

UF/IFAS Extension Hendry County

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Resistance Management – Bullet Points

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Pesticides are used to control various types of pests, such as weeds, harmful insects, and diseases caused by bacteria and fungi. Pesticides oftentimes are the most effective and efficient pest control tools available.

Resistance to pesticides is a serious, and growing, problem. Worldwide, there more than 600 species of pests that have developed some level of pesticide resistance. If resistance to a particular pesticide or “family” of pesticides evolves, these products are no longer effective in controlling the target pest reducing the options available for pest management. With few new pesticides (new modes of action) in the development pipeline, pesticide users must do all they can to extend the useful life of the products currently available.

This module will explain how resistance develops, the factors that contribute to it, and how it can be avoided or managed.

- Understanding Resistance
- What is pesticide resistance?
- Preventing Resistance
- Ways to stop the spread of resistance.
- Herbicide Resistance - Understanding resistance in weeds.

- Insecticide Resistance - Understanding resistance in insects and insect-like organisms.
- Fungicide Resistance - Understanding resistance in fungus and other plant pathogens.
- Spraying by the Numbers – resistance action classification scheme that distinguishes modes of action by group numbers

A proactive approach using all applicable Integrated Pest Management tactics is the most effective way to avoid pest resistance. Effective IPM-based programs will ensure that all control tactics, including pesticides, are used at the proper time and only to reduce pest damage to acceptable levels. This will reduce costs from unnecessary pesticide applications, insure that control tactics are used when they will be most effective and reduce or delay the possibility of resistance developing in a pest population.

The primary objective of this approach is to reduce selection pressure by: 1) selecting and using pesticides correctly; and, 2) managing fields, farms, or sites to create conditions less conducive for pest survival.

Doing what it takes to avoid resistance is a better alternative than having to pay the price for overcoming resistance once it occurs.