

## **Section VIII. – Pesticide Information**

The focus of an Integrated Pest Management system is not the use of pesticides but to encourage plant health care practices which limit the need for pesticides. If a pesticide application is warranted the use of materials with the least environmental impact should be emphasized. Prior to making any application, the location of the pest problem and host should be evaluated and then an appropriate control chosen. Before applying any pesticide it is important to read and follow the label directions and only apply that product in a manner which is consistent with the label. Pesticide applications may be made only under the supervision of a licensed commercial applicator. After the application of a pesticide, accurate record keeping will help determine effectiveness and cost of the program. The record keeping will include the following information:

- The target pest
- The type and quantity of pesticide used
- EPA registration number
- The specific location of the pesticide application
- The date and time of application
- Amendments granted for the application
- Weather conditions at time of application

Record keeping will ensure that ineffective methods are not duplicated. City staff will make pesticide records readily available to the public and to interested institutions upon request.

### **Establishment of an Allowed Pesticide List**

The IPM Coordinator and the IPM Committee will develop a list of pesticides allowed for use by the Parks and Recreation Department.

The purpose of the list will be to:

1. Review current pesticides used by different divisions within the Parks and Recreation Department to maintain parks, cemeteries and athletic fields
2. Reduce the number of pesticides being used by the Parks and Recreation Department divisions
3. Provide staff and managers with a selection of pesticides to meet specific pest control needs when action thresholds warrant
4. Evaluate, identify and inform staff about environmental impact of pesticides
5. Identify products to remove, add, or to remain on the list

The Allowed Pesticide List will include the following:

1. Product/Trade Name
2. Common Name/Active Ingredient
3. Category/Signal word
4. Type of Pesticide - herbicide, insecticide etc.

### **Selection of products on Allowed Pesticide List**

The selection of the products will begin with staff submitting a request for a pesticide to be placed on the Allowed Pesticide List for the upcoming year. Placement on the list doesn't indicate that it will be used only that it may be used. The decision on whether a product will be used will be the decision of the staff responsible for maintaining that area.

The IPM Coordinator and the IPM Committee shall review each of the products and recommend or not that it be placed on the Allowed Pesticide List. The purpose of this list will be to provide staff with a resource of products available to use during the current year. The list will be reviewed annually and be included as an attachment to the IPM manual. During the annual review process products may be identified for removal, recommended for addition or allowed to remain on the Allowed Pesticide List. In addition, an amendment may be requested throughout the year to add/remove a pesticide from the Allowed Pesticide List.

Criteria for selection and inclusion on the Allowed Pesticide List will be based on the following:

- Toxicity of product – Allowing only the use of pesticides with the EPA Category III and IV with Label Signal Word “Caution” or “Keep out of Reach of Children”
- Environmental Impact – evaluating and identifying pesticide for lower environmental impact
- Restricted use pesticides – EPA product registration
- Pesticide label exempt product – EPA product registration
- Non pesticide product
- Bio Pesticides and Organic Pesticides
- Duplication of product

### **Toxicity of Product - Hazard Category and Label Signal Words**

Any product being sold as a pesticide must be registered by the Environmental Protection Agency. Each pesticide is assigned to a hazard category based on the acute toxicity of the product. The acute toxicity is the pesticide’s ability to cause immediate harm. The EPA requires testing which evaluates each pesticide for acute toxicity based on the pesticide’s hazard thru ingestion, inhalation and skin adsorption along with its potential for eye or skin irritation.

The EPA assigns each product to one of four hazard categories. The categories are represented by I, II, III and IV with I being the most hazardous. Also, each product is also assigned a corresponding signal word which appears on the product label. Category I pesticides are identified on the label with the signal word “Danger” or “Danger Poison” and Category II pesticides are identified on the label by the signal word “Warning”. Category III pesticides are identified on the label with the signal word “Caution” and Category IV pesticides are identified on the label by the signal words “Keep Out of Reach of Children”. Category III and IV are usually not distinguished from each other since most category IV products include the “Caution” signal word on the label.

**Table A** shows the toxicity ranges for each category and corresponding signal word. Toxicity range is represented by the products LD50 (lethal dose) or LC50 (lethal concentration). This generally represents the amount of material applied in a single dose to test animals and results in the death of 50% of the test animals. Also a product maybe assigned to the highest toxicity based on LD50 or LC50 in one area while having a very low toxicity rank in another area.

### **Environmental Impact**

Recently more emphasis has been put on the long term impact that pesticides and other materials have on humans, other organisms and the environment. Testing required to register and approve a pesticide label is extensive, however it is not independently overviewed by the EPA. New testing is also being implemented by manufacturers and other sources of data. As a result more information on product toxicology and environmental impact is becoming available. The number of pesticides registered along with the amount and availability of data, the number of sources and how it is presented, can make the evaluation process time consuming.

The IPM Coordinator and IPM Committee will research and evaluate available data and sources in order to establish guidelines and inform staff of the possible long term environmental impact of each pesticide considered for use. Manufactures are constantly working to develop new products which have lower impact on the environment. It is important for staff to evaluate these products as they are made available and how they may fit in the IPM program.

## **Restricted use and General use Pesticides**

The EPA groups pesticides into 2 categories, general use pesticides and restricted use. Pesticides labeled for restricted use can only be applied under the direct supervision of or by a trained and certified applicator. Restricted use pesticides carry the same signal words and hazard categories as general use pesticides.

Restricted use pesticides will be not be allowed for placement on the Allowed Pesticide List. Use of restricted use products will only be allowed as specified in the Section “Policy Amendments”

## **Minimum Risk Pesticides**

The EPA has granted labeling amendment status to certain products provided they meet the criteria outlined in “Minimum Risk Pesticides Exempted under FIFRA section 25(b)”. The EPA maintains and updates this list of products.

Minimum risk pesticides will be reviewed for placement on the Allowed Pesticide List.

## **Non Pesticide Product**

This category would apply to products that are not pesticides but maybe useful in certain instances for pest control. An example of these would be the propane torch. The use of these products will be recorded as part of the IPM program.

## **Bio Pesticides & Organic Pesticides**

Biochemical pesticides, microbial pesticides and plant incorporated pesticides are examples of types of pesticides that include naturally occurring materials. Other pesticides are often referred to as organic pesticides meaning they are derived from natural sources. Although they are organic they are still classified as pesticides and are potentially toxic and should be used with the same care as all pesticides. These products are required to have an EPA registration number as well as an approved label.

## **Duplication of Product or Product Types**

Due to site conditions or type of application equipment available a product having different formulations maybe listed on the Allowed Pesticide List.

More than one product which provides control for a specific pest maybe placed on the Allowed Pesticide List. This is done with the understanding that with the repeated use of the same product a pest may build up resistance to that product. Alternating the use of different products reduces the chance of product resistance. Where pest resistance is not an issue the number of pesticides used to control that pest will be reduced. In addition a pesticide used to control a specific pest in turf grass may not be allowed to control that pest in a flower bed. This would require the use of two similar pesticides such as a pre emergent herbicide.