



WHAT'S THE DEAL WITH THE SPOTTED LANTERNFLY?

WELL...IT'S COMPLICATED!!!

But wait...am I supposed to squish them or not?

- There is no evidence that squishing lanternflies is an effective form of population control.
 - They like to spend their time high up in trees, so we can't even reach most of them!

What about the trees??

- The spotted lanternfly is less harmful to trees than originally thought!¹
 - Adult trees have been found to be more resilient than the more vulnerable saplings and juveniles.
 - Still: they can affect the output of and cause financial harm to some farms, mainly vineyards and nurseries, and this is a valid concern for farmers.

What about the Tree of Heaven??

- The spotted lanternfly's favorite host is the Tree of Heaven, which is an invasive species itself!²
 - The tree of heaven is a beautiful tree. This isn't just a story about "invasive" lanternflies destroying "native" plants. The ecological picture is more complicated and nuanced than we first thought!

What about spraying?

- Spraying with chemicals has been shown to harm beneficial insect populations! This includes pollinators who are crucial to our food systems as well as praying mantises who are one of the few predators to the Spotted Lanternfly.³
 - There is a mass extinction of insects underway, and we need to be cautious and thoughtful about the consequences of our interventions.

Well then what do we do??

- Some scientists are now calling for a third approach. Instead of squishing or spraying, making towns and cities more welcoming to birds—who have historically been the natural predators of lanternflies—might be the key to protecting plants and trees.⁴
 - One way you can help contribute to the protection of native plants and trees—instead of squishing lanternflies—is to support a bird-friendly environment.

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¹ Hoover, K. et al. (2023). Effects of long-term feeding by spotted lanternfly (Hemiptera: Fulgoridae) on ecophysiology of common hardwood host trees. *Environmental Entomology*, 52(5), 888-899.

² Urban, J. M., & Leach, H. (2023). Biology and management of the spotted lanternfly, *Lycorma delicatula* (Hemiptera: Fulgoridae), in the United States. *Annual Review of Entomology*, 68, 151-167.

³ Elmquist, J. et al. (2023). Potential risk to pollinators from neonicotinoid applications to host trees for management of spotted lanternfly, *Lycorma delicatula* (Hemiptera: Fulgoridae). *Journal of economic entomology*, 116(2), 368-378.

⁴ Strömbom, D., Crocker, A., Gery, A., Tulevech, G., Sands, A., Ward, K., & Pandey, S. (2024). Modelling the emergence of social-bird biological controls to mitigate invasions of the spotted lanternfly and similar invasive pests. *Royal Society Open Science*, 11(2), 231671.



Fun Facts about the Spotted Lanternfly

They love the color blue⁵

- They follow the blue sky to their favorite places: high up on trees and buildings!

They don't like the smell of lavender⁶

- If you'd rather not have them as guests in your garden, consider planting some!

They're part of a group of insects known as planthoppers⁷

- Both the nymphs and the adults have a powerful jump!

They're cute!!!⁸



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⁵ Jang, Y. et al. Spectral preferences of *Lycorma delicatula* (Hemiptera: Fulgoridae). *Entomological Research*, 43(2), 115-122.

⁶ Yoon, C. et al. (2011). Repellency of lavender oil and linalool against spot clothing wax cicada, *Lycorma delicatula* (Hemiptera: Fulgoridae) and their electrophysiological responses. *Journal of Asia-Pacific Entomology*, 14(4), 411-416.

⁷ Urban, J. M., & Leach, H. (2023). Biology and management of the spotted lanternfly, *Lycorma delicatula* (Hemiptera: Fulgoridae), in the United States. *Annual Review of Entomology*, 68, 151-167.

⁸ Direct observation.