

Republic of Botswana

**TOLERANCE OF POISONOUS  
NOXIOUS SEEDS IN GRAIN CEREALS,  
LEGUMES AND OILSEED INTENDED  
FOR HUMAN CONSUMPTION  
REGULATION, 2019**

*Statutory Instrument No. 1 of 2019*

FOOD CONTROL ACT  
(Cap. 65:05)

**TOLERANCE OF POISONOUS NOXIOUS SEEDS IN GRAIN CEREALS,  
LEGUMES AND OILSEEDS INTENDED FOR HUMAN  
CONSUMPTION REGULATIONS, 2019**  
(Published on 4th January, 2019)

ARRANGEMENT OF REGULATIONS

REGULATION

1. Citation
2. Interpretation
3. Application
4. Poisonous seeds in grain cereals, legumes and oilseeds intended for human consumption
5. Duty of persons importing, marketing, producing or selling
6. Power of authorized officer
7. Determination of quantity of noxious seeds
8. Rejection of consignment
9. Sampling
10. Deviating samples
11. Obtaining working sample
12. Offences
13. Penalties

SCHEDULE

IN EXERCISE of the powers conferred on the Minister of Health and Wellness by section 13 of the Food Control Act, the following Regulations are hereby made —

1. These Regulations may be cited as the Tolerances of Poisonous Noxious Seeds in Grain Cereals, Legumes and Oilseeds Intended for Human Consumption Regulations, 2019. Citation

2. In these Regulations, unless the context otherwise requires — Interpretation

“bag” means a bag made from suitable materials;

“bulk container” means a grain truck, any vehicle or container in which bulk grain cereals are stored or transported;

“consignment” means a quantity of grain of the same kind and class, which belongs to the same owner, delivered at any one time under cover of the same consignment note, delivery note or receipt note, or delivered by the same vehicle or railway truck, or loaded from a bin of a grain elevator into a ship’s hold or railway truck, or if such a quantity is divided into different grades, each quantity of each of the different grades; It may be composed of one or more lots;

“container” means a bag or a bulk container;

“grain cereals” means barley, buckwheat, sorghum, maize, millet, oats, rice, rye or wheat;

“legumes” include the following —

- (a) Beans of *Phaseolus* spp;

## C.2

- (b) Lentils of *Lens culinaris* Medic. Syn. *Lens esculenta* Moench.;
- (c) Peas of *Pisum sativum* L.;
- (d) Chick peas of *Cicer arietinum* L.;
- (e) Field beans of *Vicia faba* L.;
- (f) Cow peas of *Vigna unguiculata* (L.) Walp., syn. *Vigna sesquipedalis* Fruhw., *Vigna sinensis* (L.) Savign. & Hassk.;
- (g) Jugo beans/bambara groundnut (*Vigna subterranea*);
- (h) Mungbean (*Vigna radiata*);
- (i) Groundnut/peanut (*Arachis hypogaea* L.); and
- (j) Soyabean (*Glycine max* L. Merr.);

“lot” means a definitive quantity of a commodity produced essentially under the same conditions;

“noxious seeds” means seeds or part of seeds of a plant species that may in terms of the Act represent a hazard to human or animal health when consumed, including seeds of *Argemone mexicana* L., *Convolvulus* spp., *Crotalaria* spp., *Datura* spp., *Ipomoea* spp., *Lolium temulentum*, *Ricinus communis* or *Xanthium* spp.;

“oilseeds” means groundnuts, oilseed rape (canola), soya beans or sunflower seeds; and

“plant species” means a plant bearing poisonous seeds and the poisonous seeds are identified to be *Argemone mexicana* L., *Convolvulus* species, *Crotalaria* species, Jimson Weed (*Datura* species), *Ipomoea purpurea* Roth, *Lolium temulentum*, Castor bean (*Ricinus communis* L.) or *Xanthium* species.

Application

**3.** These Regulations apply to grain cereals, legumes or oilseeds intended for human consumption when the grain cereals, legumes or oilseeds are imported into, marketed, produced or sold in Botswana.

Poisonous seeds in grain cereals, legumes and oilseeds intended for human consumption

**4.** (1) Grain cereals, legumes or oilseeds intended for human consumption shall not contain —

- (a) seeds of —
  - (i) *Crotalaria* (*Crotalaria* spp.),
  - (ii) Jimson weed (*Datura* spp.),
  - (iii) Castor bean (*Ricinus communis* L.), and
  - (iv) Corn cockle (*Agrostemma githago* L.)

because the presence of noxious seeds renders the grain cereals, legumes and oilseeds unsuitable for the manufacture of food products for human consumption; and

- (b) seeds of —
  - (i) (Mexican Prickly Poppy *Argemone mexicana* L.,
  - (ii) *Convolvulus* species,
  - (iii) Common Morning Glory (*Ipomoea purpurea* L. Roth,
  - (iv) Darnel Ryegrass (*Lolium temulentum*),
  - (v) Cocklebur (*Xanthium* species), and
  - (vi) Corn cockle (*Agrostemma githago* L.),

because the presence of noxious seeds renders the grain cereals, legumes and oilseeds unsuitable for the manufacture of food products for human consumption.

(2) Notwithstanding the provisions of subregulation (1), where grain cereal, legumes or oilseeds are to undergo sifting or any other process to eliminate poisonous seeds of any plant species before the sale of the cereal grains, legumes or oilseeds as food for human consumption, these Regulations shall apply after the sifting or other processes has taken place.

(3) Food that is covered by these Regulations shall be free from other poisonous seeds or any other noxious or materials commonly recognised as harmful to health in amounts which may be injurious to human health.

**5.** A person responsible for importing, marketing, producing or selling for human consumption shall —

Duty of persons importing, marketing, producing or selling

- (a) ensure that the consignment or bag has been tested for the presence of noxious seeds; and
- (b) produce documentation upon request by an authorized officer as evidence that the product does not contain noxious seeds above the specified limit.

**6.** (1) An authorized officer may at all reasonable times enter the premises or examine a truck in respect of which he is authorized to be an inspector for the purpose of ascertaining the quantity of noxious seed in a container, consignment or truck therein.

Power of authorized officer

(2) An authorized officer may demand that the importer, producer or seller of the product submit to the authorized officer any documentation from a competent authority relating to tests carried out to determine the quantity of noxious seeds.

(3) An authorized officer may take a sample of the product for verification, and shall conduct the assessment in accordance with regulations 7, 9 and 10.

(4) Where an authorized officer finds that the product does not comply with the specifications stated at regulation 4 (1), he may by notice in writing, to the person responsible, require that person to subject the product to further processing in accordance with regulation 4 (2) to attain compliance within a time to be specified in the notice.

(5) The notice shall state the particular noxious seeds which have been found, and, as far as practicable, the quantity per 1000g.

**7.** The number of noxious seeds in a consignment is determined by —

Determination of quantity of noxious seeds

- (a) obtaining a working sample of at least 2 kg of the grain from either a random or a deviating sample, as the case may be;
- (b) sorting the working sample in such a manner that the noxious seeds are retained;
- (c) determining the number of noxious seeds; or
- (d) the quantity of noxious seeds in the consignment concerned.

**8.** (1) No consignment may be rejected before a further two analyses are made from an additional sample obtained from the same or an additional random sample:

Rejection of consignment

Provided that the average of the results of all such analyses shall be regarded as the result in respect of the consignment concerned.

(2) An authorized officer shall, if he had drawn a deviating sample in accordance with regulation 9 (3), reject the consignment if the average of the results of at least two analyses of the deviating sample does not comply with the provisions of these regulations.

**9.** (1) An authorized officer shall, for the purpose of these regulations, draw a random sample in the following manner —

Sampling

## C.4

- (a) in the case of grains in bags –
  - (i) small quantities of the grain shall be drawn in such a manner from a number of bags which is at least equal to the square root of the total number of bags in the consignment, that the samples drawn will be representative of the whole consignment, and
  - (ii) the samples shall be collected in a container and mixed thoroughly;
- (b) in the case of grains in bulk –
  - (i) samples of grains presented in bulk containers, excluding grain elevators, shall be drawn at each hatch or from at least six different places, chosen at random throughout the full depth of the consignment with a bulk grain probe in such a manner that the samples drawn shall be representative of the contents of the bulk container,
  - (ii) the collective sample from each bulk container shall be mixed thoroughly and kept separate for each bulk container for further examination and shall have a total mass of at least 10 kg,
  - (iii) samples of grains which are loaded from a grain elevator into a railway truck or road truck shall be drawn at regular intervals at the outflow of the shipping bins on to the conveyor belts in such a manner that the samples drawn shall be representative of the consignment which is loaded:

Provided that each separate sample shall be mixed thoroughly before further examination and the collective sample shall have a total mass of at least 10 kg,
  - (iv) an authorized officer may at any time draw samples of grains from any part of a grain elevator, and
  - (v) the sample drawn from a consignment must be kept in two separate lots.

Deviating samples

**10.** (1) Where an authorized officer notices, during the course of drawing the random samples or during the inspection, that any of the quantities of grain taken from any bag or portion of a bulk container are obviously inferior to, or differ from the contents of the containers which represent the remainder of the bags or from the other parts of the bulk container, he shall –

- (a) draw samples only out of such bags or portion of a bulk container with the inferior or differing grain; and
- (b) place them in a container and mix thoroughly.

(2) Samples drawn in accordance with subregulation 1 shall be considered as deviating samples and the inspection results shall be based only on samples drawn from the containers of the deviating portion.

Obtaining working sample  
Offences

**11.** A working sample shall be obtained by dividing the random or deviating sample of the consignment as set out in the Schedule.

**12.** (1) Any person who refuses to allow an authorized officer on to a premises, or not allowing an authorized person to bring any other person or equipment with him on to a premises or carry out any work in the exercise of the authorised person's powers under these Regulations shall be guilty of an offence.

(2) Any person who obstructs or impedes an authorised officer in the exercise of the authorised officer's powers shall be guilty of an offence.

(3) Any person who gives to an authorised officer information which, to the knowledge of the person giving it, is false or misleading in a material respect shall be guilty of an offence.

(4) Any person who fails or refuses to comply with a direction or requirement of an authorised officer shall be guilty of an offence.

(5) Where an offence under these Regulations has been committed by a body corporate and is proved to have been committed with the consent or connivance of or to be attributable to any neglect on the part of a person being a director, manager, secretary or other similar officer of the body corporate, or of a person who was purporting to act in any such capacity, that person as well as the body corporate shall be guilty of an offence.

(6) Where the affairs of a body corporate are managed by its members, subregulation (5) shall apply in relation to the acts and defaults of a member in connection with that member's functions of management as if that member was a director of the body corporate.

**13.** (1) A person who contravenes the provisions of regulation 12 or any other provision of these Regulations commits an offence and is liable — Penalties

(a) for a first offence to a fine not exceeding P1 000 to imprisonment for a term not exceeding three months, and where the offence is a continuing offence, to an additional fine not exceeding P500 for each day on which the offence continues up to a maximum of P5 000; and

(b) for a second or subsequent offence, to a fine not exceeding P5 000 or to imprisonment for a term not exceeding six months.

(2) A court may, on conviction of any person for an offence under these Regulations, in addition to any other penalty it may impose, cancel or suspend any licence or permit issued to that person which is relevant to the offence committed.

(3) Where a person has been convicted of an offence under these Regulations, the court convicting him may order that any article relevant to the offence be forfeited and that it be destroyed or otherwise disposed of, as the court deems fit.

C.6

**SCHEDULE**

*(regulation 11)*

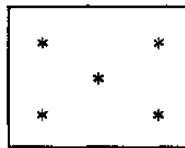
**Sampling, Equipment and Methods**

Representative sampling:

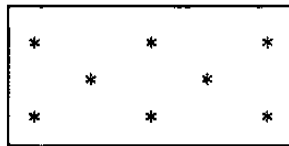
- The consignment should be divided into primary units of equal size or status, which may be sampled. For bagged grain, each bag may be regarded as a primary unit. For bulk grain, the primary unit may be expressed in terms of weight, if the grain is being moved, or volume, when it is static - as in a truck or bin.
- All primary units should have an equal opportunity of being sampled. This is possible only during the construction or dismantling of a stack, the loading or off-loading of a truck, or when bulk grain is being moved.

The method should select, without bias, a representative number of primary units from the consignment.

**Sampling points in bulk grain carriers:**



Truck containing up to 15 tonnes  
five sampling points (middle and  
approximately 50 cm from sides)



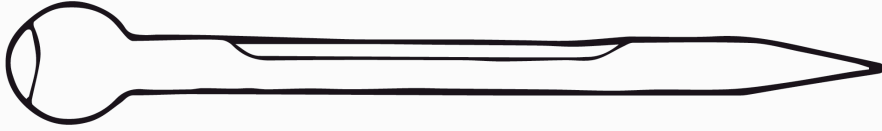
Truck containing 15 to 30 tonnes  
eight sampling points.



Truck containing 30 to 50 tonnes  
eleven sampling points.

Source: International Standard ISO 950

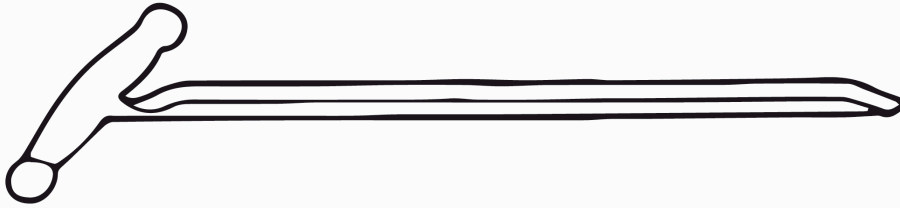
A. Closed spear for sampling large grains such as maize.



B. Closed spear for sampling small grains such as wheat.



C. Open spear



D. Double tube spear.





## C.8

### Working sample size

Equivalent minimum working sample weights are:

<b>Maize (small grain)</b>	200g
<b>Maize (large grain)</b>	250g
<b>Sorghum</b>	25g
<b>Black-eyed cowpeas</b>	150g
<b>Wheat</b>	25g
<b>Bulrush millet</b>	10g
<b>Paddy</b>	15g

### Selection of Bags for Sampling.

<b>Number of bags in consignment</b>	<b>Number of bags to be sampled</b>
Up to 10	Every bag
11 to 100	10, drawn at random
More than 100	Square root (approximately) of the total number of bags drawn at random according to a suitable scheme.

Minimum working sample weights of 250g and 1000g are required in general for the examination.

MADE this 18th day of December, 2018.

DR. ALFRED MADIGELE,  
*Minister of Health and Wellness.*