

Pennsylvania Invasive Species Fact Sheet

Key takeaways:

- ❖ Community stakeholders and officials have long expressed concern over the economic and environmental impact of invasive species.
- ❖ In recent years, invasive species have caused economic losses well over \$100 million in direct, indirect, and induced economic activity. This is a conservative estimate.
- ❖ Officials have recommended a regional-based model, like New York's PRISM model, to combat invasive species.

The information presented here is based on recent Center for Rural Pennsylvania research, legislative hearings, and correspondence with government and community partners. Invasive species affect a wide range of industries including, but not limited to, agriculture, hardwoods/forestry, outdoor recreation, and tourism.

I. The Economic Impact of Invasive Species in Pennsylvania

While comprehensive information on the economic impact of invasive species is difficult to obtain, information known about the impact is staggering. Nationwide, the U.S. Department of Agriculture (USDA) estimates that invasive species cause \$120 billion in damages each year.¹ In Pennsylvania, the annual impact of invasive species surpasses \$100 million.

Actual and Potential Economic Impact

- ❖ 200 million: Amount of white ash board feet lost per year from mortality due to emerald ash borer in Pennsylvania
- ❖ 25 million: Number of board feet of ash that was harvested prematurely by a Pennsylvania industrial forest owner due to the threat of emerald ash borer.²
- ❖ \$1,000: Minimal cost to remove *one* street or park tree on a community street infected with emerald ash borer.³
- ❖ \$99.1 million: The estimated annual impact of the spotted lanternfly on Pennsylvania agriculture.⁴
- ❖ \$2.2 million: Annual cost estimate to manage an outbreak of hydrilla in 6,500 acres of water (e.g., Lake Erie, Allegheny Reservoir, Raystown Reservoir, Lake Aldren).⁵

Current and Past Government Spending

- ❖ \$59 million: Amount spent from 1999 to 2009 to eradicate the plum pox virus in PA (USDA and PDA funds).
- ❖ \$34 million: Minimum amount spent by PDA and USDA to combat spotted lantern fly, 2015-2020.
- ❖ \$5 million: Amount DCNR, Bureau of Forestry spent in 2021 to suppress *Lymantria dispar* (formerly known as gypsy moth) on about 200,000 acres of state forest lands. This leaves 2 million acres of state forest land untreated.
- ❖ \$500,000: Amount PennDOT spent in 2020 to control terrestrial invasive plants.

¹ Secretary Russel C. Redding, Testimony before the Center for Rural Pennsylvania Board of Directors, August 24, 2021.

² Thomas Kase, Collins Pine Company, Testimony before the Center for Rural Pennsylvania Board of Directors, August 24, 2021.

³ Secretary Cindy Dunn, Testimony before the Center for Rural Pennsylvania Board of Directors, August 24, 2021.

⁴ Harper, Jayson K., William Stone, Timothy W. Kelsey, and Lynn F. Kime. 2019. "Potential Economic Impact of the Spotted Lanternfly on Agriculture and Forestry in Pennsylvania," Center for Rural Pennsylvania Research Report.

<https://www.rural.pa.gov/download.cfm?file=Resources/PDFs/research-report/Spotted-Lanternfly-2019.pdf>

⁵ Brian S. Pilarcik, Crawford County Conservation District Watershed Specialist, Testimony before the Center for Rural Pennsylvania Board of Directors, August 24, 2021.

- ❖ \$300: Amount estimated *per acre* to treat invasive species on DCNR managed lands. DCNR manages approximately 2.5 million acres of land.

II. Environmental Impact of Invasive Species in Pennsylvania

The full extent of the environmental impact of invasive species is also difficult to quantify in a comprehensive manner. However, the following data provide some context for understanding the pervasive effect of invasive species on Pennsylvania's environment.

- ❖ 400,000: Number of acres on state forest lands defoliated by *Lymantria dispar* (gypsy moth) in 2021.⁴
- ❖ 114: Number of plant species that are invasive or on DCNR's "watch list" in Pennsylvania.⁴
- ❖ 30: Number of feet that the stems of hydrilla can grow in a body of water.

III. Potential Policy Solution: The Partnerships for Regional Invasive Species Management (PRISM) Model

Research reports published by the Center for Rural Pennsylvania have recommended greater government coordination, intervention, and funding to systematically combat invasive species.⁶ During the Center's August 2021 hearing on invasive species, testifiers strongly supported adopting a PRISM model similar to the model implemented in New York.⁷ Some PRISM-like regional entities have already formed in Pennsylvania, even though they lack dedicated statewide funding.⁸ The Pennsylvania Governor's Invasive Species Council and Pennsylvania Department of Agriculture have proposed a six-region statewide PRISM program for the legislature's consideration.⁹

*Example of Success in New York – Finger Lakes PRISM 2021 Year-in-Review*¹⁰

- ❖ 41,194: Number of watercraft inspected to minimize threat of invasive aquatic species.
- ❖ 10,471: Number of pounds of Water Chestnut removed.
- ❖ 3,587: Number of people reached through outreach programs and trainings.
- ❖ 150: Number of acres of sprayed to control gypsy moth.
- ❖ 5: Number of acres of hydrilla controlled at Cayuga Lake.

IV. Resources: Center for Rural Pennsylvania Research and Hearings

Grove, Sara, and Michael Moltz. 2019. "Legislative and Regulatory Efforts to Control Invasive Species," Center for Rural Pennsylvania Research Report.

Harper, Jayson K., William Stone, Timothy W. Kelsey, and Lynn F. Kime. 2019. "Potential Economic Impact of the Spotted Lanternfly on Agriculture and Forestry in Pennsylvania," Center for Rural Pennsylvania Research Report.

Center for Rural Pennsylvania Public Hearing on Invasive Species. August 24, 2021.

⁶ See Grove, Sara, and Michael Moltz. 2019. "Legislative and Regulatory Efforts to Control Invasive Species," Center for Rural Pennsylvania Research Report. <https://www.rural.pa.gov/download.cfm?file=Resources/PDFs/research-report/Invasive-Species-Report-2019.pdf>

⁷ For a video overview of the impact of invasive species and New York's efforts to combat them, see <https://www.youtube.com/watch?v=NKh8Lc31rm8>.

⁸ Six PRISM-like entities currently exist in Pennsylvania, primarily in the northwestern region of the Commonwealth. For more information, see <https://wpcgis.maps.arcgis.com/apps/instant/basic/index.html?appid=48bfaf6f7ad34179957e742ff03385cc>.

⁹ See https://www.agriculture.pa.gov/Plants_Land_Water/PlantIndustry/GISC/Pages/Proposed-Partnerships-for-Regional-Invasive-Species-Management-in-Pennsylvania.aspx

¹⁰ See <http://fingerlakesinvasives.org/2021-sneak-peak-of-our-year-in-review/>