

INDIANA DNR, COMMUNITY AND URBAN FORESTRY ADVICE TO CITY FORESTRY MANAGERS

This information has been provided to Indiana courtesy of the USFS and their partners.

Situation: Potential discovery of a new insect or pathogen (exotic species)

If an insect or pathogen is found and suspected of being an exotic, call Department of Natural Resources (DNR), Division of Entomology. The Indiana State Entomologist and State Plant Regulatory Official is Bob Waltz at 317-232-4120.

→ *Guidance to Urban Foresters – Urban areas are highly susceptible to introductions of exotic species, your network of municipal contacts, arborists, consultants and others will be helpful in early warning assistance. Further, your networks will be helpful in sharing information on exotic species to be on the look out for in an urban area. If you are contacted regarding an insect find, direct individuals to the appropriate agency (see above).*

Step 1: CONFIRMATION STEP: Indiana Department of Natural Resources and US Department of Agriculture will be notified if insect is deemed a potential exotic.

If the insect sample is deemed a potential exotic and/or still unknown, the insect sample will be sent to an expert (i.e. APHIS Beltsville Lab in MD, or the Smithsonian, etc.) for identification. These facilities are connected worldwide, and have significant information on insects. *Note: identification can take a long time, especially if the sample is a larva.*

The lab notifies either State Plant Health Director or the State Plant Regulatory Official status of insect (exotic or not). The State Plant Health Director is a USDA Animal Plant Health Inspection Service (APHIS) employee. Every state has one of these positions. They work very closely with the State Plant Regulatory Official who is usually assigned to the State Department of Agriculture or, in Indiana, the Department of Natural Resources who is also notified. *Note: much of the focus of this work is related to agriculture specific pests. They do work on forest pests, but much less.*

→ *Guidance to Urban Foresters: State Department of Agriculture/Natural Resource contacts can be accessed at the following website: <http://www.aphis.usda.gov/npb/npbmemb.html>. A list of current State Plant Health Director contacts can be found at: <http://ceris.purdue.edu/napis/names/sphdXstate.html>. A list of current State Plant Regulatory Officials can be found at <http://www.aphis.usda.gov/npb/npb/npbmemb.html#Members>.*

Note: during the confirmation phase and next phase of potential quarantine, this process is often done in a manner that is “secretive.” Significant economic implications can occur if inaccurate information gets out, including: Quarantine issues, breach of quarantine, fines, conflict of interest, equitability concerns. These are all factors that come into play as an insect is being identified and considered as an exotic that may require quarantine. State Plant Regulatory Officials and APHIS are very sensitive of this, and may appear to not share information or respond to requests – this is not uncommon, and may be necessary. Therefore, “New Finds” information is often kept from widespread distribution. Rumors can be quite a problem.

→ *Guidance to Urban Foresters – please respect this situation and use caution when sharing information or commenting on the likelihood of the presence of an exotic pest.*

During this phase, an Inter-agency group may form (or already exist, and be convened – this is very beneficial). The formation of such a group allows for forest insect experts to get involved, and helps promote access to available resources to address the pest. Potential group members include:

- State Plant Regulatory Official
- State Department of Agriculture (note, they often lack significant forest insect expertise)

- State Department of Natural Resources
- Universities (research and Extension)
- APHIS (State Plant Health Director)
- USDA Forest Service State and Private Forestry forest health experts (note, USFS Research and National Forest System may or may not be involved.)

→ *Guidance to Urban Foresters – Stay informed by communicating with your DNR representative on any inter-agency groups that form. Consider participating where appropriate.*

Step 2: IF EXOTIC PEST IS CONFIRMED: USDA APHIS and the State Plant Regulatory Official determine if there is a need for a quarantine.

Note: The State Entomologist of DNR and APHIS have total authority and control on quarantine establishment and overall response to an exotic insect. (This can lead to tension and confusion among entities not working with them, or among agencies such as the DNR and the USFS.)

Bottom line: DNR Entomology is the “Lead” state agency, and APHIS is the “Lead” Federal agency regarding quarantines.

No quarantine will be enacted if the risk of movement of the insect is unlikely and if the economic risk related to damage from the insect is low. However, if the risk of movement does exist and if the insect has the potential to cause economic or ecological damage a quarantine is likely.

If only in one state, APHIS lets the State Plant Regulatory Official determine the quarantine boundary. If greater than one state is involved, APHIS will determine the quarantine boundary.

Note: for small infestations, control and eradication will be intense and rapid. The goal is to eradicate the exotic pest.

Understanding State and Federal Quarantines: A quarantine is put in place to restrict movement of a pest out of the designated area. The intent is to keep the exotic insect/pathogen where it has been found. Quarantines can be enacted at the state or federal level. Quarantines are expensive for the regulatory agencies; they require lots of enforcement, paperwork and oversight.

State

- Designated boundaries defined by the State Plant Regulatory Official .
- Designated area for quarantine often by county or other political boundary.
- Responsible for enforcement of state-only quarantines.

Federal

- If State has a quarantine, the Federal quarantine can be the same area.
- If there is no state quarantine then the Federal quarantine is often statewide.
- Note: State’s find Federal quarantine’s to be desirable since they often come with financial assistance.
- Very formal process – utilizes the Federal Register to gain comments.
- Note: if necessary, an emergency quarantine can be initiated quickly.
- A Federal quarantine has international significance as well – movement in and out of the United States.

Quarantines: A quarantine places restrictions on the movement of materials that may be infested with a pest or may carry a life stage such as an egg mass. In most cases, materials can still be moved from the area if they are shown to be clean or if treated in some manner that significantly reduces the likelihood of harboring a pest. Mills or nurseries often sign a compliance agreement (see below) that allows them to operate within the quarantine area.

Exclusionary/External Quarantine

- Occurs when one state places a quarantine against another one. (This is common with California in agriculture – they prevent movement of a product into their state from another state that may have an insect pest.)

Compliance Agreement

- Defined as a very specific conditional agreement.
- Allows an entity to be issued a “sanitary certificate” that states they are pest free. Allows for movement of a product. The State Department of Agriculture is responsible for guaranteeing if something is pest free. (This is very common with Gypsy Moth – allows for movement of trees and wood products.)
- Without a Compliance Agreement, you can get a “breach of quarantine” – where a product has moved in and out of a quarantine, and may have the exotic insect.

If a state refuses to take action (establish a quarantine), the Federal government (APHIS) can decide to establish a federal quarantine. The boundaries for this quarantine will often cover the entire state. Note, when this happens, it allows for movement of materials throughout the entire state. For example, nursery stock cannot leave a state, but can move from one area in the state to another.

Step 3: MANAGEMENT PLAN: APHIS requests the State Plant Regulatory Official to develop a management plan to address the exotic insect/pathogen.

DNR Entomology can act on this request without the assistance of outside agencies but in many instances they are beginning to use groups such as the interagency group mentioned on page 1 to develop a management strategy or plan. These groups have both positive and negative aspects. On the positive side they bring along a wide array of expertise (University faculty, forest entomologists, GIS expertise, etc) and resources (air photo acquisition, public information officers, etc). On the negative side is the fact that it can be difficult to organize and coordinate a group that has various interests and agendas.

APHIS can facilitate this process by using the **New Pest Advisory Group (NPAG)** and by establishing a **Science Advisory Panel**. These are explained in more detail at this end of this document. THE NPAG is a group of national experts that meets on a regular basis to discuss new pest introductions. A Science Advisory Panel is put together with national and local expertise to assist a state in the development of a management strategy. These were both utilized in the case of emerald ash borer. For more information on NPAG, go to their website at: <http://www.cphst.org/npag/>

The **Science Advisory Panel** will recommend a broad strategy, in most cases to contain and eradicate a new introduction. The state is then asked to develop a more detailed management plan that includes a federal budget request. APHIS is generally the federal agency that would seek and provide the bulk of the funding for any containment or eradication strategies.

Note: It is important to remember that the priority of these groups is to contain and eradicate the new introduction if at all possible. Restoration efforts often take a low priority at this point. The vast majority of the resources are targeted at the pest itself.

→ *Guidance to Urban Foresters: Urban Foresters may play an active role at this stage in public information efforts, local resource evaluations, and risk assessment for the local tree resource. Tree Removals may play a key role at this point.*

A management plan is developed and approved by APHIS. These plans may include the following; regulatory component (quarantine issues), survey and monitoring plans, pest control alternatives, public information and outreach, research needs, and a restoration plan. It can be a challenge to develop and organize a comprehensive plan in a rapid response mode.

Step 4 – FUNDING REQUESTS: APHIS and other federal agencies do not maintain funding flexibility that allows them to rapidly respond to large pest outbreaks like the emerald ash borer in Michigan. Funding must be sought through a number of channels. This can take time.

In the case of a tree pest, funding at the Federal level may be sought in a joint request from APHIS and the Forest Service. Both agencies have different mandates and different authorities. As an example, tree-planting dollars for restoration would probably be given to the Forest Service, Urban and Community Forestry Program, who has the authorities to do that type of work.

Eventually, federal dollars become available to the state through APHIS and the Forest Service. The state can use the dollars within the proposed management plan. In most cases the dollars are provided within a cost-shared format.

Websites:

USDA Forest Service St. Paul Field Office Home page: <http://www.na.fs.fed.us/spfo/>

State Department of Agriculture contacts: <http://www.aphis.usda.gov/npb/npbmemb.html>.

State Plant Health Director contacts: <http://ceris.purdue.edu/napis/names/sphdXstate.html>

New Pest Advisory Group website: <http://www.cphst.org/npag/>

State Plant Regulatory Official contacts: <http://www.aphis.usda.gov/npb/npbmemb.html#Members>