IPM CURRICULUM FOR COMPLEX PROJECT MANAGERS

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, how to activate pest management help, expectations of Pest Management Technicians.

2. Problem pests: indoor infestations versus incidental invaders.

3-4. Recognition of structural conditions that permit incidental entry and preventative steps for future use.

5. Problem pests: exterior and landscape pests and indications of their presence.

6. How to influence and train people to implement the low-risk pest management policy.

PERFORMANCE OBJECTIVES:

Unit #	Objective of Performance	Importance	Learning Difficulty
1	Know the IPM policy, understand roles in policy implementation and know how to get help in solving pest problems.	Very Important	Moderate
2	Be familiar with problem indoor pests and be able to determine if the pest is part of an infestation or an incidental invader.	Important	Easy
3-4	Be able to recognize pest entry points into the structure and direct measures necessary to prevent pest access to the structure: exclusion and habitat modification.	Important	Moderate
5	Be familiar with exterior and landscape pests and indications of their presence: birds, rodents, weeds, insects. Direct the preventive or remedial actions needed: habitat modification.	Important	Easy
6	Be able to influence or train people to implement the low-risk pest management policy and prevent pest problems.	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

COMPLEX PROJECT MANAGER LESSON PLAN

PREPARATION DATE: May 8, 2008 PREPARED BY: William E. Currie

UNIT OF INSTRUCTION: Low-risk IPM Policy Implementation

TITLE OF LESSON: Policy, indoor and exterior problem pests, how pests enter

INSTRUCTIONAL OBJECTIVE: Know the low-risk IPM policy, their role in implementation, and how to get pest management help. Recognize pest infestations or occasional invaders. Recognize pest entry points and exclusion, sanitation and habitat modification methods. Be familiar with exterior and landscape pests and indications of their presence.

TIME ALLOTTED FOR LESSON:	3 hours
METHOD OF INSTRUCTION:	Lecture, guided discussion, demonstration, display
INSTRUCTIONAL RESOURCES:	Manual, slides, flip chart
A/V EQUIPMENT:	Flip chart, PPT, slide projector, overhead projector, screen

GENERAL PLAN OF PRESENTATION: Introductions – our role – their charge. Why an IPM Policy? What it does, prohibited activities, their roles in implementation, how to get pest management help, expectations. Problem pests and their importance, infestation or occasional invader, pest entry points – if you keep them out, they can't get in! Exclusion, sanitation, habitat modification. Exterior and landscape pests. Homework.

INTRODUCTION: Names and roles of instructors, student introductions. Why are we here? Why an IPM policy? IPM defined – what it does – what not to do – precautionary principle. Approved list of products, notification, posting, emergency procedure, training, how to activate pest management help.

EXPLANATION/APPLICATION/PRESENTATION:
What are problem indoor pests? Low tolerance for most indoor pests. List pests and determine if they are an infestation or an occasional invader. Recognize pest entry points into the structure: doors, windows, vents, pipes, drains, cracks and crevices, deliveries, personnel. Know the measures necessary to exclude pests and close entry points: close doors, door sweeps, screens, caulk holes or repair, quarantine deliveries, clean uniforms, hair nets, beard snoods, etc. Inspection and monitoring is the key to understanding pest population dynamics: a role for the Pest Management Technicians. Exclusion, sanitation and habitat modification are preventive measures important to the implementation of the low-risk pest management policy. Recognize exterior and landscape pests and indications of their presence: weeds, rodents, birds, insects, etc.

Whose job is it to provide exclusion, sanitation and habitat modification? Occupants, Cafeteria Managers, Facility Managers, Gardeners, Maintenance, Pest Management Technicians, Custodians? How does it get done?

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. Determine why these pests are present and how important they are.

HOMEWORK ASSIGNMENT:
1. Read Manual.
2. Make a list of pest evidence you have found inside structures.
3. Determine how they get inside.
4. Describe your role in implementing the low-risk pest management policy.
5. List pest evidence found outside.

COMPLEX PROJECT MANAGER 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 Slides – 45 minutes

INSTRUCTIONAL PROCEDURE:

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

COMPLEX PROJECT MANAGER LESSON PLAN UNIT TWO

COURSE DESCRIPTION: Low-risk Integrated Pest Management Implementation
SUBJECT MATTER: Problem Pests Indoors
UNIT OF INSTRUCTION: Unit 2: PPT, Lecture, Guided Discussion, Group Performance – 45 minutes

INSTRUCTIONAL PROCEDURE:

No.	Instructional Sequence (Tasks)	Instruction Method (Performance)	Learning Difficulty
1	Good bugs/bad critters. Every living organism in nature has a role. Indoors – less tolerance for critters.	Lecture, PPT	Easy
2	List possible pests.	Guided Discussion, Group Input, List on Flip Chart	Easy
3	From list, determine level of importance: emergency, urgent, routine, non-essential.	Guided Discussion, Group Performance	Moderate
4	Describe means to recognize an infestation as different from incidental invader.	PPT, Demonstration	Difficult
5	Inspection and monitoring: a key to understanding pest population dynamics – tools of the trade.	Demonstration	Moderate

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

COMPLEX PROJECT MANAGER LESSON PLAN UNIT THREE

COURSE DESCRIPTION: Low-Risk Integrated Pest Management Implementation
SUBJECT MATTER: Pest Entry and Exclusion – Part I
UNIT OF INSTRUCTION: Unit 3: Lecture, Guided Discussion, PPT – 45 minutes

INSTRUCTIONAL PROCEDURE:

No.	Instructional Sequence (Tasks)	Instruction Method (Performance)	Learning Difficulty
1	Pests come in all sizes, exclusion effort increases as their size decreases.	Lecture, PPT, Demonstration	Moderate
2	What do pests need and where do they find it: Air, water, food, shelter, temperature.	Guided Discussion	Easy
3	How to pests get in? Doors, windows, vents, pipes, drains, supplies, clothes, cracks and crevices, dumpsters, etc.	Guided Discussion	Moderate
4	How do we keep pests out? Close doors, door sweeps, screens, caulk cracks and crevices, clean drains, quarantine supplies, close trash containers, hair nets, beard snoods, etc.	Guided Discussion	Moderate to Difficult
5	Sanitation: remove water and food from access by pests. Repair leaks and clean site.	Lecture, Guided Discussion	Difficult
6	Habitat modification: eliminate harborage for pests. Clutter, voids, lower temperatures.	Lecture, Guided Discussion	Moderate
7	Whose job is it? Occupants: Cafeteria Managers, Facility Managers, Maintenance, Pest Management Technician, Custodian. How does it get done?	Guided Discussion	Difficult

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

COMPLEX PROJECT MANAGER LESSON PLAN UNIT FOUR

COURSE DESCRIPTION: Low-risk Integrated Pest Management Implementation
SUBJECT MATTER: Pest Entry and Exclusion – Part II
UNIT OF INSTRUCTION: Unit 4: Lecture, Guided Discussion, Demonstration – 45 minutes

INSTRUCTIONAL PROCEDURE:

No.	Instructional Sequence (Tasks)	Instruction Method (Performance)	Learning Difficulty
1	How do pests enter structures? Doors, windows, vents, pipes, cracks and crevices, deliveries, personnel.	Lecture, PPT, Guided Discussion	Easy
2	How do we keep them out? Quarantine, repairs, door sweeps, close doors, screens, caulks.	Lecture, Guided Discussion, Demonstration	Moderate
3	How can we encourage innovative approaches for preventing pests?	Guided Discussion	Easy
4	HOMEWORK ASSIGNMENT: 1. Read Manual. 2. Make a list of pest evidence you have found inside structures. 3. Determine how they get inside. 4. Describe your role in implementing the low-risk pest management policy. 5. List pest evidence found outside.		

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

COMPLEX PROJECT MANAGER LESSON PLAN

PREPARATION DATE: May 8, 2008 PREPARED BY: William E. Currie

UNIT OF INSTRUCTION: Low-risk IPM Policy Implementation

TITLE OF LESSON: Solving exterior and landscape pest problems, IPM Process, Training the Trainer

INSTRUCTIONAL OBJECTIVE: Be able to recognize signs of pest presence, direct preventive or remedial action, know the IPM process, influence and train people to implement the IPM policy.

TIME ALLOTTED FOR LESSON:	3 hours
METHOD OF INSTRUCTION:	Lecture, guided discussion, demonstration
INSTRUCTIONAL RESOURCES:	Manual, slides, flip chart, inspection chart
A/V EQUIPMENT:	Flip chart, PPT, slide projector, overhead projector, screen

GENERAL PLAN OF PRESENTATION: Homework discussion. Recognize signs of pest presence and direct preventive or remedial actions. IPM process. Train trainees to be able to change behavior of staff.

INTRODUCTION: Homework discussion – how did we do? What pest evidence was found inside? What were the possible entry points? What is your role in the policy implementation?

EXPLANATION/APPLICATION/PRESENTATION:
What pest evidence did we find outside? Hand in homework.

Exterior of structures – what influences pest presence? Moisture, food, shelter (nesting), light (at night), loading area (birds), access to the interior.

How can these problems be solved? Design, remedial repairs, habitat modification (change lights), netting, sloped ledges, plant pruning and removal.

Landscapes – why pest presence? Unhealthy plants, food, water, harborage.

Inspection and monitoring is a key to understanding dynamics of pest populations. Tools of the trade. Pest Management Technician's job.

Healthy landscapes have few pests: diversity, plant varieties, nutrients, watering practices, aeration, mowing, pruning.

The IPM process:
1. Roles of occupants, pest managers, decision makers
2. Pest management objectives
3. Action thresholds
4. Inspection and monitoring
5. Modify the habitat – exclusion – sanitation
6. Low-risk management actions
7. Evaluate results
8. Keep written records

Train the Trainers: Instructional objectives – change behavior from reactive to preventive – provide must-know information first – then good to know – nice to know – background. Change behavior – perfect practice makes perfect – success makes more success – attitude changes after behavior changes – change is easier with incentives and recognition – recognize any movement toward the ideal behavior. Use "guided discussion" – gets class input and "buy in" – use "show and tell" to illustrate technique – demonstrate – then coach "hands-on performance" by trainees to build proficiency and comfort levels with skill.

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. Charge: teach IPM to others.

COMPLEX PROJECT MANAGER LESSON PLAN UNIT FIVE

COURSE DESCRIPTION: Low-risk Integrated Pest Management Implementation
SUBJECT MATTER: Solving Exterior and Landscape Pest Problems
UNIT OF INSTRUCTION: Unit 5: Lecture, PPT, Demonstration – 1.5 hours

INSTRUCTIONAL PROCEDURE:

No.	Instructional Sequence (Tasks)	Instruction Method (Performance)	Learning Difficulty
1	Review homework.	Guided Discussion	Easy
2	What influences pest presence on the exterior of structures? Water, food, shelter, light (at night), loafing.	Lecture, Guided Discussion	Moderate
3	How do we solve these problems: design, remedial repairs, habitat modification, plant pruning and removal.	Lecture, PPT, Guided Discussion	Moderate
4	Landscapes – why are pests present? Food, water, harborage. Organisms will fill niches in the environment that are available.	Lecture, Guided Discussion	Moderate
5	Inspection and monitoring are keys to understanding the dynamics of pest populations – tools of the trade.	Guided Discussion, Demonstration	Moderate
6	Healthy landscapes have few pests. Diversity, proper plant varieties, nutrients, aeration, watering, mowing and pruning.	Lecture, PPT, Demonstration	Moderate

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

COMPLEX PROJECT MANAGER LESSON PLAN UNIT SIX

COURSE DESCRIPTION: Low-Risk Integrated Pest Management Implementation
SUBJECT MATTER: Influencing and Training People
UNIT OF INSTRUCTION: Unit 6: Lecture, Guided Discussion – 1.5 hours

INSTRUCTIONAL PROCEDURE:

No.	Instructional Sequence (Tasks)	Instruction Method (Performance)	Learning Difficulty
1	The IPM process – 8 steps to success.	Lecture, Guided Discussion	Moderate
2	Instructional objectives – change behavior from reactive to preventive.	Lecture	Difficult
3	Must know information first – then good to know – nice to know – background information	Lecture	Moderate
4	Change behavior. Perfect practice makes perfect. Success makes more success.	Lecture, Demonstration	Moderate
5	Change is easier with incentives and recognition. Recognize any movement toward the ideal behavior.	Lecture, Demonstration	Easy
6	Use guided discussion – gets class input and “buy in.”	Guided Discussion	Easy
7	Use “show and tell” to illustrate technique.	Demonstration	Moderate
8	Demonstrate, then coach “hands-on” performance by trainees to build proficiency and comfort levels with skill.	Demonstration	Difficult
9	Summary. Charge – teach IPM to others.		

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