Integrated Pest Management

Integrated Pest Management, also know by the acronym IPM, is an environmentally conscious strategy to prevent, avoid or reduce a pest problem in our lawns, vegetable and flower gardens, trees, and shrubs. Knowledge is the key to IPM. Knowing your plants and their common pest problems will help you choose the best methods for your garden. Monitor your plants regularly. It is easier to stop pests before they become a problem. The elements of IPM are good cultural practices, mechanical and physical controls, biological controls, and chemical applications. You can combine methods and determine what works best for your garden.

Cultural Practices

Good cultural practices start with healthy plants that will have fewer pest problems. Oklahoma Proven varieties are a good choice for pest resistance. Proper watering and fertilization will keep your plants healthy. To discourage pests, avoid growing plants from the same family in the same spot year after year. Clean up plant debris and weeds to eliminate food and shelter for pests. This is especially important at the end of the growing season to prevent problems for the next growing season.

Mechanical and Physical Controls

Mechanical and physical controls directly remove or kill pests or prevent them from reaching their targets by creating a physical barrier or by trapping them. Handpick or use a stream of water to physically remove pests from your plants. Plant collars, row covers, and plant cages are barriers to keep pests away. Slug traps, sticky traps and pheromone traps are available at your local garden supply. Apply organic mulch around mature plants to block weeds and help to regulate soil temperature and moisture. Mechanical and physical controls have relatively little impact on pests' natural enemies and other non-target organisms. They are also compatible with biological controls.

Biological Controls

Biological controls take advantage of pests' natural enemies. Insects, pathogens, and weeds all have predators that feed on them or diseases that weaken or kill them. Predators include other insects, birds, bats, amphibians, and reptiles. Parasitoids are arthropods that live on or in a host insect and kill it in the process. Many adult predators and parasitoids feed on nectar and

pollen. Blanket flowers, coneflowers, sweet clover, dill, cilantro, and fennel are all plants that are known to be attractive to these beneficial insects.

Chemical Controls

It is best to rely on chemical controls as a last resort in IPM. Be aware that some pesticides are less hazardous than others. For instance, insecticidal soaps, horticultural oils, and diatomaceous earth are effective, low-hazard options. Use only when and where needed. Apply all pesticides strictly according to label directions.

Integrated Pest Management is a commonsense approach to preventing pest problems. When problems do arise, IPM options are those that have the least impact on human health and the environment.

www.tulsamastergardeners.org, is a wonderful place to learn about your plants and their common pest problems. You can get answers to all your gardening questions by calling the Tulsa Master Gardeners Help Line at 918-746-3701, dropping by our Diagnostic Center at 4116 East 15th Street in Tulsa or by e-mailing us at mg@tulsamastergardeners.org.

Sources:

L-429	Integrated Pest Management Oklahoma
HLA-6431	Earth Kind Gardening Series Cultural Control Practices
E-1034	Master Gardener's Manual
Photo	MG Website "Organic and EarthKind Practices" Tab