



European Sprouted Seeds Association

Brussels, 23 July 2014

ESSA hygiene guidelines for seeds production

Context

The pursuit of a high level of protection of human life and health is one of the fundamental objectives of Regulation (EC) No 853/2004. That Regulation constitutes a common basis for the hygienic production of all food.

In complement to that common basis, specific hygiene rules for mung bean primary production for relatively small scale farmers are laid down in this guideline. In some origins like China and Myanmar, small scale farming is common, which on average may only be 10 acres per family and yield only 4,500 kg/acre resulting in revenue of approximately 6,000 USD per annum.

General

All equipment should be cleaned regularly to prevent potential contamination from dust, insects, animals (with particular regard to faeces). Where practicable, a diary should be maintained of the maintenance of all equipment.

Different methods:

Seeding

- Mechanical or hand drilling
- Broadcast of seeds by hand

Harvesting

- Combined harvest
- By hand pulling ripe pods from plants
- Undercut of plants

Soil/land Treatments

Grazing or potential ingress by animals should be avoided, and preventative measures such as fences or nets should be put in place by producers. Use of animal manure should be avoided, unless suitably treated to ensure that pathogens are reduced to acceptable levels.

Where necessary and affordable, producers should use fungicides, herbicides and pesticides in compliance with the label instructions of the individual products. Only authorised fungicides, herbicides and pesticides should be used.

Where practicable, a diary should be maintained of the treatments used. Products & advice should be sourced from suitably qualified professionals.

Where grown in rotation, due care should be paid to potential soil diseases from the previous crop. It is recommended to not grow beans after any type of legumes.

Worker hygiene

Staff should maintain good personal hygiene conditions at all stages of harvest and processing. Staff members known or suspected to have a disease or illness, in particular gastro-enteritis, should not be allowed into areas where there is a danger of contaminating seeds for human consumption.

Workers should have and use adequate toilet and hand washing facilities (incl. soap) available, and where viable clean uniforms. They must wash hands when starting, when needed during the day and at least each time the toilet was visited.

Irrigation

Irrigation water should be of potable quality from a trusted source. Seed producers should minimize potential dangers of contamination by testing the water sample at least once a year. Water known or suspected to be contaminated should not be used.

Seed

Producers must use seed for sowing from a recognized source, with a proven track record. Due regard should be made for seeds with good germination, which are free of disease or other affects that are potentially adverse to a successful harvest of healthy beans. Where feasible and affordable producers should conduct analyses and pre-treatments to ensure seeds are of suitable quality.

Drying of plants / pods (China/Myanmar)

China will cut plants when mature, and leave same in fields to dry down naturally. However that leaves them vulnerable to damage from weather, animals and birds. Weathered beans should not be marketed to users who will produce sprouts, but instead used in other industries [ie Vermicelli]. Myanmar will harvest pods from plants, and thereafter dry the pods in community yards. After gathering from the fields the drying process should have a clean tarpaulin/cardboard cover between the pods/plants and the earth.

Similarly after threshing if drying of beans is required, there should also be a clean tarpaulin between the beans and the earth. Due care should be paid to prevent potential contamination whilst the beans are vulnerable and such drying should be made in a covered area that prevents the access of wild animals and birds.

Some origins are mechanically harvesting and threshing, and so there are differing methods used.

Threshing

Should be made mechanically on suitably maintained & cleaned equipment. Machines should be cleaned promptly after the end of the season, and also prior to the beginning of the next season, and where viable between each lot. Equipment should be stored in a covered area to protect the integrity of the equipment.

Storage after harvesting

Goods should be stored where viable – practically and economically – in new sound bags, and not in used or second hand bags. Also producers should consider whether it necessary to cover the tops of storage piles with plastic sheets to protect the goods.

Storage areas and equipment should be cleaned and well maintained to prevent ingress and contamination from weather, animals and pests.

If stored in bulk, then clean tarpaulins should be used both under and over the goods and between goods and the wall, if applicable.

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Processing

Goods should be processed at professional seed processing facilities with suitable equipment, which should include:

Size grading, Gravity / Densimetric tables, destoners, magnets or metal detectors, and preferably colour sorters.

All equipment should be regularly cleaned to prevent cross contamination of other products, and due attention should be paid to hygiene.

Staff should have adequate toilet & hand washing facilities (incl. soap) available, and where viable clean uniforms.

Local area should be maintained to prevent dust & dirt, insects, animals and birds.

Where viable, processors should have plans and keep records of contamination preventions. Mixing of lots should be as limited as is possible, and where viable restricted to similar growing regions.

Processors should have records available of where incoming seeds originated from.

A quality regime implemented by trained staff to HACCP standard is recommended. Finished goods should be analysed according to buyers requirements prior to shipment.

The European Sprouted Seeds Association represents EU sprouted seeds growers and importers of seeds for sprouting. The EU sprouted seeds market is a highly specialised niche segment of the fresh produce market with approximately 120 professional production establishments throughout the EU. The turnover at primary production level amounts to 200 million EUR.