



Exotic Pest Information Collection and Analysis (EPICA): Plant Pest Early Warning as a Safeguarding Tool

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Introduction

The U.S. government needs early warning about potential pest threats to safeguard U.S. agriculture and natural resources from the risks associated with the entry, establishment, or spread of exotic pests.

Exotic Pest Information Collection and Analysis (EPICA)* conducts plant pest biosurveillance for the U.S. government by continuously monitoring internet and other global information sources and collecting, analyzing, distributing, and archiving relevant news about exotic plant pests. EPICA subscribers receive weekly notifications with worldwide coverage (Figure 1) of plant pest events.

EPICA offers a dedicated team of full-time analysts with expertise in entomology, plant pathology, weed science, and technical communication.



Figure 1. Number of EPICA reports by world region (from 2007-2009).

*EPICA is a cooperative effort of the Center for Integrated Pest Management at North Carolina State University and the U.S. Department of Agriculture's Center for Plant Health Science and Technology.

Information Collection & Analysis

EPICA's process for collecting and analyzing information includes the following steps:

Collect information from various sources, including scientific journals, web sites, news services, listservs, and databases

Filter information for potentially relevant pest news

Evaluate filtered information regarding relevance to EPICA subscribers, timeliness, and source reliability

Complement pest news with additional information

Summarize information, placing it in the context of a safeguarding objective

Distribute information weekly

Archive information in the Global Pest and Disease Database (GPDD)

EPICA analysts monitor a wide variety of information sources, including nearly 100 scientific journals. EPICA uses more than 250 queries to search the internet for relevant pest news.

In addition, EPICA monitors U.S. government pest interception databases and alerts from foreign organizations, including the European and Mediterranean Plant Protection Organization (EPPO) and ProMED-mail.

EPICA Notifications

EPICA distributes pest news reports to subscribers through weekly e-mail notifications (Figure 2). EPICA notifications are timely, safeguarding-focused, concise, and formatted for readability.

EPICA information can be used:

- In risk assessments
- To increase awareness of pest threats
- To promote further discussion and follow-up to pest events
- To draw attention to potential pathways of pest introduction
- To help focus port inspections
- In pest prioritization efforts
- To increase awareness of the latest tools and methods for pest identification, detection, control, and eradication

To receive EPICA notifications, send a request to: epica@aphis.usda.gov.

Figure 2. EPICA notification

EPICA Archive

For government subscribers, all EPICA news reports are accessible through the Global Pest and Disease Database (GPDD). The GPDD contains information on over 2,000 pests of U.S. quarantine concern. EPICA news reports are searchable by date, pest name, and keyword (Figure 3). EPICA news reports are also linked to corresponding GPDD pest information pages. For access to the GPDD, register at www.gpdd.info.

Figure 3. EPICA archive search page in GPDD

Acknowledgements

We thank Karl Suiter, David Prokrym, and Joan Sills for their support.

Photos courtesy of U.S. Department of Agriculture and Natural Resources Conservation Service