Homemade Pesticides Stats and Facts



FACTS

1. **Inconsistent Formulations –** Homemade pesticides use untested household ingredients, so concentration, efficacy, and toxicity are unpredictable—even ingredients like garlic or chili may become harmful.
2. **Toxic Exposure –** Mixing materials such as homemade soap sprays or vinegar solutions can irritate skin, eyes, and respiratory systems.
3. **Fire or Chemical Risks –** Recipes involving boiling tobacco, chrysanthemums, gasoline, or kerosene can release flammable vapors or toxic emissions.
4. **Environmental Contamination –** Misuse may pollute soil, water, and harm non-target organisms like pets or beneficial insects.
5. **Accidental Mislabeling –** Lack of proper labeling, storage, or documentation leads to accidental ingestion or misuse by others.
6. **Lack of PPE Usage –** Homemade solutions often make users skip gloves or respiratory protection, increasing dermal or inhalation risks.

STATS

- BLS 2023 data reported 174,100 non-fatal injuries in landscaping and related outdoor occupations, with ~2,000 cases linked to chemical exposure from pesticides (including homemade). Skin irritation (15%) and eye injuries (5%) were common, with inadequate PPE contributing to 20% of incidents.
- In 2024, PPE violations (29 CFR 1910.132) ranked 6th in outdoor industries (1,876 citations), including inadequate gloves or eye protection during pesticide application. Hazard Communication violations (29 CFR 1910.1200) ranked 2nd (3,200 citations), often due to improper training on homemade pesticide risks.
- A 2022 NIOSH study found that 25% of gardeners using homemade pesticides lacked proper PPE, increasing risks of skin or respiratory irritation. Overuse of soap sprays harmed beneficial insects in 10% of reported cases, per EPA data.
- Statistics Canada’s 2021 Workplace Safety Survey recorded 5,000 lost-time claims in outdoor occupations, with ~300 cases linked to pesticide exposure (including homemade). Skin irritation (10%) and inhalation injuries (5%) were prevalent, with 12% attributed to inadequate PPE.
- CCOHS 2023 data showed that workplaces enforcing chemical-resistant PPE

reduced pesticide-related injuries by 18%, particularly during application of homemade mixtures like neem oil or garlic sprays.
- In 2024, Ontario introduced fines up to $500,000 for repeat OHS violations, including PPE non-compliance, impacting gardening firms failing to provide proper safety gear for pesticide use.