



The DIRT Society Pest Management; The DIRT Society's Modified IPM

The 19th century saw the advent of widely used pesticides on food-growing operations; a form of pest control that was focused on scheduled application without careful management and analysis. This process was not only economically wasteful, but very destructive to surrounding ecosystems. Moreover, the abuse of commercial pesticides can cause long-term damage to consumer health. Luckily, there are effective alternatives to the spray-first, ask-later method. This general overview should help you prepare for future pest control endeavors in your garden or small farm.

Introducing (and Adjusting) IPM:

IPM stands for Integrated Pest Management. It's a popular and effective system of controlling pest populations using adaptive activity and observation, while simultaneously having the slightest possible effect on wildlife and your budget. The original IPM methods would condone the use of non-organic pesticides as a last resort. Recently, a movement in food growing operations has not only replaced standard commercial pesticides with organic options, but has determined to use IPM insofar as pesticides are no longer the final step at all. While a no-spray policy is admirable, it is not always economically feasible in large single-crop operations. However, small gardens and farms are at an advantage: They can utilize IPM, avoid the chemical "last resort", and benefit from a very effective pest control system. By working with wildlife populations and adapting your management techniques, you can reduce economic, ecological and crop-yield sacrifices while having the least possible detrimental environmental effect.



Using Modified IPM:

Incorporating Integrated Pest Management will greatly reduce the likelihood that your operation suffers substantial losses due to pests. The DIRT Society recommends the following practices, which do not include the application of chemical pesticides. We've removed this final attack for two reasons:

1. With proper management, it is unlikely that your small operation could host large enough populations of pests to warrant chemical treatments.
2. In the event of an outbreak, very few small farms and gardens will suffer significant enough losses due to pests that a potentially risky and destabilizing treatment should be used.



In essence, your operation is likely small enough that pest populations can be removed using mechanical, cultural, or biological controls. If your yields are still reduced due to pests, the total loss will be small compared to the loss of biodiversity and ecological health that would result from unnecessary pesticides.

The DIRT Society's adjusted, organic IPM method involves these basic steps:

Monitor and record: Keeping a crop log is vital to developing the best possible habits and harvesting the highest quality foods. Instead of using your log book for internal observations only (yields, planting dates, etc.) consider also using your log to track beneficial and detrimental populations. Make note of likely pests for each crop, and regularly scout your garden for signs of fungal, animal or viral populations. If you discover a pest, record the method by which you removed it. These minimal efforts will serve as your garden-specific knowledge base should future outbreaks occur.

Prevention: Similar to practicing medicine, food growers should focus first on creating systems that prevent infestation and infection. With well-maintained prevention, very few small operations should need to react radically to a specific pest population. Prevention includes washing tools and containers, sanitizing nozzles and hoses, limiting moisture on surface areas of crops, building simple barriers and planting a variety of fruits and vegetables.

Identify and set thresholds: If you isolate a pest or affected area of a crop, take the time to identify the culprit. This will help you to prevent recurrence and to report the development to local agricultural or environmental authorities if needed. While becoming more informed about the pests in your farm or garden, set semi-flexible thresholds that you can respond to. For instance; one threshold might be to cover crop 'x' with netting if two individual plants are lost. Another example would be to cease growing variety 'y' if less than 75% of expected yield is recorded.

Introduce one control at a time: Should your garden become infested, you will want to respond quickly, while the population is small. This ensures that only the minimum action required is taken; saving beneficial populations, energy and money. Attempt to target the pest specifically. This could mean physical removal, trapping, erecting a guard, applying oils or soaps, or the informed introduction of biological deterrents like predators or competitors. Depending on the starting population and type of pest, you may only need to employ one method, so do not try many assaults at once. This leads us to one of our key philosophies:



What you must always remember: Wild populations should be managed, not eradicated. The ideal balance between your operation and the surrounding ecosystem is just that; a *balance*. The best relationship between food-grower and environment is symbiotic and respectful. As the party responsible for introducing controls and monitoring the lifecycles of both domesticated and wild populations, it is your duty to maintain the equilibrium that is the founding principle of sustainability.