# RICE



## Did You Know?

- Nearly 85% of the rice we eat in the USA is grown by American farmers.
- Rice is grown in over 100 countries and on every continent except Antarctica.
- There are more than 40,000 different varieties of rice.
- Rice is the main food for half the people in the world

# What Is Rice?

- Rice is a grain which may also be called a cereal grain. Cereal grains are the edible seeds of specific plants such as oats, corn, and wheat.
- Rice was grown by early American colonists as a major crop in 1700.

## Texas Rice Production

- Commercial production of rice began in Texas in the 1880's
- Rice is grown in the upper Gulf Coast area of Southeast Texas.
- Texas is ranked 6th for rice production in the U.S.
- In 2016, 193,000 acres of rice was grown in Texas.

# Growing Rice

#### There are 5 steps to growing rice:

#### 1. Field Preparation:

GPS or laser guided equiptment are used to make sure the field is level

#### 2. Flooding and Seeding:

The field will be flooded 5 in. deep. The seed will be placed in water and dropped from the air from a plane

#### 3. Rice Grows and Matures

Rice can reach 3 ft. and grows in 5 in. of water throughout the 4-5 months it takes to mature.

#### 4. Harvest

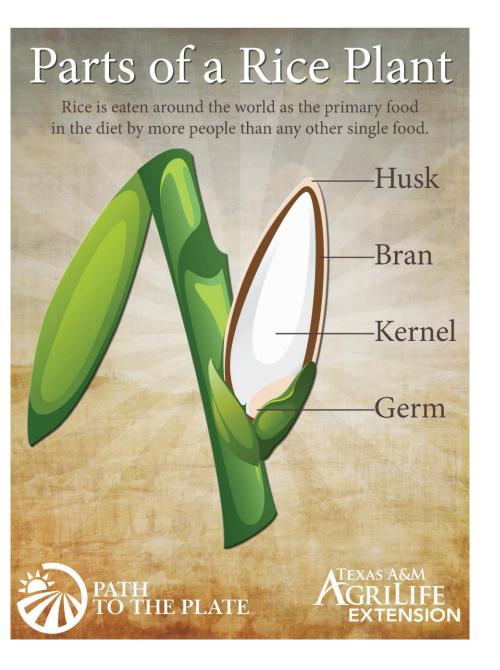
In late summer, grain heads will be ready to harvest. The fields will need to be drained to alow the rice to dry.

#### 5. Milling and Storage

At the mill, the hull is remover first leaving brown rice. White rice is the result of gently removing the bran layers to lean the inner pearly grain.

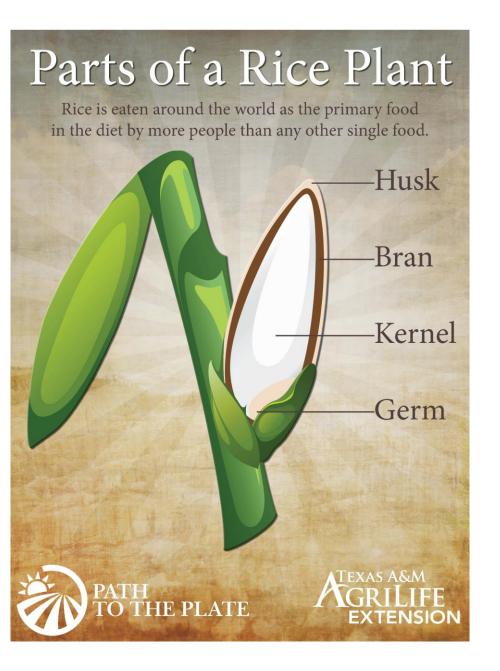


Photo by Ryo Yoshitake on Unsplash



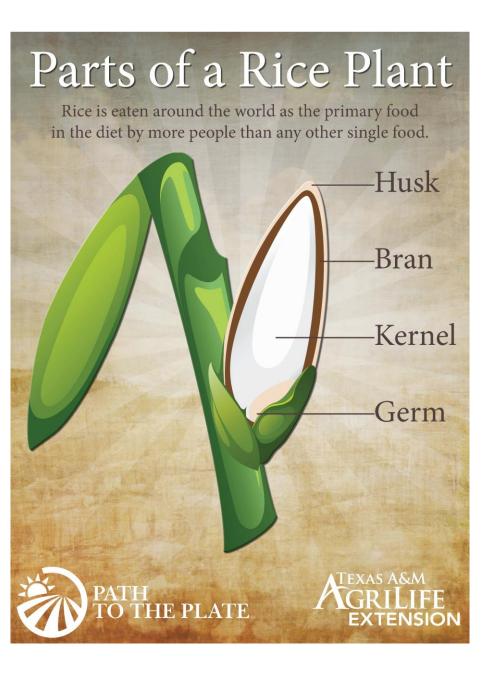
### **HUSK** -

Rice grains are enclosed in a tough hull, or husk, which must be removed. Underneath is the nutritious whole grain which may be brown, reddish, or black depending on the color of the bran layers. All rice can be eaten at this stage which is 100% whole grain, but most is processed further. Whole grain rice is sometimes called brown rice.



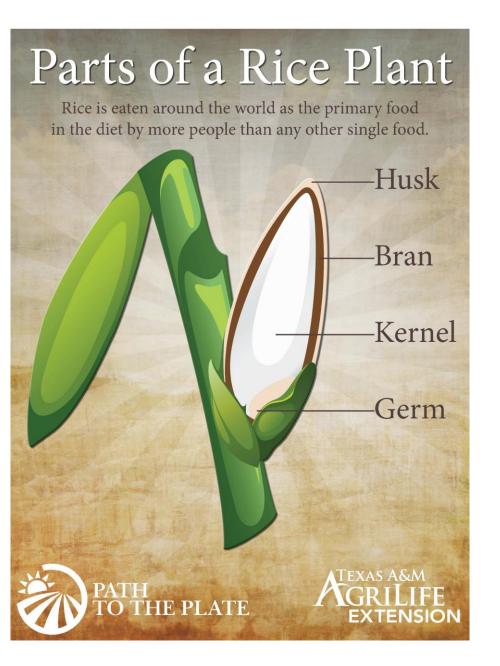
### **BRAN** –

The bran is the multilayered outer skin of the edible rice grain. It contains important antioxidants, B vitamins and fiber.



### GERM -

The germ is the embryo which has the potential to sprout into a new plant. It contains many B vitamins, some protein, minerals, and healthy fats.



#### **ENDOSPERM** –

The endosperm is the germ's food supply, which provides essential energy to the young plant so it can send roots down for water and nutrients, and send sprouts up for sunlight's photosynthesizing power. The endosperm is by far the largest portion of the rice grain. It contains starchy carbohydrates, proteins and small amounts of vitamins and minerals.

## Rice Nutrition

- Rice is an important source of complex carbohydrates to fuel the body and a staple food for more than two-thirds of the world's population.
- It has no fat, cholesterol, or sodium.
- It is non-allergenic and gluten free.
- MyPlate is a guide to healthy eating and includes grains. In fact, foods made from wheat, rice, oats, cornmeal, barley or other cereal grain is a grain product.

### HEALTH CONNECTION

# NUTRITION FACTS LABEL

Serving Size:

1/2 Cup Cooked Brown Rice

Amount per serving Calories

120

	% Daily Value*
Total Fat 1g	1%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 0mg	0%
Total Carbohydrate 26g	9%
Dietary Fiber 2g	7%
Total Sugars 0g	
Includes 0g Added Sug	ars 0%

#### Protein 3g

Vitamin D 0mcg	0%
Calcium 3mg	0%
Iron 1mg	6%
Potassium 87mg	2%

\*The % Daily Value tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Calories per gram:

Fat 9 • Carbohydrate 4 • Protein 4



- Rice provides carbohydrate.
- Rice is packed with vitamins and minerals such as thiamin, riboflavin, niacin, phosphorus, iron, and potassium.
- Rice is an excellent source of amino acids.
- Brown and white rice is low in fat.
- Brown rice is a good source of fiber.

 According to MyPlate, at least one-fourth of the plate should be grains, specifically whole grains. At least ½ of our servings of grains should be whole grain. For boys and girls in the 9-13 year range, you would need 5-6 ounces of grains each day. A serving, which counts as an ounce equivalent, would include 1 slice of bread, 1 cup of ready-to-eat cereal, or ½ cup cooked rice, pasta, or cooked cereal. Remember, ½ of those servings need to be whole grain!





# Examples of Whole Grains

- Brown Rice
- Whole Wheat Bread
- Whole Wheat Pasta
- Cereal
- Oatmeal

# Are All Grain Foods Considered Whole Grain?

- No. For example, white rice has been milled to remove the bran and germ layers. Many of the vitamins and minerals are lost in the process and are added back in so that is why it is called enriched.
- Enriched grains can provide essential B vitamins, but the best grain foods are whole grains since they add fiber, protein, and more vitamins and minerals to the diet.

# Rice Can Be Used For More Than Just Food!

- Rice Bran Oil- high quality cooking oil
- Rice Flour- ground white or brown rice used to produce cereals and snacks
- Rice Hulls- used as mulch
- Rice Starch- used as a thickener in sauces and desserts
- Rice Syrup-is a natural sweetener
- Broken Rice- used for rice flour and pet foods

