FIELDS OF LEARNING
TEXAS WHEAT PRODUCERS BOARD

Uses of Wheat Guided Notes

Components & Byproducts of Wheat

- Gluten: _____
- Wheat Starch: _____
- Wheat Grain: _____
- Wheat Straw: _____
- Wheat Flour: _____
- Wheat Germ Oil: _____
- Wheat Byproducts: _____

Milling Process

- Wheat is _____ to remove dirt and debris.
- Kernels are _____ with water.
- Rollers _____ the kernels.
- The _____, _____ and _____ are separated when milling white flour.
- The _____ (or the whole kernel when milling whole wheat flour) is _____ into tiny particles until soft, smooth and consistent.
- Depending on the type of flour being made, additives and agents may be added after milling is complete to _____, _____ and/or _____ the flour.

Whole Wheat vs. Refined Flour

- Whole wheat flour uses the _____ wheat kernel.
- Refined flour uses only the _____.

Enirched vs. Fortified Flour

- Enriched flour has _____ and _____ added back after milling.
- Enrichment helps prevent _____ diseases.
- Fortified flour contains extra _____.
- Fortification helps reduce _____ birth defects.

Bleached vs. Unbleached Flour

- Bleached flour is whitened using _____.
- It is usually _____.
- Unbleached flour whitens _____ over time.

Types of Flour

- All Purpose Flour: _____
- Whole Wheat Flour: _____
- Bread Flour: _____
- Cake Flour: _____
- Pastry Flour: _____
- Self-Rising Flour: _____

FIELDS OF LEARNING
TEXAS WHEAT PRODUCERS BOARD

Uses of Wheat Guided Notes

- Semolina Flour: _____
- Type 00 Flour: _____

Feed & Forage

- The benefits of grazing wheat include _____, _____ and _____.
- About _____% of Texas wheat is grazed by livestock.
- Wheat used for grazing is called _____.
- Wheat used for forage and grazing is called _____.
- Another name of wheat sialge is _____.
- Silge is cut using a machine called a _____ or _____.
- Silage is cut _____ than wheat harvested for grain, usually in the _____ or _____.
- Silage is commonly fed in _____ and _____.
- If used for hay, wheat is cut with a _____ and then left to _____ for several days before being baled in _____ or _____.
- Wheat hay is most commoly fed to _____.
- Dry Rolling: _____
- Steam Rolling: _____
- Grinding: _____

Other Uses of Wheat

- Household/consumer products like _____
- Personal care products like _____
- Industrial/manufacturing products like _____
- Environmental/ag products such as _____

Other Notes:

FIELDS OF LEARNING
TEXAS WHEAT PRODUCERS BOARD

Uses of Wheat Guided Notes Answers

Components & Byproducts of Wheat

- Gluten: a protein found in wheat, barley, rye and triticale. It has binding properties and makes baked goods chewy.
- Wheat Starch: a carbohydrate made of sugar molecules. Starch is used as a thickening agent.
- Wheat Grain: the seed of the wheat plant, also known as the kernel. It can be ground into flour or used as animalfeed.
- Wheat Straw: the stalk of the wheat plant.
- Wheat Flour: the main product created from wheat. There are different kinds of wheat flour based on the intended use.
- Wheat Germ Oil: the oil from the germ in the wheat kernel. It is full of vitamin E to help the wheat plant grow.
- Wheat Byproducts: the leftover parts of wheat after is it processed or harvested.

Milling Process

- Wheat is cleaned to remove dirt and debris.
- Kernels are soaked with water.
- Rollers crack the kernels.
- The bran, endosperm and germ are separated when milling white flour.
- The endosperm (or the whole kernel when milling whole wheat flour) is ground into tiny particles until soft, smooth and consistent.
- Depending on the type of flour being made, additives and agents may be added after milling is complete to bleach, enrich and/or fortify the flour.

Whole Wheat vs. Refined Flour

- Whole wheat flour uses the entire wheat kernel.
- Refined flour uses only the endosperm.

Enirched vs. Fortified Flour

- Enriched flour has B vitamins and iron added back after milling.
- Enrichment helps prevent vitamin B deficiency diseases.
- Fortified flour contains extra folic acid.
- Fortification helps reduce neural tube birth defects.

Bleached vs. Unbleached Flour

- Bleached flour is whitened using chemicals.
- It is usually softer.
- Unbleached flour whitens naturally over time.

FIELDS OF LEARNING
TEXAS WHEAT PRODUCERS BOARD

Uses of Wheat Guided Notes Answers

Types of Flour

- All Purpose Flour: white flour blended from the endosperm of hard and/or soft wheats and can be used for any type of baked good. It is the most commonly used flour, especially for home baking.
- Whole Wheat Flour: milled from the bran, endosperm and germ of the wheat kernel. It can be used for any type of baked goods, and is often a replacement for all purpose flour. White whole wheat flour is also available in some stores.
- Bread Flour: a blend of hard, high-protein wheats with a high gluten content. It is best used for baguettes, sourdough, dinner rolls, bagels, pretzels, etc.
- Cake Flour: a fine-textured flour milled from soft wheat with low protein content. Cake flour is ideal for cakes, cupcakes, doughnuts, brownies, pancakes, etc.
- Pastry Flour: milled from soft wheat that has a fine texture for croissants, cookies, crackers, pies, tarts, cinnamon rolls, etc.
- Self-Rising Flour: all-purpose flour with added salt and leavening agents. It is used for quick breads, biscuits, scones, muffins, etc.
- Semolina Flour: made from coarsely milled Durum wheat and is most commonly used for pasta and couscous.
- Type 00 Flour: an Italian flour made from finely milled Durum wheat. The high gluten content is ideal for pizza dough, pasta, etc.

Feed & Forage

- The benefits of grazing wheat include reduced feed costs, improved soil health and weed control.
- About 20% of Texas wheat is grazed by livestock.
- Wheat used for grazing is called wheat pasture.
- Wheat used for forage and grazing is called dual purpose.
- Another name of wheat sialge is wheatlage.
- Silage is cut using a machine called a forage harvester or chopper.
- Silage is cut earlier than wheat harvested for grain, usually in the spring or early summer.
- Silage is commonly fed in feedyards and dairies.
- If used for hay, wheat is cut with a mower and then left to dry for several days before being baled in wrap or netting.
- Wheat hay is most commoly fed to beef cattle.
- Dry Rolling: dry wheat kernels are cracked by large rollers to expose the inner parts of the kernel and increase digestibility.
- Steam Rolling: wheat kernels are steamed and then cracked to expose the inner parts of the kernel and slow down the digestion of starch.
- Grinding: hammermills grind the wheat kernels into smaller particles than rolling or flaking.

FIELDS OF LEARNING
TEXAS WHEAT PRODUCERS BOARD

Uses of Wheat Guided Notes Answers

Other Uses of Wheat

- Household/consumer products like cat litter, laundry detergent, packing peanuts, etc.
- Personal care products like cosmetics, hair conditioner, sunscreen
- Industrial/manufacturing products like glue, insulation, roofing materials
- Environmental/ag products such as wastewater treatment