CCA EXAM PRACTICE QUESTIONS

WEED MANAGEMENT
DISEASE MANAGEMENT
IPM
INSECT MANAGEMENT

November 2019
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1. Perennial broadleaf weeds such as common milkweed are most susceptible to translocated herbicides at what stage?

a. **Shoot emergence**
b. **Bud stage and beyond**
c. **Mid vegetative stage**
d. **Dormant**

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2. Which of the following herbicides is not an amino acid synthesis inhibitor?

a. Roundup (glyphosate)

b. Accent Q (nicosulfuron)

c. Poast Plus (sethoxydim)

d. Pursuit (imazethapyr)

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3. The site of action of Permit (ALS inhibitor) is most similar to which of these herbicides?

a. **Banvel/Clarity (dicamba)**
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c. **Roundup (glyphosate)**
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4. A basal cluster of leaves that is not separated by obvious internodal stem elongation is a

a. **Raceme**
b. **Rosette**
c. **Leaflet**
d. **Rhizome**

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5. The rate of application of soil-applied herbicides is not affected by

a. **Clay content of soil**
b. **Soil organic matter**
c. **Soil texture**
d. **Soil structure**

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6. Which of these herbicides is a mobile photosynthesis inhibitor?

a. **Princep (simazine)**
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7. Which of these herbicides would most likely carry over from one season the next?

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8. Which of these weeds is a biennial?

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c. **Canada thistle**
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11. Which of the following statements are <u>true</u>:

- **A. In Dicotyledon (broadleaf) weeds, stem elongation is from the lower portion of internodes**
- **B. In Monocotyledon (grass) weeds, stem elongation is from the tips**
- **C. In Dicotyledon (broadleaf) weeds, stem elongation is from the tips**
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12. Which of the following statements is false:

- **A. Weed control efforts should attempt to exploit biological differences between the crop and the weeds**
- **B. It's recommended to rely on one mode of action year after year**
- **C. An integrated management approach to weeds includes crop rotations, herbicide rotations and tillage**

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13. True or False:

- **Herbicides with similar chemical structures and activity are considered to have the same ‘mode of action’ and are grouped into ‘families’. A ‘Group Number’ is assigned to all herbicides with the same mode of action.**

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- **A. Corn Anthracnose**
- **B. Alfalfa spring black stem**
- **C. Wheat leaf rust**
- **D. Soybean downy mildew**

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2. Which of the following is a soil-borne disease that can be managed with fungicidal seed treatments

- **A. Alfalfa Pythium damping-off**
- **B. Corn eyespot**
- **C. Oat crown rust**
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3. Which of the following is not a viable management option for Northern Corn Leaf Blight

- **A. Foliar fungicides**
- **B. Fungicidal seed treatments**
- **C. Crop rotation and residue management**
- **D. Genetic resistance**

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4. White mold of soybean (AKA: Sclerotinia stem rot) is favored by which of the following conditions

- **A. Hot and dry**
- **B. Moderate temperatures and high humidity**
- **C. Cold and dry**
- **D. Sunny days and clear skies at night**

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5. Which of the following does not overwinter on crop residues left on the field surface resulting in wind-borne spore inoculum for the following season

- **A. Wheat Septoria leaf blotch**
- **B. Soybean pod and stem blight**
- **C. Alfalfa Phytophthora root rot**
- **D. Corn gray leaf spot**

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6. Which of the following is not a management option for Fusarium head blight of wheat and barley (AKA: scab)

- **A. Plant moderately resistant varieties**
- **B. Fungicidal seed treatments**
- **C. Fungicide application at flowering**
- **D. Planting following a non-cereal crop**

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7. Which of the following accurately describes a fungus and mycotoxin combination commonly encountered in Northeast grains (corn, wheat, barley)

- **A. Fumonisins caused by Aspergillus fungi**
- **B. Aflatoxins caused by Penicillium fungi**
- **C. Deoxynivalenol (DON, vomitoxin) caused by Fusarium fungi**
- **D. Zearalenone caused by Epicoccum fungi**

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8. True or False:

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1. IPM relies on which of the following strategies

- **A. Complete elimination of all pests in a field**
- **B. Reliance on pesticides at the first sign of pests or disease**
- **C. Reliance on scouting and attention to thresholds for making management decisions**
- **D. Never using pesticides**

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- **D. N**

Scouting and thresholds are key to an IPM approach

2. Which of the following is not a component of IPM?

- **A. Pesticides considered as a first line of defense**
- **B. Minimizing risk to human health and the environment**
- **C. Reliance on a diversity of pest control measures**
- **D. Weighing economic and quality risks of pests and control measures**

2. Which of the following is not a component of IPM?

- **A. Pesticides considered as a first line of defense**
- **Pesticides are a TOOL in the IPM toolkit that are implemented only after other approaches are considered**
- **C. Reliance on a diversity of pest control measures**
- **D. Weighing economic and quality risks of pests and control measures**

3. What is incorrect about the following statement?

- **IPM helps reduce risks and optimize economic efficiency of pest control through:**
  - **1. reactive approach and delayed detection of pests**
  - **2. proper identification of pests**
  - **3. accurate assessment of the potential for economic impact**
  - **4. Timely employment of appropriate, economically efficient and environmentally sound management strategies**

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IPM relies on a PROACTIVE approach with a focus on EARLY detection

4. Proper sampling/scouting technique for mobile insects (ex: corn rootworm beetles) involves which of the following:

- **A. Consecutive Scouting: count beetles on 10 consecutive plants in three random areas in the field**
- **B. Random Scouting: select a random pattern and count beetles on individual random plants throughout the field**
- **C. Concentrated Scouting: focus on field margins or low/wet spots in the field to count beetles on all plants in those areas**

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Mobile insects require RANDOM scouting efforts to ensure you don't count the same insects twice

5. The general IPM strategies do not include which of the following

- **A. Do nothing – if below thresholds**
- **B. Reduce numbers – treat-as-needed in areas of field, or as preventive if the field has a history of a problem**
- **C. Reduce the crop/host/ecosystem susceptibility – give the plants the advantage over the pest**
- **D. Use a combination of strategies – diversify your management strategy**
- **E. Always apply pesticides at the lowest labeled rates – to minimize runoff and effects on non-target organisms**

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- **I** **rategy**
- **E. <u>Always apply pesticides at the lowest labeled rates</u> – to minimize runoff and effects on non-target organisms**

Always follow pesticide label recommendations for each pest to minimize chances for pests developing resistance

6. Which of the following is not an example of cultural control

- **A. Tillage – use of moldboard plow to burry residues and reduce inoculum**
- **B. Crop Rotation – break up disease cycle by removing susceptible hosts**
- **C. Adjusting Planting Date – to avoid certain pests**
- **D. Adjusting Plant Populations – reduce canopy closure to allow more airflow**

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Tillage is considered MECHANICAL control

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7. Which of the following best describes the Economic Injury Level (EIL)

- **A. The 'break even point', where the cost of control equals the value of loss to the pest/disease**
- **B. The point at which economic losses have been reached that ensure total crop failure**
- **C. The point before any injury is observed**
- **D. The point at which a farmer assumes they should spray**

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8. The Economic Threshold (ET) is best defined as which of the following:

- **A. The point at which you need to start scouting and estimating population levels**
- **B. The point at which it is too late for any management approach**
- **C. The point at which pest control action must be taken to avoid economic loss**

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At or above the ET, loss to damage is greater than the cost of control, and below the ET, the cost of control is greater than the savings from crop protection

9. Which of the following is not necessary to calculate the Economic Threshold (ET)

- **A. Correct diagnosis or identification of the pest or disease**
- **B. An understanding of which sampling/scouting methods is appropriate for the pest/disease to accurately assess the level of infestation**
- **C. Quantifying the pest without attention to the crop development stage**

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For many pests/diseases, it's critical to understand crop phenology and how it relates to potential losses at specific pest thresholds

- **C. Quantifying the pest without attention to the crop development stage**

10. Which one of the following Steps of IPM is incorrect:

- **1. Preparation –** make sure you have what you need in advance
- **2. Identification –** correct diagnosis
- **3. Sampling –** understand appropriate scouting methods for each pest
- **4. Analysis –** compare sampling results to thresholds to determine action
- **5. Select the Best Pesticide –** immediately assume you need a pesticide and follow label instructions
- **6. Implementation –** take timely action with precision and accuracy
- **7. Re-Evaluation –** consider what went wrong or well consider changes

10. Which one of the following Steps of IPM is <u>incorrect</u>:

- **1. Preparation –** make sure you have what you need in advance
- **2. Identification –** correct diagnosis
- **3. Sampling –** understand appropriate scouting methods for each pest

Correction: <u>Consider Management Alternatives</u> – this may include pesticides, but there may be other effective management alternatives

- **5. Select the Best Pesticide –** immediately assume you need a pesticide and follow label instructions
- **6. Implementation –** take timely action with precision and accuracy
- **7. Re-Evaluation –** consider what went wrong or well consider changes

1. Which of the following is NOT considered an insect pest?

1. **Western bean cutworm**
2. **Alfalfa snout beetle**
3. **Orb-weaving spider**
4. **Soybean aphid**

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2. Which of the following Life Cycle types has a “pupa” stage?

1. Incomplete life cycle
2. Complete life cycle

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3. Which of the following has “chewing mouth parts”?

1. Armyworm
2. Potato leafhopper
3. Aphids

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1. **Armyworm**
2. Potato leafhopper
3. Aphids

4. Which of the following is considered a PRIMARY pest of concern for CORN in the Northeast?

1. Corn rootworm
2. Aphids
3. Black cutworm
4. European corn borer

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5. Which of the following pests does NOT OVERWINTER in the northeast? (migratory)

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2. European corn borer
3. Black cutworm
4. Wireworm

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6. The seedcorn maggot is controlled in corn and soybeans with:

1. Foliar insecticides
2. Neonicotinoid seed treatments
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4. Incorporating manure

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7. Which of the following is an insect of PRIMARY concern for SMALL GRAINS in some parts of the Northeast?

1. Grain aphids
2. Wireworm
3. Snout beetles
4. Cereal Leaf Beetle

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8. Which is the insect of PRIMARY concern for SOYBEAN in the Northeast?

1. Soybean aphid
2. Click beetles
3. Western bean cutworm
4. Weevils

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9. Which life stage of the Alfalfa Snout Beetle causes the most damage to the crop?

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2. Overwintering adult females
3. Pupae
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10. Spider mites are problematic on which crop under which circumstances?

1. Corn when it’s cold, wet and rainy
2. Alfalfa when it’s hot, wet and rainy
3. Malting barley when it’s hot and dry
4. Soybeans when it’s hot and dry

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11. Alfalfa weevil causes which type of damage to the crop?

1. Foliage and stem feeding
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12. Potato leafhopper can be managed with which of the following strategies?

- Scouting and early harvest when necessary
- Resistant varieties
- Insecticides
- All of the above

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13. “Resistance Management” includes agricultural practices to reduce development or spread of genetic resistance to pesticides. For insects, which of the following are good resistance management practices:

1. Rotating insecticide products/modes of action
2. Crop rotation
3. Planting/Harvest date adjustment
4. Planting resistant varieties
5. All of the above

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