PESTICIDE COMPANIES DISGUISING THEMSELVES AS BEING GREEN AND 'ORGANIC'... BUYER BEWARE !!

Pesticide companies are in greater frequency disguising themselves as "natural", "green" and "environmentally friendly", and that they do not use pesticides...

Get it in writing that they are 100% pesticide free.

Toronto's Pesticide Bylaw and Natural Lawn and Garden Care

We encourage the public to empower themselves on understanding what it truly means to go natural and move away from using pesticides.

Many service providers in Toronto and the surrounding municipalities are misleading consumers by portraying themselves as natural and pesticide free when in fact they are continuing to use harmful pesticides under the guise of being environmentally friendly by utilizing government sanctioned strategies such as **Integrated Pest Management** "IMP" . Find out what it truly means when a service provider tells you they use IMP to treat your lawn. It is not what they want you to know..read on...

IF YOU LIVE IN TORONTO VISIT THE CITIES WEB SITE FOR DEATILED INFO ON WHAT AND HOW YOUR SERVICE PROVIDER SHOULD BE TREATING YOUR FAMILIES GREEN SPACE..** DON'T BE MISLED **:

http://www.toronto.ca/health/pesticides/index.htm

What does "IPM" really mean: (extract from Wikipedia)

In agriculture, **Integrated Pest Management** (IPM) is a pest control strategy that uses a variety of complementary strategies including: mechanical devices, physical devices, genetic, biological, cultural management, and chemical management. These methods are done in three stages: prevention,

observation, and intervention. It is an ecological approach with a main goal of significantly reducing or eliminating the use of pesticides while at the same time managing pest populations at an acceptable level.

An IPM system is designed around six basic components: The US Environmental Protection Agency has a useful set of IPM principles. [2]

1. **Acceptable pest levels:** The emphasis is on *control*, not *eradication*. IPM holds that wiping out an entire pest population is often impossible, and the attempt can be more costly, environmentally unsafe, and frequently unachievable. IPM programs first work to establish acceptable pest levels, called action thresholds, and apply controls if those thresholds are crossed. These thresholds are pest and site specific, meaning that it may be acceptable at one site to have a weed such as white clover, but at another site it may not be acceptable. This stops the pest gaining resistance to chemicals produced by the plant or applied to the crops. If many of the pests are killed then any that have resistance to the chemical will rapidly reproduce forming a resistant population. By not killing all the pests there are some un-resistant pests left that will dilute any resistant genes that appear.
2. **Preventive cultural practices:** Selecting varieties best for local growing conditions, and maintaining healthy crops, is the first line of defense, together with plant quarantine and 'cultural techniques' such as crop sanitation (*e.g.* removal of diseased plants to prevent spread of infection).
3. **Monitoring:** Regular observation is the cornerstone of IPM. Observation is broken into two steps, first; inspection and second; identification.[3] Visual inspection, insect and spore traps, and other measurement methods and monitoring tools are used to monitor pest levels. Accurate pest identification is critical to a successful IPM program. Record-keeping is essential, as is a thorough knowledge of the behavior and reproductive cycles of target pests. Since insects are cold-blooded, their physical development is dependent on the temperature of their environment. Many insects have had their development cycles modeled in terms of degree days. Monitor the degree days of an environment to determine when is the optimal time for a specific insect's outbreak.
4. **Mechanical controls:** Should a pest reach an unacceptable level, mechanical methods are the first options to consider. They include simple hand-picking, erecting insect barriers, using traps, vacuuming, and tillage to disrupt breeding.
5. **Biological controls:** Natural biological processes and materials can provide control, with minimal environmental impact, and often at low cost. The main focus here is on promoting beneficial insects that eat target pests. Biological insecticides, derived from naturally occurring microorganisms (*e.g.*: *Bt*, entomopathogenic fungi and entomopathogenic nematodes), also fit in this category.
6. **Chemical controls:** Synthetic pesticides are generally only used as required and often only at specific times in a pests life cycle. Many of the newer pesticide groups are derived from plants or naturally occurring substances (*e.g.*: nicotine, pyrethrum and insect juvenile hormone analogues), and further 'biology-based' or 'ecological' techniques are under evaluation.

IPM is applicable to all types of agriculture and sites such as residential and commercial structures, lawn and turf areas, and home and community gardens. Reliance on knowledge, experience, observation, and integration of multiple techniques makes IPM a perfect fit for organic farming (the synthetic chemical option is simply not considered). For large-scale, chemical-based farms, IPM can reduce human and environmental exposure to hazardous chemicals, and potentially lower overall costs of pesticide application material and labor.

1. Proper identification of pest - What is it? Cases of mistaken identity may result in ineffective actions. If plant damage due to over-watering are mistaken for a fungal infection, a spray may be used needlessly and the plant still dies.

2. Learn pest and host life cycle and biology. At the time you see a pest, it may be too late to do much about it except maybe spray with a pesticide. Often, there is another stage of the life cycle that is susceptible to preventative actions. For example, weeds reproducing from last year's seed can be prevented with mulches. Also, learning what a pest needs to survive allows you to remove these.

3. Monitor or sample environment for pest population - How many are here? Preventative actions must be taken at the correct time if they are to be effective. For this reason, once you have correctly identified the pest, you begin monitoring BEFORE it becomes a problem. For example, in school cafeterias where roaches may be expected to appear, sticky traps are set out before school starts. Traps are checked at regular intervals so you can see them right away and do something before they get out of hand. Some of the things you might want to monitor about pest populations include: Is the pest present/absent? What is the distribution - all over or only in certain spots? Is the pest population increasing or decreasing?

4. Establish action threshold (economic, health or aesthetic) - How many are too many? In some cases, a certain number of pests can be tolerated. Soybeans are quite tolerant of defoliation, so if you have only a few caterpillars in the field and their population is not increasing dramatically, there is no need to do anything. Conversely, there is a point at which you MUST do something. For the farmer, that point is the one at which the cost of damage by the pest is MORE than the cost of control. This is an economic threshold. Tolerance of pests varies also by whether or not they are a health hazard (low tolerance) or merely a cosmetic damage (high tolerance in a non-commercial situation). Personal tolerances also vary - many people dislike any insect; some people cannot tolerate dandelions in their yards. Different sites may also have varying requirements based on specific areas. White clover may be perfectly acceptable on the sides of a tee box on a golf course, but unacceptable in the fairway where it could cause confusion in the field of play.[4]

5. Choose an appropriate combination of management tactics For any pest situation, there will be several options to consider. Options include, mechanical or physical control, cultural controls, biological controls and chemical controls. Mechanical or physical controls include picking pests off plants, or using netting or other material to exclude pests such as birds from grapes or rodents from structures. Cultural controls include keeping an area free of conducive conditions by removing or storing waste properly, removing diseased areas of plants properly. Biological controls can be support either through conservation of natural predators or augmentation of natural predators[5]. Augmentative control includes the introduction of naturally occurring predators at either an inundative or inoculative level[6]. An inundative release would be one that seeks to inundate a site with a pest's predator to impact the pest population[7][8]. An inoculative release would be a smaller number of pest predators to supplement the natural population and provide ongoing control.[9] Chemical controls would include horticultural oils or the application of pesticides such as insecticides and herbicides. A Green Pest Management IPM program would use pesticides derived from plants, such as botanicals, or other naturally occurring materials.

6. Evaluate results - How did it work? Evaluation is often one of the most important steps.[10] This is the process to review an IPM program and the results it generated. Asking the following questions is useful: Did your actions have the desired effect? Was the pest prevented or managed to your satisfaction? Was the method itself satisfactory? Were there any unintended side effects? What will you do in the future for this pest situation? Understanding the effectiveness of the IPM program allows the site manager to make modifications to the IPM plan prior to pests reaching the action threshold and requiring action again.

Notes

1. ^ United States Environmental Protection Agency, "Pesticides and Food: What Integrated Pest Management Means."
2. ^ http://www.umass.edu/umext/ipm/publications/guidelines/index.html.
3. ^ Bennett, Et Al., "Truman's Scientific Guide to Pest Management Operations", 6th edition, page 10, Purdue University/Questex Press, 2005.
4. ^ Purdue University Turf Pest Management Correspondence Course, Introduction, 2006
5. ^ http://www.knowledgebank.irri.org/IPM/biocontrol/
6. ^ http://www.hort.uconn.edu/ipm/veg/htms/ecbtrich.htm
7. ^ http://pinellas.ifas.ufl.edu/green_pros/ipm_basics.shtml
8. ^ http://www.knowledgebank.irri.org/IPM/biocontrol/Inundative_release.htm
9. ^ http://www.knowledgebank.irri.org/IPM/biocontrol/Inoculative_release_.htm
10. ^ Bennett, Et Al., "Truman's Scientific Guide to Pest Management Operations", 6th edition, page 12, Purdue University/Questex Press, 2005.

See also

- Endangered arthropod
- Professional Landcare Network (PLANET)
- Pesticide application
- Soil contamination
- Western corn rootworm

References

- Pests of Landscape Trees and Shrubs: An Integrated Pest Management Guide.

Steve H. Dreistadt, Mary Louise Flint, et al., ANR Publications, University of California, Oakland, California, 1994. 328pp, paper, photos, reference tables, diagrams.

- Bennett, Gary W., Ph.d., Owens, John M., Ph.d., Corrigan, Robert M, Ph.d. Truman's Scientific Guide to Pest Management Operations, 6th Edition, pages 10, 11, 12, Purdue University, Questex, 2005.

- Jahn, GC, PG Cox., E Rubia-Sanchez, and M Cohen 2001. The quest for connections: developing a research agenda for integrated pest and nutrient management. pp. 413-430, In S. Peng and B. Hardy [eds.] “Rice Research for Food Security and Poverty Alleviation.” Proceeding the International Rice Research Conference, 31 March – 3 April 2000, Los Baños, Philippines. Los Baños (Philippines): International Rice Research Institute. 692 p.

- Jahn, GC, B. Khiev, C Pol, N. Chhorn and V Preap 2001. Sustainable pest management for rice in Cambodia. In P. Cox and R Chhay [eds.] “The Impact of Agricultural Research for Development in Southeast Asia” Proceedings of an International Conference held at the Cambodian Agricultural Research and Development Institute, Phnom Penh, Cambodia, 24-26 Oct. 2000, Phnom Penh (Cambodia): CARDI.

- Jahn, GC, JA Litsinger, Y Chen and A Barrion. 2007. Integrated Pest Management of Rice: Ecological Concepts. In Ecologically Based Integrated Pest Management (eds. O. Koul and G.W. Cuperus). CAB International Pp. 315-366.

- Kogan, M 1998. INTEGRATED PEST MANAGEMENT:Historical Perspectives and Contemporary Developments, Annual Review of Entomology Vol. 43: 243-270 (Volume publication date January 1998) (doi:10.1146/annurev.ento.43.1.243)

- Nonveiller, Guido 1984. Catalogue commenté et illustré des insectes du Cameroun d'intérêt agricole : (apparitions, répartition, importance) / University of Belgrade/Institut pour la protection des plantes

- US Environmental Protection Agency, "Pesticides and Food: What Does Integrated Pest Management Mean?" http://www.epa.gov/pesticides/food/ipm.htm

Books

On building organic pest-free gardens

- The Time Saving Garden by David and Charles PLC/Reader's Digest, ISBN 13: 9780276442452

External links

- WhatIsIPM.org - Pest control trade-association web site on IPM.
- [3] - Rationalising pesticide use through improved application methods
- IPM for Lawn care
- UC IPM - University of California Statewide Integrated Pest Management Program
- Harvard University IPM - Harvard University IPM Program
- IFAS IPM - University of Florida's Institute of Food and Agricultural Sciences IPM Program
- New York State IPM Program - New York State (Cornell University) IPM Program
- OSU IPM Program - Ohio State University IPM Program
- IPM Images - Thousands of Images related to IPM and Agriculture
- UGA IPM Program - University of Georgia IPM Program
- MSU IPM resources - IPM Resources at Michigan State University
- IPM Institute of North America - Non-profit organization promoting IPM practices
- Green Shield Certified: Effective pest control. Peace of mind. - A third-party certification for effective pest control without unnecessary pesticides
- Top Ten Reasons Why IPM Doesn't Work
- SAFECROP Centre for research and development of crop protection with low environment and consumer health impact

Categories: Agronomy | Pest control | Biological pest control | Soil chemistry | Plant pathogens and diseases