

QUIZBOWL



# SENIOR QUIZBOWL

## Environment

- What is the difference between mechanical and natural ventilation?  
**Mechanical ventilation relies on fans to move air through a room. Natural ventilation depends on wind and convection.**
- Pennsylvania's Nutrient Management Act requires producers with over \_\_\_\_ animal units per acre to submit a nutrient management plan.  
**2 animal units**
- True** or False. Manure haulers and brokers must become certified before accepting payment for hauling manure.
- Which odor source has the largest potential for odor complaints from neighbors?  
A. Buildings  
B. Manure storage  
**C. Manure application**  
D. Compost
- Name two weather factors that should be taken into account before spreading manure.  
**Wind direction, time of day, impending rainfall, relative humidity, frozen ground**
- A single 100-pound finishing pig produces approximately how much manure each day?  
A. 2 quarts      B. 1 gallon  
**C. 1.5 gallons**      D. 10 gallons
- True or **False**. Drafts are a desirable component of wintertime ventilation - especially for baby pigs.
- Which would NOT be observed in a poorly ventilated room in the winter?  
A. Condensation on walls and ceiling  
B. Wet slats  
C. High humidity  
**D. High temperature**
- Name the three major nutrients found in swine manure.  
**Nitrogen, Phosphorus, Potassium**
- True or **False**. A negative pressure ventilation system pushes air into a building.
- True** or False. Dead pigs can be successfully composted in a mixture of sawdust so that even the bones mostly disappear.
- True** or False. Dust accumulation on fan blades and louvers can reduce the amount of air the fan moves.
- True** or False. Injection or immediate incorporation (disking in) of manure reduces odors associated with spreading manure.
- True** or False. Tunnel ventilation moves air down the length of a barn and serves to increase air speed and animal comfort in warm weather.
- Why would manure be injected into the ground?  
A. Increase phosphorus absorption in pigs  
B. Increase odor  
C. Cost benefit  
**D. Decrease chance of runoff**

