PestLens

Lessons learned from developing and implementing an early-warning system to support U.S. safeguarding against exotic plant pests

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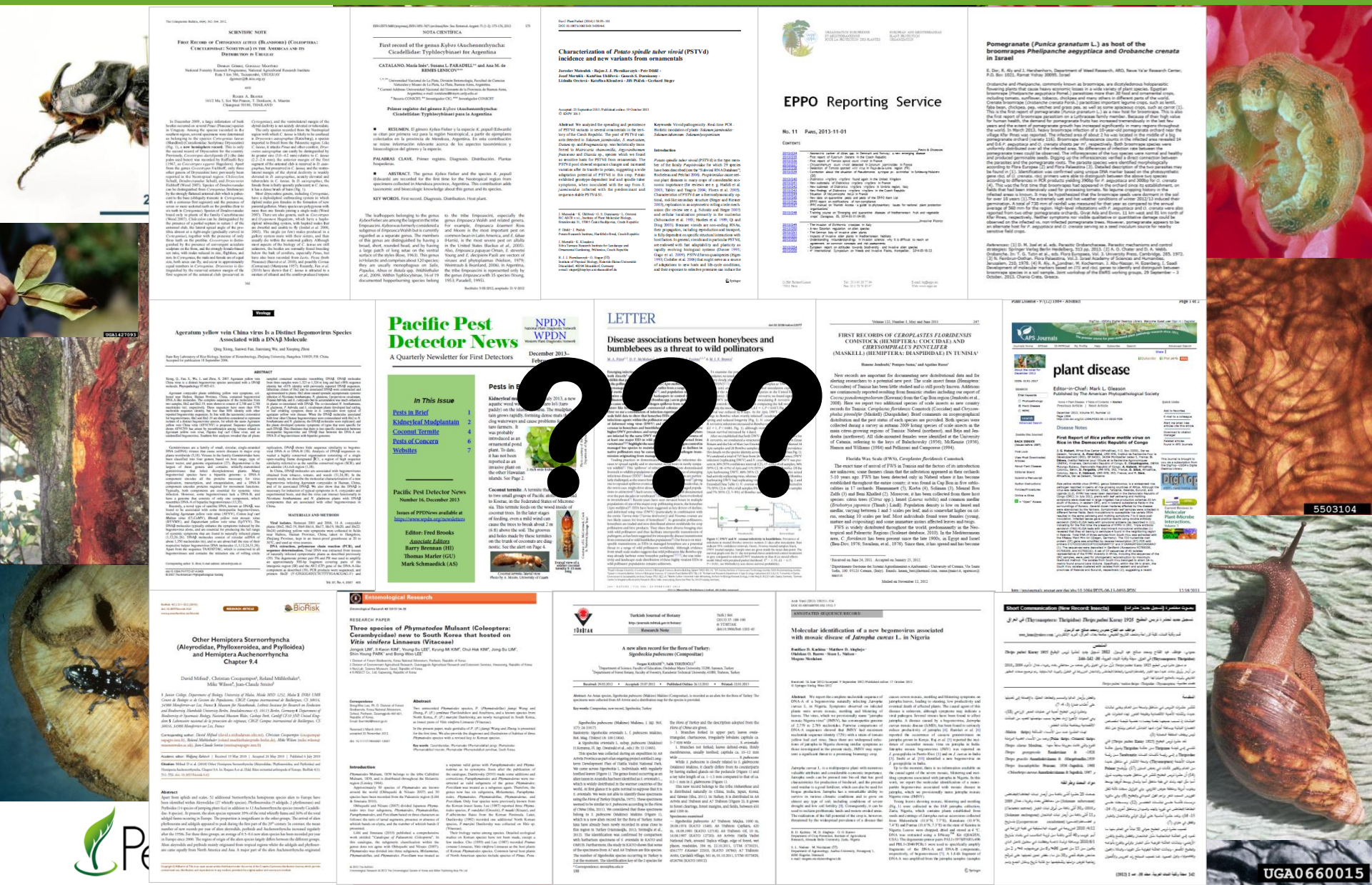
April 2, 2014

Need for an Early-Warning System



Description of PestLens

PestLens is an early-warning system that collects and distributes timely information on exotic plant pests and provides a web-based platform for making and following safeguarding decisions and actions.

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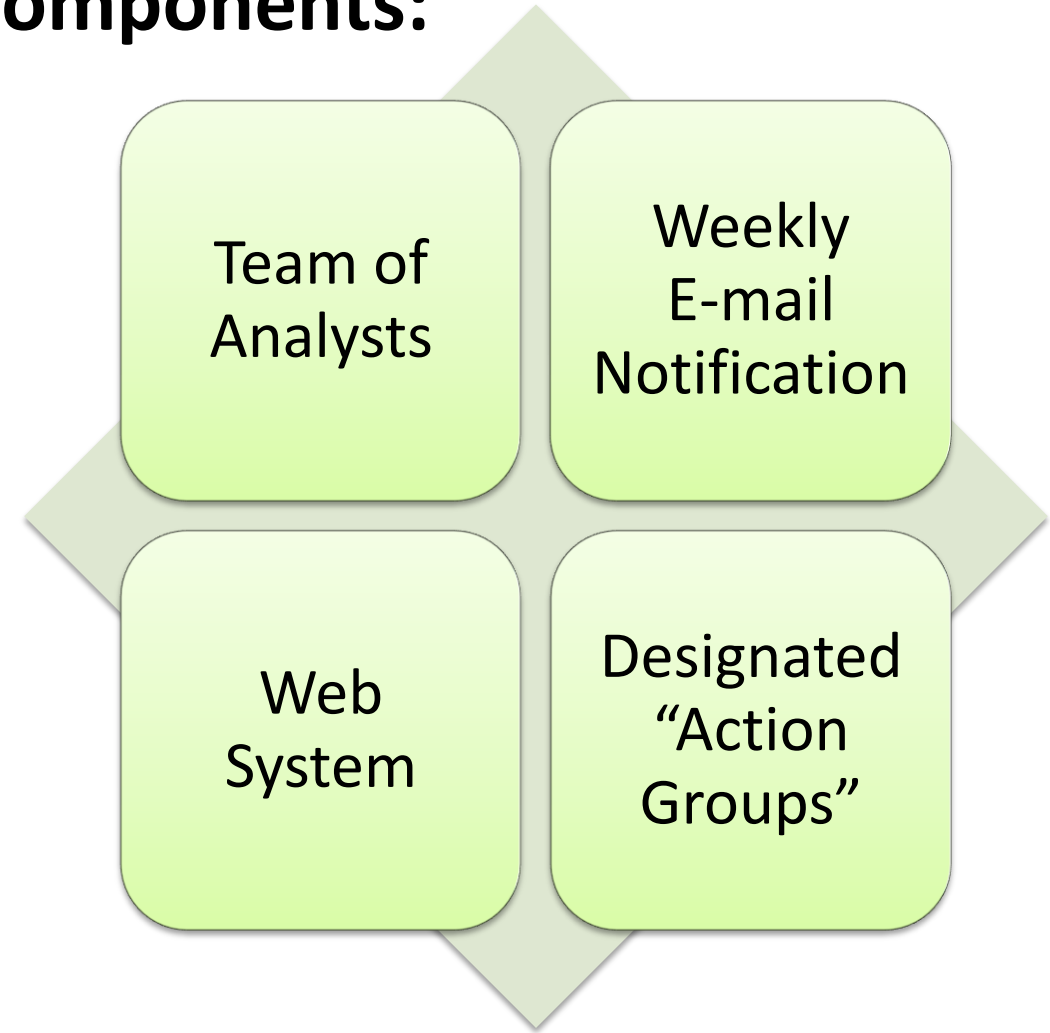
Description of PestLens

Main components:



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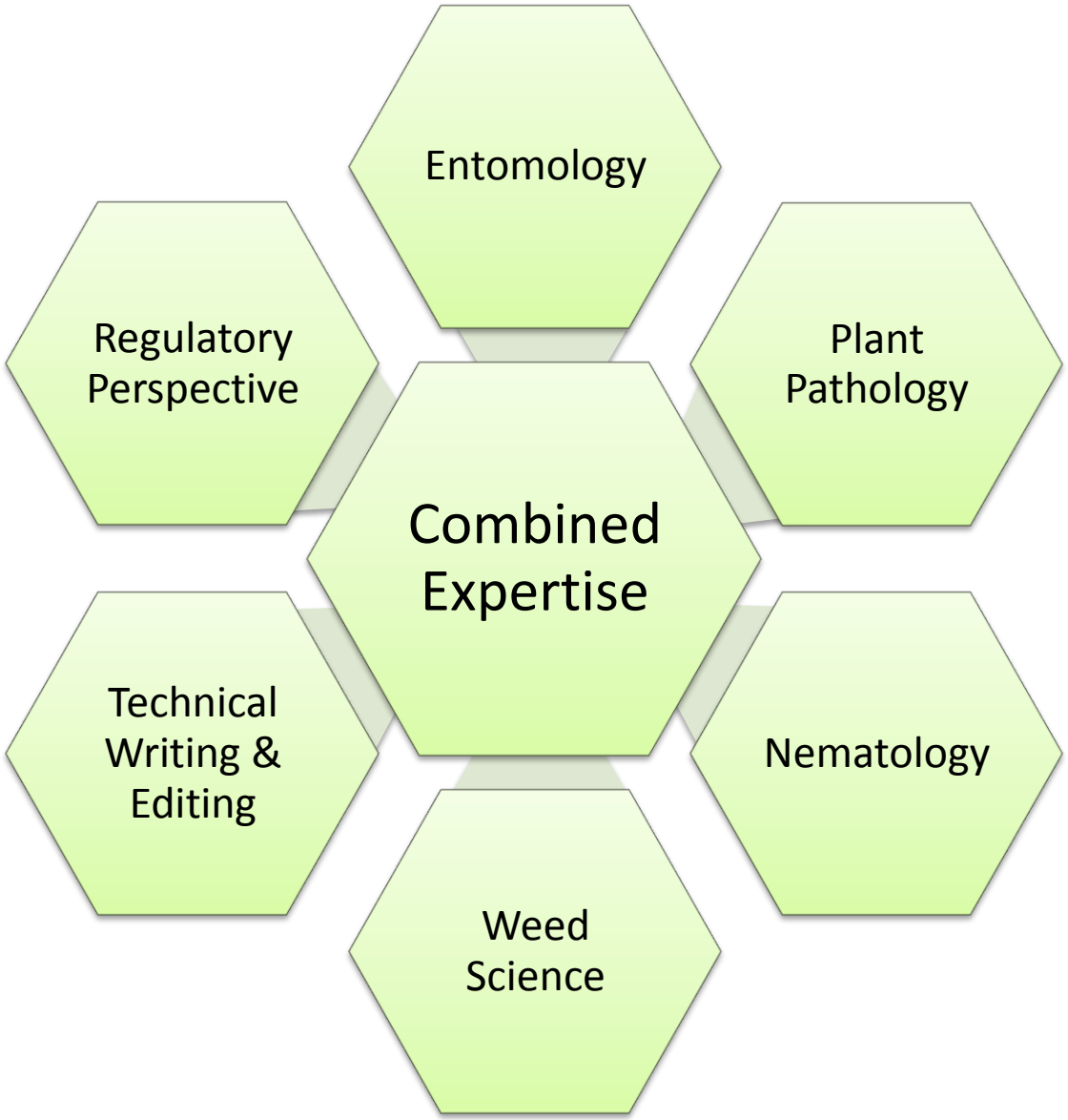
Team of Analysts



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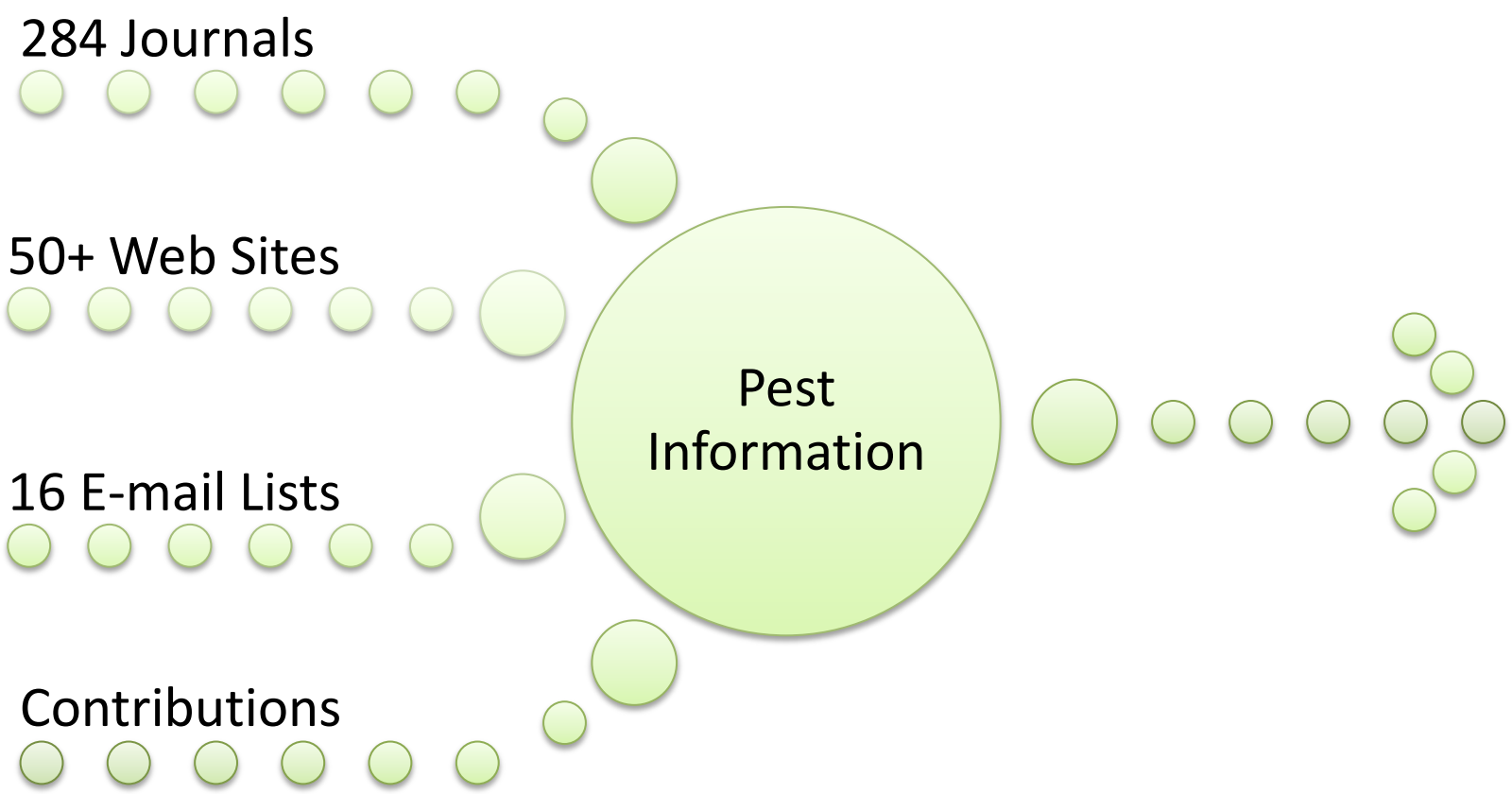
Information



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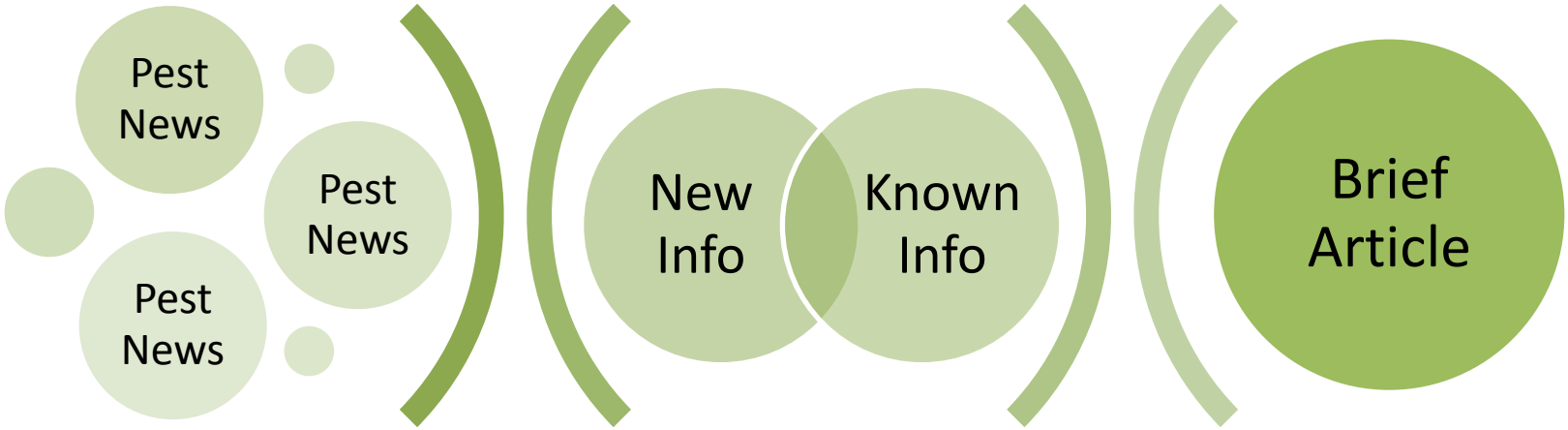
Information



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Weekly E-mail Notification

Subject: FW: PestLens Notification: Thursday, March 6, 2014

Warning: The following information has not been confirmed with the appropriate national plant protection organization(s). It is provided solely for the purposes of early warning and should be used with caution. Please do not distribute this information indiscriminately.

About PestLens

PestLens

Thursday, March 6, 2014 Notification

First report of *Pistacia vera* (pistachio) as a host of Arabian green stink bug, *Acrosternum arabicum* (Hemiptera: Pentatomidae)
Source: Zoology and Ecology
Event: New Host

During a 2009 to 2012 survey of *Pistacia vera* (pistachio) trees in Iran, the Arabian green stink bug, *Acrosternum arabicum* (Hemiptera: Pentatomidae), was found causing damage through feeding on the fruits of both cultivated and wild pistachio trees. This is the first report of *P. vera* as a host of *A. arabicum* and the first report of *A. arabicum* causing damage on a host.

Acrosternum arabicum is known to occur in Greece and the Middle East and also feeds on members of the Poaceae family and *Medicago sativa* (alfalfa). *Acrosternum arabicum* is not known to occur in the United States. The genus *Acrosternum* is listed as reportable in the PEST ID database (queried 3/5/14).

References:

1. Reza Mehrnejad, M., R. E. Linnavuori, and S. Hossein Alavi. 2013. Hemipteran bugs associated with pistachio trees and notes on major species. Zoology and Ecology 23(1):29-40. Last accessed March 6, 2014, from http://www.tandfonline.com/doi/full/10.1080/21658005.2013.774838#.UwOKdmKDpg.

First report of *Grapevine Pinot gris virus* (GPGV) in Slovenia
Source: Plant Disease
Event: New Location

Since 2001, *Vitis vinifera* cv. 'Pinot gris' and *V. vinifera* cv. 'Sauvignonasse' (grape) plants in Slovenia exhibited leaf mottling and deformation, shortened internodes, and poor growth. Molecular analysis confirmed that the causal agent was the trichovirus *Grapevine Pinot gris virus* (GPGV). This is the first report of GPGV in Slovenia. GPGV infects *Vitis* spp. (grape) and also occurs in Italy and Korea. It is not known to occur in the United States. The mode of transmission of GPGV has not been determined, but other trichoviruses are vectored by mites. GPGV is not listed in the PEST ID database (queried 3/5/14).

References:

1. Pleško, I. M., M. V. Mam, G. Seljak, and I. Žežlina. 2014. First report of *Grapevine Pinot gris virus* infecting grapevine in Slovenia. Plant Disease DOI: 10.1094/PDIS-11-13-1137-PDN. Last accessed March 6, 2014, from http://apsjournals.apsnet.org/doi/pdf/10.1094/PDIS-11-13-1137-PDN.

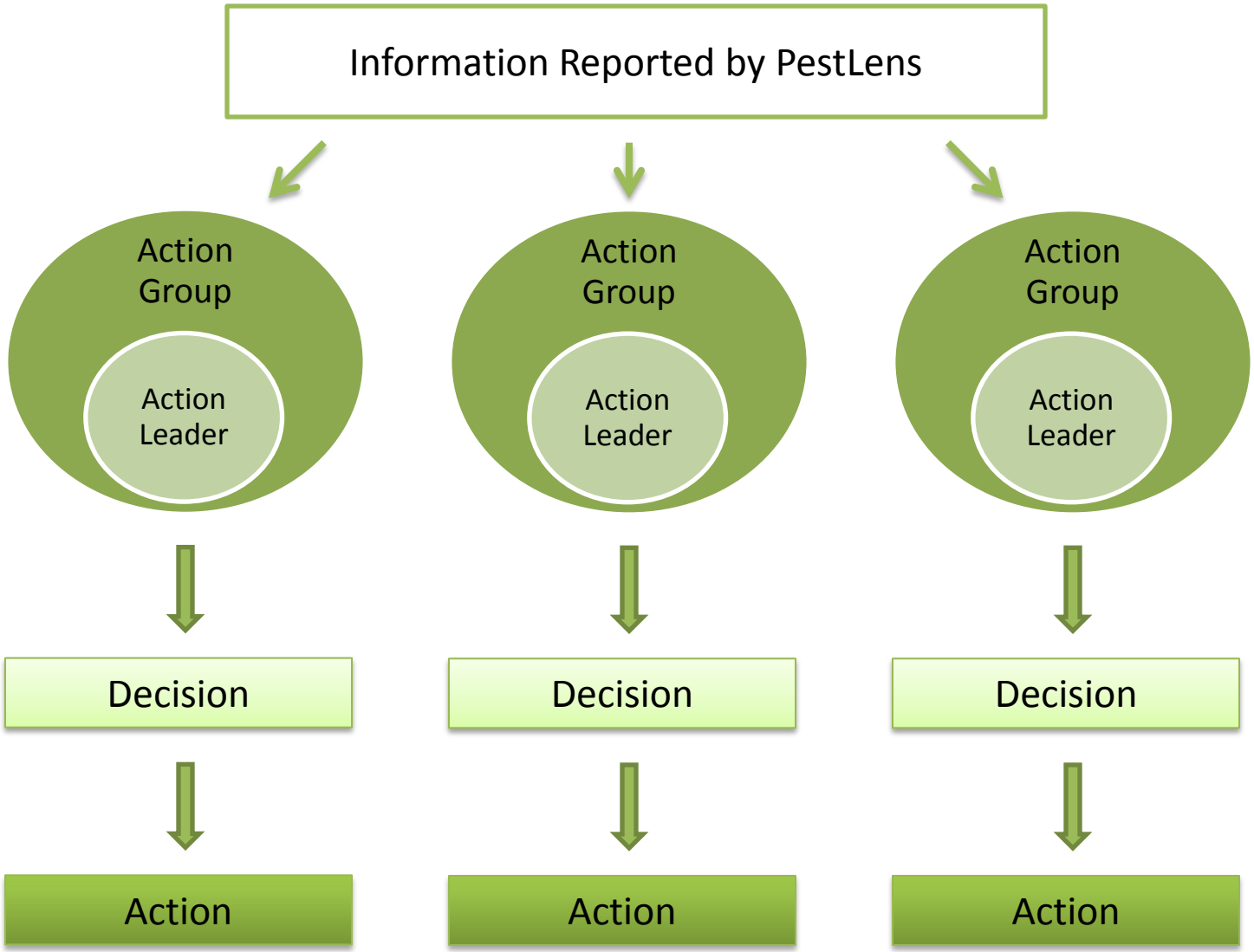
First report of *Tomato yellow leaf curl Kanchanaburi virus* (TYLCKaV) in Laos
Source: Plant Disease
Event: New Location

In 2013, *Solanum melongena* (eggplant) plants in Laos exhibited yellow mosaic symptoms. Molecular analysis confirmed that the causal agent was the begomovirus *Tomato yellow leaf curl Kanchanaburi virus* (TYLCKaV). This is the first report of TYLCKaV in Laos. TYLCKaV infects eggplant and *S. lycopersicum* (tomato) and is vectored by the whitefly *Bemisia tabaci* (Hemiptera: Aleyrodidae), which has a restricted distribution in the United States. TYLCKaV is also known to occur in Thailand and Vietnam. It is not known to occur in the United States and is not listed in the PEST ID database (queried 3/5/14).

References:

1. Tang, Y. F., Z. F. He, Z. G. Du, and L. H. Lu. 2014. First report of *Tomato yellow leaf curl Kanchanaburi virus* infecting eggplant in Laos. Plant Disease 98(3):428. Last accessed March 6, 2014, from http://apsjournals.apsnet.org/doi/abs/10.1094/PDIS-07-13-0696-PDN.

Designated “Action Groups”



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Web System

PestLens

An early-warning system supporting PPQ's efforts to protect U.S. agriculture and the environment against exotic plant pests

Home | Search | Contribute | My PestLens | Reports | About | User Profile | Logout

Latest PestLens Articles

Colosius confusus (Gastropoda: Veronicellidae), a new slug species described from South America 0

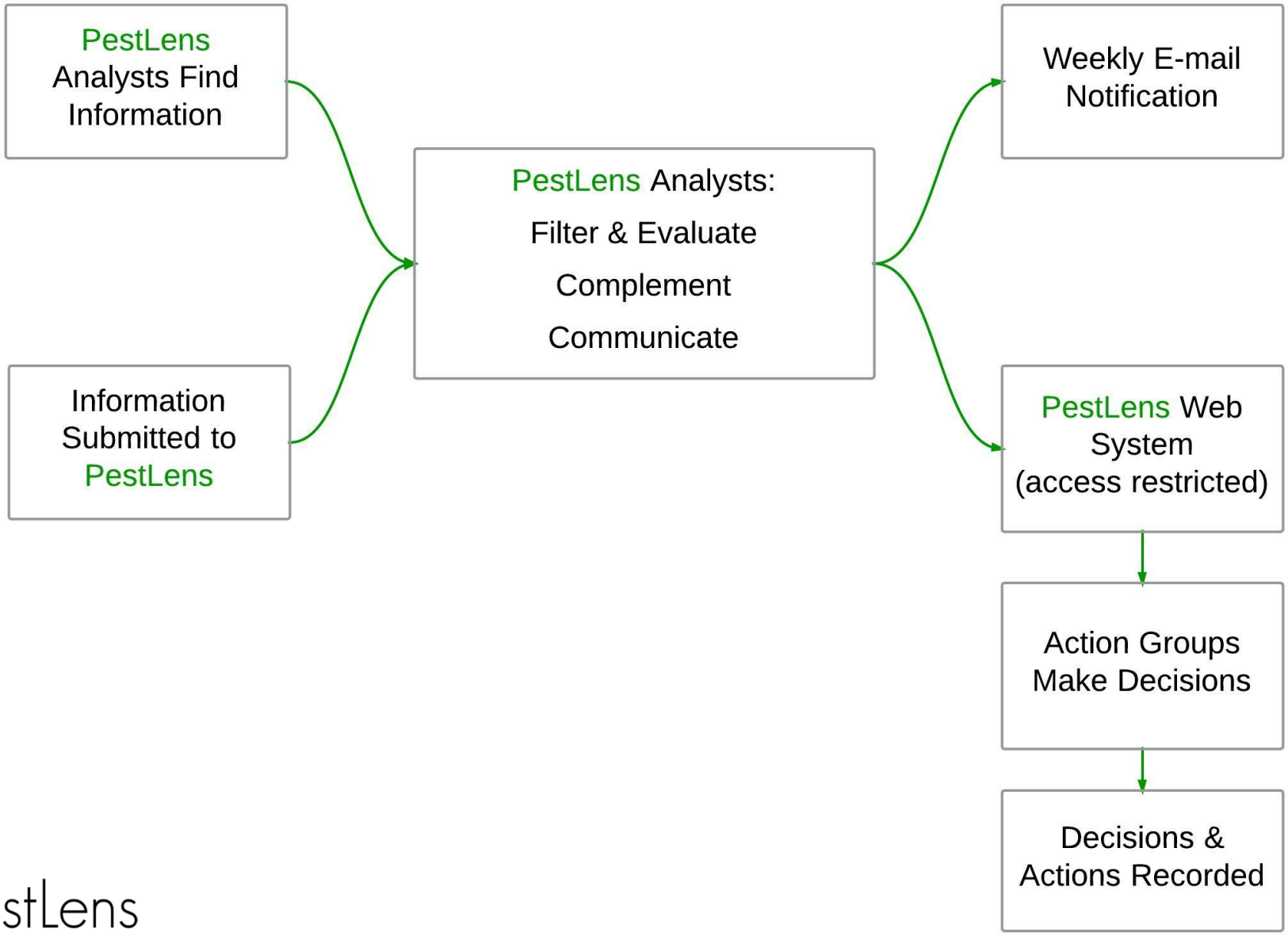
First report of the bacterium *Xanthomonas citri* subsp. *citri* (Gammaproteobacteria: Xanthomonadales), causal agent of citrus canker, in Burkina Faso 0

First report of *Potato spindle tuber viroid* (PSTVd) infecting *Argyranthemum frutescens* (marguerite) and *Diascia* sp. 0

Additional PestLens News

Printable version

PestLens System Summary



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Lessons Learned

- Analysis is a continual process.
- Human expertise is as crucial as technology.
- The way the information is presented is important.
- Successful web system development depends on a close, ongoing relationship with the developer.

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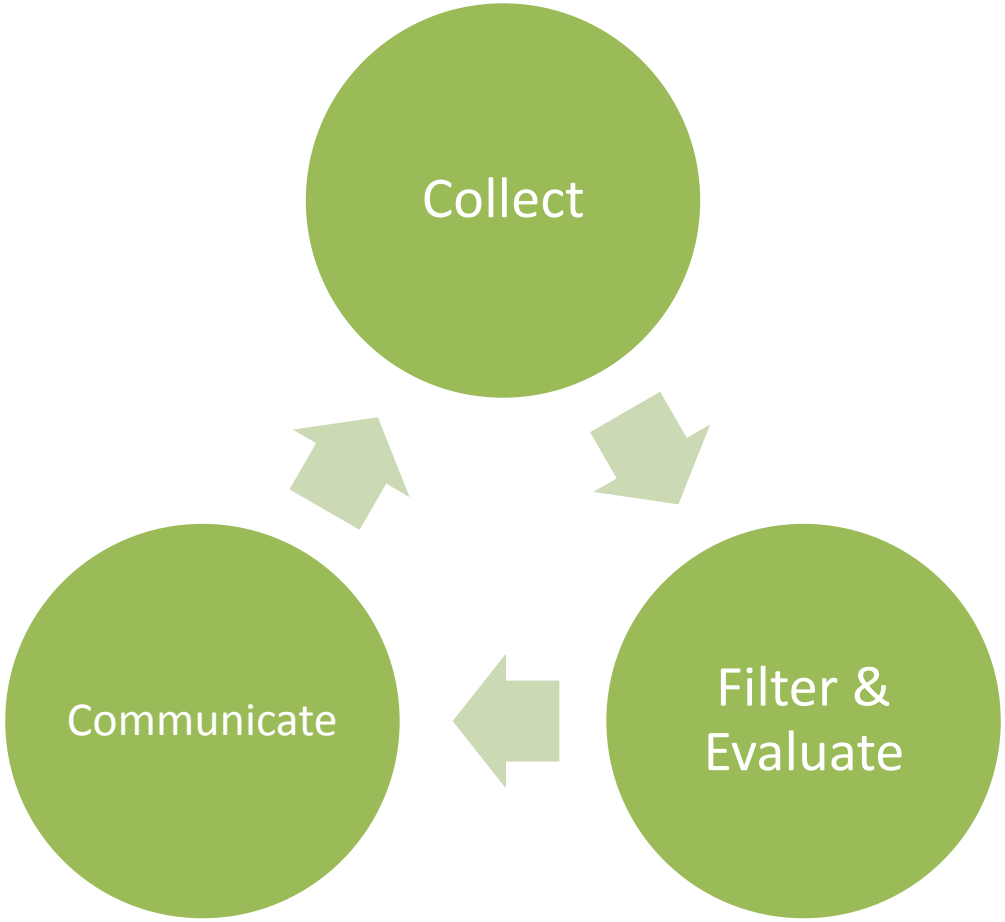
Continual Analysis

Analysis is a continual process.



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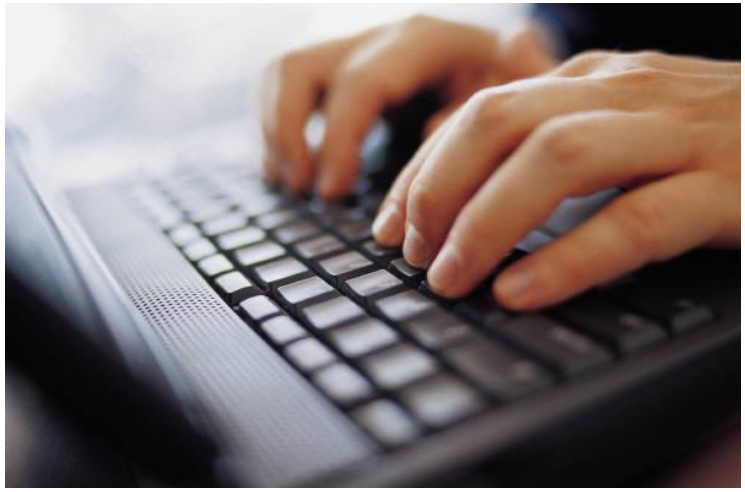
Expertise & Technology

Human expertise is as crucial as technology.



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Presentation

The way the information is presented is important.

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About PestLens

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Thursday, January 16, 2014 Notification

First report of the coconut rhinoceros beetle, *Oryctes rhinoceros* (Coleoptera: Scarabaeidae), in Hawaii

Source: Hawaii Department of Agriculture
Event: New Location

On December 23, 2013, the coconut rhinoceros beetle, *Oryctes rhinoceros* (Coleoptera: Scarabaeidae), was detected during routine surveys at Joint Base Pearl Harbor-Hickam in Hawaii. Nine adult beetles have been trapped. Surveys are being conducted to determine the extent of the infestation. This is the first report of *O. rhinoceros* in Hawaii.

Oryctes rhinoceros is primarily a pest of *Cocos nucifera* (coconut) and other palms, but it has a wide host range, including *Ananas comosus* (pineapple), *Musa* spp. (banana), and *Saccharum officinarum* (sugarcane). Its distribution includes the coconut-growing regions of Asia, the Middle East, Oceania, Mauritius, Réunion, and Guam. *Oryctes rhinoceros* is listed as reportable in the PEST ID database (queried 1/15/14).

References:

1. HDOA. 2014. Destructive beetles found on Oahu coconut trees. Hawaii Department of Agriculture (HDOA). January 9, 2014. Last accessed January 16, 2014, from http://hdoa.hawaii.gov/blog/main/destructive-beetles-found-on-oahu-coconut-trees/.

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Web Development

Successful web system development depends on a close, ongoing relationship with the developer.

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Challenges

Linking information with action

- User understanding, participation, and acceptance
- Timing of report vs. timing of action

Language of information

- For PPQ, English-language sources seem to be sufficient
- Machine translation is generally insufficient

European perspective?

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Questions & Discussion

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