

Research shows most bird feed contains troublesome weed seeds

March 20 2020



Many pigweed species (*Amaranthus* spp.) have been found as contaminants in commercially available bird feed mixes. Pigweeds were found at an average of 384 seeds kg⁻¹ but reached levels as high as 6,525 seeds kg⁻¹. This photo shows a variety of pigweed species that germinated following extraction from commercial bird feed mixes. Photo credit: Mindy Ward of Penton Media Credit: Mindy Ward of Penton Media

Many millions of homeowners use feeders to attract birds. But a two-year study featured in the journal *Invasive Plant Science and Management* suggests there may be one unintended consequence to this popular hobby. Bird feed mixtures may be helping to spread troublesome weeds that threaten agricultural crops.

When researchers examined the contents of 98 commercially available bird feed mixes, they uncovered several significant findings:

- The mixes contained seeds from 29 [weed species](#).
- 96 percent of the mixes contained seeds for pigweed species weeds, which can represent a significant threat to agriculture.
- One in 10 contained Palmer amaranth or waterhemp seeds that demonstrated resistance to glyphosate in a greenhouse screening.
- Seeds from kochia, common ragweed, foxtail species and wild buckwheat were also found in many of the mixes.

The researchers also explored which harvested bird feed ingredients contributed most to [weed](#) seed contamination. They found that proso millet grain was closely linked to the presence of pigweed species weeds, while safflower and sunflower contributed most to the presence of kochia and common ragweed, respectively.

"While it is difficult to estimate the precise role commercial bird feed plays, there is a distinct possibility it may be an overlooked pathway for spreading troublesome weed species into new regions," says Eric Oseland of the University of Missouri.

To mitigate the risks, researchers recommend careful weed management in [crop fields](#) designated for bird feed, as well as the use of sieving during packaging to reduce weed seed contamination. They also point to the proven effectiveness of regulatory measures adopted in Europe to limit weed seed content in bird feed.

More information: Eric Oseland et al, Examination of Commercially-Available Bird Feed for Weed Seed Contaminants, *Invasive Plant Science and Management* (2020). [DOI: 10.1017/imp.2020.2](https://doi.org/10.1017/imp.2020.2)

Provided by Cambridge University Press

Citation: Research shows most bird feed contains troublesome weed seeds (2020, March 20)
retrieved 12 May 2024 from <https://phys.org/news/2020-03-bird-troublesome-weed-seeds.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.