

In celebration of the United Nations declaring 2016 The Year of Pulses, Manitoba Pulse and Soybean Growers and Agriculture in the Classroom – MB have created some curriculum linked resources that we invite you to use in your classroom.

Teacher Background Information

What Are Pulses and Why Are They Important?

Pulses are the group of crops that includes dry beans, dry peas, chickpeas, and lentils. They are high in protein, fibre and various minerals and vitamins. Pulses have been the cornerstone of global nutrition for centuries. They are very popular in the diets of people living in developing countries, but are increasingly becoming recognized as an excellent part of a healthy diet across the world.

Pulses are one of the most environmentally-friendly sources of protein that a farmer can grow. They require less energy and water than many other crops and produce fewer greenhouse gases. Pulses also have the added advantage of improving soil quality by fixing nitrogen back into the soil they grow in.

As a steady source of nutrition and soil sustainability, pulse crops play a major role in our global food security, a role which will only grow in the future. Whenever you or your students eat products made from pulses you are making a choice that is good for the environment.

International Year of Pulses

The United Nations has declared 2016 as the International Year of Pulses (IYP).

IYP will be marked in over 30 countries and celebrated through hundreds of initiatives across the world. It is an opportunity to raise global awareness and to celebrate the role that beans, chickpeas, lentils and other pulses play in feeding the world. Even more importantly, it will provide a moment in time to focus on the role that pulses play in advancing health and nutrition, food security and environmental sustainability.

Introduction to Pulses Student Material

Introduction to pulses materials

1. What are Pulses student reading sheet
2. Kid Bean Checks Your Understanding
3. Appendix A – Pulse Word Search

These first introductory resources are to:

- help introduce pulses and the International Year of Pulses 2016 to your students
- provide background knowledge before completing other Pulse lessons

Hello! I'm Kid (short for Kidney) Bean and I'm "Peas"ed to meet you!

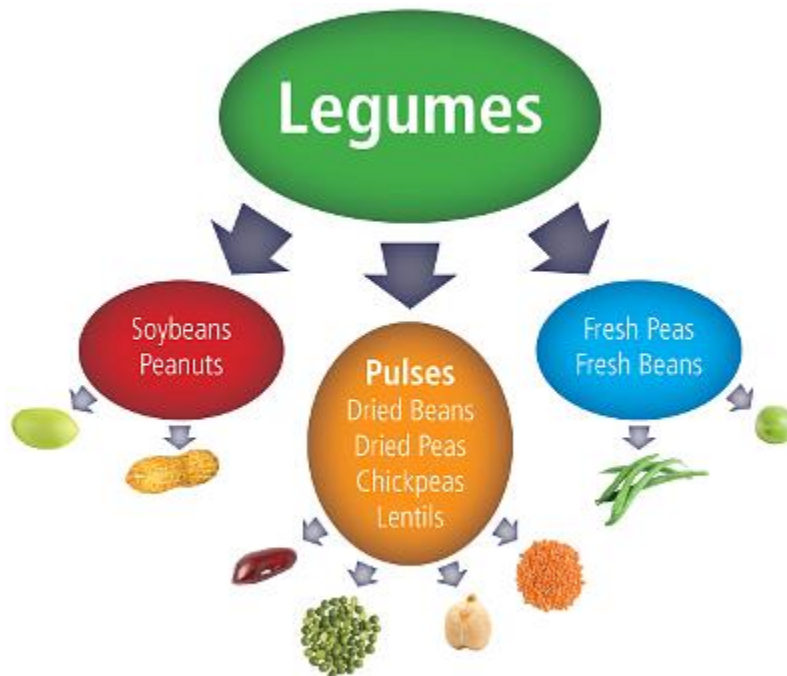
Have you ever had peas or beans for supper? Did they come in a shell that you cracked open to find the seed inside? Or did you just eat the whole thing, shells and seeds in one bite! Peas and beans are part of the legume family. Any seed that comes in a pod or a shell is a legume.

I want to tell you about some very special members of the legume family called pulses. We are so special that the United Nations has made 2016 the International Year of Pulses!



I'm so excited!

What are Pulses?



The legume family

Pulses are the tasty dry seeds from plants called grain legumes. Some examples of pulses are:

- chickpeas
- lentils
- dry beans
- dry peas

Maybe you have seen some of us! We are quite a colorful group! Can you recognize any of the following pulses?



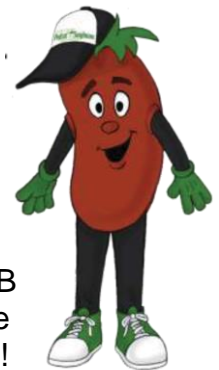
Crops left to right: brown lentils, field peas, yellow peas, kidney beans, white peas, lentils, chickpeas

When grown by farmers for sale, we are called a crop – Pulse Crops! Canadian farmers are growing more pulse crops every year. Canadian pulses are sold to countries all over the world to be eaten as an important and tasty part of people’s diets.

The Benefits of Pulses

Besides being tasty ... there are other benefits to growing and eating us!

1. Pulses are Nutritious – We are good for you to eat! We have lots of fibre and protein to give you energy and to fuel your body. We also have minerals like iron, potassium, magnesium and zinc and plenty of B vitamins. Plus we are low in fat. There are lots of recipes that use pulse crops – such as hummus and chilli – or you can eat us all by ourselves!
2. Pulses are Good for the Environment – We don’t need as much care as other crops. We are pretty tough and can withstand more heat or dryness than most other crops so we need less water. But best of all we have nodules or bumps on our roots which we provide as a home for a special good soil bacteria. In turn this bacteria takes nitrogen, an important plant nutrient we need to grow strong and healthy, from the air and gives it to us. Because bacteria and I have this special friendship, bacteria gets a home and we get nitrogen fertilizer – yum! Our friendship helps farmers too. Farmers don’t need to buy and spread nitrogen fertilizer on us so they can save some money when they grow us.
3. Pulses Help Other Crops – We actually add important nutrients to the soil that other crops need to grow. Crops that grow in the same area after us can grow big and healthy thanks to us!



Kid Bean Checks Your Understanding

1. What are pulses?

2. Name 4 different pulses?

3. Why are pulses nutritious?

4. Describe how soil bacteria and pulses help each other.

5. How do pulses help other crops?

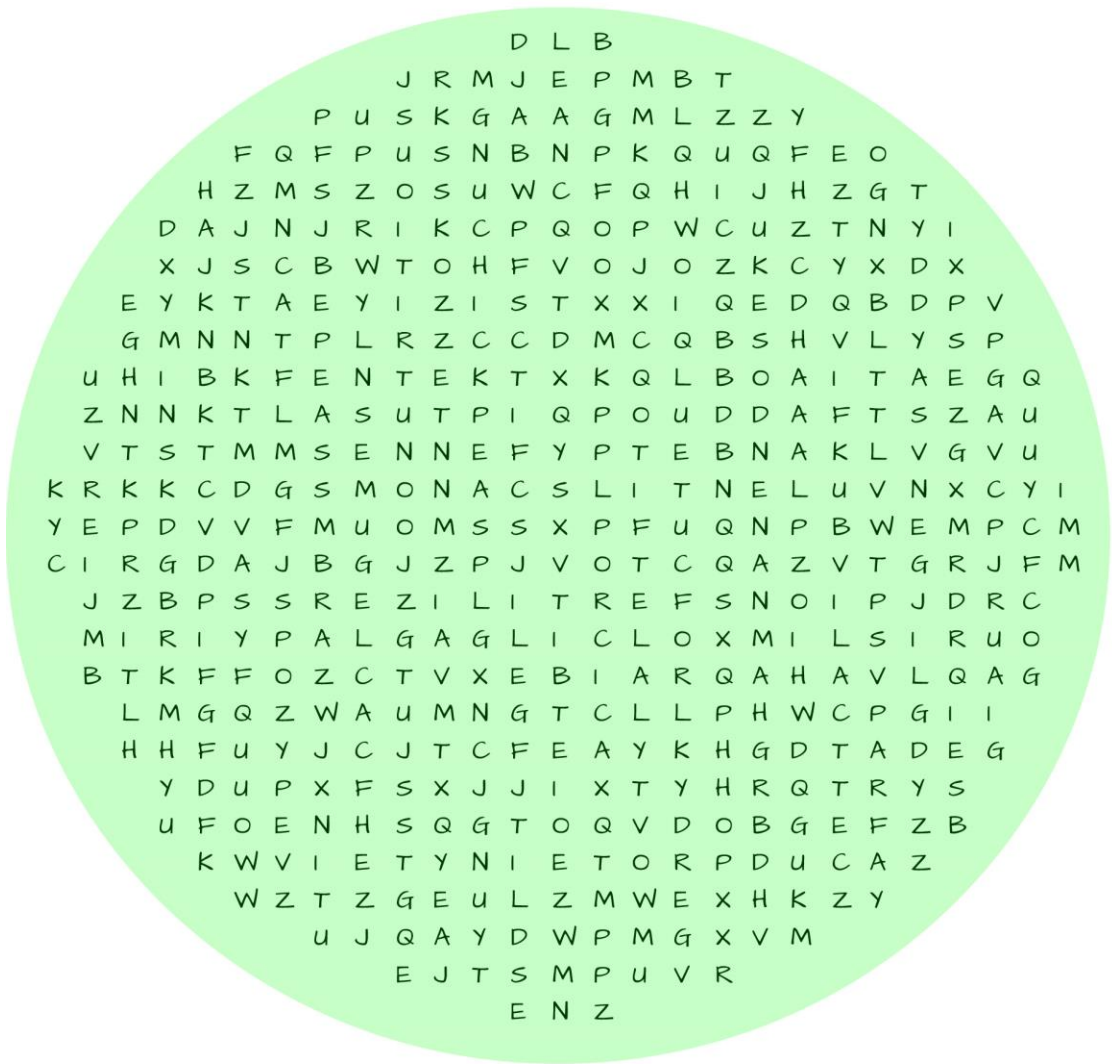
6. Why is Kid Bean so excited about 2016?



Appendix A

Find all of the keywords in the word search below.

Pulse Crops



- PULSE
- CROP
- FIBRE
- PROTEIN
- NUTRIENTS
- LEGUMES
- PEAS
- BEANS
- CHICKPEAS
- LENTILS
- FERTILIZERS
- NUTRITIOUS