



Pesticide Safety – Residue

What is Pesticide Residue?

Residue is the presence of pesticide that remains on treated surfaces after a period of time. Residues are important in order to achieve pest control. The longer the pesticide exists, the greater the chances for exposure by the targeted pest. However, residues can be harmful if people, animals and wildlife are exposed.

When can Pesticide Residue Cause Harm?

- ◆ When crops accumulate pesticides from the soil.
- ◆ When growers spray crops that the pesticide isn't intended for.
- ◆ When the applicator applies too much pesticide.
- ◆ When the applicator applies pesticide too close to the harvest period.
- ◆ When pesticide drift occurs from nearby fields.
- ◆ During postharvest if residue is left on produce.
- ◆ Not following the pesticide label's instructions when spraying in warehouses, markets or even restaurants.



Organic farmers markets grow in popularity partly from consumer avoidance of produce pesticide residue¹

Avoiding Hazardous Residues

- | | |
|--|---|
| <ul style="list-style-type: none"> • Comply with label's instructions. • Apply pesticides during dormant or fallow periods when possible to avoid residue on produce. • Fill pesticide tanks carefully to prevent siphoning back into wells (see <i>Information Sheet Pesticide_Safety_Mixing</i>). | <ul style="list-style-type: none"> • Calibrate sprayers such that correct amounts of pesticides are sprayed on the correct area size. Don't over apply. • Don't spray on days that the weather allows high pesticide drift (warm + windy). • Choose pesticides that breakdown rapidly. |
|--|---|

Important Notes

Plantback Restrictions: Pesticide residue leftover from a previous crop site may require a temporary delay period before planting other specific crops on the site. The pesticide label will specify which crops have plantback restrictions.

Accumulation: Building up of pesticide residue over a time of repeated applications. Pesticides can accumulate in soil, groundwater, lakes/ponds and sometimes animals/plants.

Breakdown/Recombination: Some hazards may occur when a particular pesticide breaks down into a more toxic form before continuing breakdown or combining with elements in the soil. See pesticide label to avoid such dangers.

Prepared by Frank Zalom, Pat Thompson, Mark Henderson and Mark Bell, July 2009

References: The Safe and Effective Use of Pesticides, UC ANR Pub. 3324

Photo Credit: ¹Organic Farmers Market, Samoa – Mark Henderson

For more information visit: International Programs: <http://ip.ucdavis.edu>

Copyright © UC Regents Davis campus, 2011. All Rights Reserved.