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**CHAPTER 8  
DEVELOPING AN INTEGRATED PEST MANAGEMENT PROGRAM  
FOR NEW CLIENTS**

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## **CHAPTER 8 DEVELOPING AN IPM PROGRAM FOR NEW CLIENTS**

### **INTRODUCTION**

The implementation of IPM is a system approach in which different elements are integrated together. Clients are part of the system and should be integrated in the overall program. For each client, the problems, the resources and expectations may be different and must be considered in developing a pest management approach.

It is important to explain to a new client the difference between damage that harms the plant and damage that affects the visual appearance, but does not injure the plant. Taking time to look at the lawn or the trees with this person helps get a sense of their tolerance for damage.

Monitoring, or regular inspection of the site, is an important feature of IPM that will be new to many customers. Early in the preparation of the contract, time should be taken to explain this procedure. The use of predator insects may also be new: explanations should focus on the importance of biocontrol, how it works and how it differs from chemical control. IPM terms such as pheromones and parasitism should be explained.

In this chapter, introducing Integrated Pest Management to a new client is explained based on the experience of field practitioners in B.C. and elsewhere.

### **A) INTRODUCING IPM IN A PRIVATE COMPANY**

Make sure you and your client are talking the same language. When the client says "I expect little damage", what does it mean? Some clients do not want any pesticides used and should be made aware of the limitations of other techniques. Other clients want immediate results that would require the use of toxic pesticides. Clients must have realistic expectations. Most persons will tolerate minor plant injury if they are assured it will not adversely affect the health of the plant. Clients can expect a healthy, visually appealing landscape: a perfect landscape, however, is not a realistic expectation.

Your pest management company may be asked to solve a specific problem by a new client. Upon visiting the site, you may notice other pests causing serious plant damage. In such situations, experienced IPM practitioners work to solve the problem that preoccupies the client. Once this problem is solved successfully, the client can then be approached and educated about other problems on site and the importance of regular monitoring to maintain healthy plants. Most people understand that a healthy body is more resistant to infestation, and that the same is true for plants.

Always leave or send a written note within a very short time of the visit, even after the client was verbally informed. It may prevent legal problems, but most importantly, it shows your clients they are the focus of the work, not the pests and the plants. The best monitoring program serves no purpose if customers feel unimportant and decide to drop out.

On large sites, such as an industrial complex or a government property, the person you talk to may not be the person who makes the final decision. It is important to find the decision makers and identify which person has the final responsibility. All levels of administration, however, should be kept informed to help with the acceptance of recommended treatments.

In some cases, the services are required for monitoring and recommendation, but the application of a pesticide is done by others. A good relationship should be developed with the latter: an uninformed or unsympathetic pesticide applicator can make the whole exercise fail. This is especially true with biological control products, such as B.t., that require careful timing and use.

Finally, financial restraints are important: find out how much money has been budgeted, and work within those limits. One person may wish to pay for a regular monitoring visit throughout the season while another person works with a smaller budget and can be helped with a specific problem over a few visits. Some maintenance companies offer pesticide spraying and fertilizing in the package. Other companies charge a contact price for monitoring, with treatments billed separately as they are performed, according to set rates and after the client's approval. More details are found in Box 8-1: "Getting started with IPM".

### **Box 8-1: Getting started with IPM**

#### **Define the problems.**

Make a list of all problem species and the host plants or affected area.

Collect all records and information that may exist about these problems.

#### **Obtain information.**

Once the pest problems have been defined, obtain information on the biology and life cycles and learn to identify the different life stages. Information can be sought on monitoring, treatment methods, and treatment alternatives.

#### **Set up a monitoring program.**

A realistic monitoring program must take into account the cost and availability of labour. For example, if contemplating an early spring release of an aphid predator, the host plant should be examined as soon as leaves expand.

#### **Review and enhance all management methods.**

Review the entire management program including fertility, irrigation, cultivation, planting arrangement, mowing and others. For example, quick release or soluble fertilizers could be replaced with slow release fertilizers.

#### **Reduce pesticide residues.**

Spray only when monitoring determines that treatment is necessary and not on a calendar schedule. Spot spraying is preferred over blanket spraying and non-residual pesticides are preferred over residual pesticides.

#### **Make long term plans.**

Plantings that have problems every year should be eliminated or replaced. Staff training will avoid ad hoc pesticide use that disrupts biocontrol.

#### **Regularly evaluate results.**

Determine where monitoring should be increased or can be reduced.

Source: Gilkeson, L., "[Getting Started With IPM](#)", IPM Co-ordinator, Ministry of Environment, Lands and Parks (Victoria B.C.). Mimeographed paper, undated.

### **Box 8-2: Plant Health Care as a marketing tool**

Since 1987, a number of research studies have been conducted to examine the beliefs and perceptions of landscape and tree care consumers.

From these studies came the concept of Plant Health Care, a marketing program that promotes a proactive holistic approach to plant care. The focus is on preventive maintenance with less reliance on chemical interventions.

The demographic characteristics of tree care consumers show they are older, more educated, more likely to own a home, and more likely to have a large number of mature trees on their property than do other citizens. Research also shows that most tree care consumers are not environmentally-concerned. Customers of landscape services desire the best looking property for the money.

Tree care consumers reported only a slight disfavor with the use of pesticides in a blanket approach. Respondents believed that less toxic methods were less harmful to the environment and to humans, but were less interested if the program was more expensive. However, consumers did care what the neighbour think and had a bias for fast-acting methods.

The survey identified three consumer profiles. Contact-driven customers are environmentally indifferent, service-conscious and want the pest manager to stand behind the service. Information-driven customers are environmentally concerned, price-conscious and want credibility from the pest manager. Aesthetically-driven customers are environmentally responsible, status conscious and want the pest manager to deliver an effective treatment.

Thus, most consumers will not respond to a marketing campaign emphasizing an environmental ethic only. They will be more responsive to a promise of personal contact, constant information and beautiful looking plants.

Adapted from: International Society of Arboriculture, "PHC: An Introduction", *Arborist News*, 2(3), 1992.

## **B) INTRODUCING IPM IN A PUBLIC AGENCY**

IPM practitioners in a city department, a regional organization, a government ministry or any other public agency must establish their programs while answering to political agendas, and work with tight budget limits. Answering to the needs of the client is also important in a public agency. But the human environment is different than in a private back yard.

Within any public agency are elected officials and non-elected constituents with their own political agendas, and an IPM program may be pressured from all sides. In some cases, some people may oppose the use of any pesticide, even in situations where viable alternatives do not exist. In other cases, some people refuse to introduce monitoring or "least-toxic" solutions into the system. In general, IPM programs developed as a pro-active solution will have a greater chance of success than IPM programs developed as a reactive solution.

Another important element for success is to proceed in small steps. At the start, the focus should be on problems requiring the most pesticide applications. Once a problem is solved and the IPM process established, another problem area can be tackled. Old methods are replaced as workable IPM alternative techniques are put in place, but retained where necessary until the alternatives can be developed. This will also provide a smooth transition with little discernible effect on maintenance standards and facilitate staff involvement.

Staff training and involvement is part of every successful Integrated Pest Management programs in public agencies. These are the people closest to the pest problems and the ones who will have to make the program work. Employees within the agency can be trained in IPM principles and methods relevant to their field work.

Facilities that are poorly designed will result in higher use of pesticides. For example, fence lines built without concrete underlayment will always have weeds growing under the fence. One way to address the problem is to allow a design review by the maintenance staff. The politicians, administrators, landscape architects and city planners must realize that proper design and construction of facilities provides long term cost effective pest management.

### **Box 8-3: IPM in a restrictive financial environment**

The Eugene (Oregon) Parks and Recreation Department has earned recognition for the development and implementation of workable urban Integrated Pest Management methods for public grounds maintenance. IPM development was done within the regular budgetary frameworks.

The conversion to IPM has continued steadily since 1980 under restrictive budget guidelines that included a 16% reduction in staff. This indicates the feasibility of adopting IPM in a restricted financial environment.

The Eugene program has a "build-down" approach to implementation in which IPM is introduced gradually, with minimal financial impact. Field employees are trained in IPM procedures and their judgment sought when choosing specific control actions. Taking "ownership" is a cost-effective route with a higher chance of success than imposing a program from the top down.

Another route to keep costs low was to utilize assistance from government or foundation experts. Experiments were conducted with University departments and manufacturers on specific problems.

The importance of low cost for long term maintenance is stressed during the design and construction of public facilities. There is always a temptation to stretch funding by eliminating important details such as concrete underlayment of fence lines, hard surfacing of parking lots or proper soil preparation. This concern is addressed with a design review by maintenance staff. Design and construction for cost-effective long term maintenance is in the best public interest for cost control, and reduces the need for chemical-intensive maintenance.

Overall, realism is the key. What is done or left undone in the short run will determine the cost in the long run.

Source: Rhay, T., "IPM In A Restrictive Financial Environment", Turf and Grounds Supervisor (Eugene OR). Mimeographed paper, undated.

A procedure should also be incorporated in the IPM program to deal with concerns and complaints from the general public. At the City of Coquitlam, this has taken the form of the "Good Neighbour Policy". Endorsed by City Council in 1989, the policy combines letters or sign posting in areas scheduled to be treated with pesticides. Information is provided to answer the questions about the use of chemicals on public land. The advance sign posting and notification allows a reasonable length of time for staff to receive and respond to concerns or objections.

### **C) DESIGNING AN IPM PROGRAM**

In some situations, it is necessary to adopt a written policy and procedures for pest control that clearly establish the IPM principles as the decision-making process. Such a written policy helps a public agency answer to the questioning public. It also provides the employees of a private company with a procedure to handle unexpected problems and guidelines to comply with government requirements.

The first step of an IPM policy is to determine the goals. The goals can be political or educational, such as "To educate employees and the public about pest management problems and solutions". The goals can also be operational, such as "To maintain pests at levels that prevent them from becoming a health hazard" The goals will vary from situation to situation.

Once the policy goals are set, people with pest management expertise within and outside of the organization must establish reasonable procedures for meeting the goals. This process is constantly evolving to keep up with new ideas and practices and to modify the program based on a regular evaluation.

Box 8-4 outlines a step-by-step procedure to develop an IPM program.

Change never comes easy. There are a number of predictable obstacles within an agency - both psychological and institutional - to initiate an IPM program. There will also be occasional complaints and controversies with members of the public. Building support for the IPM program, within the organization and outside the organisation, will address those barriers.

#### **Box 8-4: Procedures to design an IPM program**

##### **Identify all potential pests in the system.**

Personnel can be trained to accurately identify the major pests and / or their damage and the beneficials. Field manual, microscope and other tools should be available to assist in the pest identification.

##### **For each pest, establish monitoring guidelines.**

This may be crude at first but can be improved with experience. The monitoring will pinpoint when and where the pest will become intolerable and will determine the effectiveness of treatment actions.

##### **Establish injury levels and action thresholds for each individual pest species.**

Determine the infestation levels that will be intolerable to people or to structures or will cause unacceptable damage at various times of the year. Treatment is usually required when the pest populations is expected to reach the injury level, or the biological factors are not expected to reduce the pest problem rapidly, or the treatment cost is less than the potential pest damage.

##### **Establish a record keeping system.**

Good records will provide information on the size of the pest infestation, the geographic distribution of the problem, the complete information on the treatments applied, and feedback from the residents.

##### **Develop a list of acceptable management strategies for each pest.**

The preferred methods are those which prevent pest problems and eliminate the need for pesticide applications. This may include modifying the structures to be less conducive to pest survival, or to prune out the affected parts on the plant. A list can be prepared of effective pesticides that are least disruptive to the environment.

**Develop specific criteria for selection of pest management methods.**

The employees and the public can be informed that treatments are selected that are effective, economical, easy to use and environmentally friendly.

**Develop guidelines to be followed each time a pesticide is used.**

The applicators should always be instructed to read the pesticide label and wear the appropriate safety equipment. The equipment should be well calibrated and in good working order. Spot treatments should be favoured as they allow the survival of natural enemies.

**For each step along the way, designate a responsible person.**

One or many specific person(s) is made responsible to make the decisions, to carry out the operations and to regularly evaluate the effectiveness of the program.

**Develop a list of resources.**

Know where to go for more information, either an in-house library or outside expertise.

**Consider your IPM policy a "living document" that changes over time.**

The program can be reviewed regularly with environmental organizations, worker health advocates and other interested members of the public.

Source: Flint, M.L., S. Daar, R. Molinar, "Establishing Integrated Pest Management Policies and Programs: A Guide for Public Agencies", Statewide Integrated Pest Management Project, University of California (Davis CA), 1991.

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