

6. The farmer needs to consume 3,000 cal/day. If he ate only soybeans instead of the hens or the grasshoppers, how many people would his soybean crop feed (see your response to Question 4)?

7. Draw a **Biomass Pyramid**, using the data you have developed to this point. Why do most food chains not have a fourth and/or fifth trophic level?

8. Should people generally eat at a lower trophic level? It seems, by a simple analysis, that the Earth could support many more people if we all ate at a lower trophic level.

a. Outline three pros and three cons of such a practice.

b. On average, cows produce 19 kilograms of protein/acre/year and soy produces 200 kilograms of protein/acre/year. Relate these data to the fact that people in the less-developed countries usually eat at lower trophic levels than those in developed countries.

9. Comment on the success of omnivores, such as coyotes, rats, and humans, and the fact that they can eat at many trophic levels.

Exercises