

# What Land Works Best?

## *Hitting Pay Dirt*

### Objectives

Students will be able to identify the crops grown in all Utah counties.

Students will be able to explain how climate, water and soil type help to determine where plants and crops are grown.

Students will be able to identify the major crops grown in the United States.

Students will learn map reading techniques.

### Materials

- Utah Agricultural Products Map
- Utah Agricultural Products Map Questions.
- “Where in the U.S. did my food come from?” map.
- Roof-top Farming Transparency

### Time

Activity 1: 50 minutes  
Activity 2: 30 minutes

### Getting Started

Gather materials, and make the necessary copies. The Agriculture Products Map should be copied on a copier that handles 11 by 17 inch paper. Reducing the map makes it difficult to read.

### Procedures

#### *Activity 1 - Utah Grown*

1. Share some of the background information with your students.
2. Give each student a copy of the Utah Agricultural Products Map to complete.
3. Post the Map Questions on the overhead, feel free to make up some of your own. Ask your students to complete the tasks and answer the questions.

#### *Activity 2 - Where does my food come from?*

1. Give each student a copy of the United States activity map to complete.
2. Discuss the regional patterns.

### Discussion (*use the Roof-top Farming transparency*)

1. What determines which crops are grown where? (water availability, soil type, slope, climate, elevation, etc.)
2. Who determines what farmers grow? (markets, meaning consumers, government quotas and farmers also have favorites and traditions)
3. Using the U.S. map can you identify where the corn belt, and wheat belt are located?

### Background

Utah has 54 million acres of land, and is the 13<sup>th</sup> largest state. Approximately 65 percent of the state is owned by the federal government. About 22% of Utah’s land area is in farms and ranches, but less than 3% is cropland. Crops account for about 30% of the value of Utah’s agricultural output. Most crop farms are concentrated in a narrow strip (the Wasatch Front) extending roughly about 100 miles north and south of Salt Lake City at the base of the Wasatch Range. The melting



snows provide irrigation water for the valleys below. This is also where some of the best soils in the state are located. Three-fifths of the cropland is devoted to wheat and hay. Hay is the number one crop grown. Native grass and *alfalfa* are the most popular kinds of hay to grow. Alfalfa grows best under irrigation, cold winters and warm summers. It is drought-resistant, which means it can grow even when there's not much rain.

A large area of mountainside terraces is occupied by fruit orchards, especially in Box Elder County. Box Elder County is home to the Utah Fruitway. This area grows some of the finest peaches, apricots, melons, squash and other fruits and vegetable anywhere. Utah County is also known for its fruit production. To the north and east in Cache Valley, unirrigated grain is grown among irrigated fields of alfalfa. Another popular crop grown in Utah is onions. Most of the onions grown in Utah end up in restaurant food chains. Davis and Weber counties lead in the production of onions.

Livestock and livestock products account for about 70% of the state's annual agricultural output. Dairy farming is very important in the irrigated valleys west and north of Salt Lake City. Beef cattle graze wherever adequate grass and water exist. Sheep are raised in less-favored environments, particularly the desert basins of the west. Sanpete County is known for its large number of turkeys. Some of Utah's best farmland is being lost to rapid growth and development. Between 1988 and 1998 Utah lost 300,000 acres (500 square miles) of farmland, a sizable amount for a state where only 5 percent of the land is considered good to excellent for agricultural production.

Throughout the nation there is a lot of concern about the loss of farmland to development. It is reported that every day over 2,450 acres of forests, farms, and countryside disappear as a result of eradication by suburban sprawl, roads and highways and industrial development. The breakdown of that acreage shows 1,320 acres for housing, 660 acres for paved highways, 300 acres for warehouses and factories and 170 acres bulldozed for shopping malls and industrial parks.

Much of the land being taken is prime agricultural land. Years ago, our communities were built next to the best ground so farmers would be near their farms. Today, 85 percent of the nation's fruit and vegetables and nearly 80 percent of its dairy products are produced in counties subject to urban pressure. (See the Roof-top Farming Transparency. Your class can help you with the caption, something like, "Who decides where farmers farm?" or "Watch your next right turn!")

Many people think that the loss of farmland is primarily a farmer issue. Loss of farmland should be of concern to everyone, it can affect food prices, property taxes and the environment we live in. By the year 2050 food prices are projected to increase three to five fold. When development takes place, government receives an increase in taxes, but usually spends more on services to support that development.

### Vocabulary

alfalfa: legume crop high in protein, especially desired by dairy farmers.

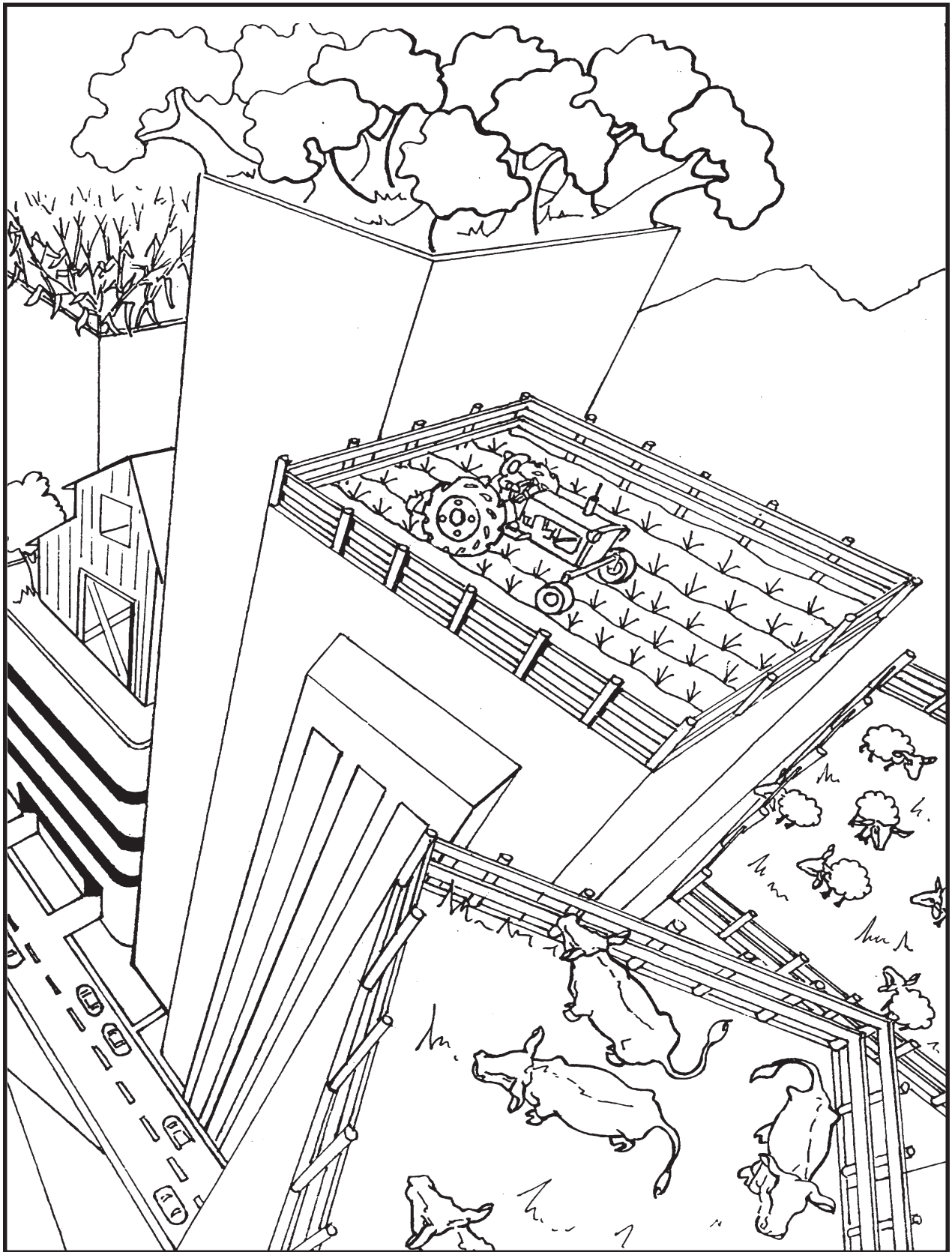


***Answers to selected Utah Agricultural Products Map Questions***

1. Simply put, in Utah crops are grown where we have water. Water is primarily located geographically around the mountains. Crops are grown in the valleys with adequate water, adequate (loam) soils, and in areas where slopes are at a minimum. Orchards are an exception. Many orchards in Utah are planted on the foothills, still, they are near water.
- 2.
- 3.
- 4.
5. Hay is drought tolerant. Hay is also needed to feed the states large livestock industry.
6. Utah has a lot of rangeland. The plants that grow on the ranges produce good beef but the grass is not high enough in protein to produce a high volume and quality of milk.

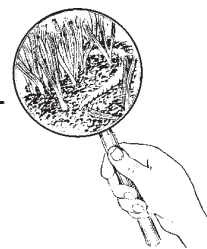
## More Fun Using the Utah Agricultural Products

1. Geographically, where are the largest variety of crops grown?
2. Using the scale and a ruler, how far is it in miles from the northern part of Box Elder County to the most southern side of Kane County? (How long is the state of Utah)
3. Using the scale and a ruler, how far is it in miles from the western side of Millard County to the eastern side of Grand County?
4. Using the scale and a ruler, how far is it in miles from the southern part of Washington County to the southern tip of Salt Lake County?
5. Why do you think hay is produced in most counties?
6. Why do you think there are more beef cows than dairy cows in Utah?



**Create a caption:**

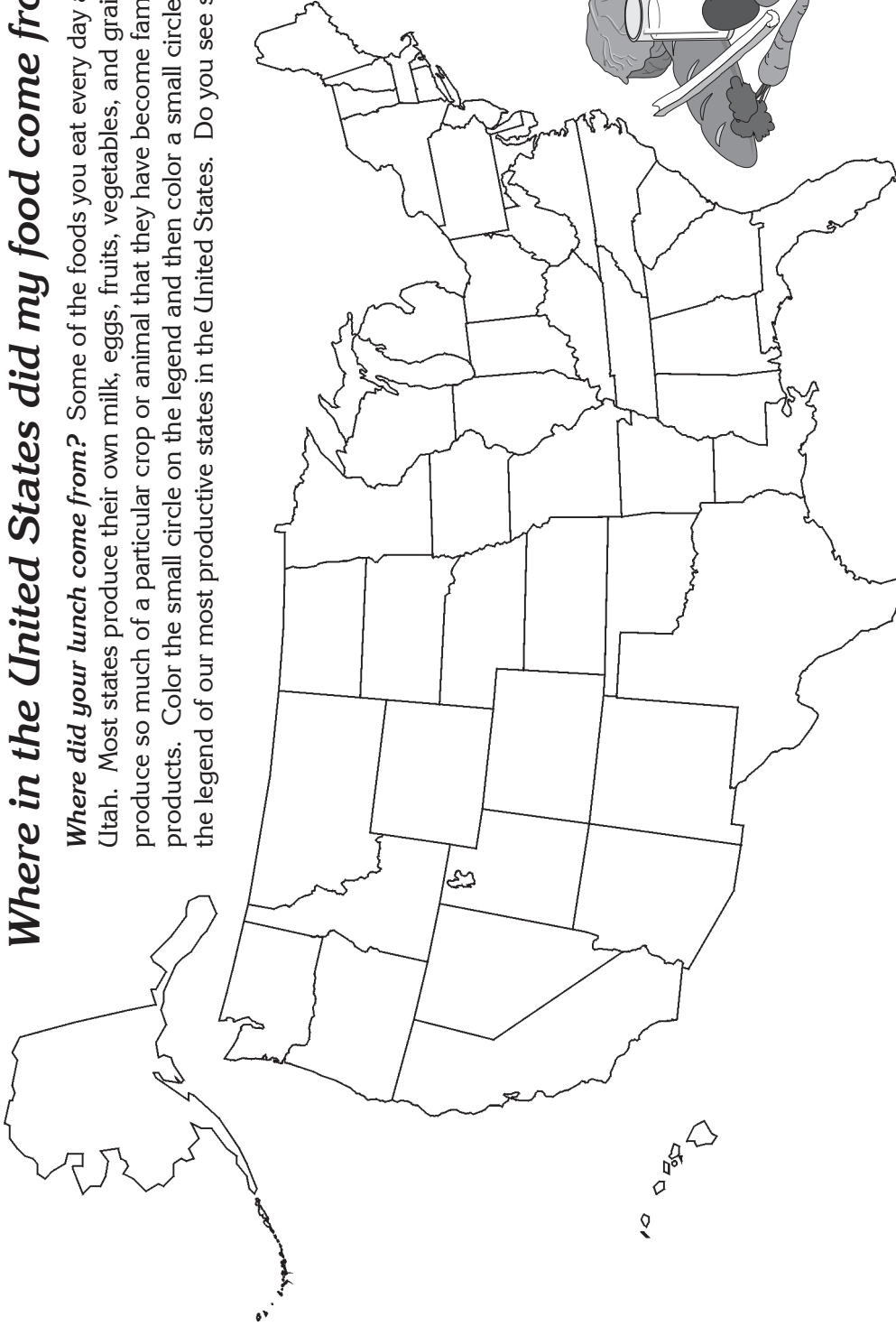
Dirt: Secrets in the Soil



# Utah Agricultural Products Map

## Where in the United States did my food come from?

**Where did your lunch come from?** Some of the foods you eat every day are produced here in Utah. Most states produce their own milk, eggs, fruits, vegetables, and grains. Some states produce so much of a particular crop or animal that they have become famous for their agricultural products. Color the small circle on the legend and then color a small circle on the map to match the legend of our most productive states in the United States. Do you see some regional patterns?



- Corn: Illinois, Iowa, Nebraska, Indiana, Minnesota, & Ohio.
- Dairy Products: Wisconsin, California, New York, Pennsylvania, & Minnesota.
- Beef: Texas, Nebraska, Kansas, Colorado, Iowa, Oklahoma, & California.
- Soybeans, major oil crop used in salad dressings and mayonnaise: Illinois, Iowa, Nebraska, Indiana, Minnesota, & Ohio.
- Pork: Iowa, Illinois, Minnesota, Nebraska, Indiana, North Carolina, & Missouri.
- Chickens: Arkansas, Georgia, Alabama, North Carolina, Mississippi, & Texas.
- Wheat: North Dakota, Kansas, Montana, Oklahoma, Washington, & Minnesota.
- Eggs: California, Georgia, Arkansas, Indiana, Pennsylvania & Texas.
- Potatoes: Idaho, Washington, California, North Dakota, Maine, & Wisconsin.
- Tomatoes: Florida, California, Virginia, Ohio, Georgia, & Michigan.