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**(EFFECTIVE
DATE)**

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(2nd Revision)**

Title/Titre

SORGHUM SPP., IMPORT AND DOMESTIC MOVEMENT REQUIREMENTS

Our File/Notre référence
3525-11S3

I. SUBJECT

This directive contains the phytosanitary import and domestic movement requirements for broomcorn, *Sorghum vulgare* var. *technicum*, seed of *Sorghum* spp. for propagation.

This directive supersedes all policy documents on broomcorn and *Sorghum* spp. , including D- 96-08 (1st Revision) dated July 31, 1998 and all references to the same subjects in other documents, including "Entry of the hosts of the European corn borer into B.C.", 005-1, 21/01/88.

II. BACKGROUND

This policy is revised to reflect changed requirements for finished brooms and processed sorghum products and to provide information on sorghum grain and grain products for non-propagative use.

Sorghum seed and broomcorn is now considered a low risk pathway for the entry of Karnal bunt.

Three main categories of material of *Sorghum* spp. are imported into Canada: brooms, finished and unfinished; seed for propagation; and grain for consumption and for feed.

Broomcorn (stalk with inflorescence), is imported for making brooms and whisks. In recent years most of the importations have consisted of finished brooms. The main sources of broomcorn have been the United States (U.S.), Mexico, and Hungary.

Broomcorn is a pathway for the introduction of the European corn borer, *Ostrinia nubilalis*, a quarantine pest for British Columbia (B.C.) present in Canada, except B.C., Hungary, the U.S as well as other countries. It is also a potential pathway for the durra stem borer, *Sesamia cretica*, a quarantine pest not present in Canada.

In the past five years, producer interest in sorghum forage and grain production in Canada has been increasing, especially in southwest Ontario and in Quebec. However, importation of seed from the U.S. has been constrained by import requirements for preventing the entry of Karnal bunt. This constraint is now removed.

Seed is a direct pathway for the European corn borer, *Ostrinia nubilalis*, and the durra stem borer, *Sesamia cretica*.

The importation of grain sorghum has been primarily for consumption or for feed for animals (including wild birds). The principal source of grain sorghum for consumption and animal feed is the U.S.

III. LEGISLATIVE AUTHORITY

The Plant Protection Act, SC.1990 c.22
The Plant Protection Regulations, SOR/95-212
The Protection Cost Recovery Fees Order

IV. REGULATED COMMODITIES

The stalk and inflorescence of broomcorn as finished or unfinished brooms; and seed of *Sorghum* spp. for propagation.

V. COMMODITIES EXEMPT:

The following commodities are exempt from requirements for a Permit to Import and a Phytosanitary Certificate:

1. Grain for non-propagative use.
2. Processed (hulled, broken, cooked, milled, ground) products and by-products (e.g. flour, bran, etc.)

3. Finished brooms and whisks.
4. Breeder, foundation or certified sorghum seed for propagation prepared, labelled and shipped according to the standard of the American Association of Official Seed Certifying Agencies (AAOSCA) or other CFIA recognized agency.

VI. REGULATED PESTS

The European corn borer, *Ostrinia nubilalis*;
The durra stem borer, *Sesamia cretica*.

VII. REGULATED AREAS

Countries/states and Canadian provinces infested with European corn borer and the durra stem borer (See Appendix 1).

Commercial importations of regulated commodities of *Sorghum* spp. from countries other than Hungary, **Mexico** and the continental U.S. require prior approval from the Canadian Food Inspection Agency (CFIA).

VIII. MOVEMENT REQUIREMENTS

A tabulated summary of requirements is provided as Appendix 5.

1. IMPORTATION

1.1 Broomcorn (includes the stalk and inflorescence of *S. vulgare* var. *technicum*, as unfinished brooms).

1.1.1 Importation from the continental U.S.

No Permit to Import is required.

No Phytosanitary Certificate is required if the shipment is destined to provinces other than B.C.

Shipments of broomcorn imported into B.C. from U.S. states infested with the European corn borer must have a Phytosanitary Certificate containing an additional declaration as stated in Appendix 3 or must have been treated as described in Appendix 2 and the treatment section of the Phytosanitary Certificate filled out.

Shipments of broomcorn imported into B.C. from U.S. states not infested with European corn borer may be admitted with other acceptable proof of origin (e.g. Certificate of Origin) in lieu of a Phytosanitary Certificate. Origin must be clearly identified on the shipping documents.

Shipments of broomcorn originating in Hungary, Mexico or other approved sources and re-exported from the U.S. must be accompanied by the proper Re-export Phytosanitary Certificate.

1.1.2 Importation from Mexico

A Permit to Import is not required.

A Phytosanitary Certificate is required. No additional declaration is required.

1.1.3 Importation from Hungary

A Permit to Import is not required.

A Phytosanitary Certificate is required. If the material is destined to B.C., the additional declaration regarding European corn borer is required (Appendix 3). The material must have been treated (Appendix 2) and the treatment section of the Phytosanitary Certificate filled out.

1.1.4 Importation from other countries including Hawaii

Importation is prohibited. Approval for importation is subject to risk assessments being carried out upon request by the importer.

1.2. Seed for Propagation

1.2.1 Importation from continental U.S.

No Permit to Import is required.

No Phytosanitary Certificate is required if the shipment is destined to provinces other than B.C.

If the shipment is from U.S. states infested with European corn borer and destined to B.C., the Phytosanitary Certificate must contain an additional declaration as stated in Appendix 3 or must have been treated as described in Appendix 2 and the treatment section of the Phytosanitary Certificate filled out.

Shipments from states not infested with the European corn borer

must be accompanied by a Certificate of Origin or other acceptable proof of origin in lieu of a Phytosanitary Certificate.

This requirement for the European corn borer applies only to common or uncertified seed; certified seed does not require a Phytosanitary Certificate because of the low risk of transporting the pest.

1.2.2 Importation from Hungary

No Permit to Import is required.

A Phytosanitary Certificate is required. If the shipment is destined to B.C., the Phytosanitary Certificate requires an additional declaration regarding the European corn borer. (As stated in Appendix 3) or treatment as per Appendix 2 and the treatment section of the Phytosanitary Certificate filled out.

1.2.3 Importation from Mexico

No Permit to Import is required.

A Phytosanitary Certificate is required without additional declaration.

1.2.4 Importation from other countries and Hawaii

Importation from other countries and Hawaii requires prior approval from CFIA. This is subject to pest risk assessments being carried out upon request by the importer.

1.3 **Importation for Research**

A Permit to Import is required.

Regulated sorghum material that would otherwise be prohibited from unapproved sources, may be imported for scientific research, educational, processing, industrial or exhibition purposes or for the Plant Gene Resources of Canada, if authorized by the Director, Plant Health and Production Division, under Section 43 of the *Plant Protection Regulations*. Special conditions of entry shall be specified in the Permit to Import.

Phytosanitary Certificate is optional for sorghum seed, less than 500 g, imported by a recognized plant breeder from a country other than the U.S. Shipments for plant breeders for which a Phytosanitary Certificate is not available will require inspection at an approved CFIA laboratory as specified by the inspector.

2. DOMESTIC MOVEMENT

Broom corn (unfinished brooms) and common seed (non-certified) for propagation originating in other provinces and destined for B.C., require a Movement Certificate.

When cleaned, packaged and labelled to Canadian grade standards, seed (certified) being shipped to B.C. from other provinces are exempt from a Movement Certificate .

The Movement Certificate must state that seed was passed through a 1.25 cm screen to exclude stem pieces that could harbour larvae or pupae of the European corn borer **or the seed must have been treated in a manner approved by the Plant Health and Production Division of the CFIA to control the European corn borer.**

IX. INSPECTION PROCEDURES

1. DOCUMENT VERIFICATION

Valid Permits to Import, Phytosanitary Certificates, additional declarations and other documentation required for importations of sorghum must be verified prior to release of the material to the importer.

2. PRODUCT EXAMINATION

All shipments of imported sorghum are subject to inspection by an authorized CFIA inspector.

3. QUARANTINE ACTION

If the inspection of a shipment results in the detection of a quarantine pest, the infested shipment may be refused entry, treated or destroyed, as determined by the inspector. All costs are at the importer's expense.

X. NON COMPLIANCE

An inability to provide a valid Permit to Import or a Phytosanitary Certificate, Movement Certificate or other required document for the shipment may result in delay in releasing the material, its return to origin or its destruction at the importer's expense.

XI. OTHER REQUIREMENTS

The importation of grain sorghum for feed, including bird feed, is also governed under the *Health of Animals Act and Regulations*.

The importation of sorghum seed for propagation is also governed under the *Seeds Act and Regulations* (see Appendix 4).

Any importer wishing to know more about the requirements under the above Act and Regulations may contact the local offices of CFIA.

XII. FEES

The CFIA is charging fees in accordance with the *Plant Protection Fees Regulations*. For information regarding fees associated with imported product, please contact the Import Service Centres (ISC) at the following phone numbers: Eastern ISC - 1-877-493-0468; Central ISC - 1-800-835-4486; Western ISC - 1-888-732-6222. Anyone requiring other information regarding fees may contact any local CFIA office.

XIII. LIST OF APPENDICES

- Appendix 1 - Distribution of European corn borer, durra stem borer
- Appendix 2 - Fumigation treatment schedules for European corn borer and durra stem borer
- Appendix 3 - Additional Declarations and Movement Certificate conditions for European corn borer and the durra stem borer.
- Appendix 4 - Import requirements under the *Seeds Act and Regulations*
- Appendix 5- Summary of Import/Domestic Movement Requirements "Plant Protection Movement Requirements for Sorghum".

Greg Stubbings
Director
Plant Health and Production Division

Attachments (5)

APPENDIX 1

A. **Distribution of European Corn Borer, *Ostrinia nubilalis***

North Africa

Algeria, Egypt, Libya, Morocco and Tunisia.

Europe

Austria, Belgium, Britain, Bulgaria, Cyprus, the former Czechoslovakia, Denmark, France, Germany, Greece, Hungary, Ireland, The Netherlands, Norway, Poland, Portugal, Romania, Sardinia, Sicily, Spain, Sweden, Switzerland, the former USSR (Georgia, Moldova, Russia, Ukraine, incl. the Crimea) and the former Yugoslavia.

West Asia

Iran, Israel, Lebanon, Syria and Turkey.

North America

The United States: Alabama, Arkansas, Colorado, Connecticut, District of Columbia, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Massachusetts, Maryland, Maine, Michigan, Minnesota, Mississippi, Missouri, Montana, North Carolina, North Dakota, Nebraska, New Hampshire, New Jersey, New Mexico, New York, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Virginia, Vermont, Wisconsin, West Virginia and Wyoming.

Canada; All provinces **except British Columbia.**

B. **Distribution of durra stem borer, *Sesamia cretica*.**

Africa: Algeria, Cameroon, Chad, Egypt, Ethiopia, Kenya, Somalia, Togo, Libya, Mali, Morocco, Niger, Sudan and Tunisia.

Near and Middle East: Iran, Iraq, Israel, Jordan, Lebanon, Saudi Arabia, South Arabian Protectorates, Syria, Turkey and Yemen.

Mediterranean: Corsica, Crete, France, Greece, Italy, Sardinia, Sicily, Spain and the former Yugoslavia.

Other: Albania, Bulgaria, Canary Islands, India, Pakistan and Sikkim.

APPENDIX 2

FUMIGATION TREATMENT SCHEDULES FOR EUROPEAN CORN BORER and DURRA STEM BORER

SCHEDULE A DRY STALKS, HUSKS AND GRAIN (EXCEPTING SEED FOR PLANTING)

I. VACUUM FUMIGATION

a) Methyl Bromide (CH₃Br) in 66 cm. (26") Vacuum

Temperature Celsius	Temperature Fahrenheit	Dosage		Duration Hours
		g/m ³	lbs/1000 ft ³	
15° & above	60° & above	40	2.5	2.5
10° to 14°	50° to 59°	64	4.0	2.5
5° to 9°	40° to 49°	80	5.0	2.5
-1° to -2°	30° to 39°	104	6.5	2.5
-7° to -2°	20° to 29°	150	9.5	2.5

b) Live Steam in Vacuum

The steam should be introduced into a 64 cm (25") vacuum until a positive pressure of 0.7 kg./sq. cm (10 lbs./sq.inch) and a temperature of 115°C (240°F) is reached. Sustain that pressure and temperature for 20 minutes.

2. ATMOSPHERIC FUMIGATION in a gas tight chamber, railway car, container or van, or under a gas-tight tarpaulin, using Methyl Bromide (CH₃Br) with fans in operation to ensure distribution of the fumigant:

Temperature Celsius	Temperature Fahrenheit	Dosage		Duration		MINIMUM CONCENTRATION AT 2 HRS
		g/m ³	lbs/1000 ft ³	Hours	First 4 hrs	
15° & above	60° & above	48	3	24	20g	15g
10° to 14°	50° to 59°	80	5	24	30g	20g
5° to 9°	40° to 49°	112	7	24	40g	25g

APPENDIX 2 (cont'd)

SCHEDULE B WHOLE SEED FOR PLANTING OR PROPAGATION PURPOSES, WHEN IN PERMEABLE BAGS (FUMIGATION OF SEED IN BULK IS NOT RECOMMENDED). PRECAUTIONS FOR SEED FUMIGATION:

1. Do not fumigate seed with moisture content above 12%
2. Do not fumigate at temperatures below 10°C (50°F) or at temperatures in excess of 25°C (77°F).
3. Repetition of fumigation should be avoided.
4. Adhere strictly to recommended dosages and exposure periods.
5. Thoroughly aerate the seed immediately after the required period of exposure has been completed.
6. Fans must be used during atmospheric fumigation to ensure distribution of the fumigant.

1. VACUUM FUMIGATION

a) Methyl Bromide (CH₃Br) in 71 cm. (28") Vacuum

Temperature Celsius	Temperature Fahrenheit	Dosage		Duration Hours
		g/m ³	lbs/1000 ft ³	
15° to 15°	60° to 77°	40	2.5	2.5
10° to 14°	60° to 59°	64	4.0	2.5

- 2. ATMOSPHERIC FUMIGATION** in a gas-tight chamber, railway car, container or van, or under a gas-tight tarpaulin, using Methyl Bromide (CH₃Br) with fans in operation to ensure distribution of the fumigant:

Temperature Celsius	Temperature Fahrenheit	Dosage		Duration Hours
		g/m ³	lb/1000 ft ³	
20° to 25°	70° to 77°	16	1.0	24
10° to 19°	50° to 69°	24	1.5	24
10° to 19°	50° to 69°	48	3.0	4

APPENDIX 3

Additional Declarations and Movement Certificate conditions for European corn borer; and Additional Declaration for the durra stem borer

The Phytosanitary Certificate must state one of the following additional declaration or must have the treatment section filled out. The Movement Certificate must contain one of the following conditions.

"The material originated in an area where the European corn borer does not occur."

or

"The material was passed through a 1.25 cm screen to exclude large stem fragments."

Phytosanitary Certificate Additional Declarations for durra stem borer

The Phytosanitary Certificate must state the following additional declarations or must have the treatment section filled out.

"The material originated in an area where the durra stem borer does not occur."

APPENDIX 4

Import Requirements under the Seeds Act and Regulations

All seed imported into Canada must be free of Primary Noxious Weed Seeds as set out in the Weed Seeds Order.

All seed imported into Canada must meet the minimum standard as set out in Schedule I, Table IV of the Seeds Regulations, unless it is imported for further conditioning, or in the case of germination standards, for research purposes.

Note: **The following does not apply to seed lots of Sorghum less than 5 kg in size**

Each seed lot that is imported into Canada shall be **accompanied by a statement** that contains the following information:

- c the name of the kind or species of seed;
- c the quantity of seed;
- c the variety name of the seed
- c the lot designation of the seed;
- c the name and address of the exporter; and
- c the name and address of the importer.

The seed shall also be **accompanied by a seed analysis certificate** indicating that the seed has been tested pursuant to paragraph 11(1)(b) of the Seeds Regulations.

The importer shall provide the Department with a signed declaration stating

- c the information specified above;
- c the country where the crop from which the seed is derived was grown;
- c the telephone number of the importer; and
- c the intended purposes of the imported seed.

Where seed is imported into Canada by a person other than an establishment registered pursuant to Part IV as an authorized importer, it shall be kept separate and intact in the original packages until a notice of release has been issued by the CFIA indicating that the seed meets the requirements of the Seeds Regulations.

Seed of any variety is exempt from the variety registration requirement of the Seeds Act in so far as it may be imported into Canada for the purpose of conditioning, research seeding by the importer, or sale pursuant to subsection 5(4) of the Seeds Regulations.

**PLANT PROTECTION MOVEMENT REQUIREMENTS FOR SORGHUM
(Seed and Grain, Grain Cleaning and Milling By-Products and broomcorn)**

Commodity	Source Country/State	Canadian Province of Destination	Regulated Pests ECB & DSB	Movement Requirements Permit Phyto	Instructions to Importers/CFIA Inspectors, Certifying Agencies and Others
<p>A. Processed and Semi-Processed Products (hulled, milled, ground, broken, cooked) e.g. flour, hulled grain, middlings, shorts, bran;</p> <p>Feed pellets and finished feed;</p> <p>Whole or cracked grain, sprouted grains / malt for industrial, food or feed use (not for planting).</p> <p>Finished brooms and whisks</p> <p>Breeder, foundation or certified seed for propagation graded, labelled and shipped according to the standard of the AAOSCA</p>	All countries	All provinces		None Required	May be subject to requirements under the Animal Health Act and Regulations

**PLANT PROTECTION MOVEMENT REQUIREMENTS FOR SORGHUM
(Seed and Grain, Grain Cleaning and Milling By-Products and broomcorn)**

Commodity	Source Country/State	Canadian Province of Destination	Regulated Pests ECB & DSB	Movement Requirements Permit Phyto	Instructions to Importers/CFIA Inspectors, Certifying Agencies and Others
<p>B. Seed (propagative) Common / uncertified seed only</p>	<p>I) USA (excluding Hawaii) ----ECB infested states</p> <p>----non-infested (ECB) states</p> <p>ii) Hungary & Mexico</p> <p>iii) Other countries & Hawaii</p>	<p>All provinces except BC</p> <p>BC</p> <p>All provinces except BC</p> <p>BC</p> <p>All provinces</p> <p>All provinces</p>	<p>European corn borer (ECB)</p> <p>“</p> <p>”</p> <p>“</p> <p>”</p> <p>ECB & DSB</p>	<p>no permit No phyto</p> <p>no permit phyto with add. Dec. for freedom from ECB</p> <p>no permit No phyto</p> <p>no permit Phyto (Cert. Of origin accepted in lieu of phyto)</p> <p>no permit Phyto (Add. Dec. Required on phyto for freedom from ECB if from Hungary and destined to BC.)</p> <p>PROHIBITED (Prior approval required from CFIA / PRA required)</p>	<p>Certified seed is exempt from the requirement for a permit and phyto. Includes breeder and foundation seed prepared, labelled and shipped according to CFIA recognized standards.</p>
<p>C. Seed for research and gene pool</p>	<p>USA, Hungary & Mexico (excluding Hawaii)</p> <p>All other countries & Hawaii</p>	<p>All provinces</p>	<p>ECB & DSB</p>	<p>Permit Phyto</p>	<p>----- -</p> <p>For countries other than USA, Hungary and Mexico, a Section 43 permit with permit conditions is required.</p>

**PLANT PROTECTION MOVEMENT REQUIREMENTS FOR SORGHUM
(Seed and Grain, Grain Cleaning and Milling By-Products and broomcorn)**

Commodity	Source Country/State	Canadian Province of Destination	Regulated Pests ECB & DSB	Movement Requirements Permit Phyto	Instructions to Importers/CFIA Inspectors, Certifying Agencies and Others	
D. Broomcorn (Unfinished broomcorn material only)	I) USA ----ECB infested states	All provinces except BC	European corn borer (ECB)	no permit phyto	No	Finished brooms from all sources to all Canadian destinations are exempt from the requirement for a permit and phyto.
		BC	“	no permit with Dec. freedom from ECB	phyto add. for	
	----non-infested (ECB) states	All provinces except BC	”	no permit phyto	No	
		BC	“	no permit Phyto (Cert. Of origin accepted in lieu of phyto)		
	ii) Hungary & Mexico	All provinces	”	no permit Phyto (Add. Dec. Required on phyto for freedom from ECB if from Hungary and destined to BC.)	Phyto	
	iii) Other countries & Hawaii	All provinces		PROHIBITED (Prior approval required from CFIA / PRA required)		