**Biosolids Processing Whiz Quiz**

1. What is a typical percent solids in the final cake of a belt filter press?
2. 2 percent to 4 percent
3. 30 percent to 50 percent
4. 15 percent to 20 percent
5. 8 percent to 10 percent
6. What is the fecal coliform limit to meet standards for Class A biosolids?
7. 1,000 #/gram TS
8. 10,000 #/gram TS
9. 1,000,000 # /gram TS
10. 2,000,0000 #/gram TS
11. What is the top blanket of sludge called in the dissolved air floatation (DAF) process?
12. Subnatant
13. Supernatant
14. Float
15. Flop
16. What is the fundamental concept of aerobic digestion operation?
17. Methane gas is a byproduct
18. Endogenous decay occurs at a faster rate than microbial growth
19. The overall sludge production is increased
20. No mixing is required
21. Which process modification may help resolve a condition of massive white foam and low pH in an aerobic digester?
22. Increase sludge feed rate
23. Increase the air supply and increase the dissolved oxygen
24. Decrease the digester solids retention time
25. Decrease the air supply and decrease the dissolved oxygen.
26. What best describes methane forming bacteria in an anerobic digester?
27. Sensitive to environment and environmental changes
28. Fast growing organisms
29. Produce biogas at very low pH
30. The work best in the presence of oxygen
31. What is the best way to feed an anaerobic digester?
32. Once per day, all feeding within a hour time span
33. Twice per day (depending on how many days are in a month)
34. High feed flow rate
35. Small, frequent feed, near continuous feed rate

1. Which one of the following will change first if have an upset of your anerobic digester?
2. Alkalinity
3. Methane production
4. pH
5. Volatile acids
6. If 2,780 lbs./day of solids with a volatile solids content of 65% are sent to the digester, how many lbs./day are sent to the digester?
7. 42
8. 1807
9. 4200
10. 180,700
11. The volatile acid concentration of the sludge in an anaerobic digester is 153 mg/L. If the measured alkalinity is 2260 mg/L, what is the VA/Alkalinity ratio? ( round to nearest hundredth)
12. 0.02
13. 0.07
14. 14.77
15. 345,780

**Biosolids Processing –KEY**

1. C

2. A

3. C

4. B

5. D

6. A

7. D

8. D

9. B

10. B

9. (2780 lbs./day) (65) = 1807 lbs./day VS

100

10.

153 mg/L

2260 mg/L = 0.07