

Unit 10 - Week 8

Course outline

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- Lecture 37 : Plant protection equipment/ machinery

- Lecture 38 : Selection and design of plant protection equipment/ machinery

- Lecture 39 : Manually operated knapsack-cum-boom sprayer

- Lecture 40 : Performance evaluation of sprayer

- Lecture 41 : Testing and certification of spraying equipment

- Quiz : Assignment 8

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Assignment 8

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2019-09-25, 23:59 IST.

1) For complete coverage within the dense foliage, the Number Median Diameter (NMD) of the of the dust particles released from a duster should be in the range of

1 point

- 0.01 to 0.1 μm
- 0.1 to 1 μm
- 1.0 to 10.0 μm
- 10.0 to 100.0 μm

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:

c.

2) Mist blower is an example of

1 point

- Hydraulic energy application sprayer
- Gaseous energy application sprayer
- Mechanical energy application sprayer
- Centrifugal energy application sprayer

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:

b.

3) The operating pressure of the foot operated sprayer ranges from

1 point

- 1 – 4 kg/cm^2
- 14 – 17 kg/cm^2
- 17 – 21 kg/cm^2
- 21 – 55 kg/cm^2

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:

c.

4) A sprayer equipped with piston pump is used to spray the fungicides in a mango orchard. If the pump has a flow rate of 26 L/min at a pressure of 650 kPa and mechanical efficiency of 85 %, then the power required to operate this pump is given by

1 point

- 0.33 kW
- 0.33 hp
- 0.23 kW
- 0.23 hp

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:

a.

5) Hollow cone nozzles have spray angles varying between

1 point

- 25 and 45°
- 45 and 60°
- 60 and 95°
- 95 and 110°

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:

c.

6) The spray pattern having Volume Median diameter (VMD) in the range of 50 to 100 μm is known as

1 point

- Aerosol spray
- Mist spray
- Fine spray
- Coarse spray

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:

b.

7) In chemical spraying system, mechanical agitation is normally preferred over the hydraulic agitation for pressures above

1 point

- 2.1 Pa
- 2.1 kPa
- 2.1 MPa
- 2.1 kg/cm^2

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:

c.

8) The relationship between the Volume Median Diameter (VMD) and the nozzle orifice diameter (d) is given as :

1 point

a) $\left[\frac{VMD_1}{VMD_2}\right] = \left[\frac{d_1}{d_2}\right]^{1/3}$

b) $\left[\frac{VMD_1}{VMD_2}\right] = \left[\frac{d_1}{d_2}\right]^{3/2}$

c) $\left[\frac{VMD_1}{VMD_2}\right] = \left[\frac{d_1}{d_2}\right]^{1/2}$

d) $\left[\frac{VMD_1}{VMD_2}\right] = \left[\frac{d_1}{d_2}\right]^{2/3}$

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:

d.

9) The boom sprayer equipped with hollow-cone nozzles is operating at a speed 6.5 km/h with a nozzle spacing of 500 mm. If the application rate is 200 L/ha, then the flow rate for a hollow-cone nozzle is given by

1 point

- 0.98 L/min
- 1.08 L/min
- 1.18 L/min
- 1.28 L/min

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:

b.

10) Uniformity of deposition of the chemical from a spray nozzle under laboratory conditions can be determined using the setup known as

1 point

- Patternator
- Immersion method
- Glass slides coated with silicon, magnesium oxide
- Glossy paper such as Kromekote or Lustercote

- a.
 b.
 c.
 d.

No, the answer is incorrect.
Score: 0

Accepted Answers:

a.