

**Exam Title:** 8106850 Agricultural Biotechnology 2

***Edited March 2016***

**Courses Assessed by this Exam:** Agricultural Biotechnology 2

**Key Vocabulary:** Human Genome Project, traits, diseases, ancestry, vitamin, mineral, shelf life, fossils, prokaryotic, cells, eukaryotic, evolution, DNA, RNA, organism, Charles Darwin, botany, adapt, insects, pesticides, Robert Hooke, Micrographia, observations, conclusions, investigation, mass, grams, osmosis, absorb, passive transport, hypothesis, humid, greenhouse, phenomena, law, theory, genetics, heterogeneous, allele, polygenic, dominance, Gregor Mendel, inheritance, heterozygous, recessive, nucleotides, hydrogen, nitrogen, double helix, sugar--phosphate, somatic cells, protein, meiosis, gametes, mutations, phenotypic, offspring, mitosis, enzyme, hydrogen peroxide, catalase, graduated cylinder, PH, neutral, adverse, cloned, genetic diversity, agriculture, cross breeding, fermentation, freezing, storage, regulates, crops, EPA, FDA, USDA, APHIS, modified gene, assay, ELISA, antibody, antigen, curds, milk, rennin enzyme, bacteria, whey, bacillus thuringiensis, agrobacterium tumefaciens, vector, poison, toxic, acute, biohazard, corrosive, radioactivity, perennial, biofuel, oxidizer

**Student Tasks:**

- Understand ethical issues and principles related to genetics and genetic testing
- Understand the benefits and disadvantages associated with genetically modified foods
- Be familiar with scientists and researchers associated with genetics and evolution
- Interpret scientific experiments, results, and data
- Be able to complete a Punnett square and predict genetic traits
- Have a complete understanding of the genetic processes
- Given a specific chart or diagram, be able to interpret and predict genetic traits
- Understand DNA, RNA their components and processes
- Know different types of sciences
- Be familiar with government agencies that regulate food, agriculture, etc. and their departments
- Understand the ELISA test and its uses
- Understand the fermentation process and all its components and their processes

- Know the dangers associated with pesticides, poisons, etc. and the safety procedures associated with using those items