

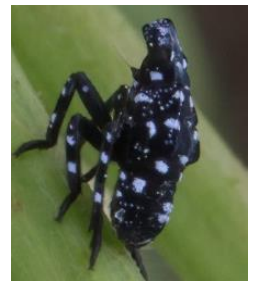
Spotted Lanternflies and Pets: Frequently Asked Questions



Image courtesy of Janelle Housman

1. Do spotted lanternflies bite or sting?

No. Spotted lanternflies do not bite or sting humans, pets, or wildlife. Their mouth is like a straw that can pierce through wood, leaves, and other plant tissue to feed on sap. Think of their mouthpart as a butterfly feeding on nectar from a flower. It is completely harmless to humans, pets, and wildlife and is made to feed on plants exclusively.



Early Nymph, by Grant Heilman Photography, Inc.

2. Are spotted lanternflies toxic to pets?

There have been no confirmed toxins in spotted lanternflies to-date. However, some veterinarians have reported that curious pets who have eaten a spotted lanternfly may experience a temporary upset stomach, drooling, or loss of appetite. Anything outside of a pet's regular diet such as insects or plants can cause an upset stomach. However, there is still reason to be cautious about your pet eating lanternflies for two reasons:

- A. **Lanternflies may sequester toxic compounds.** There is one study that suggests that spotted lanternflies sequester the toxic compound aianthone from their favorite host Tree of Heaven (Song et al., 2018). The researchers believe that makes them unpalatable to wildlife like birds (Song et al., 2018). Think of this like the poisonous monarch butterfly which gets its toxins from feeding on milkweed. Another researcher who studied spotted lanternfly host species suggested that lanternflies have an affinity towards plants with toxic metabolites like aianthone and might be able to sequester other toxic compounds (Barringer and Ciafré, 2020). However, it is important to note that there is not a consensus in the scientific community about toxin sequestration in lanternflies and more research is being conducted to support or refute this claim.
- B. **Insecticides are being used for spotted lanternflies.** While the chance of insecticide exposure is extremely low, make sure to keep your pets away from areas that have been sprayed with insecticides.

3. Does eating spotted lanternflies cause seizures in pets or can stepping on stopped lanternflies give my pet blisters?

To date, there is no evidence that spotted lanternflies have caused seizures in pets or blisters on pet's paws. Veterinarians have only reported upset stomachs, drooling, or loss of appetite from eating lanternflies.



Late Nymph, by Grant Heilman Photography, Inc.

4. My pet likes to eat spotted lanternflies and has never gotten sick from them. Can they keep eating them?

First, always consult your veterinarian for advice. It is recommended to not have your pet eat lanternflies because it is not a part of their regular diet. You can let your pets play with them or squish them, but avoid having them lick or ingest lanternflies for their safety and general health.

5. What should I do if my pet eats a spotted lanternfly?

Monitor your pet's behavior and always consult your veterinarian for advice and treatment if necessary. If your pet continues to exhibit symptoms like vomiting, loss of appetite, or drooling, this could be a sign of a larger problem or illness with your pet other than just spotted lanternfly consumption.



Adult SLF, by Grant Heilman Photography, Inc.

6. Are spotted lanternflies toxic to wildlife?

Researchers are still figuring this out, but there is no evidence that animals have died or gotten seriously injured from eating spotted lanternflies. Some birds have thrown up after eating lanternflies but there is also a rising number of birds eating them, which is why Penn State is conducting a study on birds as spotted lanternfly predators.

Summary:

It is recommended to stop your pets from eating spotted lanternflies just to be safe and keep them away from areas treated with insecticides. Always consult your veterinarian if they develop any symptoms such as an upset stomach after consuming spotted lanternflies. Finally, go to Penn State Extension's website for research and information updates regarding the spotted lanternfly.



Image courtesy of Thomas Kozloski

Resources & Additional Reading:

1. Barringer, L., & Ciafré, C. (2020). Worldwide Feeding Host Plants of Spotted Lanternfly, With Significant Additions From North America. *Environmental Entomology*. doi:10.1093/ee/nvaa093
a. Link to article: <https://academic.oup.com/ee/advance-article/doi/10.1093/ee/nvaa093/5892805>
2. Birds as Spotted Lanternfly Predators Study, September 2020:
a. <https://news.psu.edu/story/632167/2020/09/17/research/study-penn-state-examine-potential-birds-eat-spotted-lanternfly>
3. Patton Veterinary Hospital's Statement, October 2020:
a. <https://pattonvethospital.com/blog/232341-are-spotted-lanternflies-toxic-to-pets#:~:text=One%20post%20even%20states%20they,a%20dog%20after%20being%20ingested.&text=The%20most%20common%20symptoms%20associated,vomiting%20and%20loss%20of%20appetite.>
4. Penn State Extension's Spotted Lanternfly Website: <https://extension.psu.edu/spotted-lanternfly>
5. Song, S., Kim, S., Kwon, S.W., Lee, S.I., and Jablonski, P.G. (2018). Defense sequestration associated with narrowing of diet and ontogenetic change to aposematic colours in the spotted lanternfly. *Sci. Rep.* 8: 1–11.
a. Link to article: <https://www.nature.com/articles/s41598-018-34946-y>