



Wheat Production Guided Notes

Key Vocabulary

- Acre: A unit of land measurement equal to _____. An acre is about the size of a _____.
- Yield: The amount of grain harvested per _____. Yield is measured in _____.
- Bushel: A unit used to measure _____. One bushel of wheat = _____ pounds.

Wheat Breeding & Research

- Wheat varieties are bred for traits such as _____, _____ and _____.
- There are only _____ classes of wheat, but _____ of different varieties.

Variety Selection

- Farmers select _____ to plant to maximize yield potential and reduce pest and disease risk.
- Farmers choose which variety to plant based on factors, such as _____, _____, _____, _____.

Planting

- Wheat is planted using a _____.
- A grain drill helps seeds get planted at the same _____ and _____.
- Winter wheat is planted in the _____.
- Spring wheat is planted in the _____.
- Farmers try to plant when there is enough _____ in the soil.

Growth

- Farmers monitor wheat plants for signs of _____.
- Signs of distress could look like _____, _____, _____ or _____.
- Wheat that is not irrigated is called _____.

Timeline of Winter Wheat

- Germination & Emergence: Seed sprouts and appears above soil about _____ weeks after planting.
- Tillering: The plant grows extra _____ from the main stem.
- Dormancy: Growth above ground stops when temperatures fall below _____ °F.
- Regrowth: Growth starts again when temperatures _____.
- Reproductive Stages: Wheat heads, flowers and the grain _____.
- Maturation & Harvest: Kernels _____ before harvest.

Inputs

- Fertilizer provides macronutrients like _____, _____ and _____.



Wheat Production Guided Notes

- Pesticides are rigorously tested for _____ and protect the plant from harmful pests.
- Herbicides: _____
- Insecticides: _____
- Fungicides: _____
- Farmers only apply what is _____ necessary.
- The wheat kernel is protected by the _____, so no inputs touch the wheat kernel.

Harvest

- Wheat is harvested using a _____.
- Reaping: _____
- Threshing: _____
- Winnowing: _____
- Winter wheat is harvested in the _____.
- Spring wheat is harvested in the _____.

Storage

- Wheat is stored in an _____. Elevators are large storage facilities made of _____ or _____ and can store grain for a long time while preserving the grain quality.
- At the elevator, the grain is _____, _____ and _____.
- Test Weight: _____
- Protein: _____
- Moisture: _____

Transportation & Export

- Wheat is moved by _____, _____ or _____.
- About _____ of U.S. and Texas wheat is _____.

Flour Milling

- If wheat is not exported internationally, it is sold to _____, _____ or _____.
- Once flour is milled it is sold to _____ or _____ to be made into store bought goods.



Wheat Production Guided Notes

Other Notes:

Key Vocabulary

- Acre: A unit of land measurement equal to 4,840 square yards. An acre is about the size of a football field.
- Yield: The amount of grain harvested per unit acre. Yield is measured in bushels per acre.
- Bushel: A unit used to measure dry volume. One bushel of wheat = 60 pounds.

Wheat Breeding & Research

- Wheat varieties are bred for traits such as disease and pest resistance, drought tolerance and milling and baking quality.
- There are only 6 classes of wheat, but hundreds of different varieties.

Variety Selection

- Farmers select multiple varieties to plant to maximize yield potential and reduce pest and disease risk.
- Farmers choose which variety to plant based on factors, such as yield, test weight and protein potential, disease and pest resistance, drought tolerance, brand/varieties they know and trust.

Planting

- Wheat is planted using a grain drill.
- A grain drill helps seeds get planted at the same depth and spacing.
- Winter wheat is planted in the fall.
- Spring wheat is planted in the spring.
- Farmers try to plant when there is enough moisture in the soil.

Growth

- Farmers monitor wheat plants for signs of distress.
- Signs of distress could look like wilting, slow growth, discoloration or damage to the plant.
- Wheat that is not irrigated is called dryland wheat.

Timeline of Winter Wheat

- Germination & Emergence: Seed sprouts and appears above soil about 2 weeks after planting.
- Tillering: The plant grows extra stems from the main stem.
- Dormancy: Growth above ground stops when temperatures fall below 32 °F.
- Regrowth: Growth starts again when temperatures rise.
- Reproductive Stages: Wheat heads, flowers and the grain fills and hardens.
- Maturation & Harvest: Kernels dry out before harvest.

Inputs

- Fertilizer provides macronutrients like nitrogen, phosphorus and potassium.

Wheat Production Guided Notes Answers

- Pesticides are rigorously tested for safety and protect the plant from harmful pests.
- Herbicides: control weeds and other plant growth that take nutrients and elements away from the wheat plant
- Insecticides: kills or repels insects that harm the wheat plant
- Fungicides: stops fungal disease that spread throughout fields
- Farmers only apply what is absolutely necessary.
- The wheat kernel is protected by the glume, so no inputs touch the wheat kernel.

Harvest

- Wheat is harvested using a combine.
- Reaping: gathering the wheat using the header and cutting the stalk
- Threshing: separating the grain from the rest of the plant
- Winnowing: cleaning the grain
- Winter wheat is harvested in the summer or fall.
- Spring wheat is harvested in the summer or fall.

Storage

- Wheat is stored in an elevator. Elevators are large storage facilities made of concrete or steel and can store grain for a long time while preserving the grain quality.
- At the elevator, the grain is weighed, tested and graded.
- Test Weight: how many pounds per bushel of wheat
- Protein: indicator of grain, milling and baking quality
- Moisture: how much water is in the grain

Transportation & Export

- Wheat is moved by trucks, rail or barges.
- About half of U.S. and Texas wheat is exported.

Flour Milling

- If wheat is not exported internationally, it is sold to flour mills, feed mills or other facilities.
- Once flour is milled it is sold to grocery stores or food production facilities to be made into store bought goods.