

Environmental Science Chapter 9: Study Guide

Section 1

- Definitions

Malnutrition

Famine

Subsistence farmers

Droughts

Yield

- Know some of the problems caused by starvation
- Know what people eat and what can result from not eating nutritious foods
- Know that people go hungry either because there is not enough food and there is plenty of food and the categories under each
- Know what the Green Revolution is and what some advantages and disadvantages are

Section 2

- Definitions

Arable

Desertification

Salinization

Fertile soil

No-till farming

Erosion

Low-input farming

- Know what arable land is and what is happening to it today
- Be able to compare early farming methods to industrial farming methods
- You DO NOT have to know the layers of soil
- Know what erosion, desertification and salinization are, how they occur, what their consequences are, and if they can be prevented, reduced or reversed
- Know what sustainable agriculture is and how we can create it
- Know the Case Study Aquaculture: A different kind of farming

Section 3

- Definitions

Pest

Resistance

pathogens

Pesticides

Biological pest control

- Know what a pest is and what the most damaging pest is
- Know why wild plants have resistance
- Know what a pesticide is
- Be able to list at least three different pesticides
- Be able to identify the intended target based on the name of a pesticide
- Know the consequences of spraying pesticides (three kinds)
- Know what happened in Bhopal, India
- Know what biological pest control is and what the consequences might be
- Know the four different kinds of biological pest control

Is Food Irradiation Safe? article

- Know how irradiation works
- Be able to list at least three reasons why people are opposed to irradiation of food
- Know what RPs or free radicals are
- Be able to list at least three reasons why people support the irradiation of food

Food & Drink article

- Know the three rungs on the global food consumption ladder
- Know the diets of each group and what consequences (health and environmental) that can result from those diets
- Know why some are calling for a change on a federal level
- Know the purpose of packaging and its environmental effects
- Know what the steps of processing food result in
- Know what the process of shipping foods results in
- Know what local farmers markets offer the public

Study Finds Organic Farming More Efficient Than Conventional Farming article

- Know what the study says about yield and energy usage of organic farming v. conventional farming
- Know the two main crops that organic farming offers real advantages to
- Know some of the disadvantages of switching over to an organic crop
- Know why organic farming is better for the environment

What is Organic? Powerful Players Want a Say article

- Know why there is a growing interest among large food companies to offer organic products
- Know what the controversy surrounding the term “organic” is
- Be able to form an opinion on what “organic” should mean (i.e. should some artificial/synthetic ingredients be allowed)
- Be able to list at least two reasons that support both sides of the controversy

The Power Of Labels powerpoint presentation

- Be able to list at least three different labels (not including the USDA organic seal)
- Know who is making these labels
- Know the traditional definition of organic
- Know the four levels of USDA organic and what they mean
- Know why some organic produce does not have the USDA seal
- Know at least three disadvantages and advantages of going organic
- Know what veganism is and why some people chose to become vegan
- Know what the raw and living diet is

Genetically Engineered Foods Should be Produced article

- Know what GMO stands for
- Know what the Green Revolution is
- Be able to describe the main points of the article
- Be able to describe at least three main ideas that support the use of GMOs

Genetically Engineered Foods Should Not be Produced article

- Know what superweeds are
- Be able to describe the main points of the article
- Be able to describe at least three main ideas that support the ban of GMOs

Europe's Secret Plan to Boost GM Crop Production article

- Know who Gordon Brown is
- Know what are European leaders hoping to do according to the confidential papers that were released
- Know what the public reply to this announcement was
- Know the main points of the article

GMO powerpoint presentation

- Know what GMO stands for as well as all of the names associated with such types of organisms
- Know the basics of how GMOs are constructed
- Know why GMOs are being produced and what they are purported to be able to do
- Know what potential risks GMOs could bring
- Know how GMOs are labeled/regulated
- Know what suicide genes are and why biotech companies like them

Carbon Footprint with Ms. Whitehead lecture

*** I have decided to not include this on the exam. You were excellent listeners and you had some great questions, so this is your reward.