 % m/m max.
Organoleptic	Bright, clear appearance, natural smell and color
Total removable material	2.5% m/m max.
Dehulled	2.0 % m/m max.
Immature	1.5% m/m max.
Total damage	8.0% m/m max.
Cereal grains	2.5% m/m max.
Ergot	0.05% m/m max.
Excreta	0.01% m/m max.
Matter other than cereal grains	1.0% m/m max.
Sclerotinia	0.05% m/m max.
Stones	0.03% m/m max.
Total foreign material	3.0% m/m max.
Live insect	Nil
Crop year	As per contractual

If required by recipient country, Buckwheat needs to be obtained from non-genetically modified varieties.

4.2 Toxic or noxious seeds

The products covered by the provisions of this specification shall be free from the following toxic or noxious seeds in amounts which may represent a hazard to human health.

– *Crotalaria* (*Crotalaria* spp.), Corn cockle (*Agrostemma githago* L.), Castor bean (*Ricinus communis* L.), Jimson weed (*Datura* spp.), and other seeds that are commonly recognized as harmful to health.

4.3 Contaminants

4.3.1 Heavy metals

Buckwheat shall be free from heavy metals in amounts which may represent a hazard to health.

4.3.2 Pesticide residues

Buckwheat shall comply with those maximum residue limits established by the Codex Alimentarius Commission for this commodity.

4.3.3 Mycotoxins

Buckwheat shall comply with those maximum mycotoxin limits established by the Codex Alimentarius Commission for this commodity.

4.4 Hygiene

4.4.1 It is recommended that the product covered by the provisions of this specification be prepared and handled in accordance with the appropriate sections of the *Recommended International Code of Practice – General Principles of Food Hygiene* (CAC/RCP 1-1969), and other Codes of Practice recommended by the Codex Alimentarius Commission which are relevant to this product.

4.4.2 To the extent possible in good manufacturing practice, the cleaned product shall be free from objectionable matter.

- 4.4.3 When tested by appropriate methods of sampling and examination, the products:
- shall be free from micro-organisms in amounts which may represent a hazard to health;
 - shall be free from parasites which may represent a hazard to health; and
 - shall not contain any substance originating from micro-organisms in amounts which may represent a hazard to health.

5. PACKAGING AND MARKING

As per contractual agreement.

6. STORING

Buckwheat must be stored under dry, ventilated and hygienic conditions.

7. SAMPLING REQUIREMENTS

Representative samples can be drawn according to international sampling method standards at the bagging section or in the warehouse.

For packed units, sampling frequency and reference method are showed in *table 1*. One laboratory samples of about 3kg is required by lot or sub-lot of 500MT maximum.

For the bulk (static and flowing), the sampling must follow the rules described in paragraphs 5.2 of ISO 24333-2009.

Table 1: Sampling rules

Lot or sub-lot size (MT)	Number of increment	Place of sampling	Reference
≤100	3 % of bags and minimum 50 bags (e.g. 60 increments for a lot of 100 MT, packed in 50 kg bag)	Warehouse	GAFTA 124-2
101-500	3 % of bags Examples: - 120 increments for a lot of 200 MT, packed in 50 kg bag - 180 increments for a lot of 300 MT, packed in 50 kg bag - 240 increments for a lot of 400 MT, packed in 50 kg bag - 300 increments for a lot of 500 MT, packed in 50 kg bag		

8. ANALYTICAL REQUIREMENTS

The principal tests in table 2 must be performed in order to check if the quality of the **Buckwheat** meets above requirements. Additional analyses shall be defined in case of further quality assessment.

Table 2: List of compulsory analyses/tests and reference methods

No	Analyses/tests	Limit	Reference method (or equivalent)
1	Moisture	14.0 % m/m max.	ISO 711-2009
2	Organoleptic	Bright, clear appearance, natural smell and color	<i>Organoleptic examination</i>
3	Total removable material	2.5% m/m max.	<i>Visual examination</i>
4	Dehulled	2.0 % m/m max.	<i>Visual examination</i>
5	Immature	1.5% m/m max.	<i>Visual examination</i>
6	Total damage	8.0% m/m max.	<i>Visual examination</i>
7	Cereal grains	2.5% m/m max.	<i>Visual examination</i>
8	Ergot	0.05% m/m max.	<i>Visual examination</i>
9	Excreta	0.01% m/m max.	<i>Visual examination</i>
10	Matter other than cereal grains	1.0% m/m max.	<i>Visual examination</i>
11	Sclerotinia	0.05% m/m max.	<i>Visual examination</i>
12	Stones	0.03% m/m max.	<i>Visual examination</i>
13	Total foreign material	3.0% m/m max.	<i>Visual examination</i>
14	Live insect	Nil	<i>Visual examination</i>
15	GMO (only if required)	Negative (< 0.9% of GMO material)	