INTEGRATED PEST MANAGEMENT (IPM)

Saanich
PLANNING
Environmental Services

Integrated Pest Management (IPM) is an approach to pest management that employs a combination of techniques to keep pest numbers low enough to prevent intolerable damage or annoyance. In an IPM program, the least toxic, effective management options are utilized. IPM looks at the biology of a pest and attempts to manage it at the weakest point in its life cycle. An IPM plan is an integral part of a Pesticide Permit Application under Saanich's Pesticide Bylaw.

DEVELOPING AN IPM PROGRAM

PREVENTION IS THE FIRST STEP! An ideal IPM program starts with prevention. Having a healthy environment will keep pest populations below damaging levels. Consider using pest resistant cultivars or native plants. Use cultural practices such as planting the right plant in the right place. Alter the environment to attract beneficial species. Manage soil fertility, watering and drainage. Manage human use of the area which may have an impact. Use mulch to keep weeds at a minimum. Use hard landscaping in difficult growing areas. Once immediate pest problems are dealt with, correct the problem by developing a long-term plan for changes.

CONDUCT RESEARCH INTO THE PEST TO DETERMINE WHETHER IT IS BENEFICIAL, NEUTRAL OR HARMFUL TO THE SITE. Taking the time to correctly identify the pest will help you determine when and how to best control it. Keep a record of this research so that any future pest problems can be dealt with effectively and efficiently. Many site problems are not caused by pests. Poor conditions at the site such as drought, frost, or nutrient deficiency can masquerade as a pest problem. Proper identification of the problem is crucial to its resolution.

EFFECTIVE MANAGEMENT OF YOUR SITE NECESSITATES REGULAR MONITORING. Regular monitoring enables you to gather and record current information on the identity and location of pest problems and to evaluate treatment effectiveness. Regular monitoring helps to track pest situations and decide whether damage has reached a point requiring action.

PLANNING A REALISTIC COURSE OF ACTION THAT TAKES CONTROL OF HARMFUL PESTS AT A SITE IS OFTEN BASED UPON HOW MUCH VISIBLE DAMAGE CAN BE READILY SEEN. A few holes in leaves from plant-eating insects, some weeds, or even signs of disease are considered normal. Sometimes it is beneficial to allow low numbers of pest insects to provide food for predators, which is a natural form of pest control. A high profile area may require a different IPM strategy than natural or low profile areas.

TAKING ACTION WHEN PESTS CAUSE UNACCEPTABLE DAMAGE AT A SITE REQUIRES THE USE OF ONE OR MORE COMBINATIONS OF TREATMENTS.

- Cultural Control: prevention of pests by maintaining healthy hosts through proper planting, pruning, mulching, irrigation, nutrient requirements and sanitation practices.

- Physical Control: manual techniques that include mulching, hoeing, hand pulling weeds, using boiling water to kill weeds, sticky traps, screens.
- Mechanical Control: using machines or equipment such as hoes, propane flamers or steam applicators.
- Biological Control: the introduction of natural enemies of pests to a site, which includes beneficial insects, birds, snakes, beneficial soil fungi and bacteria
- Chemical Controls: using chemicals is often only a short-term solution and rarely a long-lasting one. Chemicals should be used as a last resort as they have the most potential to damage the environment. The least toxic pesticide that effectively controls the pest should be used. A list of exempt pesticides can be found in Part 7-Schedule "A" of the Saanich Pesticide Bylaw.

EVALUATING THE PEST PROBLEM REGULARLY AFTER TREATMENT WILL DETERMINE THE SUCCESS OF AN IPM STRATEGY AND ALLOW FOR PREPARATONS TO BE MADE FOR THE FUTURE UPKEEP OF THE SITE.

WRITING AN IPM PLAN

An IPM Plan can be as simple as a one page fact sheet to address each pest problem you have or as complex as a book covering all aspects of pest biology. The key to a successful IPM Plan is that it is easy to use. You should be able to quickly find current recommendations for the management of a pest. Although the basic information that is put into an IPM plan changes very little from year to year, the plan should still be reviewed and updated regularly.

COMPONENTS OF AN IPM PLAN

- AN ON-SITE RECORD: location, existing vegetation on site and neighbouring areas (if different), soil type, use of area, applicable sensitive ecosystem information (consult Saanich Sensitive Ecosystem Atlas), wildlife, maintenance information.
- LONG-TERM PREVENTION PLANS.
- DATA FROM A REGULAR PEST MONITORING PROGRAM: dates, description of monitoring technique, identity of the pest, the life stage or time of year the pest is most susceptible to control, its natural enemies, diseases, conditions, location and amount of pest coverage (%).
- SET INJURY LEVELS by describing what an unacceptable amount of damage by pests would be.
- SET ACTION LEVELS to decide when a control would be applied to keep pests from reaching the injury level. Chemical controls will be the last option.
- DATA FROM A REGULAR PEST TREATMENT PROGRAM: dates, the various control methods used, results. If you plan to use a pesticide describe the different options available, choose the option and give your rationale. Describe the treatment details, timing and application techniques.
- EVALUATION OF TREATMENT with future changes to plan if required. (Example of treatment record).