

IPM CURRICULUM FOR TREE TRIMMERS

LOW-RISK INTEGRATED PEST MANAGEMENT TRAINING

William and Jean Currie, International IPM Institute

INSTRUCTION UNITS IN THIS LESSON PLAN:

1. The IPM policy, what it does, what not to do, roles in policy implementation, observation and reporting, how to activate pest management help, expectations from Pest Management Technicians.
2. Personal, fiscal and community incentives; description of the IPM process; description of other programs, opportunities and challenges.
3. Technical information on biological controls, insects, diseases.
4. Utilize IPM decision-making process to correct problems.

Unit #	Objective of Performance	Importance	Learning Difficulty
1	Know the IPM policy, understand roles in the policy, and know how to activate help to manage pests.	Very Important	Moderate
2	Convince stakeholders of benefits and incentives of IPM.	Very Important	Difficult
3	Provide stakeholders with technical information and resources to identify and evaluate pest problems.	Important	Moderate
4	Reinforce gained knowledge to effectively incorporate IPM into daily routine.	Very Important	Difficult

KEY:

IMPORTANCE:

Very important, important, not too important

OBJECTIVE OF PERFORMANCE:

Must know, be familiar, have knowledge, understand, perform, demonstrate, etc.

LEARNING DIFFICULTY:

Difficult, Moderate, Easy, Moderate to Very Difficult

TREE TRIMMERS LESSON PLAN

PREPARATION DATE: May 7, 2008

PREPARED BY: William E. Currie

UNIT OF INSTRUCTION: Low-risk IPM Policy Implementation

TITLE OF LESSON: Policy, roles, pest management help, incentives and benefits of IPM.

INSTRUCTIONAL OBJECTIVE: Know the IPM policy, roles in implementation and how to get pest management help. Convince stakeholders of the benefits and incentives of IPM, and encourage "buy-in."

TIME ALLOTTED FOR LESSON: 2 hours
METHOD OF INSTRUCTION: Lecture, guided discussion
INSTRUCTIONAL RESOURCES: Manual, PPT, slides
A/V EQUIPMENT: Flip chart, PPT, slide projector, screen

GENERAL PLAN OF PRESENTATION: Introductions – our role – their charge. Why an IPM Policy? Describe the personal, employment, and community incentives and benefits of adopting IPM. Describe other IPM programs in other sites and give examples of IPM solutions. Identify the challenges expressed by stakeholders and opportunities to overcome them.

INTRODUCTION: Names and roles of instructors, student introductions. Why are we here? Reasons for the low-risk pest management policy. What does it do? IPM definition, prevention philosophy, etc.

EXPLANATION/APPLICATION/PRESENTATION:

1. The IPM policy, IPM defined, Precautionary Principle, approved pesticide product list, notification, posting, emergency approval, and training. Only licensed Pest Management Technicians apply pesticides. Staff roles, observation and reporting.
2. Warm up with five-minute presentation designed to poke fun at our human efforts to manage pests, and to point out the habitat needs of pests.
3. Describe incentives:
Personal – lower risk to self and students. Better understanding of biological causes of pests and the ability to solve problems. Recognized by community as a hero instead of a pest.
Employment – job is easier if you can predict and prevent pest problems instead of reacting. Better job security, greater advancement opportunities with training. IPM frequently reduces the cost of materials, labor or liability. Results will be site specific, but since IPM is designed to solve problems, the long-term result is often reduced time and cost.
Community – community recognition and appreciation for protecting their children.
4. Describe successes and challenges of other sites and municipalities with the goal of showing you are not alone. Description of the IPM process. Use examples to briefly demonstrate the IPM decision-making process.
5. Identify perceived challenges and barriers of stakeholders through guided discussions. Write barriers on flip charts and define what may be necessary to overcome the challenges. Identify opportunities and have stakeholders define paths to meet them.

CONCLUSIONS/SUMMARY: Low-risk pest management requires dedication and may be tedious and time-consuming when performed correctly. A thorough understanding of why such procedures are so important frequently imparts a degree of significance to even the most mundane task. Stakeholders are leaders – the critical link to success. Adopting IPM will improve their jobs and advancement opportunities, and will increase community goodwill.

HOMEWORK ASSIGNMENT: List three elements that would be part of the perfect pest management program.

TREE TRIMMERS LESSON PLAN UNIT ONE

COURSE DESCRIPTION: Low-Risk Integrated Pest Management Implementation
 SUBJECT MATTER: Policy, Roles, How to Activate Pest Management Help
 UNIT OF INSTRUCTION: Unit 1: Lecture, PPT or Overhead Transparencies – 30 minutes

INSTRUCTIONAL PROCEDURE:

No.	Instructional Sequence (Tasks)	Instruction Method (Performance)	Learning Difficulty
1	Policy, history, implementation	Lecture, PPT, overheads	Easy
2	What's different, IPM definition, do's, precautionary principle, approved product list, notification, posting, emergency approval, training	Lecture, PPT, overheads	Moderate
3	Don'ts, only licensed Pest Management Technicians apply pesticides, remove harborage (clutter), no BAN, phase out pesticides over time	Lecture, PPT, overheads	Difficult
4	Roles, sanitation, no food, pest-proof food storage, eliminate clutter, observation and reporting, teach others	Lecture, PPT, overheads	Moderate
5	Reportable conditions, pest sighting, pest evidence, droppings, gnawings, webbing, fecal focal points, scattered trash, etc.	Lecture, PPT, slides, display	Difficult
6	Facilities Manager, point of contact, may examine situation, call to report, information directed to appropriate office	Lecture, PPT, overheads	Easy
7	Expectations, Pest Management Technicians respond, emergencies that day, thorough inspection and monitoring	Lecture, PPT, overheads	Easy
8	Low-risk pesticide application, follow-up, prevent pest access	Lecture	Easy
9	Basics of IPM: exclusion, sanitation, habitat modification, inspection, monitoring, low-risk pesticides, records	Lecture	Difficult

INSTRUCTIONAL SEQUENCE: What comes first, chronological order
 METHOD OF INSTRUCTION: Lecture, demonstration, performance, discussion

TREE TRIMMERS LESSON PLAN UNIT TWO

COURSE DESCRIPTION: Low-risk Integrated Pest Management Implementation
SUBJECT MATTER: Incentives / Demonstration
UNIT OF INSTRUCTION: Unit 2: Guided Discussion, PPT, Slides – 1.25 hours

INSTRUCTIONAL PROCEDURE:

No.	Instructional Sequence (Tasks)	Instruction Method (Performance)	Learning Difficulty
1	Introduction. Personal experience and roles in policy implementation. Introduction to IPM concepts in landscape. IPM is common sense if you have information. Understand habitat from a pest's view – air, water, food, shelter, light. Find the weak link.	Guided Discussion, PPT	Easy
2	Benefits and incentives of IPM. Reduce risk – the potential to save time and money. Make the community and other employees proud.	Guided Discussion	Easy
3	You are not alone – examples of problems and solutions.	Guided Discussion	Easy
4	Examples of landscape IPM – Black Sooty Mold.	Guided Discussion	Easy
5	Identify challenges. What are the challenges to this group? How to overcome challenges.	Guided Discussion, Flip Chart	Difficult
Y	Homework: List the three (3) elements that make up a perfect pest management program.		

INSTRUCTIONAL SEQUENCE: What comes first, chronological order
METHOD OF INSTRUCTION: Lecture, demonstration, performance, discussion

TREE TRIMMERS LESSON PLAN

PREPARATION DATE: May 7, 2008

PREPARED BY: William E. Currie

UNIT OF INSTRUCTION: Low-risk IPM Policy Implementation

TITLE OF LESSON: Technical Information

INSTRUCTIONAL OBJECTIVE: Provide stakeholders with technical information and resources to identify and evaluate current and potential pest problems.

TIME ALLOTTED FOR LESSON: 1 hour

METHOD OF INSTRUCTION: Lecture, guided discussion, demonstration

INSTRUCTIONAL RESOURCES: PPT, slides, handouts

A/V EQUIPMENT: Flip chart, PPT, slide projector, screen

GENERAL PLAN OF PRESENTATION: Provide technical and alternatives about specific pests indicated in previous class, and also about impacts of trees on other pest situations.

EXPLANATION/APPLICATION/PRESENTATION:

1. Review homework.
2. Provide technical training pertinent to student's specific duties, both to transfer information as well as to provide students with the sense that they can improve their work performance and satisfaction with information.
3. Information presented will include how to make trees more resistant to pests and stress, along with IPM solutions for landscape and tree pests.

CONCLUSIONS/SUMMARY: Low-risk pest management requires dedication and may be tedious and time-consuming when performed correctly. A thorough understanding of why such procedures are so important frequently imparts a degree of significance to even the most mundane task. Most of the information needed to solve pest problems is in front of us or nearby. A tremendous amount of resources are currently available and more are coming each day. The leap is to apply this information into practice on your sites. This takes some courage and support from above.

TREE TRIMMERS LESSON PLAN UNIT THREE

COURSE DESCRIPTION: Low-Risk Integrated Pest Management Implementation
 SUBJECT MATTER: Technical Information
 UNIT OF INSTRUCTION: Unit 3: Guided Discussion, handouts, technical materials – 1 hour

INSTRUCTIONAL PROCEDURE:

No.	Instructional Sequence (Tasks)	Instruction Method (Performance)	Learning Difficulty
1	Homework discussion.	Guided Discussion	Easy
2	Tree health – habitat needs: 1. Making trees resistant to pests Irrigation quality/quantity; water audit. Soil quality: content, compaction, drainage. Balancing nutrients: deficiencies/antagonisms, weeds as indicators. 2. Tree hazards 3. Pests of trees (as selected by students in 1 st class). 3. Impact of trees on landscape pests – shade, water, leaf drop, harborage 4. Impact of trees on structural pests – cracks in foundation, leaf drop, harborage, access.	Guided Discussion, PPT, Handouts	Moderate

INSTRUCTIONAL SEQUENCE: What comes first, chronological order
 METHOD OF INSTRUCTION: Lecture, demonstration, performance, discussion

TREE TRIMMERS LESSON PLAN

PREPARATION DATE: May 7, 2008

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UNIT OF INSTRUCTION: Low-risk IPM Policy Implementation

TITLE OF LESSON: Site Specific Exercises

INSTRUCTIONAL OBJECTIVE: Reinforce gained knowledge to effectively incorporate IPM into daily routine.

TIME ALLOTTED FOR LESSON: 1 hour

METHOD OF INSTRUCTION: Guided discussion, lecture, "real time" research and decision making

INSTRUCTIONAL RESOURCES: Handouts, flip chart, resource books

A/V EQUIPMENT: Flip chart, PPT, slide projector, screen

GENERAL PLAN OF PRESENTATION: Lead group through IPM decision-making process using site specific pest cases as presented by the group.

EXPLANATION/APPLICATION/PRESENTATION:

1. Site specific pest solutions: two site specific pest problems as decided by the group will be addressed in detail. This will give students an opportunity to solve their own problems and develop guidelines for future management practices using the IPM decision-making process.

CONCLUSIONS/SUMMARY: Low-risk pest management requires dedication and may be tedious and time-consuming when performed correctly. A thorough understanding of why such procedures are so important frequently imparts a degree of significance to even the most mundane task. Stress that the goal is to solve problems in order to reduce labor in the long run, and that these Tree Trimmers have already been practicing parts of IPM. The next job is to take steps to make an effective and sustainable model program.

TREE TRIMMERS LESSON PLAN UNIT FOUR

COURSE DESCRIPTION: Low-Risk Integrated Pest Management Implementation
 SUBJECT MATTER: Site Specific Application of IPM
 UNIT OF INSTRUCTION: Unit 4: Guided Discussion, technical materials – 1 hour

INSTRUCTIONAL PROCEDURE:

No.	Instructional Sequence (Tasks)	Instruction Method (Performance)	Learning Difficulty
1	Site specific information. Select two pest situations from homework. Apply IPM decision-making process to the selected situations, identifying information needed, resources, management options and preventive measures for the future.	Guided Discussion	Easy

INSTRUCTIONAL SEQUENCE: What comes first, chronological order
 METHOD OF INSTRUCTION: Lecture, demonstration, performance, discussion