

# Myth-busting Integrated Pest Management for Extension Master Gardeners

*Authored by Stephanie Blevins Wycoff, Extension Associate, Virginia Tech Pesticide Programs and Daniel Frank, Director Virginia Tech Pesticide Programs; Edited by Dana Beegle, Publications Manager, Virginia Tech Pesticide Programs*

## Introduction

Integrated pest management (IPM) is a strategy commonly used by pest management professionals, but is often misunderstood by the general public and others. Extension Master Gardener volunteers, for example, have an overall basic understanding of IPM but also have a few misconceptions. Based on a recent survey (*March 2020*) of Extension Master Gardeners in Virginia, a handful of IPM myths were identified and will be debunked in this publication.

## What Is IPM?

IPM is a holistic, ecological approach to controlling pests. In an IPM program, the pest situation is assessed before taking action. The first step is to identify the pest to determine biological information, such as the pest's habitat and life cycle. Once this information is gathered and evaluated, it can be used to develop a pest management plan. IPM uses an assortment of control methods and employs the best practices available to protect people, animals, and the environment.

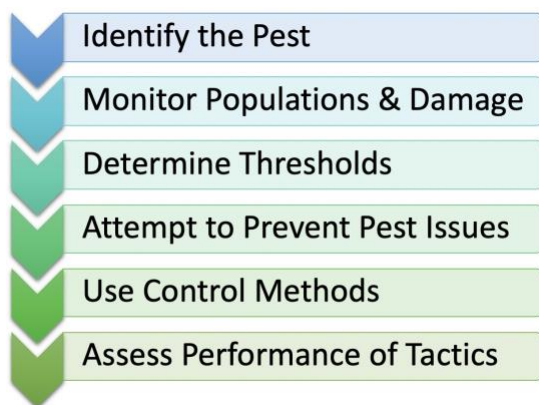


Figure 1. The components of an IPM program.

## Myth: IPM Does Not Include Chemical Controls

### Fact: IPM Includes Chemical Controls

An IPM program may include chemical controls when necessary. In an IPM program, chemical controls are generally a last resort — when other control methods have failed or cannot regulate the problem alone. If you decide to use a pesticide, always choose the least toxic option. When selecting a product, consider the type of pesticide needed (insecticide, herbicide, fungicide, etc.) and the target site (i.e., the intended application site). Always read the label before you purchase, use, store, or dispose of a pesticide product.

## Myth: IPM Focuses on Chemical Controls

### Fact: IPM Focuses on Nonchemical Controls

Although some people view IPM as a nonchemical strategy, others view it as a chemically focused strategy. Keep in mind that chemical controls are an option, but nonchemical controls are a primary focus of IPM. Nonchemical control methods include host-plant resistance (e.g., using plant varieties with disease resistance), biological control (e.g., using natural enemies such as lady beetles or lacewings), cultural control (e.g., moisture management or crop rotation), and mechanical and physical control (e.g., screens or netting for pest exclusion). Nonchemical controls should be implemented before chemical controls in an IPM program.

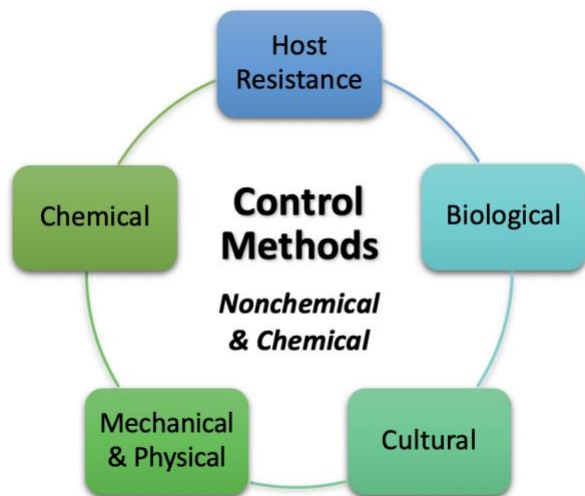


Figure 2. IPM programs include nonchemical and chemical control methods.

## Myth: IPM and Organic Are the Same

### Fact: IPM and Organic Are Not the Same

IPM and organic production are similar in their practices, but the terms should not be used interchangeably. IPM and organic production use many of the same nonchemical controls for pest management. However, the main difference lies in the type of chemical controls that can be utilized. Although both IPM and organic production incorporate pesticides when needed, in organic systems the use of conventional (or synthetic) pesticides is not allowed. Instead, only pesticides derived from naturally occurring sources and approved by the U. S. Department of Agriculture for use in organic production can be applied. In an IPM program, you are free to choose the type of pesticide needed for control whether it is synthetic or organic.

## Myth: IPM Is Only for Gardens or Landscapes

### Fact: IPM Is for Any Pest Situation

Naturally, many Extension Master Gardeners may find themselves reflecting on their own home lawn or garden when thinking about IPM. However, it is

important to remember that IPM can be used to deal with any pest situation. From greenhouse and farm operations, to urban housing and beyond, IPM can help tackle the most difficult of pests.

## Conclusion

An IPM program is only as effective as the person managing it, so take time to familiarize yourself with its principles. Understanding the facts associated with IPM is just as important as knowing the myths, and will better prepare you when educating others or making your own pest management decisions. If implemented correctly, an IPM program can provide practical, environmentally sound solutions for controlling pests.

## Additional Information

To learn more about IPM, please visit:

- Environmental Protection Agency: <https://www.epa.gov/safepestcontrol/integrated-pest-management-ipm-principles>
- Virginia Department of Agriculture and Consumer Services: [http://www.vapesticidesafety.com/integrated\\_pest\\_management.shtml](http://www.vapesticidesafety.com/integrated_pest_management.shtml)
- Virginia Cooperative Extension: <https://www.pubs.ext.vt.edu/ENTO/ENTO-365/ENTO-365.html>
- Virginia Tech Pesticide Programs: <https://sites.google.com/vt.edu/vtppconsume/rpse/integrated-pest-management>
- National Pesticide Information Center: <http://npic.orst.edu/pest/ipm.html>
- Pesticide Environmental Stewardship: <https://pesticidestewardship.org/ipm/>

Visit Virginia Cooperative Extension: [ext.vt.edu](http://ext.vt.edu)

Virginia Cooperative Extension programs and employment are open to all, regardless of age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, veteran status, or any other basis protected by law. An equal opportunity/affirmative action employer. Issued in furtherance of Cooperative Extension work, Virginia Polytechnic Institute and State University, Virginia State University, and the U.S. Department of Agriculture cooperating. Edwin J. Jones, Director, Virginia Cooperative Extension, Virginia Tech, Blacksburg; M. Ray McKinnie, Administrator, 1890 Extension Program, Virginia State University, Petersburg.