



**2004 State Competition**  
**FFA Agricultural Mechanics Contest**  
**University of Missouri**  
**50 points**

Contestant # \_\_\_\_\_  
Contestant Name \_\_\_\_\_  
Chapter \_\_\_\_\_

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## Ag. Machinery

Instructions: Select the correct answer and record your answer on the answer sheet provided.

### New Holland 575 Square Baler (2 pts)

1. What is the item tagged #1?
  - a. Flywheel
  - b. PTO drive slip clutch
  - c. Twine box
  - d. Knotter
  
2. What is the function of item # 1?
  - a. To protect the PTO shaft and main drive components
  - b. Tie the twine
  - c. Hold twine that is being used
  - d. To give force beyond the tractor's power
  
3. What is the item tagged #2?
  - a. Pickup latch
  - b. Pickup wind guard
  - c. Bale length gauge
  - d. Bale counter
  
4. What slice thickness is ideal for uniform bales?
  - a. 1-2 inches
  - b. 2-3 inches
  - c. 3-4 inches
  - d. It doesn't matter how thick the slices are.
  
5. What is the item tagged #3?
  - a. Knotter
  - b. Twine box
  - c. Wire box
  - d. Bale chute

6. What type of baler is this?
  - a. A twine model
  - b. A wire model
  - c. It can be used for either twine or wire
  - d. I can't tell
  
7. What is the item tagged #4?
  - a. Knotter
  - b. Bale chute
  - c. Pickup wind guard
  - d. Pickup wheel
  
8. How many teeth are on this baler?
  - a. 110
  - b. 123
  - c. 156
  - d. 168
  
9. What is the item tagged #5?
  - a. Gear box
  - b. Twine box
  - c. Bale chute
  - d. Needles
  
10. What is the gearbox ratio?
  - a.  $1/23$
  - b.  $6/35$
  - c.  $7/50$
  - d.  $10/101$
  
11. What is the item tagged #6?
  - a. Needles
  - b. Knotter
  - c. Bale gauge
  - d. Bale compaction adjustment
  
12. What is used to protect item #6 when the baler timing is off?
  - a. Shear bolt
  - b. Chain break
  - c. Nothing protects it.
  - d. This is an irrelevant question since timing can never be off.
  
13. What is the item tagged #7?
  - a. Plunger
  - b. Flywheel
  - c. Pickup
  - d. Knotter

14. How long is the plunger's stroke?
- a. 20 inches
  - b. 30 inches
  - c. 46 inches
  - d. 50 inches
15. What is the item tagged #8?
- a. Plunger
  - b. Packer fork
  - c. Bale chute
  - d. Knotter

**9650 STS      John Deere Combine (2 pts)**

16. According to the operator's manual, what is the grain tank capacity of this model combine?
- a. 200 bu.
  - b. 240 bu.
  - c. 250 bu.
  - d. 300 bu
17. What is the item tagged #9?
- a. Feeder house
  - b. Clean grain elevator
  - c. Tailings elevator
  - d. Unloading auger
18. What is the item tagged # 10?
- a. Clean grain elevator
  - b. Tailings elevator
  - c. Unloading auger
  - d. Feeder house
19. According to the manual, how much fuel does it take to fill the tank?
- a. 200 gals
  - b. 210 gals
  - c. 225 gals
  - d. 235 gals
20. What does the STS stand for?
- a. Single Tine Separation
  - b. Steel Tine System
  - c. Stolen Tine System
  - d. It does not mean anything.

21. According to the manual, how much grease should be added to each fitting at the 50-hour interval?
  - a. 5-10 pumps
  - b. 10-15 pumps
  - c. 15-20 pumps
  - d. Until grease can be seen coming out of bearing
  
22. What is the item tagged # 11?
  - a. Feeder house
  - b. Straw chopper
  - c. Unloading auger
  - d. Radiator fan
  
23. According to the manual, what could be the cause if ground travel speed is erratic?
  - a. Low oil
  - b. Inconsistent throttle control
  - c. Uneven weight distribution
  - d. Rough terrain
  
24. According to the manual, how often should the beater bearing be greased?
  - a. 100 hours
  - b. 200 hours
  - c. 300 hours
  - d. 400 hours
  
25. What is the item tagged #12?
  - a. Radiator fan
  - b. Straw chopper
  - c. Hydraulic tank
  - d. Windshield wiper