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	<b>EFFECTIVE DATE May 29, 2002 (Original)</b>
<b>Title:</b> INTERIM PHYTOSANITARY REQUIREMENTS TO PREVENT THE ENTRY AND SPREAD OF SWEDE MIDGE ( <i>Contarinia nasturtii</i> )	

File

**SUBJECT:**

This directive contains the phytosanitary requirements to prevent the entry and spread of swede midge (*Contarinia nasturtii*). The directive outlines requirements for the importation and domestic movement of transplants of host species and soil that may contain life stages of swede midge.

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Review

This directive will be reviewed as further pest risk assessment information is available and as information on the infested status of Canada becomes available. The contact for this directive is Joanne Rousson. For further information or clarification, please contact the Horticulture section.

Endorsement

Approved by:

<hr/> <p>Director Plant Health and Production Division</p>
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Amendment Record

Amendments to this directive will be dated and distributed as outlined in the distribution below.

Distribution

1. Directive mail list (Regions, PHRA, USDA)
2. Provincial Government, Industry (via Regions)
3. National Industry Organizations (determined by Author)
4. Internet

Introduction

In 1996, damage symptoms typical of the swede midge were observed by growers in broccoli crops east of Toronto, ON. When no insect larvae were found in relation with these symptoms the damage was mistakenly diagnosed as a nutrient deficiency. The CFIA was first made aware of the presence of swede midge in August, 2001. Following publication of survey results in 2001 a Pest Risk Assessment (PRA) was initiated. This PRA has now been completed and the results indicate that swede midge is a quarantine pest.

Swede midge is of European origin and is widespread in EU countries. The midge is a poor flyer and

thus the rate of natural spread is relatively slow. The pest can spread with vegetable transplants and with the soil associated with transplants. Damage is done as the larvae feed on the developing vegetative material, destroying the florets in broccoli and cauliflower and causing damage called a “blind” centre. It also causes distorted growth including “cabbage topping” or the death of the main shoot and the development of a number of secondary shoots. The PRA unit is working to compile more information on the damage done to canola and the risk of pathways such as fresh vegetables, used boxes and transplants.

Scope This directive is intended for the use of importers, CFIA inspectors, Canada Customs & Revenue Agency, exporters and plant protection organizations in the U.S. and Europe.

References NAPPO Standard 978.008  
Department of the Secretary of State of Canada. *The Canadian Style: A Guide to Writing and Editing*. Toronto, 1993.

## 1.0 General Requirements

### 1.1 Legislative Authority

*The Plant Protection Act, s.c. 1990, c.22*  
*The Plant Protection Regulations, SOR/95-212*  
*Canadian Food Inspection Agency Fees Notice, Canada Gazette, Part 1 (05/13/2000)*

### 1.2 Fees

The CFIA is charging fees in accordance with the *Canadian Food Inspection Agency Fees Notice*. 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 or visit us at our website at [www.inspection.gc.ca](http://www.inspection.gc.ca).

### 1.3 Regulated pests

Swede midge (*Contarinia nasturtii*(Kieffer))

#### Synonyms

*Contarinia gallaica* Tavares, 1916

*Contarinia geisenheyneri* Rübsaamen, 1917  
*Contarinia isatidis* Rübsaamen, 1910  
*Contarinia pernicioso* Rübsaamen, 1914  
*Contarinia pontevedrensis* Tavares, 1916  
*Contarinia torquens* De Meijere, 1906  
*Contarinia tudensis* Tavares, 1916  
*Diplosis nasturtii* Kieffer, 1888  
*Diplosis ruderalis* Kieffer, 1890

**Common Name(s):**

ENGLISH swede midge, cabbage crown gall midge, cabbage gall midge

FRENCH la cécidomyie du chou-fleur

**1.4 Regulated Commodities**

All transplants or seedlings for propagation of host plant species of swede midge (e.g. members of the family Brassicaceae (Cruciferae) including, but not limited to: broccoli, cauliflower, cabbage, horseradish, swede, turnip, rutabaga, Asian cabbage, bok choy, radish and kale.) This also applies to ornamental hosts of swede midge. Please see Appendix 1 for a list of recorded host species of swede midge.

Soil, alone or in association with plants.

Used Farm Machinery and Equipment - all machinery and equipment used in the cultivation or management of the regulated crops, including tractors, harvesters, blowers, rakes, sprayers and cultivators.

**1.5 Commodities Exempt**

Fresh and frozen brassica plant parts for consumption and seed of Brassicaceae plants

**1.6 Regulated Areas**

Areas infested or suspected to be infested with swede midge.

Please see Appendix 2 for a detailed list of regulated countries and regulated areas within Canada for swede midge.

## 2.0 Specific Requirements

### 2.1 Prohibitions

#### 2.1.1 Transplants

Movement of host material transplants from any regulated area to non-regulated areas in Canada is prohibited unless produced under a certification program approved by the CFIA.

**NOTE:** The CFIA will consider certification programs proposed by a regulated country of origin or for domestic movement on a case-by-case basis.

#### 2.1.2 Soil

##### 2.1.2.1 From Regulated Areas of Canada

Movement of soil alone or in association with plants from a field in a regulated area where host plants of swede midge have been grown in the past three (3) years to non-regulated area is prohibited.

##### 2.1.2.2 From the Continental U.S. and Off-Continent Sources

Soil from off-continent sources is prohibited entry to Canada and specific requirements are in place for the importation of soil in association with plants from the US. Please refer to D-95-26, "Phytosanitary requirements for soil and related matter, alone or in association with plants" for details.

#### 2.1.3 Equipment and Machinery From Regulated Areas of Canada

For domestic shipments originating in infested areas of Canada, the shipper must first obtain a Movement Certificate issued by a CFIA inspector.

Conditions for import and movement of equipment from off-continent are contained in D-95-26 "Phytosanitary requirements for soil and related matter, alone or in association with plants".

### 2.2 Inspection Requirements

All shipments of host transplants or seedlings for propagation originating from regulated areas are subject to inspection and sampling upon arrival to ensure compliance with these requirements and to determine if pests are present.

The inspector shall:

- 1) Inspect the material for symptoms of swede midge and ensure that the material meets the requirements of this directive
- 2) If the material has symptoms of swede midge infestation the inspector must submit samples of symptomatic plants to the Centre for Expertise for Plant Quarantine Pests (CPQP) for identification and confirmation. The symptoms of swede midge attack include the following:
  - leaf stalks may be swollen, distorted or twisted resulting in the death of the main shoot
  - buds may be “blind”, that is, the inflorescence may be destroyed (nothing inside the wrapper leaves)
  - distortion of leaves
  - small yellow “jumping” larvae

Please see the Pest Fact Sheet on Swede Midge for further information.

Material with symptoms of swede midge infestation must be placed under Notice of Quarantine until CPQP results are available.

- 3) If the material is infested with swede midge or does not otherwise meet the requirements of this directive, treat the material as outlined in Section 2.3, Non-compliance.

### **2.3 Non-Compliance**

Shipments which do not meet the requirements of this directive, or are found to be infested with quarantine pests may be refused entry, returned to origin, or disposed of at the importer's expense. The person in care or control of the material is responsible for any and all costs relating to treatment, disposal or removal, including costs incurred by CFIA to monitor the action taken. Please also refer to D-01-06 to determine if a notification of non-compliance should be sent.

### **3. Appendices**

- Appendix 1 Reported Hosts of Swede Midge
- Appendix 2 List of Regulated Countries and Regulated Areas in Canada for Swede Midge

## APPENDIX 1

## Reported Hosts of Swede Midge

SCIENTIFIC NAME	COMMON NAME
<i>Armoracia rusticana</i>	Horseradish
<i>Brassica amplexicaulis</i>	
<i>Brassica napus</i>	
<i>Brassica napus var napobrassica</i>	Rutabaga, swede
<i>Brassica napus var napus</i>	Canola/ Rapeseed
<i>Brassica nigra</i>	Black mustard
<i>Brassica oleracea</i>	
<i>Brassica oleracea var botrytis</i>	Cauliflower
<i>Brassica oleracea var capitata</i>	Cabbage, red / white
<i>Brassica oleracea var gemmifera</i>	Brussels sprouts
<i>Brassica oleracea var italica</i>	Broccoli
<i>Brassica oleracea var ramosa</i>	Kale
<i>Brassica oleracea var sabauda</i>	Savoy cabbage
<i>Brassica oleracea var viridis</i>	Collards, cow cabbage
<i>Brassica rapa subsp campestris</i>	Field mustard (canola/rapeseed)
<i>Brassica rapa subsp pekinensis</i>	Chinese cabbage
<i>Brassica rapa subsp rapa</i>	Rapini / turnip
<i>Brassica sinapistrum</i>	
<i>Capsella bursa-pastoris</i>	Shepherd's-purse
<i>Eruca sativa</i>	Arugula / garden rocket
<i>Erucastrum incanum</i>	
<i>Erysimum cheiranthoides</i>	Wormseed mustard
<i>Isatis tinctoria</i>	Dyer's woad



<i>Lepidium sativum</i>	Garden cress
<i>Nasturtium amphibium</i>	Watercress
<i>Nasturtium officinale</i>	Marsh watercress
<i>Nasturtium palustre</i>	Creeping watercress
<i>Nasturtium silvestre</i>	
<i>Raphanus caudatus</i>	
<i>Raphanus raphanistrum</i>	Wild radish
<i>Raphanus sativus</i>	Radish
<i>Raphanus sativus var niger</i>	Chinese radish
<i>Raphanus silvestris</i>	
<i>Rapistrum rugosum</i>	Common giant mustard, turnipweed -rorippa
<i>Sinapis alba subsp alba</i>	White mustard
<i>Sinapis arvensis subsp arvensis</i>	Charlock, wild mustard
<i>Sisymbrium officinale</i>	Hedge mustard
<i>Thlaspi arvense</i>	Field pennycress

**APPENDIX 2**

**List of Regulated Countries and Regulated Areas within Canada  
for Swede Midge**

[www.inspection.gc.ca/english/plaveg/protect/dir/smidgee.shtml](http://www.inspection.gc.ca/english/plaveg/protect/dir/smidgee.shtml)