

## INSTRUCTIONS TO QUARANTINE INSPECTORS AT ENTRY POINT FOR IMPORTED GARLIC FROM CHINA INTO NEPAL

To prevent the introduction of quarantine pests, imported garlic from China must undergo **strict inspection** at designated entry points by the EP. The following **symptoms guide** will help quarantine inspectors identify potential infestations or infections caused by pests of concern at the point of entry while executing the Release Order (RO).

### 1. Pest name: *Delila antiqua* (Onion fly)



Fig. a

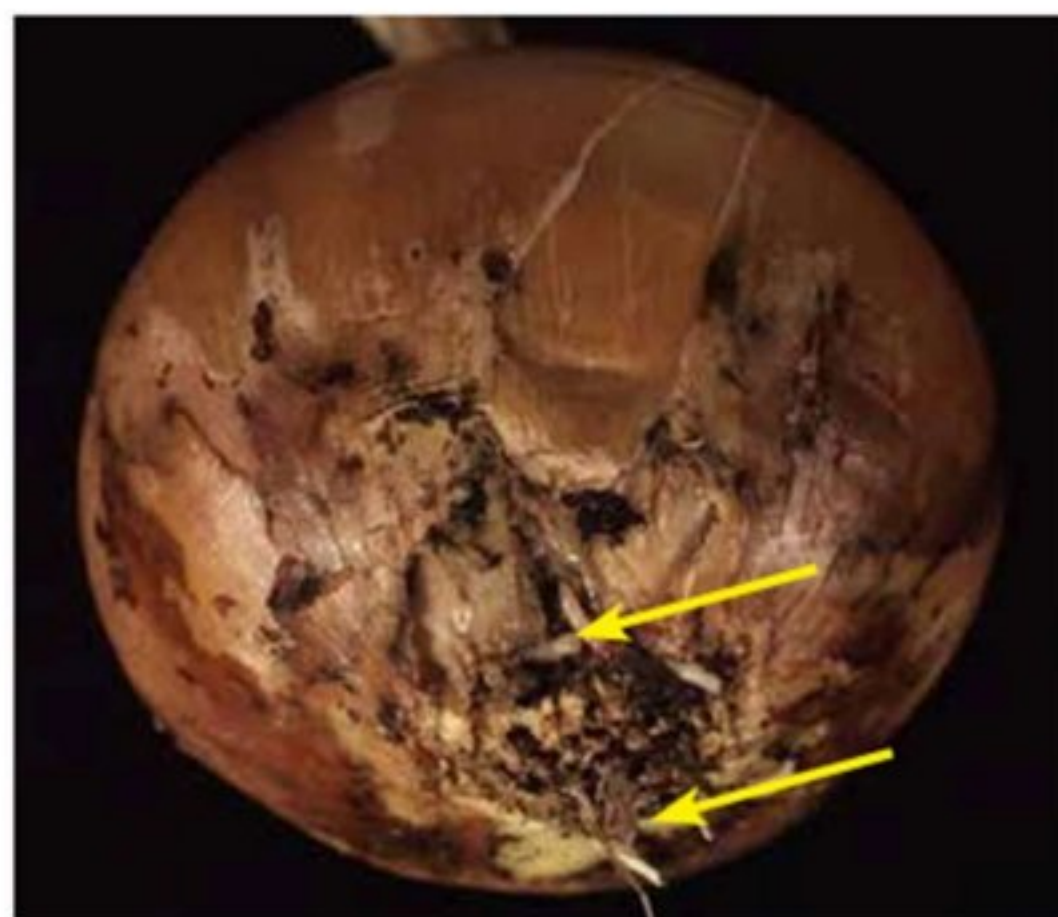


Fig. b

Fig. 1. Onion maggot, *Delia antiqua*, damage to (a) garlic bulb (b) onion bulb

Fig. 1a source: [www.ipm.ucdavis.edu/PMG/r584300211.html](http://www.ipm.ucdavis.edu/PMG/r584300211.html)

Fig. 1b source: [www.nysipm.cornell.edu/factsheets/vegetables/om.pdf](http://www.nysipm.cornell.edu/factsheets/vegetables/om.pdf)



Fig. a

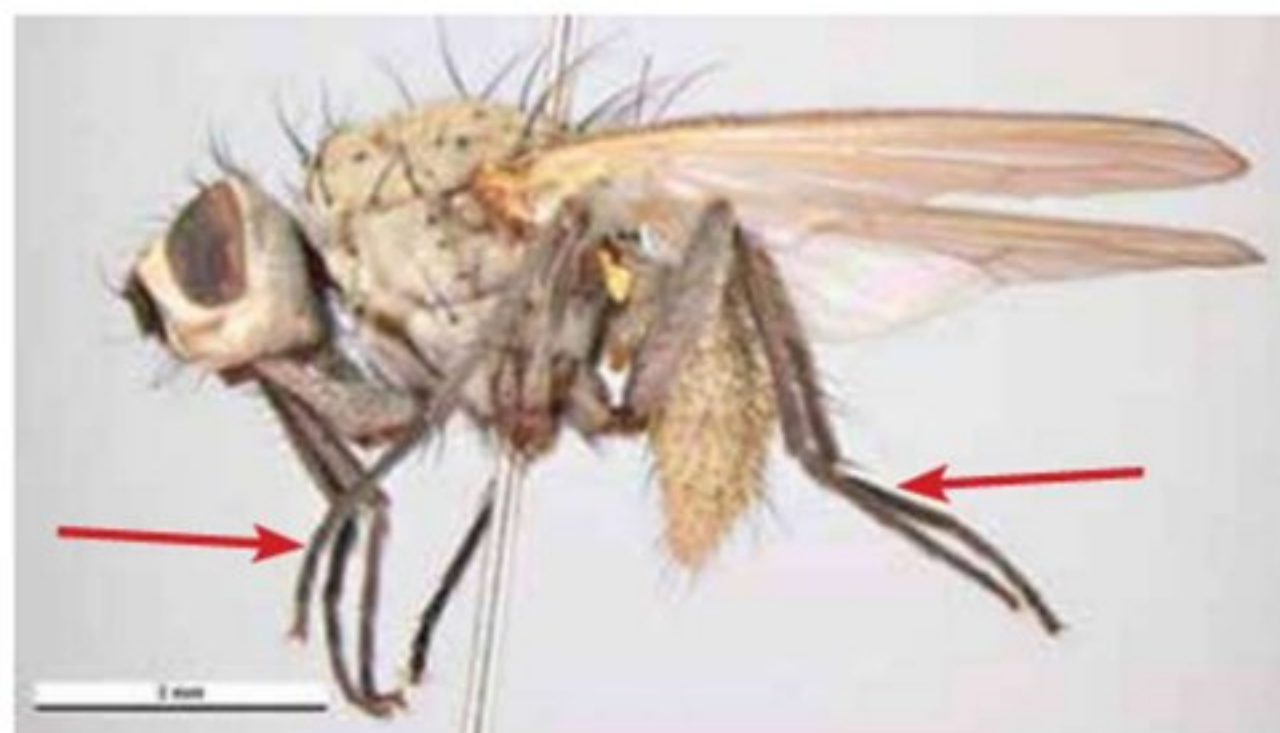


Fig. b

Fig. 2. *Delia antiqua* fly (a) dorsal view (b) lateral view

Source: [www.planthealthaustralia.com.au/wp-content/uploads/2013/03/Onion-fly-FS.pdf](http://www.planthealthaustralia.com.au/wp-content/uploads/2013/03/Onion-fly-FS.pdf)

Source: <https://acta.mendelu.cz/pdfs/acu/2016/03/18.pdf>

Source : <https://pmc.ncbi.nlm.nih.gov/articles/PMC6771725/figure/ps5478-fig-0001/>

**Symptoms (detection criteria):** Presence of larvae/maggots inside the bulb or rotting of the bulb.

**Inspection Guide:** Look for presence of larvae/ maggots inside the bulb; especially in the rotten ones, using hand lens.



**Action:** If the unidentified maggots are present, take sample and supply to diagnostic laboratory at the border point. Do not release the consignment until the result from diagnostic laboratory declares the sample to be pest-free.

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**2. Pest name: *Aphelenchoides fragariae* (Strawberry crimp nematode)**



**Figure 2: a) Anterior part of *A. fragariae* b) Yellow leaf symptom c) Rotted bulb**

**Source:** PINC, 2010

**Symptoms (detection criteria):** No symptoms on bulbs. Symptoms includes leaf crinkling or stunting in post-entry planting. Bulbs with roots may contain the nematode.

**Inspection Guide:** Take 5 sacks from 20 ft container at random and take out 40 bulbs randomly from each sack and inspect if any root parts adhered.

**Action:** If the presence of pest is suspected in the sample, take the sample and send it to the laboratory of Quarantine Office at the border. Wait for diagnosis from laboratory. Do not release the consignment.

**3. Pest name: *Ditylenchus dipsaci* (Stem and bulb nematode)**



**Figure 3: Bulb infected by *Ditylenchus dipsaci***

**Source:** CPC, 2007

**Symptoms (detection criteria):** *D. dipsaci* shows parasitic adaptation in its ability to invade solid parenchyma tissue following enzymatic lysis of the pectic or middle lamella layer between adjacent cell walls, leading to separation and rounding of the cells. This causes the typical glistening appearance or mealy texture of infested tissues, reminiscent of the flesh of



an over-ripe apple. Bulb can carry eggs, juvenile and adults of nematodes. Bulbs are deformed and may be rotted. Older infected bulbs show swelling (bloat) of scales with open cracks often occurring at the root disc of the bulbs.

**Inspection Guide:** Take 5 sacks from 20 ft container at random and take out 40 bulbs randomly from each sack and look for the symptoms.

**Action:** If symptoms are present in the bulb, take the sample and send it to the laboratory of Quarantine Office at the border. Wait for diagnosis from laboratory. Do not release the consignment.

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#### 4. Pest name: *Ditylenchus destructor* (Potato tuber nematode)



Figure 4. a) Damage symptom of *D. destructor* on garlic b) female *Ditylenchus destructor*

Source:

<https://www.mdpi.com/2311-7524/10/9/902#:~:text=In%20garlic%20plants%2C%20Ditylenchus%20dipsaci,list%20as%20internationally%20quarantined%20species.>

Fig. a)

Fig. b)

**Symptoms (detection criteria):** *D. destructor* commonly infects the underground parts of plants causing discoloration and rotting of plant tissue.

**Inspection Guide:** Take 5 sacks from 20 ft container at random and take out 40 bulbs randomly from each sack and look for the rotted and discolored bulbs.

**Action:** If symptoms are present in the bulb, take the sample and send it to the laboratory of Quarantine Office at the border. Wait for diagnosis from laboratory. Do not release the consignment.

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#### 5. Pest name: *Rotylenchulus reniformis* (Reniform nematode)





Fig. 5 Bulb rot due to *Rotylenchulus reniformis* Fig. 6 *Rotylenchulus reniformis*

Source: CPC, 2007

Source: [Jonathan D. Eisenback, Virginia Polytechnic Institute and State University, Bugwood.org](http://JonathanD.Eisenback@VirginiaPolytechnicInstituteandStateUniversity.edu)

**Symptoms (detection criteria):** Since the symptoms of *Rotylenchulus reniformis* on garlic bulbs have not been well-documented, it is challenging to determine its presence or absence through visual observation alone. The pest, infested in the bulb, is visible under microscopic examination. Use sieving method for detection within 24 hours and identify by compound microscopic examination using morphological characters. molecular identification should be conducted to confirm the presence or absence of the pathogen.

**Inspection Guide:** Take 5 sacks from 20 ft container at random and take out 40 bulbs randomly from each sack and look for the symptoms.

**Action:** If the presence of pest is suspected in the sample, take the sample and send it to the laboratory of Quarantine Office at the border. Wait for diagnosis from laboratory. Do not release the consignment.

## 6. Pest name: *Burkholderia cepacia* (Sour skin of onion)



Fig. 6. *Burkholderia cepacia*: symptoms on leaf and bulb

Source: [www. Alliumnet.com](http://www.Alliumnet.com)





Fig.7 Symptoms on bulb due to *Burkholderia cepacia*

**Symptoms (detection criteria):** Affected bulbs frequently produce a sour or vinegar-like odour. Bacteria can cause a yellow to brown discoloration of the garlic bulb or the slimy scales in the bulbs. The bacteria can rot only the center, only the outer scales, or only certain scales. Infected scales can be firm or completely rotten and broken down or mushy.

**Inspection Guide:** Take 5 sacks from 20 ft container at random and take out 40 bulbs randomly from each sack and look for the symptoms.

**Action:** If you see symptom in the bulb, take sample and send to the laboratory of Quarantine Office at the border. Wait for diagnosis from laboratory. Do not release the consignment.

#### 7. Pest name: *Pseudomonas marginalis* pv. *marginalis* (Lettuce marginal leaf blight)



Figure 8. Marginal leaf blight caused by *P. marginalis* pv. *marginalis*

Figure 9. Bacterial colonies in selected media

Source: <http://blog.daum.net>

**Symptoms (detection criteria) & Inspection Guide:** Plant parts liable to carry the pest in trade/transport is bulb and symptoms visible to the naked eyes. The symptoms consist of a soft rot of bulb, starting with slightly sunken, water soaked, light to dark lesions.



**Inspection Guide:** Take 5 sacks from 20 ft container at random and take out 40 bulbs randomly from each sack and look for the symptoms.

**Action:** If symptoms are present in the bulb, take the sample and send it to the laboratory of Quarantine Office at the border. Wait for diagnosis from laboratory. Do not release the consignment.

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**8. Pest name: *Candidatus Phytoplasma asteris* (Yellow disease phytoplasmas)**



Figure 10: Symptom shown due to infection of Phytoplasma in Garlic  
Source: <https://plumcreekgarlic.com/2024/08/01/phytoplasma/>

**Symptoms (detection criteria):**

- Bulbs are soft and small.
- Discoloration of the wrapper of the bulbs with dark streaking,
- Unusual smell to the bulb.
- Very poor emergence of infected seed.

**Inspection Guide:** Take 5 sacks from 20 ft container at random and take out 40 bulbs randomly from each sack and look for the symptoms.

**Action:** If the presence of pest is suspected in the sample, take the sample and send it to the laboratory of Quarantine Office at the border. Wait for diagnosis from laboratory. Do not release the consignment.

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**9. Pest name: *Ciborinia alli* (Neck rot of allium)**





Figure 11. Symptoms caused by *Ciborinia alli* on onion

Source: <https://extension.usu.edu/vegetableguide/onion/botrytis-neck-rot>

**Symptoms (detection criteria) & Inspection Guide:** Mycelial neck rot" in garlic, which is a storage rot that can lead to soft, water-soaked tissue and yellow discoloration, especially around the neck of the bulb. Symptoms on post-entry planting conditions are pale, water-soaked spots on leaves and flower stems, leaves might wilt and turn yellow, brown or greyish white; black sclerotia are formed in the leaves.

**Inspection Guide:** Take 5 sacks from 20 ft container at random and take out 40 bulbs randomly from each sack and look for the symptoms. Focus on damaged and wet bulbs.

**Action:** If symptoms are present in the bulb, take the sample and send it to the laboratory of Quarantine Office at the border. Wait for diagnosis from laboratory. Do not release the consignment.

**Information:** In storage conditions, increase of carbon dioxide and decrease of oxygen gas content reduces growth and development of fungus in bulbs.

#### 10. Pest name: *Botryotinia porri* (Botrytis rot of garlic)



Figure. 12 Symptoms due to *Botryotinia porri* Figure. 13 *Botryotinia porri* colony



**Source:** <https://www.cabidigitallibrary.org/doi/full/10.1079/cabicompendium.9610>

**Symptoms (detection criteria):** Latent infection within bulb tissues. Sclerotia may be formed in bulbs or cloves.

**Inspection Guide:** Take 5 sacks from 20 ft container at random and take out 40 bulbs randomly from each sack and look for sclerotia in cloves/bulbs.

**Action:** If symptoms are present in the bulb, take the sample and send it to the laboratory of Quarantine Office at the border. Wait for diagnosis from laboratory. Do not release the consignment.

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**11. Pest name: *Verticillium dahlia***



Figure 14. Symptom due to *Verticillium dahlia*

**Source:** <https://homegarden.cahnr.uconn.edu/factsheets/verticillium-wilt/>

**Symptoms (detection criteria):** Symptoms not reported in bulbs directly; Post-entry planting may show wilting, yellowing or browning of leaves, stunted growth, and brown streaks in the stem tissue when cut.

**Inspection Guide:** Take 5 sacks from 20 ft container at random and take out 40 bulbs randomly from each sack and cut the bulbs to see if there is any discoloration in bulbs.

**Action:** If the pest is suspected to be present in the sample, take the sample and send it to the laboratory of Quarantine Office at the border. Wait for diagnosis from laboratory. Do not release the consignment.

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**12. Pest name: *Candidatus Phytoplasma trifolii* (Clover proliferation phytoplasma)**





Figure 15. Symptoms on bulb due to *Candidatus Phytoplasma trifolii*

Source: <https://prod.senasica.gob.mx/ALERTAS/inicio/pages/single.php?noticia=3616>

**Symptoms (detection criteria):** Latent infection on bulbs, very reduced bulb size, bright leaves and little or no differentiation of teeth, which are known as ‘waxed’ garlic.

**Inspection Guide:** Take 5 sacks from 20 ft container at random and take out 40 bulbs randomly from each sack and look for the symptoms. Focus on soft bulbs with reduced size.

**Action:** If the presence of pest is suspected in the sample, take the sample and send it to the laboratory of Quarantine Office at the border. Wait for diagnosis from laboratory. Do not release the consignment.

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## INSTRUCTIONS TO THE QUARANTINE PEST DIAGNOSTIC LABORATORIES AT BORDER OFFICES FOR IMPORTED GARLIC FROM CHINA INTO NEPAL

### Lab Testing Methods for Quarantine Pests

#### A. Insect Pests

Pest	Testing Method	Detection Criteria	Action
<i>Delila antiqua</i>	Visual inspection and Microscopic examination	Observe eggs or maggots in bulbs. Eggs are white, elongate-ovoid, ~1.25 mm long; maggots are creamy-white, ~8 mm long, tapering towards the head with two breathing spiracles at the posterior end.	If the test is positive and insect is detected, order the importer for fumigation treatment with methyl bromide @32g/M <sup>3</sup> for 24 hours above 21 °C. Ensure proper ventilation after treatment. Allow drying in shade before post entry transportation. Only registered pesticide applicator (according to pesticide act) is allowed to treat the consignment.

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## B. Fungal Pathogens

Pathogen	Testing Method	Detection Criteria	Action
<i>Botryotinia porri</i>	Visual inspection Standard blotter test and microscopic examination, and Molecular diagnosis	Look for sclerotia in visual inspection bulbs Use compound microscope to observe conidia and sclerotia. Confirm latent infection via PCR	If the lab test is positive, instruct the checkpoint to reject and re-export the shipment.
<i>Ciborinia alli</i>	Visual inspection, Standard Blotter test and microscopic examination, Post-entry planting, and Molecular diagnosis	Symptoms not reported in bulbs directly; post-entry planting shows pale, water-soaked spots on leaves, wilting, and black sclerotia formation. Microscopic confirmation of sclerotia.	If the lab test is positive, instruct the checkpoint to reject and re-export the shipment.
<i>Verticillium dahliae</i>	Visual inspection, Standard Blotter test and microscopic examination, Post-entry planting, and Molecular diagnosis	Symptoms not reported in bulbs directly; Post-entry planting may show wilting, yellowing or browning of leaves, stunted growth, and brown streaks in the stem tissue when cut.	If the lab test is positive, instruct the checkpoint to reject and re-export the shipment.

## C. Bacterial Pathogens

Bacterium	Testing Method	Detection Criteria	Action
<i>Burkholderia cepacia</i>	Visual inspection, Odor test, Molecular diagnosis (PCR with primers LPW13807/LPW13808)	Yellow to brown discoloration, sour/vinegar-like odor, rotting of scales (center, outer, or specific). PCR confirmation (amplicon size: 336 bp).	If the lab test is positive, instruct the checkpoint to reject and re-export the shipment.
<i>Pseudomonas marginalis</i> pv. <i>marginalis</i>	Visual inspection, Molecular diagnosis (PCR with 16s rDNA primers d1/RP2)	Soft rot of bulb, water-soaked lesions (light to dark). PCR confirmation (amplicon size: 1550 bp).	If the lab test is positive, instruct the checkpoint to reject and re-export the shipment.



Bacterium	Testing Method	Detection Criteria	Action
<b>D. Phytoplasma Pathogen</b>			
<b>Phytoplasma</b>	<b>Testing Method</b>	<b>Detection Criteria</b>	<b>Action</b>
<i>Candidatus Phytoplasma asteris</i>	Molecular diagnosis	qPCR	If the lab test is positive, instruct the checkpoint to reject and re-export the shipment.
<i>Candidatus Phytoplasma trifolii</i>	Molecular diagnosis	Direct PCR followed by nested PCR	If the lab test is positive, instruct the checkpoint to reject and re-export the shipment.
<b>E. Nematodes</b>			
<b>Nematodes</b>	<b>Testing Method</b>	<b>Detection Criteria</b>	<b>Action</b>
<i>Aphelenchoides fragariae</i>	Microscopic examination	Use sieving method for detection within 24 hours and identify associated nematodes by compound microscopic examination using morphological characters such as weak sclerotized head region, offset cephalic region, weak, short stylet with very small knob, well developed spherical medium bulb, esophagous gland dorsally overlap, monodelphic, conoid tail	If the test is positive and nematode is detected, order the importer for fumigation treatment with methyl bromide @32g/M <sup>3</sup> for 24 hours above 21 °C. Ensure proper ventilation after treatment. Allow drying in shade before post entry transportation. Only registered pesticide applicator (according to pesticide act) is allowed to treat the consignment.
<i>Rotylenchulus reniformis</i>	Microscopic examination	Use sieving method for detection within 24 hours and identify associated nematodes by compound microscopic examination using morphological characters of immature female: Body slender, assuming an open spiral shape to C- shape. Lip region elevated but slightly depression with body, conoid, continuous with	If the test is positive and nematode is detected, order the importer for fumigation treatment with methyl bromide @32g/M <sup>3</sup> for 24 hours above 21 °C. Ensure proper ventilation after treatment. Allow drying in shade before post entry transportation. Only registered pesticide applicator (according to pesticide act) is



Nematodes	Testing Method	Detection Criteria	Action
		body contour and with 4-6 annules (usually 5). Labial framework heavily cuticularized. Lateral fields non areolate; deirids absent; phasmids pore-like locate anterior to anus, about a body width or less behind the anus. Stylet robust with large, knobs rounded, basal knob in 90° position with stylet; orifice of dorsal oesophageal gland duct distinct, about one stylet length behind the stylet knobs. Median oesophageal bulb oval with prominent valve plates. Oesophageal gland lobes overlapping intestine laterally and mainly ventrally excretory pore near base of isthmus. Vulva not prominent, genital tracts amphididelphic, tail short with commonly truncated.	allowed to treat the consignment.
<i>Ditylenchus dipsaci</i>	Microscopic examination	To extract the nematodes, the affected scales of bulbs (inner scales mainly) or garlic cloves are cut into small pieces and put in a container (e.g. Petri dish) with tap water at room temperature. To obtain a clear suspension the pieces may be placed on a sieve of 200–250 µm aperture covered with filter paper, as a support (Oostenbrink dish technique). After 1 h or more the nematodes can be observed with a stereomicroscope (at least 40× magnification).	If the test is positive and nematode is detected, order the importer for fumigation treatment with methyl bromide @32g/M <sup>3</sup> for 24 hours above 21 °C. Ensure proper ventilation after treatment. Allow drying in shade before post entry transportation. Only registered pesticide applicator (according to pesticide act) is allowed to treat the consignment.
<i>Ditylenchus destructor</i>	Microscopic examination	To extract the nematodes, the affected scales of bulbs (inner scales mainly) or garlic cloves are cut into small pieces and put in a container (e.g. Petri	If the test is positive and nematode is detected, order the importer for fumigation treatment with methyl bromide @32g/M <sup>3</sup> for 24



Nematodes	Testing Method	Detection Criteria	Action
		dish) with tap water at room temperature. To obtain a clear suspension the pieces may be placed on a sieve of 200–250 µm aperture covered with filter paper, as a support (Oostenbrink dish technique). After 1 h or more the nematodes can be observed with a stereomicroscope (at least 40× magnification).	hours above 21 °C. Ensure proper ventilation after treatment. Allow drying in shade before post entry transportation. Only registered pesticide applicator (according to pesticide act) is allowed to treat the consignment.

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### 3. Reporting & Compliance

- **Positive Test:** If a quarantine pest is detected, the consignment must be **quarantined, re-exported, or destroyed**.
- **Negative Test:** If no pests are found, the consignment is cleared for **customs clearance**.
- **Documentation:** Lab results must be submitted to the **Nepal Plant Quarantine Authority** for final approval.

These **testing protocols** ensure that garlic imports from China comply with Nepal's **phytosanitary standards**, preventing the introduction of quarantine pests.







## INSTRUCTIONS TO THE CENTRAL REFERAL SPS LABORATORY FOR DIAGNOSTICIANS

### Molecular Primers for PCR Testing of Quarantine Pests in garlic from China

The following table lists the **PCR primers** for molecular identification of quarantine pests found in garlic. These primers target **species-specific genes** to ensure accurate detection.

#### 1. Fungal Pathogens

Pathogen	Target Gene	Forward Primer (5' → 3')	Reverse Primer (5' → 3')	Amplicon Size (bp)	PCR Type
<i>Botryotinia porri</i>	ITS	ITS1(5'-TCCCTAGGGTGAACCTGCGG-3')	ITS4 (5'-TCCTCCGCTTATTGATATGC-3)	539	NA
<i>Verticillium dahliae</i>	ITS	FVD (5'-GGTCCATCAGTCTCTCTG-3')	RVD (5'-TCCGATGCGAGCTGTAAC-3')	330	Single PCR

#### 2. Bacterial Pathogens

Bacterium	Target Gene	Forward Primer (5' → 3')	Reverse Primer (5' → 3')	Amplicon Size (bp)	PCR Type
<i>Pseudomonas marginalis</i> pv. <i>marginalis</i>	16s rDNA	d1 (CAGAGTTTGATCCTGGCTCAG)	RP2 (AGAGTTTGATCCTGGCTCAG)	1550	Blast
<i>Burkholderia cepacia</i>		LPW13807, 5' -CCATGAACGTCGAYTAYCTYTT-3	LPW13808, 5' -GTCARCCGTARACGATGTC-3 )	336	Multiplex pCR

#### 3. Phytoplasma

Phytoplasma	Target Gene	Forward Primer (5' → 3')	Reverse Primer (5' → 3')	Amplicon Size (bp)	PCR Type
<i>Candidatus Phytoplasma asteris</i>	16S rDNA	AJ-16Sr-F (CATAGGGGGCGAGCGTTATC)	AJ-16Sr-R (CACATGGAATTCCGCTTGCC)	150	qPCR
<i>Candidatus Phytoplasma trifolii</i>	16S rDNA	P1 (5'-AAGAGTTTGATCCTGGCTCAGGATT-3') R16F2n (5'-GAAACGACTGCTAAGACTGG-3')	Tint (5'-TCAGGCGTGTGCTCTAAC CAGC-3') R16R2 (5'-TGACGGGCGGTGTGTACA AACCCCG-3')	NA	Direct PCR followed by nested PCR



#### 4. Nematode

Nematodes	Target Gene	Forward Primer (5' → 3')	Reverse Primer (5' → 3')	Amplicon Size (bp)	PCR Type
<i>Aphelenchoides fragariae</i>	ITS	rDNA2 (5'-TTGATTACGTCCCTG CCCTTT-3') AFragFl (5'-GCAAGTGCTATGCG ATCTTCT-3')	rDNA1.58S (5'-ACGAGCCGAGTGATC CACCG-3') AFragRl (5'-GCCACATCGGGTCATT ATTT-3')	450	NA
<i>Rotylenchus reniformis</i>	ITS	Ren1F (5' GGT AGC TGT AGG TGA ACC TGC TG-3')	R_renif_R2A (5' CCC GAT ACC ATT TCC ATA CAA G3')	NA	Conventional PCR
<i>Ditylenchus dipsaci</i>	ITS	18S: 5'-TTG ATT ACG TCC CTG CCC TTT-3'	' 26S: 5'-TTT CAC TCG CCG TTA CTA AGG-3'	900	PCR/RFLP
<i>Ditylenchus destructor</i>	ITS	18S: 5'-TTG ATT ACG TCC CTG CCC TTT-3'	26S: 5'-TTT CAC TCG CCG TTA CTA AGG-3'	1200	PCR/RFLP

These **molecular primer sets** allow precise **quarantine pest detection** for imports of (garlic), ensuring compliance with **Nepal's phytosanitary regulation**.

#### INSTRUCTIONS TO THE NEPALESE IMPORTERS OF GARLIC FROM CHINA INTO NEPAL

- 1. Obtain Entry Permit from NPPO-Nepal before Everything:** Before entering into any trade agreement, finalizing payment terms (e.g., LC, TT, DAP, DAC, DAA, etc.), or engaging in any customs-related activities, it is mandatory to obtain an Entry Permit from NPPO-Nepal. This is a non-negotiable and critical requirement that must be fulfilled prior to initiating any import procedures for plants and plant-related products including walnut fruit requiring a Phytosanitary Certificate.
- 2. Phytosanitary Certificate Requirements:** The Phytosanitary Certificate issued by the NPPO-(Exporting country) must strictly adhere to Nepal's regulations and be issued only upon receipt of the Entry Permit from NPPO-Nepal. The Quarantine Authority in Nepal **shall not** put any requests for the release procedure of consignments that arrive at the entry point without meeting the required compliance. Traders are strongly urged to adhere to these regulations to avoid disruptions, penalties, and delays. The original



Phytosanitary Certificate issued by NPPO-China must reference the **Approval Reference Number** from the **Entry Permit (EP)** issued by NPPO-Nepal.

**Additional Declaration:** The Phytosanitary Certificate (PC) must include an additional declaration confirming freedom from following pests, in strict adherence to the Entry Permit (EP) conditions issued by the National Plant Protection Organization of Nepal (NPPO-Nepal).

1. *Delila antiqua*
2. *Ciborinia alli*
3. *Botryotinia porri*
4. *Verticillium dahliae*
5. *Aphelenchoides fragariae*
6. *Ditylenchus destructor*
7. *Ditylenchus dipsaci*
8. *Rotylenchulus reniformis*
9. *Burkholderia cepacia*
10. *Pseudomonas marginalis* pv. *marginalis*
11. *Candidatus Phytoplasma asteris*
12. *Candidatus Phytoplasma trifolii*

**3. Pre-Shipment Fumigation:**

The consignment must undergo mandatory fumigation treatment before shipment to Nepal. The fumigation process must comply with international quarantine standards and must be certified by the NPPO of the exporting country. The fumigation details, including the treatment date, chemicals used, dosage, and exposure period, must be explicitly stated in the Phytosanitary Certificate.

**4. Inspection Upon Arrival:**

Upon arrival at the designated port of entry in Nepal, all consignments will be subject to a mandatory phytosanitary inspection by the Quarantine Authority of NPPO-Nepal. The inspection will verify compliance with the Entry Permit conditions, Phytosanitary Certificate declarations, and freedom from the listed quarantine pests. Consignments failing to meet these requirements may be detained, treated (if feasible), returned to the country of origin, or destroyed at the importer's expense, as determined by NPPO-Nepal.

**5. Packaging & Contamination-Free Requirement:**

The garlic must be packed in clean, pest-free, and tamper-proof packaging to prevent any risk of contamination during transit. Packaging materials should comply with international phytosanitary standards and must not contain soil, plant debris, or any unauthorized organic matter. The consignment must be clearly labeled with product details, country of origin, and quarantine treatment information.

**6. Approved Ports of Entry:**

**7. Importer Responsibilities:**

Hold importers accountable for ensuring that their consignments comply with Nepal's phytosanitary regulations, including bearing the costs of inspection, post entry confinement in the warehouse or the advanced diagnostic service.



Implementing these measures would help Nepal safeguard its agricultural sector from potential threats posed by quarantine pests associated with garlic imports.

## आयातकर्ताका लागि विस्तृत प्रवेश सर्तहरू

### १. सबैभन्दा पहिला NPPO-नेपालबाट प्रवेश अनुमति (Entry Permit) प्राप्त गर्नुपर्छ ।

कुनै पनि व्यापार सम्झौता गर्नुभन्दा पहिले, भुक्तानी सर्तहरू (जस्तै, LC, TT, DAP, DAC, DAA आदि) तय गर्नुअघि वा भन्सारसम्बन्धी कुनै पनि प्रक्रियामा संलग्न हुनुअघि, NPPO-नेपालबाट प्रवेश अनुमति प्राप्त गर्नु अनिवार्य छ ।

यो अत्यावश्यक र गैर-सम्झौतायोग्य सर्त हो, सबै विरुवा तथा विरुवा सम्बन्धित उत्पादनहरूको आयात प्रक्रियाको थालनी गर्नुअघि पूरा गर्नेपर्ने हुन्छ ।

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### २. फाइटोस्यानिटरी प्रमाणपत्र (Phytosanitary Certificate) मा हुनुपर्ने आवश्यकताहरू

- NPPO–China द्वारा जारी गरिएको फाइटोस्यानिटरी प्रमाणपत्र नेपालका नियमहरूसँग पूर्ण रूपमा मिल्नुपर्छ ।
- Nepal Quarantine Authority ले जारी गरेको प्रवेश अनुमतिपत्र (EP) बिना आएका कुनै पनि खेप (consignment) को क्लियरेन्स प्रक्रिया अघि बढाउने छैन ।
- Nepal NPPO द्वारा जारी गरिएको EP मा रहेको सन्दर्भ नम्बर (Approval Reference Number) फाइटोस्यानिटरी प्रमाणपत्रमा अनिवार्य उल्लिखित हुनुपर्छ ।

### थप घोषणा (Additional Declaration)

फाइटोस्यानिटरी प्रमाणपत्रले निम्न हानिकारक शत्रुजीवहरूबाट मुक्त रहेको पुष्टि गर्नुपर्छ :

1. *Delila antiqua*
2. *Ciborinia alli*
3. *Botryotinia porri*
4. *Verticillium dahliae*
5. *Aphelenchoides fragariae*
6. *Ditylenchus destructor*
7. *Ditylenchus dipsaci*
8. *Rotylenchulus reniformis*
9. *Burkholderia cepacia*
10. *Pseudomonas marginalis* pv. *marginalis*
11. *Candidatus Phytoplasma asteris*
12. *Candidatus Phytoplasma trifolii*

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### ३. ढुवानी पूर्व धूम्रीकरण (Pre-Shipment Fumigation)

लसुनको सबै खेपहरूले NPPO-चीन को निगरानीमा स्वीकृत धूम्रीकरण पदार्थको प्रयोग गरेर पूर्व-ढुवानी धूम्रीकरण गर्नुपर्छ । धूम्रीकरण प्रवेश अनुमति (EP) मा उल्लेखित मात्रा (Dose), अवधि, र तापक्रम अवस्थाहरू अनुसार गर्नुपर्छ । धूम्रीकरण प्रमाणपत्रमा रसायन/ पदार्थ, मात्रा, अवधि, र तापक्रम विवरण उल्लेखित गरी फाइटोस्यानिटरी प्रमाणपत्रसँगै संलग्न हुनुपर्छ ।



#### ४. नेपालमा आइपुगेपछि निरीक्षण (Inspection Upon Arrival)

नेपालको तोकिएको प्रवेश बिन्दुमा आगमन भएपछि सबै खेपहरू अनिवार्य फाइटोस्यानिटरी निरीक्षणको अधिनमा हुनेछन्। निरीक्षणले प्रवेश अनुमति शर्तहरू, फाइटोस्यानिटरी प्रमाणपत्रका अतिरिक्त घोषणाहरू, र सूचीबद्ध क्वारेन्टाइन शत्रुजीवहरूबाट मुक्त भएको पुष्टि गर्नेछ। यी आवश्यकताहरू पूरा नगरेका खेपहरू आयातकर्ताको खर्चमा रोकका, उपचार (यदि सम्भव छ भने), निर्यात गर्ने देशमा फिर्ता, वा नष्ट गरिनेछ, जुन NPPO-नेपालले निर्णय गर्नेछ।

#### ५. प्याकेजिङ र स्वच्छता सर्तहरू (Packaging & Contamination-Free Requirement)

- नयाँ र स्वच्छ प्याकेजिङमा व्यवस्थित रूपमा प्याक गरिनुपर्छ।
- प्याकेजिङमा सही लेबलिङ गर्नुपर्छ र माटो र अन्य अज्ञात वस्तुहरू मिसिएको हुनुहुँदैन।
- भन्सार छुटकारा प्रक्रियाको लागि क्वारेन्टाइन निरीक्षण प्रतिवेदन अनिवार्य रूपमा बुझाइ भन्सार डिक्लरेसन भएको सुनिश्चित गर्नुपर्दछ।

#### ६. अनुमोदित प्रवेश बिन्दुहरू (Approved Ports of Entry)

#### ७. आयातकर्ताका दायित्वहरू (Importers' Responsibilities)

आयातकर्ताहरूलाई नेपालको फाइटोस्यानिटरी नियमहरूको पालना गर्न जिम्मेवार बनाइएको छ, जसमा जोखिम विश्लेषण, निरीक्षण, गोदाममा पोष्ट-इन्ट्री क्वारेन्टाइन, वा पहिचान सेवाको लागत वहन गर्नु समेत समावेश छ। आयातकर्ताहरूले आगमनअघि उचित कागजात पेश गर्ने व्यवस्था गर्नुपर्छ, भन्सार र क्वारेन्टाइन अधिकारीहरूसँग समन्वय गर्नुपर्छ, र कुनै पनि कन्साइनमेन्टहरू (जस्तै उपचार, फिर्ता, वा नष्ट) आफ्नै खर्चमा तुरुन्त व्यवस्थापन गर्नुपर्छ।

#### निष्कर्ष

- नेपालमा आयात गर्दा सम्भावित Quarantine Pest हरूबाट कृषि क्षेत्रलाई जोगाउनका लागि यी सर्तहरू कडाइका साथ कार्यान्वयन आवश्यक छ।
- त्यसको लागि आयातकर्ताहरूलाई सर्तहरू पूर्णरूपमा पालना गर्न आग्रह गरिन्छ, ताकि आयात प्रक्रिया कुनै रोकवटबिना र सुरक्षित रूपमा सम्पन्न गर्न सकियोस्।