



ACE-International Exam Content Outline

© ESA Certification Corporation, 2014

INSPECTION AND IDENTIFICATION

(45% of exam)

Topic Knowledge needed to accomplish the skill:

Inspect for evidence of pests

	Tools available for inspection and appropriate uses (e.g., flashlight, moisture meter, flushing agents)
	Probable locations of pests
	Types of evidence of pest presence (e.g., damage caused, egg types, frass)
	Safety precautions (e.g., equipment, personnel)

Inspect for conditions conducive to pests

	Tools available for inspection and appropriate uses (e.g., flashlight, moisture meter, flushing agents)
	Conditions conducive to pests (e.g., site, weather, ambient conditions)
	Safety precautions (e.g., equipment, personnel)

Identify pests

	Taxonomy and classification
	Morphology
	Biology (basic physiology, behavior, habitat, lifecycle, reproduction potential)
	Damage caused

Document and communicate findings of pest inspection and identification

	How to explain pest thresholds and respond to customer expectations
	Use, limitations and types of pest thresholds
	What to document
	How to document
	Where to document
	To whom to communicate findings
	Adherence to ACE Code of Ethics

Monitoring

(12% of exam)

Topic Knowledge needed to accomplish the skill:

Identify and select appropriate monitoring tools

	Monitoring tools available and their uses/limitations and related safety precautions (e.g., flashlight, light traps, pheromone traps)
	Pests that are most commonly monitored (cockroaches, flies, stored product pests, termites, bed bugs)

Place monitoring tools properly

	Proper use and placement of tools
	Appropriate combined use of tools

Document and communicate findings of monitoring and recommendations

	What to document
	How to document
	Where to document

	To whom to communicate findings and recommendations
	Application of the ACE Code of Ethics

SELECTION/IMPLEMENTATION OF CONTROL METHODS

(28% of exam)

Topic Knowledge needed to accomplish the skill:

Choose the appropriate control method(s) for pest management

	Cultural control options available, appropriateness of each, and advantages/limitations of each (e.g., sanitation, temperature, special lighting, habitat modification)
	Biological control options available, appropriateness of each, and advantages/limitations of each (e.g., predators, parasites, pathogens)
	Mechanical control options available, appropriateness of each, and advantages/limitations of each (e.g., traps/glueboards, pest proof design, removal, air curtains, lights)
	Chemical control options available, appropriateness of each, and advantages/limitations of each (e.g., IGRs, Pheromones/Attractants, Pesticides)
	Simple modes of action of commonly used pesticides
	Classifications of commonly used pesticides
	Pesticide resistance
	Pesticide formulations
	Pesticide application techniques
	Appropriateness (or not) of combinations of products
	Following label instructions, including disposal
	Relative effectiveness/efficacy versus risk of various control methods and options within each method
	Importance of selecting least hazardous effective method(s)/option(s)

Select the appropriate tool(s) for use with the pest management method(s) for pest scenarios

	Tools available, appropriateness of each, and advantages/limitations of each and related safety precautions (e.g., compressed air sprayer, infrared camera, gas detector, duster)
--	---

Communicate which pesticides are or are not currently allowed for use by the EPA

	In which cases certain products are used or not (cyclodiene, Chlorinated hydrocarbons (e.g., DDT, Chlordane, Lindane), Carbamates (e.g. aldicarb, carbofuran, propoxur), Organophosphates (e.g. malathion, chlorpyrifos, diazinon, malathion)
	The reasons why (in general) pesticides are no longer used

Follow the label instructions and precautions

	Common precautions
	Active ingredients
	Types of formulations
	Proper storage and disposal
	Concentration and mixing procedures
	Restricted use pesticides
	Trade names, common names and chemical names
	Toxic dosages

Educate the customer on their role in pest management

	Critical messages to convey
	Appropriate methods for message conveyance
	Behavioral customer modifications

Perform selected pest control method(s)

	Appropriate application techniques for each of the pest control methods
	Application of the ACE Code of Ethics

Document and communicate the pest control method(s) applied and tool(s) used for application

	What to document
	How to document
	Where to document
	Application of the ACE Code of Ethics

EVALUATION

(15% of exam)

Topic Knowledge needed to accomplish the skill:**Look for reduction in pests**

	Monitoring
	Identification
	Communication with customer

Analyze pre- and post-treatment effects

	Acceptable thresholds
	Pest resistance
	How to analyze the presence of pests over space and time
	Managing customer expectations
	Interpreting results

Determine next steps

	IPM process
	Methods/options available
	Use of results to affirm/modify pest management methods/options

Document and communicate evaluation findings

	What to document
	Third party audits
	Application of the ACE Code of Ethics