# QUICKIE-QUIZ

## Proper calibration of spray equipment

**Comparison of Pumps**

| Type | *Operating Range* | *Maximum Pressure* | *Materials Handled* | *Durability* |
|---|---|---|---|---|
| Roller | 300-1000 rpm | 350 psi | wide range w/ proper rollers | spraying pressure decreases with wear, but worn rollers are easily replaced |
| Piston | 100-600 rpm | 1000 psi | any | long life |
| Centrifugal | 1200-3500 rpm | 200 psi | any | long life |
| Diaphram | 200-12,000 rpm | 100 psi | any | long life |
| Gear | 500-1800 rpm | 100 psi | oil emulsions & nonabrasives not for wettable powders except when gears are of nylon | limited life under adverse conditions, spraying pressure & capacity decreases with wear |
| Flexible impeller | 500-1500 rpm | 50 psi | wettable powders, mild abrasives | moderate |
| Sliding vane rotary | 500-600 rpm | 125 rsi | limited to oil and oil emulsions | spraying pressure and capacity decreases w/wear |

**1.** Which of the following are important factors in the calibration of a sprayer?
- a) discharge rate per nozzle
- b) ground speed of the sprayer
- c) nozzle spacing and boom length
- d) recommended application rate
- e) all of the above

**2.** One way to achieve uniform coverage would be to:
- a) use a higher rate of product
- b) spray the area more than once
- c) adjust the height of the boom
- d) spray against the wind

**3.** To spray 17 to 19 inches from the ground, what series of spray nozzle is recommended?:
- a) 80 degree series
- b) 73 degree series
- c) 65 degree series

**4.** As the orifices of the sprayer nozzle tips become worn, the spray pattern:
- a) usually remains the same
- b) is modified and more material is released
- c) is modified and less material is released

**5.** The lower the pump pressure, the _____ spray delivered.
- a) more
- b) less
- c) faster
- d) slower

**6.** Which is not an accepted method of changing a sprayer's delivery rate?
- a) adjusting the speed of the sprayer
- b) changing pump pressure
- c) altering the discs or nozzle sizes
- d) moving the boom closer to the surface

**7.** To reduce the risk of drifting, you should:
- a) use more narrow angle nozzles
- b) use more wider angle nozzles
- c) increase ground speed
- d) reduce ground speed

**8.** What percentage of overlap is best for most uniform coverage?
- a) 25 percent
- b) 35 percent
- c) 50 percent
- d) 75 percent

**9.** Nozzles on heavily used equipment should be replaced:
- a) annually
- b) twice a year
- c) monthly
- d) after each application

**10.** Allowing for factors such as wind and irregular terrain, there should not be more than a _____ percent error in application.
- a) one
- b) five
- c) 10
- d) 15

**Answers:** 1)e; 2)c; 3)a; 4)b; 5)b; 6)d; 7)a; 8)d; 9)a; 10)b

**Source:** Turf Managers Handbook by: W.H DANIEL AND R.P. FREEBORG