

Annex 1: *Cydalima perspectalis* (box tree moth) pest module

A domestic movement certificate is required to move *Buxus spp.* plants for planting material from a regulated area to a non-regulated area in Canada (excluding British Columbia). CFIA inspection of a facility must be completed as part of the review process of the pest module and the review of preventive control plan (PCP) and pest module. CFIA inspection of a shipment may also be required. A facility requesting a domestic movement certificate must have a:

- CFIA-accepted systems approach such as the United States-Canada Greenhouse-Grown Plant Certification Program (GCP), the Canadian Nursery Certification Program (CNCP), or the Canadian Nursery Certification Institute's (CNCI) Clean Plants Program with a *C. perspectalis* pest module in place

Once the pest module has been developed by the facility, it is to be submitted to the [local CFIA office](#). The pest module will be reviewed and accepted by the CFIA when all requirements of the system are met. An additional inspection of the facility may be conducted to confirm the ability of the facility to follow the written procedures.

or

- For facilities not on a systems approach (GCP, CNCP, Clean Plants), the facility is required to submit written procedures (PCP) (Annex 2) and the pest module to the local CFIA office

The PCP and pest module will be reviewed and accepted by the CFIA when all requirements of the system are met, and an inspection of the facility must be conducted to confirm the ability of the facility to follow the written procedures.

The pest module and/or PCP should be reviewed on an ongoing basis (minimum once per year) by the facility to ensure that the procedures and processes effectively address the risk associated with *C. perspectalis*. If major changes affecting the delivery of the program are made, the pest module must be reviewed by the CFIA.

The sections of the pest module follow a sequence of general facility information (sections A.1 and A.2), a summary of the pest biology and associated risks (A.3), an evaluation of the specific risks for the pest at the facility (A.4), and sections A.5-A.8 where the facility identifies the measures specific to the management of box tree moth (BTM). These measures are in addition to the systems-approach measures already in place at a facility within the systems approach framework. Alternate measures implemented by the facility to mitigate identified risks must be detailed within the pest module and may require acceptance by the CFIA. Section B includes facility commitment and approval verification. To support the development and implementation of the pest module, please refer to the companion document and the best management practices developed by the industry found at the [clean plants website](#)

A.1. Contact information	
Name of company/facility	Name of contact person (certification)

	manager, GCP manager, owner)
Phone	Email
Facility mailing address	
Facility address where module will be implemented	Specific blocks/farm locations
Additional address(es) where module will be implemented (add more rows as needed)	Specific blocks/farm locations
<p>Does your facility participate in a CFIA-accepted or a third-party audited Systems approach phytosanitary program? If not, the facility must also complete section A.2.</p>	<input type="checkbox"/> CNCP (certification number: _____) <input type="checkbox"/> GCP (certification number: _____) <input type="checkbox"/> Clean Plants Certified <input type="checkbox"/> Other: _____ <input type="checkbox"/> No

A.2. Systems approach	
<p>Facilities not CNCP/GCP authorized or clean plants certified</p>	<ul style="list-style-type: none"> For more information on the industry-led Clean Plants program (phase-In guidance and template), consult: the clean plants website [link to this website: https://www.cleanplants.org/] For more information on the GCP program, consult: D-16-02: Administration of the United States – Canada Greenhouse-Grown Plant Certification Program (GCP) For more information on the CNCP program, consult: D-04-01: Canadian Nursery Certification Program (CNCP) Our facility is not participating in a systems-approach program (CNCP, GCP, or Clean Plants). <p>Contact CFIA for additional requirements to move host plants within Canada.</p>

A.3. BTM-Specific risk factors to consider
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Biological classification	Flying insect
Natural range	Up to 10km/year
Artificial/assisted spread pathway	Via movement of host plants (eggs, larvae, pupae)
Host(s)	<i>Buxus</i> spp.
Life stage/form with spread risk	Adult (flight)
Life stage/form with host damage risk	Larvae (defoliation)
Geographical region that affects the degree of management	<input type="checkbox"/> Within the BTM regulated area (Appendix 1 of D-22-04) <input type="checkbox"/> Outside the regulated area
The pest life cycle in the region of the facility should be considered.	

A.4. Facility risk analysis	
In which geographical region is your facility located?	<input type="checkbox"/> BTM Regulated area (Appendix 1 of D-22-04): _____ <input type="checkbox"/> Non-regulated area: _____
Indicate the type(s) of production area(s) for host plants present at the facility	<input type="checkbox"/> Protected environment <input type="checkbox"/> Outdoor <input type="checkbox"/> Pest exclusion barrier
<p>Risk analysis: identify the risks at your facility from inputs and production activities at your facility. The type of production also impacts the risk analysis. Example risk points (critical control points) are listed below. The risk points identified here will determine the scope of the additional measures required at your facility to mitigate the risk of introduction and spread of BTM. For example, if your facility has indoor production, an extended scouting period is required. If your facility is within the BTM regulated area, one way to prevent BTM from infesting host plants would be to implement pest exclusionary barriers – you will need to describe how your barrier is set up and what you’re doing to maintain it to justify shipments outside of the BTM regulated area.</p> <p>Inputs:</p> <ul style="list-style-type: none"> • water • media • starter plants/propagative material/liners • nursery pots/containers <p>Production:</p> <ul style="list-style-type: none"> • propagation • potting/planting/seeding • plant maintenance (with plant debris) • movement of: 	

- plants
 - people
 - equipment
 - harvesting, shipping and receiving periods
 - returns
- Production system:
- protected environment
 - pest exclusion barrier
 - outdoor

Attach a map of your facility that illustrates the farm locations and specific blocks where host plants will be produced (the specific blocks/fields or farm locations listed in section A.1), as well as identifying the border areas. Your current CNCP/GCP/Clean Plants maps may already include this information. Note: specified fields or blocks must be separated by at least 3 m (10').

A.5 – A.8 BTM Specific pest risk mitigation measures at the facility

Use the following sections to describe the measures your facility is actually doing to prevent the introduction and spread of BTM. Check only the boxes that apply for your facility’s particular risk factors associated with BTM, and provide more detail where applicable. Specific measures are required to address identified risks. If your facility chooses not to implement some measures, other measures may be required to supplement the rigour of the program at your facility. Remember that there are 2 tiers of geographic risk to consider when filling out the following sections:

- a) BTM regulated area (within main area of infestation or outside the main area of infestation)
- b) non-regulated area (note: implementation of a pest module is recommended by all boxwood producers outside the regulated area, but is not mandatory)

A.5. Administrative controls

Staff designation	<input type="checkbox"/> The facility has clearly identified the person responsible for ensuring appropriate personnel are designated as scouts and for maintaining the list of trained personnel The responsible person is: _____ <input type="checkbox"/> Designated scouts are assigned to inspect and monitor for BTM. <input type="checkbox"/> The list of trained personnel and training dates is readily available. The location of the list of trained personnel: _____ Note: the facility can refer to the relevant section in the GCP/CNCP/Clean Plants plans if applicable
Training	<input type="checkbox"/> Designated personnel are trained to identify or detect BTM based on damage symptoms and insect biology, at receiving,

	<p>through production, and at shipping.</p> <input type="checkbox"/> Emphasis is placed on identifying symptoms of leaf damage and techniques for scouting for various life stages
Resources	<input type="checkbox"/> Pest biology resources for BTM are used in the training and are available to designated personnel. <input type="checkbox"/> Pest information includes: morphology of various life stages, symptoms and damage exhibited, scouting techniques and other information to aid in early detection of BTM <input type="checkbox"/> The facility has clearly identified the person responsible for maintaining training resources The responsible person is: _____ <input type="checkbox"/> The list of trained personnel is readily available. The location of the list of trained personnel: _____ Note: the facility can refer to the relevant section in the GCP/CNCP/Clean Plants plans if applicable
Purchasing	Source and type of host plant material for production is: <input type="checkbox"/> seed <input type="checkbox"/> tissue culture <input type="checkbox"/> self-propagated <input type="checkbox"/> sourced from non-regulated areas where BTM is not known to be present <input type="checkbox"/> sourced from BTM regulated areas but from suppliers that meet import and/or domestic movement requirements <input type="checkbox"/> other, provide details
Inventory control measures for BTM	<input type="checkbox"/> Inventory control is adequate to identify locations of host plants and eligibility for shipping <input type="checkbox"/> Inventory control is in place to enable trace-backs and trace-forwards should BTM be detected at the facility <input type="checkbox"/> Other, provide details
Records	<input type="checkbox"/> Facility records are maintained for at least 3 years Required records include: <ul style="list-style-type: none"> • training • scouting and trap check records • incoming plant material • receiving and shipping records
A.6. Systems to establish and maintain pest freedom	
Monitoring and inspection program for facilities in BTM regulated area	<input type="checkbox"/> Incoming host plant material is inspected by designated scouts to check for signs of BTM life stages or damage <input type="checkbox"/> Incoming plants are maintained outside the production

	<p>area until the incoming inspection is completed</p> <ul style="list-style-type: none"> <input type="checkbox"/> The life cycle of the pest in the region as well as the type of production system are considered for the scouting program <input type="checkbox"/> Outdoor-grown host plants are scouted every week during the active pest season (May 1 through September 30) <input type="checkbox"/> Plants produced in a protected environment (indoor) are scouted every week between March 1 and October 31. The active pest period may start up to 2 months earlier compared to the life cycle in outdoor conditions. <input type="checkbox"/> Plants maintained within pest exclusion barriers are inspected weekly from May 1 to September 30 or within the 48hr window prior to shipping <input type="checkbox"/> Crop scouting techniques include: <ul style="list-style-type: none"> • inspecting for signs of BTM including webbing, frass, shed head capsules, larvae, pupae or shed pupal cases • inspecting foliage for surface chewing or leaves with only the margins remaining • actively pulling apart twigs and branches to expose any infested twigs and leaves that are webbed together, inspecting for signs such as larvae or pupae • other, provide details <input type="checkbox"/> Traps are deployed outdoors between May 1 and September 30 for outdoor-grown plants, (includes plants grown outdoors within pest exclusion barriers) <input type="checkbox"/> Traps are deployed between April 1 and October 15 for plants grown in protected environments <input type="checkbox"/> Traps are inspected at least weekly during the deployment period. <input type="checkbox"/> Unitraps with pheromone lures (or CFIA accepted alternatives) are used for trapping <input type="checkbox"/> Traps are placed around the perimeter of the host plant production area at a density of 4 traps per hectare or spaced at no less than one every 100m. <input type="checkbox"/> Other, provide details
<p>Cultural practices</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Maps are on file, indicating where the host plant production occurs (identify each field/block/zone noted in section A.1) <input type="checkbox"/> Plant debris is managed, particularly between September and April as hibernaria may reside in the debris (provide details) <input type="checkbox"/> Spray program for host plants is in effect as per provincial pest management recommendations (details for during production applications, as well as any particular treatments applied prior to shipping)

	<input type="checkbox"/> Safeguarding – protection of crop prior to first flight period (to prevent egg-laying on blocks of plants), protection of crop once inspected and ready for shipment. Details are required - this is the safeguarding component. <input type="checkbox"/> Screening/pest exclusion barrier(s) details (minimum requirements for these structures are detailed in the Best Management Practices (BMP document) <input type="checkbox"/> Other, provide details
Infrastructure controls	<input type="checkbox"/> Host plant returns are not accepted from regulated areas <input type="checkbox"/> Host plants are shipped in sealed (closed) vehicles to prevent infestation (if being shipped through the BTM regulated area) <input type="checkbox"/> Cross-docking of inbound and outbound host plants (having uncertified, uninspected received plants adjacent to plants ready for shipping) is avoided, or a minimum of 10' (3 m) distance is maintained between inbound and outbound host plants <input type="checkbox"/> Other, provide details (for example, no shipping between May and September, outdoor-grown plants are only harvested prior to the first flight season and placed in pest exclusion barrier, other measures?)
A.7. Verification that pest freedom has been attained or maintained	
<i>Specific records</i>	<input type="checkbox"/> Receiving/inbound inspection specific for BTM <input type="checkbox"/> Formal scouting for BTM during the active pest period (plants, trap checks) <input type="checkbox"/> Shipping/outbound inspection for BTM <input type="checkbox"/> Pest exclusion barrier records (maintenance) <input type="checkbox"/> Other records as requested by CFIA
A.8. Emergency planning (what happens if you find the pest at your facility?)	
CFIA notification	<input type="checkbox"/> CFIA is notified immediately when there is the presence, or suspected presence of BTM either in a shipment requiring a domestic movement certificate or within the pest exclusion barrier in a BTM regulated area, or in a non-regulated area <input type="checkbox"/> Other, provide details
Cessation of shipping	<input type="checkbox"/> If the pest is suspected or a positive BTM find occurs, shipping out of the BTM regulated area ceases until CFIA has investigated and has determined that the pest risk has been mitigated
Specific isolation, treatment and other mitigation measures for the pest	<p>In the event of a pest find (suspected or positive), the actions that would be taken to isolate the pest or infested host plants include:</p> <input type="checkbox"/> chemical pest control actions

	<p><input type="checkbox"/> safeguarding of other blocks of host plants (screening or pest exclusion barriers, etc.)</p> <p><input type="checkbox"/> other, provide details (avoid movement of staff and equipment through all host plant blocks, etc.)</p> <p>Resumption of shipping following a detection: An 18-day window (or CFIA accepted alternative) post adult detection is recommended before shipping outside the regulated area may resume. Shipments may begin if: no adult BTM are caught in the traps for 14 days; larvicidal treatments are applied starting on day 15 or as soon as larvae are detected (whichever is earlier); inspections 3 days after larval treatment reveal no larvae or no live larvae</p> <p>Analysis of the system failure – was the pest presence due to program design, or the processes implemented at the facility?</p> <p><input type="checkbox"/> The facility has clearly identified the person responsible for investigating, documenting actions and recommendations, and reporting. The responsible person is: _____</p> <p><input type="checkbox"/> Corrective actions to address system failures are incorporated into the facility’s pest module and date of implementation is recorded</p>
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B. Signatures for commitment and approval		
B.1. Statement of facility commitment		
Our facility verifies that this application is accurate and represents the activities and/or measures in place at our facility to prevent the spread of this pest. A signature is not required if the form is submitted electronically.		
Applicant name	Signature	Date
B.2. Pest module administrative approval (to be completed by CFIA)		
This pest module has been reviewed and accepted by CFIA to meet requirements for domestic movement of BTM host plants within Canada.		
Verified by (name)	Date received	Date approved