

Prevention and early detection

NO REST FOR NEW PESTS

The volume and speed at which people and trade goods move between and within countries continues to increase every year. With this movement comes the increased risk that unwanted plants and plant pests, referred to as invasive alien species, will also tag along. Every year at least two new alien pests establish in North America. Canada thistle, which was actually introduced from Eurasia, causes crop losses of over \$3.6 million every year. The potential economic impact of the Asian long-horned beetle has been valued at \$9 billion in wood products. In addition to economic costs, invasive alien species are the second largest threat to biodiversity after the direct loss of habitat. The importance of invasive alien species to the economic and environmental welfare of British Columbia was described in the article published in the January 2005 *GardenWise Directory* "No Rest From New Pests" (copies are available from your local garden centre or nearest Ministry of Agriculture and Lands office, BCMAL).

To counter the increased risks of invading alien species, governments from the national to the local levels need the involvement of the general public to help them keep invasive alien species out of Canada, out of British Columbia and out of local regions. Two actions – **prevention and early detection** – are required by everyone who may encounter invasive alien species.

Prevention avoids the introduction of invasive alien species through compliance with guidelines and regulations governing the importation or movement of plants and plant products. In other words, know the rules and follow them – they are there for a reason.

The Canadian Food Inspection Agency Web site provides information on importing plants and plant products into Canada. For example 'What Can I Bring Back into Canada' (www.inspection.gc.ca/english/corpaffr/publications/canada/canadae.shtm), describes the articles you can bring into Canada as a traveller and any permit requirements. If you plan to import plants or plant products, check the Web page 'Information Guide for Importers of Plant and Related Matter into Canada' (www.inspection.gc.ca/english/plaveg/oper/guide.e.shtm).

In addition to complying with import regulations, travellers should also be aware of how alien species can hitchhike hidden on vehicles and goods. Examples include insects in suitcases, fruits, vegetables, wood crates and packaging material; plant seeds and insects in crates, in soil attached to plants and tent pegs, stuck to vehicle tires and clothing; plant diseases in infected plants and plant parts (seeds, fruit, wood), and as spores in soil or containers. For example, British Columbia gypsy moth infestations are often traced to egg masses on outdoor furniture transported from Ontario or other areas where this pest occurs. The list is endless, but the risks are manageable if we all become aware of the risks and commit to taking action.

People who purchase seeds over the Internet should question the invasiveness of any new species of ornamental plants offered for sale. Avoid introducing an alien plant that could become a serious weed problem.

Early detection requires everyone to keep an eye out for plants or plant pests that are unusual, unfamiliar or appear out of place. Then, make every effort to report them as soon as possible. By **detecting** an alien species and reporting it as **early** as possible, you will greatly increase the chances that authorities can eradicate the new potential pest while it has a limited distribution. If local eradication is not possible, authorities can apply management actions to delay the spread of the new pest, allowing development of methods to eradicate it, or minimize its impact.

Where do you report suspect alien species? Depending on where you live in B.C., there are various options for the first contact. The following process enables you to report or submit any suspicious plants or plant pests.

Step 1.

Call the Canadian Food Inspection Agency toll free line at 1-800-442-2342, and you will be directed to the nearest office to make your report or submit a sample of the suspicious insect or plant. You will be asked to describe where and when you found the plant or plant pest, and an inspector may ask to visit the area or look at the item that harboured the plant or plant pest. Alternatively, you can take specimens to a local garden centre or retail nursery where knowl-

edgeable staff will examine the specimen to ensure it is not a known pest or weed. For a list of participating retailers, go to the BCLNA website at www.bclna.com. NOTE: Before entering a garden centre, enclose plant or insect samples securely in a plastic bag to ensure any seeds, spores, or insects do not escape. If it is a pest or invasive plant known to occur here already, you will receive control information, as required, to manage the problem. Many Regional Districts provide invasive plant identification services as part of their invasive plant management programs, and can help screen for new invasive plant introductions. Master Gardeners can identify common plants and plant pests, and are very interested and willing to examine suspicious insects and plants at the various clinics they conduct during the growing season.

The quality and quantity of each specimen is very important to enable the examiner to accurately determine if the submitted specimen is a known pest or possible invasive alien species. For collecting suspect diseased plants, sample

Deliver suspicious plants (again, more than one) as soon as possible after collection to ensure the plants arrive intact.

To further assist in the identification of your specimens, submit information about when, where and/or on what you found them. Provide your contact information as staff may contact you later for additional information if your discovery proves to be an invasive alien species.

Step 2.

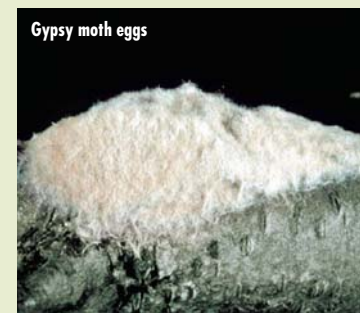
The CFIA will send any plant or plant pest considered suspicious to diagnostic specialists in Ottawa. Garden centres, retail nurseries, cities, Regional Districts and Master Gardeners will send any plant or plant pest considered suspicious to the nearest BCMAL office which will forward specimens to the BCMAL Plant Diagnostic Laboratory in Abbotsford. There is no fee charged to determine if a specimen is a suspect invasive alien species.



European Brown Garden Snail, *Helix aspersa* (Muller)



Gypsy moth caterpillars



Gypsy moth eggs



Chrysanthemum infected with white rust *Puccinia horiana*



Japanese beetle *Popillia japonica*



Sudden oak death on rhododendron leaves *Phytophthora ramorum*



Eastern filbert blight, *Anisogramma anomala*



Yellow Starthistle, *Centaurea solstitialis*



Orange Hawkweed



Japanese Knotweed, *Polygonum cuspidatum*



Puncturevine



Geranium Southern Bacterial Wilt, *Ralstonia solanacearum*

parts with symptoms such as leaves or stem cankers. Avoid dead or badly decayed sections. Provide roots as appropriate, as infected roots will cause leaf and stem symptoms. For potted plants, send the whole pot, if possible, enclosed in a plastic bag. Try to send several plants or plants parts showing the infection. Suspicious insects should be killed (freezing is best) and placed in a pill vial or film canister packed with cotton balls or similar soft material to prevent the insects from breaking apart during delivery. Please provide more than one insect if possible.

Step 3.

If your plant or plant pest is a new invasive alien species, the CFIA or BCMAL will inform you of the discovery and explain the threat the new species poses to B.C. and Canada. This ends the reporting and preliminary identification process. The next steps involve rapid response to the discovery using methods to either eradicate or contain the infestation, e.g. the Camellia Recall for *P. ramorum*, (Sudden Oak Death). As required, methods to minimize the species' impact if it should spread, are also considered.

Your cooperation and participation assists authorities to more quickly identify and react to new threats to food, fibre and biodiversity in B.C. and Canada. If you have any questions about any aspects of the prevention and early detection of invasive alien species, please don't hesitate to contact any of the agencies or groups identified in this article. ■

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