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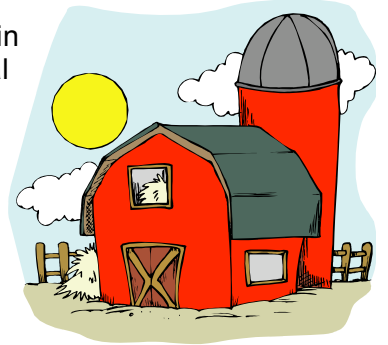
Period \_\_\_\_\_

Ms. Foglia

Date \_\_\_\_\_

**AP: CHAPTER 9: RESPIRATION — EXTRA CREDIT 1**

There are many surprising applications of our knowledge of respiration in every day life. Here are just a few. See if you can explain them in biological terms.



1. Every dairy farmer knows the expression: “Make hay while the sun shines.” This is because the grass and alfalfa that is grown for hay (to feed cows throughout the year) must be cut and completely dried in the fields before it is compressed into hay bales and stored in the barn hayloft. If the hay is baled and stored in the barn while it is either still green or damp from rain the results are disastrous for the farmer.

a. Explain the consequences for the farmer of putting wet hay bales in the barn.

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b. Explain the biological reasons for these consequences.

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2. In addition to dry hay, dairy farmers also store corn silage to feed the cows in the winter. Corn silage is green corn stalks that are chopped up and stored fresh and wet in the 50-foot silos next to the barn. This green plant material provides a lot of supplemental nutrients for the cows beyond the dry hay. Often the stored silage oozes liquid that collects at the base of the silo. The feral cats that populate every dairy farm (to control mice in the barns) often make the mistake of drinking this silo liquid, leaving them sick and woozy. Explain what the liquid is and why it makes the cats sick.

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