# Plant Health for SUSTAINABLE FORESTS

# Plant health is your health.



Forest products are a \$200 billion industry and support over 2.5 million rural jobs in the U.S.<sup>1</sup>

Forests also provide over \$63 billion in ecosystem **Services** like climate regulation, waste treatment, food production, recreation, and more.<sup>2</sup>





## Forests are threatened globally by

diseases and pests and new invasive threats arrive each year. For example, approximately 2.5 new forest insect pests arrive in the U.S. each year!<sup>3</sup>

### Here's what YOU can do

 Don't move firewood! Many insects and diseases can accidentally be moved long distances on firewood or other contaminated wood and plant products. Instead, burn local firewood.



- Buy local! Buy from local nurseries and follow all regulations regarding importation of plants.
- Keep an eye out! Be on the lookout for new insects and diseases.
  Early control is much more effective when eradication is possible.
  Report invasive plant pathogens and pests to the National Plant Diagnostic Network (https://www.npdn.org/).
- Bring home memories, not pests! When travelling abroad, do not bring live plants home from other countries and sanitize your shoes after hiking or visiting fields.



### Here's how scientists help

- Stop new introductions through regulation, inspection, early detection, and eradication.
- Promote healthy trees and forests through management, since healthy trees are less susceptible to insects and diseases.
- Develop more resistant trees that can overcome invasive insects and diseases through breeding.
- Fight invasive species directly, via development of biological control agents or innovative treatment options.



#### Sudden oak death

- Invasive pathogen (Phytophthora ramorum) causes disease on many plants worldwide
- In the U.S., it is killing oak and tanoak trees on the West Coast and has caused over \$140 million in losses between 2010 and 20204
- There is a huge risk of potential spread to the eastern U.S. where oak species dominate over 47% of the eastern U.S. forestlands and account for much of their estimated \$1.3 trillion timber value.

Sources: #1, data from U.S. Endowment for Forestry and Communities (www.arcgis. com/apps/Cascade/index.html?appid= 3cd3bb86c2944b7faa172c0e25504879) and American Forest Foundation (www. forestfoundation.org/family-ownedforests-for-rural-communities): #2. data from The Wilderness Society (www. sierraforestlegacy.org/Resources/ Conservation/FireForestEcology/ ForestEconomics/EcosystemServices. pdf): #3, data from Lovett et al., 2016 (https://esajournals.onlinelibrary.wiley. com/doi/full/10.1890/15-1176); #4, data from Kovacs et al., 2011 (www. sciencedirect.com/science/article/pii/ S0301479710004627).



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