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What is Integrated Pest Management (IPM)?

Integrated pest management (IPM) is an ecological approach to pest control that combines several different techniques to maintain pests below damaging levels. Pests may include insects, spiders, mites, diseases, weeds, snakes, rodents and larger vertebrates. By practicing IPM, growers and gardeners protect the environment and maintain food quality.

Specific techniques of integrated pest management programs vary, depending on the pests and/or crops to be protected, but all IPM programs have similar components:

• **Monitoring programs** Growers monitor crops regularly to determine presence and population levels of both pests and their natural enemies. Pest management decisions are based on potential damage from pest infestations, natural enemy levels, the stage of the crop and the weather.

• **Action threshholds** Growers apply pest controls only when pest populations reach levels that will cause sufficient economic or aesthetic damage to justify action.

• **Cultural practices** Modifications of planting, growing, cultivation and harvesting practices may prevent or reduce pest populations by making the environment less favorable. These include:

- ***Soil testing and amendment*** *Soil testing gives growers the knowledge they need to amend soils correctly, so that crops will grow under optimal conditions. Strong, healthy plants resist disease and insect attack.*

- ***Good sanitation*** *Removing the source of a potential pest infestation is an effective, economical way to reduce the abundance of many different pests. Sanitation includes removing crop refuse, inspecting transplants before purchase, sterilizing tools and destroying plants or plant parts that may harbor pests.*

- ***Planting resistant varieties*** *Plant varieties differ in their ability to avoid, tolerate, or recover from pest injury. Resistant varieties often require less pesticide than susceptible varieties.*

- ***Use of barriers and traps*** *Barriers such as polyester row covers, cutworm collars and fences prevent pests from getting at their favorite plants.*

- ***Proper timing*** *Selecting varieties that can be harvested before a particular pest arrives on the scene, or delaying planting or transplanting until the damaging stage of a pest's life cycle is past may enable growers to avoid some pests entirely.*

- ***Biological Controls*** *Natural enemies of pests include predators, parasites, and diseases. Conserve atural enemies by establishing a suitable habitat, selecting pesticides that won't harm the natural enemies of the target pest, timing pesticide applications carefully, and introducing natural predators purchased from commercial sources.*

• Pesticides
Those pesticides selected cause the least environmental disruption and have the lowest toxicity to beneficial and other non-target species, including human beings. The lowest effective amount of pesticide is applied from carefully calibrated sprayers.

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