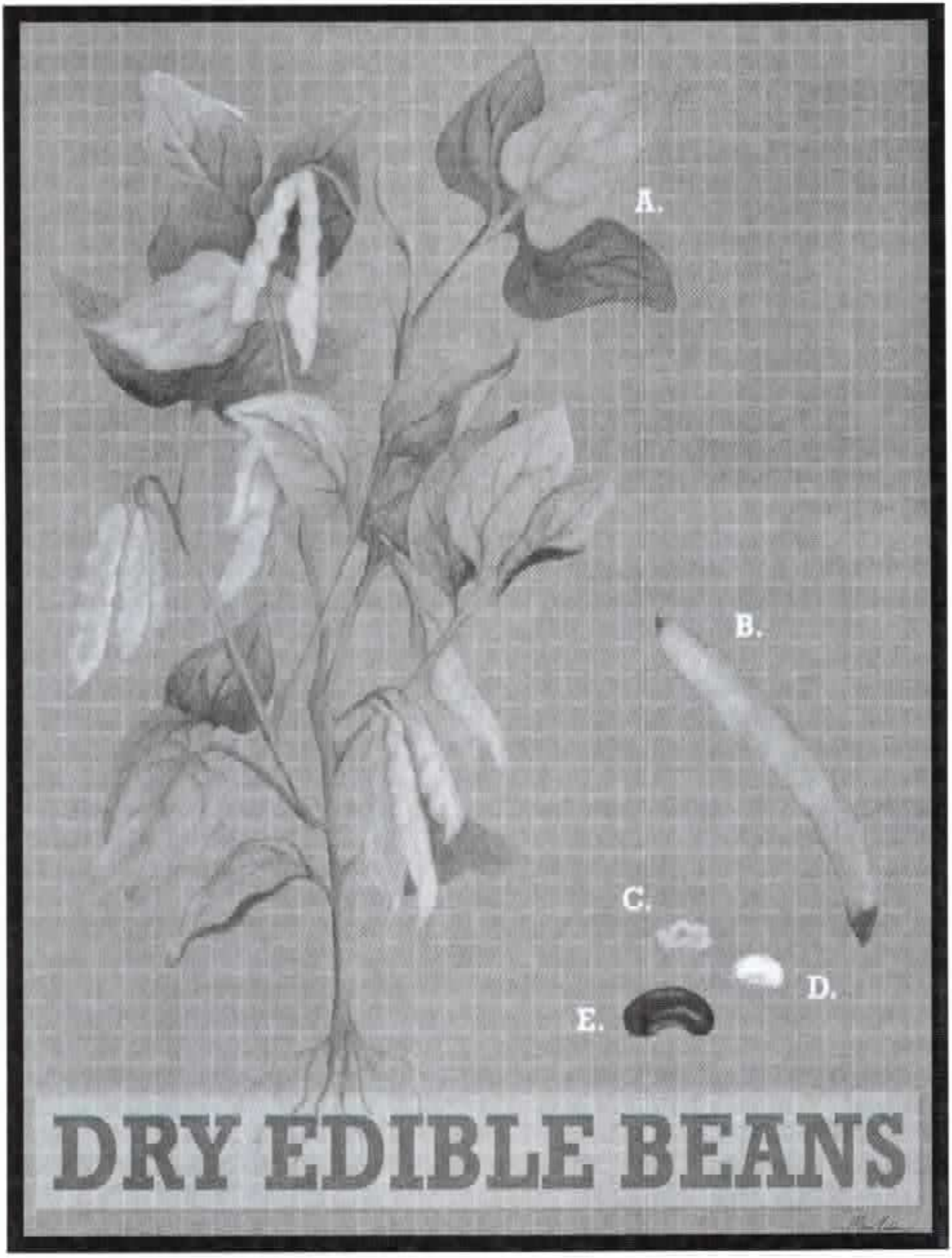
A.
B.
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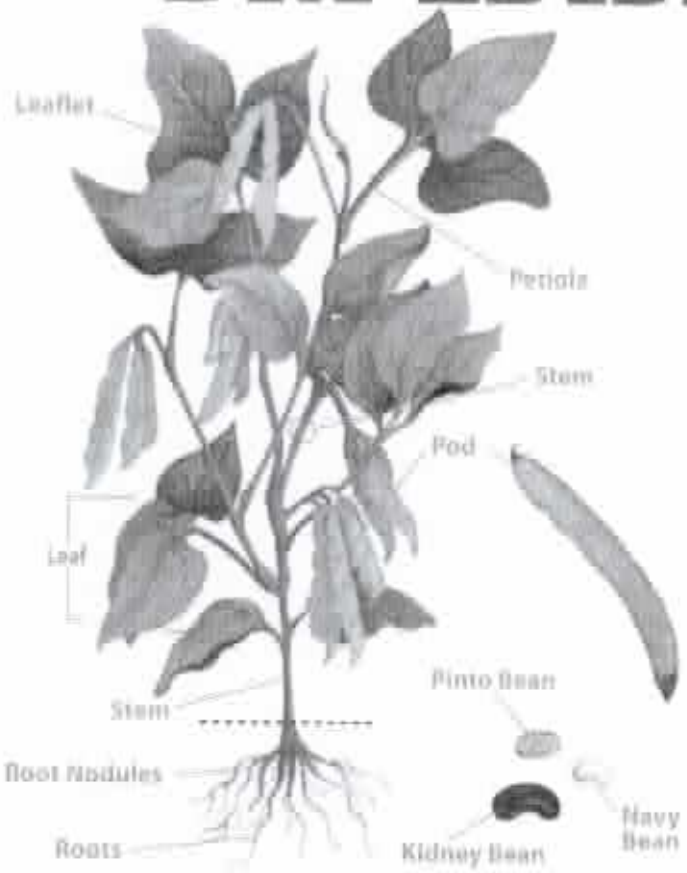
DRY EDIBLE BEANS

DRY EDIBLE BEANS



Top 10 Minnesota Counties Producing Dry Edible Beans in 2007:
Polk, Marshall, Otter Tail, Hubbard, Renville, Kittson, Norman, Chippewa, Mahnomen and Kandiyohi

On The Front

A. Mature Plant

Dry edible beans are herbaceous plants that either grow upright like a bush or are viny. The more upright the plant, the more resistant it is to diseases. The plants typically grow 18 to 24 inches tall.

B. Bean Pod

The bean seed grows in a bivalve pod called a legume.

C. Pinto Bean

Pinto beans are various shades of brown and tan. Much of Minnesota's production is in the western portion of the state, the soil rich Red River Valley area. Pinto beans are commonly used in Mexican dishes, such as refried beans.

D. Navy Bean

Navy beans are small, round, white, more pea-shaped beans. Navy beans are mostly canned as ready-to-use products or for use as an ingredient in other dishes.

E. Red Kidney Bean

The red kidney bean is large and kidney-shaped. These beans are often used in chili and are commonly sold at grocery stores.

Dry Edible Beans

Dry edible beans were discovered by Christopher Columbus in Cuba during the Sixteenth Century. He took them back to Europe, where they were considered to be a special delicacy. Today we use them because they are an excellent source of protein, fiber and energy. The dry edible bean plant is a legume that has the ability to use soil bacteria to pull nitrogen from the air and use it for its growth. This is important for growing crops and maintaining soil quality.

Planting

Depending on current market demands. Minnesota producers may grow a variety of edible beans. In 2007 Minnesota ranked third nationally in production. The beans are planted in May to mid-June, after danger of frost has passed. Bright, sunny days help develop bean color that is visually more appealing to consumers.

A machine called a planter is used to place the seeds into the soil. The seeds are pushed into the ground about 1.5 to 2 inches deep depending on the moisture in the soil.

Harvest

It takes approximately 90 to 105 days for the bean plants to mature. Harvest starts in August, when the plants are dry and the leaves start to fall off of the plants. The bean stems are cut just below the soil surface with a special attachment called a knife and placed into piles called windrows. The best time to cut the bean stem is before dawn, when there is dew on the plants. This prevents the pods from breaking open and spilling the beans on the ground. After four to five days or when the windrows have dried thoroughly, the bean plants are picked up with a machine called a combine and the beans are removed from the pods.

Dry edible bean producers make adjustments to their combines to protect the beans from being damaged. Damaged, split or broken beans are not acceptable to canners or packagers.

Processing

Beans are brought to a processing station where they are cleaned and sorted for size. Keeping the beans clean is very important because these beans are used for human food.

Half of the dry edible bean crop grown in the United States each year is sold to other countries. Great Norterns go to France, Greece and Northern Africa; pintos are shipped to Mexico and Spain. Cuba is becoming an established market for Minnesota dry beans, as they must import a majority of their dry beans.

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DRY EDIBLE BEANS

1. Using the box provided, draw dry edible beans.

2. Who discovered dry edible beans?

3. Why do we use dry edible beans?

4. Using your map of Minnesota counties, create a symbol for dry edible beans and mark the top 10 counties where dry edible beans were produced in 2007.