

## Quiz 4 for Module 7 ANSWERS: Biomass in Agriculture

1. What is biomass?

**Organic material of recent biological origin, composed of (once) living organisms**

2. Where does biomass come from? Explain.

**Biomass comes from the sun. All living things need the sun to survive.**

3. Explain how biomass is considered a renewable energy source, while fossil fuels are not.

**Biomass is of recent biological origin. When we burn it, we are not releasing ADDITIONAL carbon into the atmosphere. Fossil fuels have been a carbon sink for millions of years and are used faster than can be replenished.**

4. Where in the United States is there a large potential for producing biomass products?

**The Midwest.**

5. Give two examples of biofuels.

**Biodiesel, bioethanol, biogas**

6. Give two examples of products that can be produced from biomass.

**The three listed above and plastic alternatives**

7. What is a residue that can be used as biomass?

**Crop residue, timber residue, municipal waste, animal manure**

8. What are the four main uses of biomass?

**Heat, electricity, fuel, and plastic alternatives**

9. Regular diesel engines can run using biofuel. True or False?

**True (up to ~20%)**

10. Give three reasons as to why producing/harvesting biomass can be advantageous.

**Farmers are already experts at growing things, Cost-effective using existing resources, adaptable to growing conditions, creates new markets, makes use of waste products, farmers can grow their own fuel for on-farm use, saves money from imports, creates new jobs**