Activity

1. Give each student one *Minnesota Counties Map* (Resource A), one choropleth *Wheat in Minnesota Counties Map* (Resource B), one *Soybeans in Minnesota Counties Map* (Resource C).

2. Each student should receive a small handful of soybeans and wheat berries.

3. Using the *Wheat in Minnesota Counties Map* (Resource B), students should identify which counties have the highest percentage of their land used for wheat production. Have students glue wheat berries onto the blank, *Minnesota Counties Map* (Resource A).

4. Have students create a legend or key by gluing a wheat berry in a blank area on the map and write what it represents.

5. Repeat step 3 using the *Soybeans in Minnesota Counties Map* (Resource C), gluing the soybeans on the counties that have the highest percentage of their land used for soybean production. Also, add a soybean and description to the key that has been created on each student’s map.

6. Add additional features that all maps must have – TODALS – title, orientation, date, author, legend/key, scale

Classroom Connections

**Social Studies** – Students should strategize how the geography of Minnesota plays a role in certain farming practices.

- Describe the general terms and/or cardinal directions (north, south, east, and west) where wheat and soybeans are grown. Discuss why wheat and soybeans grow in specific regions of Minnesota.

- Look at the additional maps on the student *Food for Thought Desk Map*. Find and describe the regions where additional crops and livestock are grown (turkeys, hogs, milk cows and beef cows), consider how these correspond to regions with high crop production.

**Science** – Sow leftover soybean seeds in small pots filled with soil. Students can strategize the resources needed for the plant to grow (light, water, soil, air). As the seeds germinate and grow, have students keep track of the plants’ development.

Academic Standards

**Minnesota Social Studies Standards and Benchmarks**

4.3.1.1.1 Create and use various kinds of maps, including overlaying thematic maps, of places in the US and also Canada or Mexico; incorporate the TODALS map basics as well as points, lines and colored areas to display spatial information.

4.3.4.10.2 Analyze the impact of geographic factors on the development of modern agricultural regions in Minnesota and the United States

**National Agricultural Literacy Outcomes**

Explain how the interaction of the sun, soil, water and weather in plant and animal growth impact agricultural production

Additional Resources

For additional maps and activities to connect Minnesota geography with agriculture, order the *Food for Thought Desk Map* from our Minnesota Ag in the Classroom website at www.mda.state.mn.us/kids/food4thought.aspx

Concept and content for this Agventure is adapted from California Agriculture in the Classroom.
Minnesota Counties
Wheat in Minnesota Counties (2012)

Wheat as percentage*

- <1% - 10%
- 11% - 20%
- 21% - 30%
- 31% - 41%
- No Data Reported

*Wheat acres harvested for grain divided by acres of harvested cropland
Soybeans in Minnesota Counties (2012)

Map produced by: Minnesota Department of Agriculture
Data Source: U.S. Dept. of Agriculture - 2012 Census of Agriculture

Soybeans as percentage*

- <1% - 5%
- 6% - 20%
- 21% - 40%
- 41% - 48%
- No Data Reported

*Soybean acres harvested divided by acres of harvested cropland