Fall armyworm
An identification assessment tool
A South African perspective
This test should be used as a supplement to the fall armyworm identification presentation. All included questions and photos are from the presentation. The questions are in a multi-choice format for easy assessment. Part one of this presentation includes only the questions, while part two repeats the questions, with the answers revealed on each following slide. This test can be used to assess workers individually, in groups, or as a quiz.
The objective of this test is not to catch workers/learners out, or to evaluate their level of achievement. The questions were purposefully designed to be easy. Although most questions are easy, concentration and basic knowledge are required to identify the correct answers. The objective of the test is therefore mainly to identify uninterested or apathetic workers/learners, and can be used as grounds for future corrective measures, where needed.
Notes to assessor
(skip these slides when running the test)

Note 3

To perform an official test – do only Part one (slides 7 to 26)
To do an informal quiz-like test – do only Part two (slides 29 to 68)

The assessor can decide whether to start from part one or from part two – they are both identical, except for the answers given in part two
Notes to assessor
(skip these slides when running the test)

Note 4

This assessment presentation can be shown in full screen mode by pressing Ctrl and L simultaneously.
Fall armyworm identification and related questions

Part one

Start of assessment
20 multiple choice questions will follow
Question 1

Which is the correct Latin name for the fall armyworm

Choose one of a) to d)

1. *Spodoptera exempta*  a) 1
2. *Spodoptera littoralis*  b) 2
3. *Spodoptera exigua*  c) 3
4. *Spodoptera frugiperda*  d) 4
Question 2

On which of the following crops are you most likely to find the fall armyworm?

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<tr>
<td>1. tomatoes and potatoes</td>
<td>a) 1</td>
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<td>2. pears and apples</td>
<td>b) 2</td>
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<td>3. citrus</td>
<td>c) 3</td>
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<td>4. maize and sorghum</td>
<td>d) 4</td>
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Choose one of a) to d)
Question 3

Name two signs of fall armyworm infestations

Choose one of a) to d)

1. fallen plants
2. larvae marching on soil
3. sawdust-like excreta in the whorls
4. small caterpillars eating windows or scarifying the surface of leaves

a) 1 and 2
b) 2 and 3
c) 1 and 3
d) 3 and 4
Question 4

Which illustration/s indicate/s the male fall armyworm?

Choose one of a) to d)

a) 1
b) 2
c) 1 and 2
d) none of them
Question 5

Which illustration/s indicate/s a fall armyworm egg mass?

Choose one of a) to d)

a) 1
b) 2
c) 1 and 2
d) 3
Question 6

Which illustration/s can be eliminated as not depicting fall armyworm egg masses?

Choose one of a) to d)

a) 1 and 5
b) 2 and 4
c) 3
d) all of them
Question 7

What is the phenomenon illustrated to the left

Choose one of a) to d)

a) caterpillars are falling off after spraying
b) caterpillars are cooling off
c) caterpillars are ballooning
d) nobody knows
Question 8

Name the most common difference between larger and smaller fall armyworm caterpillars

Choose one of a) to d)

1. small caterpillars are usually black  
2. small caterpillars are usually lighter in colour  
3. larger caterpillars are usually black  
4. larger caterpillars are usually lighter in colour

a) 1  
b) 2  
c) 3  
d) 4
Question 9

Where do most fall armyworm caterpillars feed early in the season?

1. in the ears a) 1
2. on the ground b) 2
3. in the whorls c) 3
4. on the tips of lower leaves d) 4
Which marks on the fall armyworm are used for preliminary identification?

Choose one of a) to d)

a) 1 only
b) 2 only
c) 3 only
d) all of them
Question 11

Which caterpillar is this most likely to be?

Choose one of a) to d)

a) fall armyworm
b) false armyworm
c) lesser armyworm
d) African armyworm
Question 12

Which caterpillar/s is/are the fall armyworm?

Choose one of a) to d)

a) 1
b) 3 and 4
c) 2
d) 5
Question 13

Which caterpillar displays a typical “sphinx stance” with the front side curled up in the air?

Choose one of a) to d)

1. semi-loopers
2. African bollworm
3. fall armyworm
4. cutworms

a) 1 and 4
b) 2
c) 4
d) 3 and 1
Question 14

Which caterpillar/s is/are the fall armyworm?

Choose one of a) to d)

a) 2 and 6
b) 3 and 5
c) 1
d) 4
Question 15

When you find a caterpillar in the soil, which one is it most likely to be?

Choose one of a) to d)

1. fall armyworm  a) 1 and 3
2. stem borer       b) 1 and 2
3. false armyworm   c) 4
4. cutworm          d) 3
Question 16

Which caterpillar/s is/are the fall armyworm?

Choose one of a) to d)

a) 1, 2 and 3
b) 4, 5 and 6
c) 3
d) 1, 2 and 4
Question 17

Which caterpillars are not the fall armyworm?

Choose one of a) to d)

a) only 1, 4 and 6
b) only 2, 3 and 5
c) only 2 to 6
d) all of them
Question 18

Which moth/s is/are the adult of the fall armyworm?

Choose one of a) to d)

a) 2
b) 1 and 3
c) 5
d) 4 and 6
Question 19

Indicate the fall armyworm and/or their adults

Choose one of a) to d)

a) 1, 9 and 11
b) 4, 5 and 8
c) 6 and 10
d) 2, 3 and 7
Question 20

Indicate the fall armyworm and/or its adult/s

Choose one of a) to d)

a) 1, 8 and 11
b) 2, 5 and 6
c) 3, 4 and 10
d) 7 and 9
End of assessment
Part two

This part repeats all 20 questions, with the answers given on each following slide
**Question 1**

Which is the correct Latin name for the fall armyworm?

Choose one of a) to d)

1. *Spodoptera exempta*  
   a) 1
2. *Spodoptera littoralis*  
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   a) 1  
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   d) 4 [correct answer]
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Indicate the fall armyworm and/or their adults

Choose one of a) to d)

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a) 1, 9 and 11
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Choose one of a) to d)

a) 1, 8 and 11
b) 2, 5 and 6
c) 3, 4 and 10 [correct answer]
d) 7 and 9
End of assessment
Note 5

The following two slides must be printed out. The first one must be handed out to workers being assessed. The second one is for the assessor to facilitate marking the answer sheets.
# Assessment

Identifying the fall armyworm in relation to other common caterpillars in South Africa

Name: .........................................................................................
Institution: ....................................................................................
Place of assessment: .................................................................
Facilitator/assessor name: ..............................................
Date: .....................................................................................
Comments: ...............................................................................
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Optional: Rate the facilitator/assessor (mark with an X)
Excellent .......... Acceptable .......... Can be better ...........

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This assessment presentation is an output of the Fall Armyworm Steering Committee of the South African Department of Agriculture, Forestry and Fisheries

Presentation produced by Diedrich Visser, Agricultural Research Council - Vegetable and Ornamental Plants (ARC-VOP), Roodeplaat, Pretoria

Additional inputs and checking by:

Jan Hendrik Venter, Nolan Africander and Ronald Ramukhesa: National Department of Agriculture, Forestry and Fisheries
William Weeks: North West Provincial Government
Anneke Erasmus: Agricultural Research Council, Grain Crops Institute
Vivienne Uys: Agricultural Research Council, Plant Protection Research Institute
Johnnie van den Berg: North-West University

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Version of this presentation: v1.2
Date of this presentation: 16 September 2017
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For more information, and reports of new sightings of the fall armyworm: Jan Hendrik Venter, Email: janhendrikv@daff.gov.za; Tel. no. 012 3196384