



HOW MANY TREES ON THAT TRAY?

TIME: 1 hour

OBJECTIVE: To introduce the concept of total resource cost in food production.

MATERIALS: Resource information about food production; information could be from texts, encyclopedias, or brochures from a Cooperative Extension service office. Fast food wrappers and play money.

BACKGROUND:

When people consider the cost of food production, they think in terms of the monetary cost of raising, processing, and marketing animals and vegetables. Rarely is the cost to the natural environment considered. From the beginning of the food production process, though, the environment does contribute to the overall cost through the loss of forested land.

By using land for food production, trees that contribute to the quality of air, water, soil and wildlife habitat are lost. Water and soil quality is further threatened if chemical fertilizers, herbicides, or pesticides from agricultural land are washed into water sources or leached into soil.

Humans need both food and the many benefits of a healthy natural environment; producing food in a manner that protects and preserves the environment is possible (using organic fertilizers and pesticides) and doing so begins with an awareness of the total cost of food.

BEFORE THE ACTIVITY:

Review resource material including facts such as labor costs to produce food, transportation costs, and per capita expenditure for food in North Carolina.

Display fast food wrappers.

LEAD-IN:

What did you have to eat today? Now, where did it come from? Not the grocery store or a restaurant, but where did it really come from?

Let's list the food we ate today and try to figure out where it all came from. Then let's try to get an idea about the cost of each item.

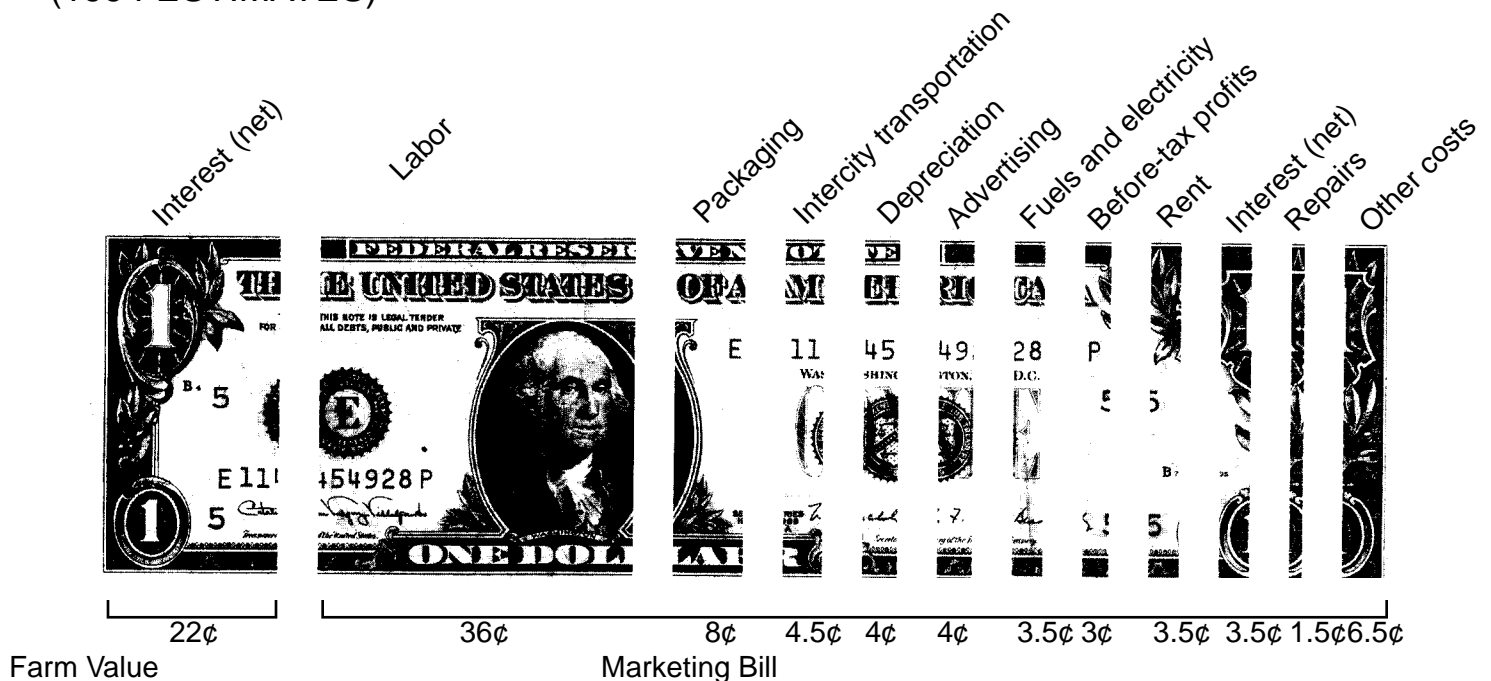
ACTIVITY:

1. Have the class make two lists. The first list should be all the food eaten that day. The second list should be an idea about the origin of the food such as:
 Beef—a Western state
 Milk—a nearby dairy
 Bread—a bakery in town
 Vegetable—grown at home or on a produce farm
 Cereal—grain from the Mid-West
 paper/packaging—pulpwood trees from North Carolina.
2. Assign each student or small group a food to research. Where is the origin of each food and what must be done before the food reaches the table?
3. Have students or groups report back to the class.
4. Using the acquired information, try to compute the actual cost of the food. Look at:
 Amount of land needed for production
 Labor costs
 Fuel costs
 Cost of packaging including cost to forests
 Cost of running the grocery store
 Cost of selling in a restaurant
 Any costs to the environment as a result of land use such as fertilizer runoff or soil erosion.

BRANCHING OUT:

1. Discuss ways to maintain food production while protecting the environment.
2. List at least three ways to produce food that are better than existing methods.
3. In North Carolina today we have more acres of forest than we did in 1900. Improvements in agriculture made this possible. If agriculture production increases, what predictions for our forests can be made?
4. Food for Thought: Where does your food dollar go? Farmer, worker, transport, profit? Have students compare their estimates with those from the Farm Bureau below.

**COMPONENTS OF A FOOD DOLLAR
(1994 ESTIMATES)**



The Calorie Connection

What we consume locally utilizes resources from far away. Let's trace the connection of our food from soil to the table.

