

IPM Part 1 HANDOUT



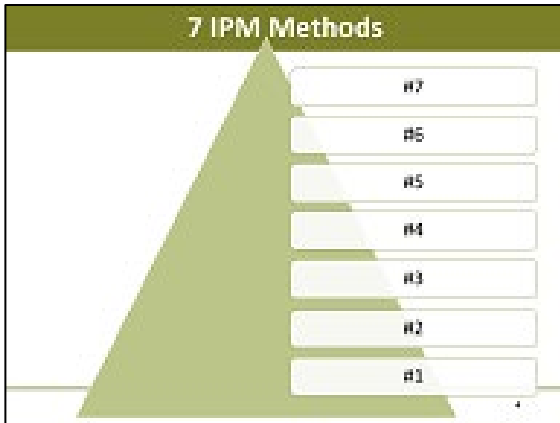
Performance Objective

Identify and implement appropriate practices to minimize commodity loss due to pests in the warehouse

IPM: Definition

Use of all available knowledge (methods) to keep pest populations below economically damaging levels in a manner that causes no harm to human health and the environment.

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Small Group Activity

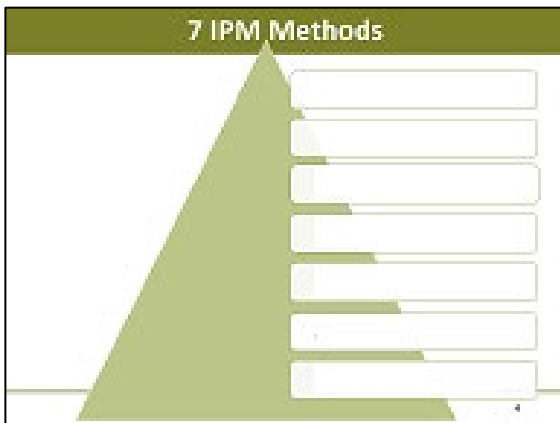
Each group has 7 cards – each with a different IPM method / technique listed on it

Place cards in order from 1 to 7, as shown on pyramid

#1 is the most basic, fundamental method

#7 is the least used method

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IPM

Part 1: Exclusion - Inspection

Part 2: Trapping & Monitoring

Part 3: Pesticides

Learning Objective

To be able to describe the four most basic IPM practices: exclusion, stock management, sanitation, and inspection

USAID TOPS FSNetwork

Integrated Pest Management

PART 1

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Exclusion

Location

Openings

Lighting

Ventilation

Exclude what you can, especially rodents and birds

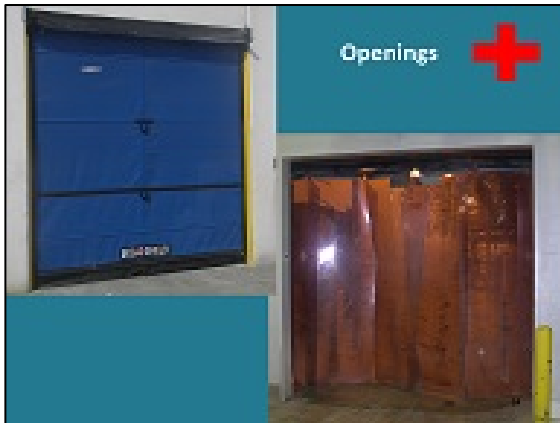
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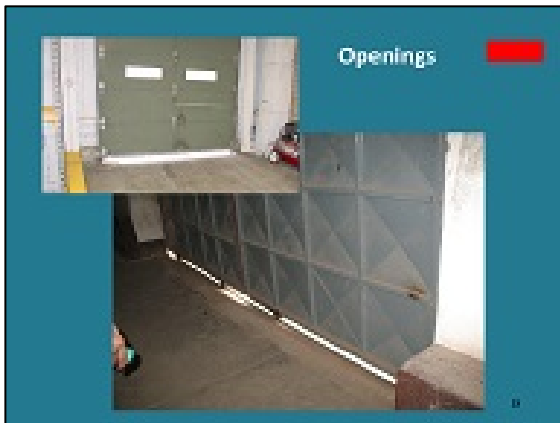






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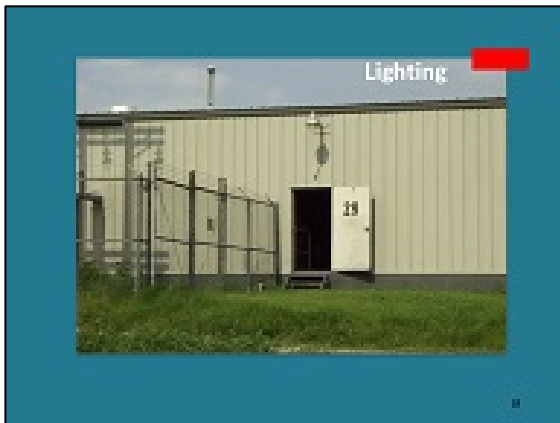






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EXCLUSION Summary

- Keep doors closed – tight!
- Seal all gaps – from below ground to rooftop
- Screen vents and windows
- Well-lighted interior spaces discourage rodents
- Exterior lights on ground shining up, not on or above doors
- Good ventilation & air movement will discourage certain insects

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Stock Management

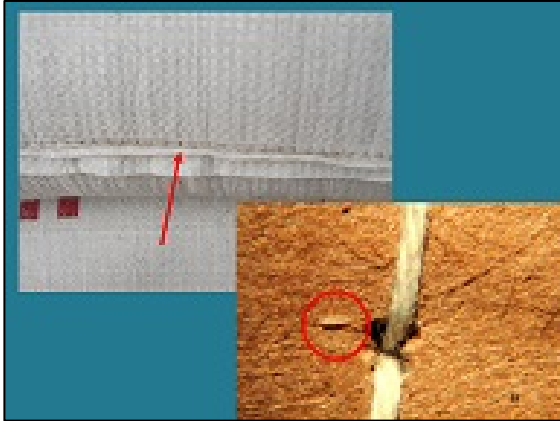
Stack layout
Stock movement

Don't allow pests that have entered to thrive





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Move commodity rapidly!!

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Reproductive potential of stored-product insects

0 days 28 days



Waste from eaten grain

Females each laid 300-500 eggs, that began to eat the grain.

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Reproductive potential of stored-product insects

0 days 28 days 56 days 76 days 106 days 128 days



Every 28 days, a new generation eats grain and reproduces

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Stock Management Summary

- Strain on seams of bags creates holes big enough for insects to enter
- Pallets allow air circulation and cleaning underneath stacks
- Allow adequate space for alleys between stacks
- Keep storage time for any commodity as short as possible

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Sanitation

Deprive pests of what they need:

- + food
- + water
- + harborage



Stressed insects are easier to kill with chemicals.

Sanitation is
90% of IPM



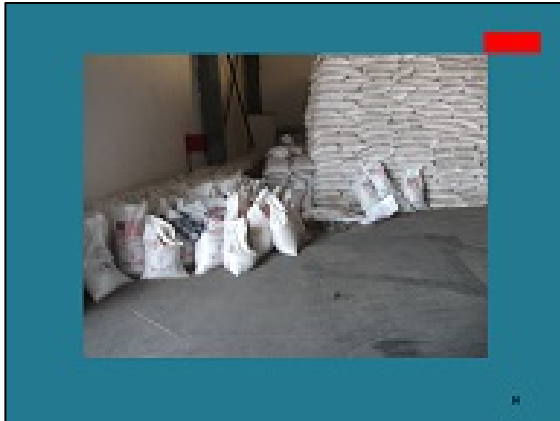
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Sanitation Summary

- Deprive pests of what they need; Sanitation is 90% of IPM
- Clean outdoors & indoors
- Beware of importing infestations; segregate commodities as necessary
- Rough floors collect dust and grain that attracts insects



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Small Group Activity

Part 1

1. Form 4 groups
2. Brainstorm items to be on an IPM Inspection Template (checklist to guide staff)

Part 2

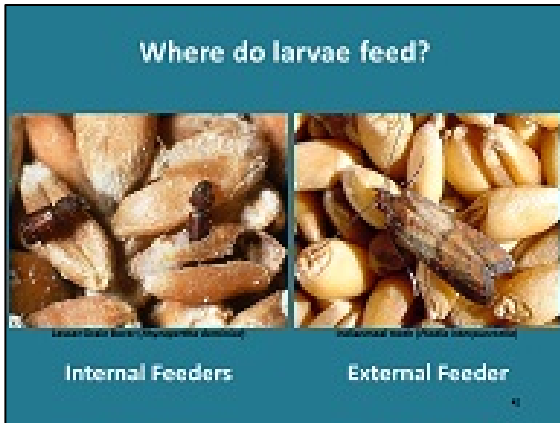
3. Compare your list to USAID IPM Practices & Inspection Checklist
4. In plenary, describe any concerns with the USAID Checklist

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Plenary Activity

When does inspection begin?

1. Inspect empty warehouse before receiving first commodity

How often should inspection be conducted?

2. Inspect all commodity as it arrives at warehouse
3. Inspect stacks ???

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INSPECTION Summary

- Look, listen, touch and smell
- Don't bring infestation in, inspect arriving commodities
- Identify conditions that can be corrected before problems develop
- Localized pest activity can be managed before spreading

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