

**Adapted from:** Current and Historically Used Pesticides in Residential Soil from 11 Homes in Atlanta, Georgia, USA  
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## i Introduction and Purpose

A **pesticide** is any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest. Pests can be weeds, insects, or animals.

- Some **pesticides** are banned in the US because of their harmful effects on human health. However, many of these banned **pesticides** do not break down easily and can still be found in soil today.

Compared to the rest of the US in 2006, the South used the largest amount of the most commonly used residential **pesticide**.

The purpose of this study was to collect some information on the type and amount of **pesticides** found in the soil of Atlanta homes.

## P How the Study Was Done (Methods)

Soil was collected from 11 Atlanta homes during January–April 2006. Homes were selected based on convenience.

Yard and foundation soil was examined separately because **pesticides** are used differently near the foundation than in the yard.

The soil from the 11 homes was tested for 18 different **pesticides**.

## ✓ Results of Study

Several **pesticides** were found in the soil samples. Here, the summarized results are not separated by soil type. For more details, see the full article listed below.

- 11 currently used **pesticides** were found in 10 yards (91% of yards).
- 5 **pesticides** banned for residential use before 2006 were found in 6 yards (45% of yards). Notably, DDT, a harmful pesticide that was banned in 1972, was found in each of these 6 yards.

## − Limitations (Why we can't draw stronger conclusions)

Because soil was collected from only 11 homes and these homes were selected for convenience, we cannot say these results apply to all of Atlanta. Additionally, we measured the soil for only 18 specific pesticides, so other pesticides that we didn't measure may also have been in the soil.

## ? What does this mean?

These results show that soil around these 11 Atlanta homes contain both current and banned **pesticides**. To learn more about the specific **pesticides** found, the link to the full article is at the bottom of the page.

For the current **pesticides** measured, it takes approximately 40 days (or less) for half the original quantity to break down. So, current **pesticides** measured in the soil were likely applied within weeks to months before the soil was collected.

Because small amounts of pesticides may be particularly harmful to young children who often play in or near yard soil, additional studies should be done to determine if these pesticides are entering the bodies of children living in Atlanta homes.

## Tips to reduce pesticide exposure

Try using the Integrated Pest Management (IPM) methods to control pests:

- Biological Control - Using natural enemies, parasites, or enemies of a pest to either compete with it or kill it in order to control it.
- Cultural Control - Eliminating food or water sources or even favorable living conditions.
- Mechanical Or Physical - Traps or exclusion for pests and mulching for weeds are good examples.
- Chemical Control (as a last resort) - The use of pesticides

For more information on IPM for yards:  
<http://extension.psu.edu/pests/ipm/pestproblemsolver/house/lawn-landscape>

For information on soil testing:  
<http://extension.uga.edu/about/county/>

Read the full article here <https://link.springer.com/article/10.1007%2Fs00244-009-9439-z>

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