

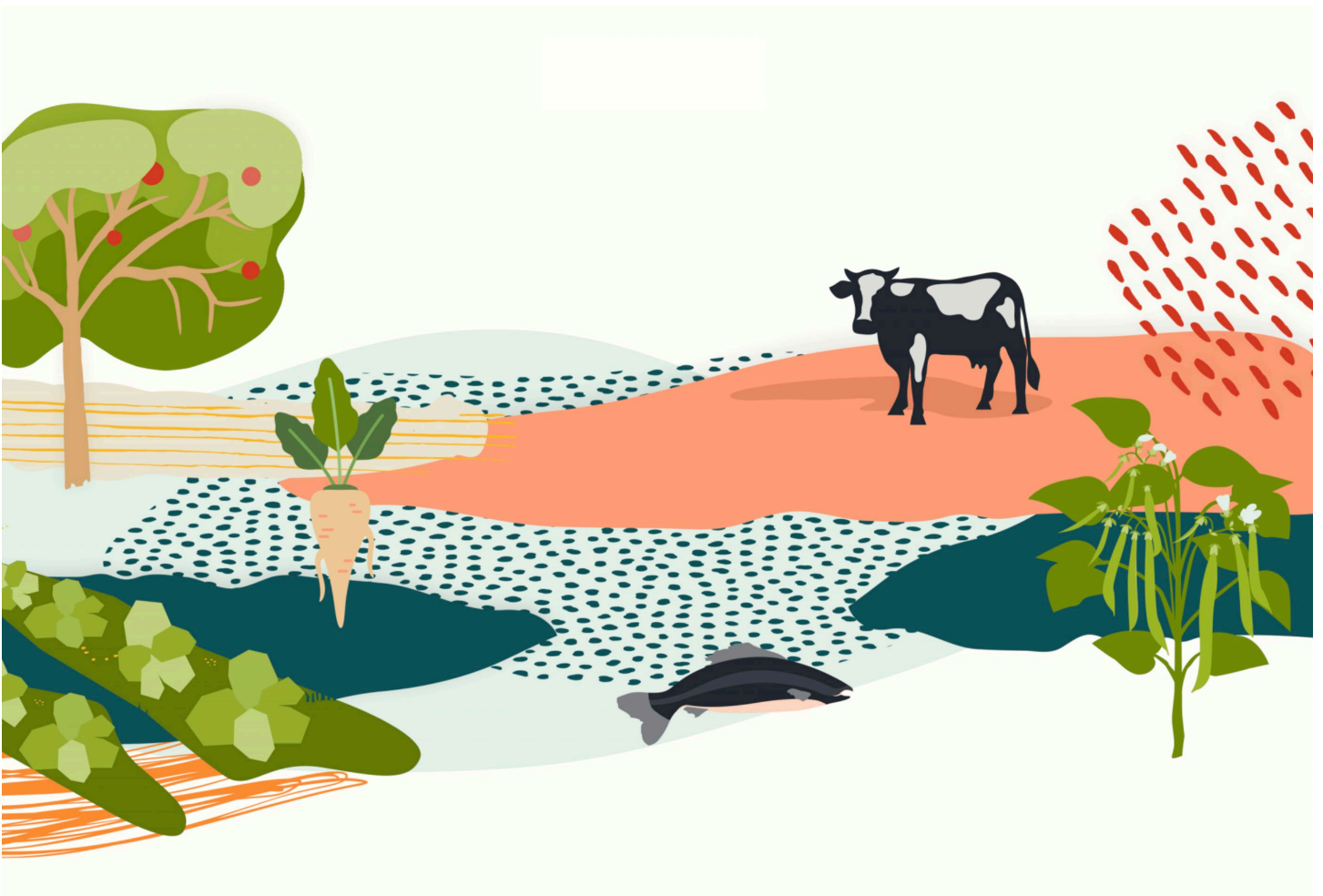


Red Kidney Beans - INSTRUCTOR GUIDE

Elementary School – Middle School – High School

Table of Contents:

1. Background
2. Bean Discovery Instructor Guide
3. Bean Discovery Student Activity Sheet
4. Chippewa Valley Bean Video Instructor Guide
5. Chippewa Valley Bean Video Student Worksheet





BACKGROUND

Wisconsin Farm Technology Days 2021–Eau Claire was hosted on Huntsinger Farms July 20 - 22, 2021. Innovation Square and the Farm Tours featured six innovative farms that are producing food for Wisconsin, the Nation and beyond using the latest farming practices and technology to position their farms for the future with sustainability, yield, quality, and taste in mind.

Our continuing mission is to educate the general public about the changing face of agriculture and to **inspire and educate youth** about the many different exciting careers associated with agriculture. The all-volunteer Executive Committee commissioned a new online resource to bring the farms from Innovation Square and the Farm Tours to the people of Wisconsin who could not attend the show.

These farms are: Chippewa Valley Bean/Doane Farm, the largest processor of red kidney beans in the world; Ferguson's Orchards, the largest producer of apples between the Rocky Mountains and Lake Michigan, Huntsinger Farms/Silver Spring Foods, the largest grower and processor of horseradish in the world, Marieke Gouda/Pentermann Farm, the award-winning farmstead Gouda cheese company, Nellie's Holsteins, a recently expanded and modernized 5th-generation dairy, and Superior Fresh, the largest aquaponic – hydroponic farm in the world.

The website is <https://chippewavalleyfarming.com>.

In addition, agriculture educators at Chippewa Valley Technical School and Holmen High School developed a full suite of educational materials for Elementary, Middle School and High School youth to be used alongside the videos and background featured on the website free of charge to all educators.

All the instructor guides and student work sheets are available as downloadable Word documents on the website (<https://chippewavalleyfarming.com/education/>) so that teachers can edit them to fit their curricula. We hope your students of all ages will enjoy learning about farming different crops, herds and fish in the Chippewa Valley and be inspired to learn more about agriculture as a hobby or career.



Chippewa Valley Bean – Red Kidney Beans

Instructor Guide

Elementary School – Middle School – High School

Professional Video, Background, Overview and Activities at
<https://chippewavalleyfarming.com/chippewa-valley-bean/>

ELEMENTARY SCHOOL LEVEL

Objectives:

I will be able to identify a dark red kidney bean.

I will be able to connect my own food consumption to what we are learning in class.

I will be able to explain different varieties of beans.

Interest Approach

1. Purchase and set out several types of beans at the front of the classroom. Bagged and canned options are ideal. Ideas are
 - a. Kidney beans
 - b. Pinto beans
 - c. Garbanzo beans
 - d. Black beans
 - e. Lima beans
 - f. Soybeans
 - g. Etc.

2. Ask students which beans they have ever consumed or even seen out of the beans laid out.

3. Allow discussion for which meals they eat include beans, which recipes they are in, etc.
 - a. Chili
 - b. Hotdish
 - c. Etc.



Pre- Activity

1. Move your beans to different stations throughout your room. Number of stations will depend on the number of products you have. Label these stations with numbers on a post it note.
2. Give each student a “bean discovery” sheet.
3. Each student will need a set of coloring tools, colored pencils or crayons will work best.
4. Read the following verbal directions. “You will take your “bean discovery” sheet and your coloring tools to each station to discover the different types of beans. Once you are at a station, write down the type of bean i.e. “lima bean,” colors of the bean, and then draw a replica of the bean. Try to use the same color, size, and texture to make your drawing as realistic as possible. Once you are done at that station, move to the next. Once you have gone to each station, go back to your seat.”

Video

1. Print off and pass out the video sheet.
2. Read out loud the questions on the video sheet.
3. Play video.
4. Discuss the video including the questions asked on the answer sheet. Answer any other questions or comments students may have.



MIDDLE SCHOOL LEVEL ACTIVITY

Purpose

This activity dives deeper into extension #3 of using a wet paper towel as growing media to grow a bean.

Objectives

I will be able to grow a plant from seed to germination.

I will be able to explain the difference between a monocot and dicot plant.

I will be able to observe a living and growing plant.

Directions

1. Each student will need the following materials
 - a. Plastic bag
 - b. 5 dark red kidney beans
 - c. Paper towel
 - d. Access to water
2. After students obtain a-d they should place their 5 beans spread out on their folded and damp paper towel. Place the beans on the towel into the plastic bag and close almost all the way. Keep these beans somewhere room temperature to germinate.
3. Days later- once some beans have begun to germinate- observe the beans and discuss what they see.
4. Explain that not all seeds have two parts of them (cotyledons) like beans do.
5. Define monocot and dicot
 - a. Monocot: a class of plants that only has one cotyledon
 - b. Dicot: a class of plants that have two cotyledons
6. Show dicot vs monocot video. <https://www.youtube.com/watch?v=gl2RxzAT-ww>



7. Have students create a list of 5-8 plants they eat and together as a class research and determine if that plant would be a monocot or a dicot. Use the following collection chart to gather your information.

Plant Name

Circle the characteristics which apply to your plant.

Cotyledons	1	2
Veins	Parallel	Netlike
Vascular bundles	Spread out	Arranged in a ring
Root	Fibrous	Taproot
Flower petals	Usually in multiples of 3	Usually in multiples of 4-5
	Monocot	Dicot



HIGH SCHOOL LEVEL ACTIVITY

Purpose

Using only their own knowledge (no internet) students create a recipe that includes dark red kidney beans but is out of the norm to include this product in. For example, Dark Red Kidney bean ice cream, not chilli which is a rather normal dish that the beans go into.

Objectives

I will be able to create a unique recipe which includes dark red kidney beans.

I will be able to think for myself and with my classmates to create something new.

I will work with my peers to use our time effectively.

I will keep an open mind as we do not use technology to create our recipe.

Directions

1. Students should work in groups (3 groups total depending on class size) and use this “New dish creation sheet” to create their new dish.
2. Instructor will need to approve or disapprove the “new” dish, to be sure they are reaching out of the normal comfort zone of beans in dishes while still being semi realistic.
3. Instructor will then go to purchase the materials needed to complete the dishes or if time doesn't allow in class, the instructor can make the dishes at home and bring them in for the class to sample.
4. Create the dishes and determine which dish would be the most suitable to be advertised to consumers to use in their next meal.



New Dark Red Kidney Bean Dish Creation Sheet

Our new dishe's name	
Ingredients and measurements	
What makes this dish unique?	
Why will consumers start adding dark red kidney beans to this dish?	



How can dark red kidney bean growers like Chippewa Valley Bean market this new product to the consumer?



Conclusion and or extensions

1. Give students a piece of cardboard where they create their own giant kidney beans by cutting them out to a 2D shape and coloring them in. Have students write 3 facts about kidney beans on their work and hang them up in the classroom or in the hallway.
2. Make a [recipe](#) that includes dark red kidney beans in class.
3. Using a wet paper towel, zipper bag, and a bean, germinate the beans.
4. Compare and contrast the nutritional label of several different types of beans.



BEAN DISCOVERY

NAME: _____

Direction: use this sheet and your coloring tools to illustrate the different types of beans we have around the room. Once you have drawn and colored in the bean at your current station, move to another station.

Station	Name of bean	Color	Drawing
1			
2			
3			
4			
5			
6			



Chippewa Valley Bean Video Worksheet

INSTRUCTOR COPY

Follow along with this video as we learn about Chippewa Valley Bean and dark red kidney beans.

1. What percent of the world's dark red kidney beans are supplied by Chippewa Valley Bean?

50% +

2. What year did they start growing dark red kidney beans?

1969

3. What does a “perfect” kidney bean look like?

Nice maroon colored, attractive to the eye, cans really well

4. How many days does it take to grow a crop of beans?

93-95 days

5. What do they celebrate for all the employees at Chippewa Valley Bean?

Their birthday



NAME: _____

Chippewa Valley Bean Video Worksheet

Follow along with this video as we learn about Chippewa Valley Bean and dark red kidney beans.

1. What percent of the world's dark red kidney beans are supplied by Chippewa Valley Bean?
2. What year did they start growing dark red kidney beans?
3. What does a “perfect” kidney bean look like?
4. How many days does it take to grow a crop of beans?
5. What do they celebrate for all the employees at Chippewa Valley Bean?