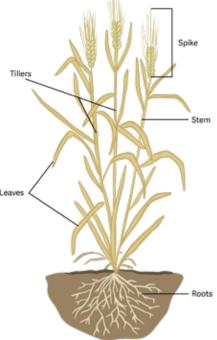
Foundations of M A N I T O B A AGRICULTURE

Photo credit: Manitoba Crop Alliance

THE MIGHTY WHEAT KERNEL

The kernel is the seed of the wheat. Each tiny wheat kernel is made up of three parts. The **endosperm** is about 83% of the kernel weight and is where white flour comes from. The **bran** is about 14.5% of the kernel weight and is included in whole wheat flour. The bran contains lots of vitamins and minerals, which is why whole wheat flour is healthier than white flour. The **germ** is about 2.5% of the kernel weight. The germ is often removed during processing because it contains fat and can decrease the shelf life of flour.





Wheat is the most widely grown crop in the world!

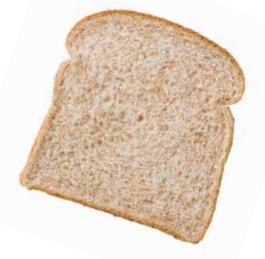
DID YOU KNOW?

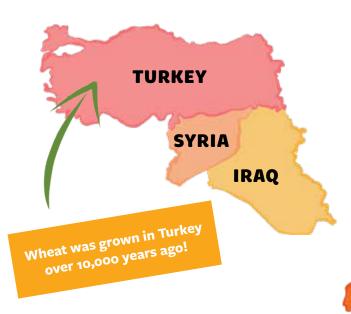
Not all brown bread is whole wheat! A brown colour may reflect caramel colouring, which will be listed on the label.



A SEED BEGINS TO GROW

Germination begins when the wheat seed begins to absorb water. The resulting seedling usually emerges above the soil about seven days after germination.





PAVING THE WAY FOR THE FUTURE

When people first started to **cultivate** (grow) wheat, they no longer needed to wander in search of food, which allowed them to develop permanent settlements.



WHAT IS WHEAT USED FOR?

Wheat is most commonly used to make flour, which is then used to make many different food products, such as bread, pasta, baked goods, candies, and so much more! But wheat is also used to make non-food items such as:

> Concrete Paper products Cosmetics

Soaps Shampoos Plastic bags



TYPES OF WHEAT

In Canada, the type of wheat most often grown is **bread wheat**, which is classified as either hard or soft. Hard wheat is used for making bakery flours, bread flours, and all-purpose flours. Soft wheat is usually milled into cake and pastry flours. **Durum wheat** is sometimes also grown and milled into flours for making Indian flatbread, macaroni, and other pastas.

HIGH TECH FARMING

GPS and other modern technologies help wheat farmers optimize use of seed, fertilizer and crop protection products.



