

# Grain Sorghum in Texas

**Objective** The student will identify grain sorghum in Texas and the products that use sorghum as an ingredient.

**Grade Level** 1-3 4-6

**TEKS:** S- 1.6B; 3.10A S- 4.10A; 5.6C  
SS- 1.5B; 1.6B

TAKS:	GRADE	OBJECTIVES
Reading	3, 4, 5, 6	1, 3
Science	5	2, 3, 4

**Assessment Summary:**

**Materials:** Sorghum grains obtained from local feed store or local farmer.  
"A Sorghum Plant!" Handout

**Equipment:** Cut outs of farm animals.

- Objectives:**
1. Display of finished art project using the sorghum grains and other grains that have been studied in this curriculum.
  2. Bring in products that have sorghum as an ingredient. Check the label to see what order that sorghum is listed.
  3. Compose a by-product chart of sorghum and present a collage of products and by-products made from sorghum.
  4. Complete activity: "Grain Sorghum in the U.S."
  5. Complete activity: "Grain Sorghum in Texas".

## Background Information

Sorghum is a native wild plant in Africa. Varieties of sorghums are classified into 4 groups. The common grain sorghum plant grown in Texas and the mid-western United States is called milo or maize.

*Grain Sorghums (Milo)* - Grain sorghums are grown for the grain - round, starchy seeds that can be ground or mixed into animal feeds. Grain sorghum is often used to replace corn in animal feed as it is higher in protein and lower in fat content than corn. 97% of the grain sorghum used in the United States is used in livestock feed. In 1998 Texas was the 2<sup>nd</sup> leading producer of grain sorghum. Kansas was the number one producer, growing nearly 52% of all the grain sorghum raised in the U.S.

*Broom Corn* - Broom corn is actually a variety of sorghum. Broom corn is grown for the branches of the seed cluster, which are used to make brooms.

*Grass Sorghums* - Grass sorghums are grown for green feed (to be chopped and made into silage) and also hay (to be cut and baled). However, grass sorghums can also be a perennial weed, such as Johnsongrass, which is considered a weed when growing in farmers fields among his crop. Sudan grass is an annual grass sorghum grown in Texas and other states for feed and hay.

*Sweet Sorghums* - Sweet sorghums have juicy stems and are grown to be made into syrup. Sorghum syrup is made by pressing the juice out of the stems and boiling it down to the proper thickness. Sweet sorghums can also be grown for feed or hay.

Additional information can be found at the following websites.

Kansas Women Involved in Farm Economics (WIFE)  
[www.cyberspaceag.com](http://www.cyberspaceag.com)

Kansas Grain Sorghum Producers Association  
[www.ksgrains.com](http://www.ksgrains.com)

National Grain Sorghum Producers  
[www.sorghumgrowers.com](http://www.sorghumgrowers.com)

Nebraska Farm Bureau Ag in the Classroom  
[www.nefb.org/ag-ed/](http://www.nefb.org/ag-ed/)

# Grain Sorghum in Texas

## Lesson Plan

1. Introduce new vocabulary:

Grades 1-3

Sorghum

maize

milo

Grades 5-6

Sorghum

maize

milo

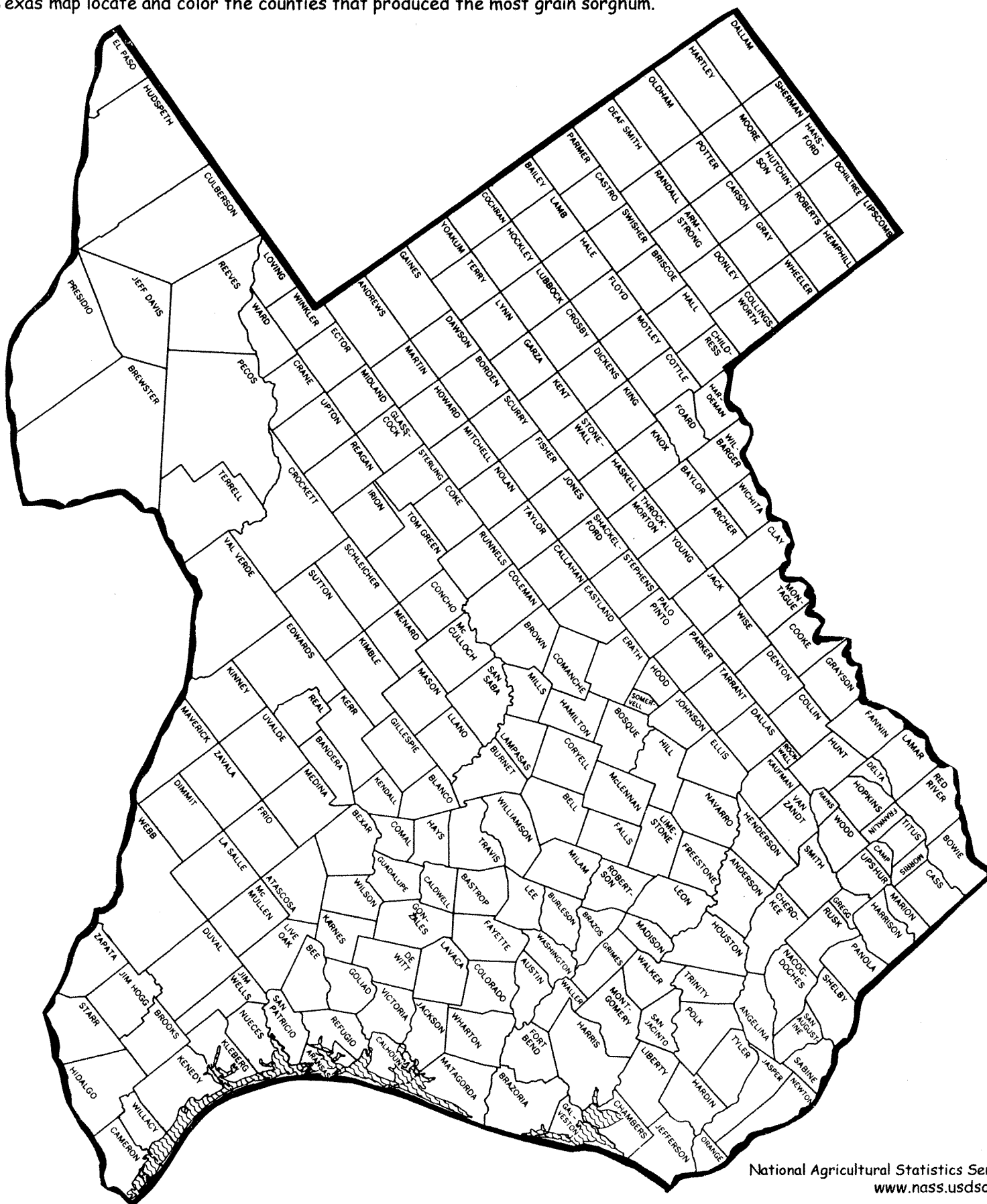
2. Introduce the background information that is needed for sorghum including the vocabulary.
3. Label the worksheet "A Sorghum Plant!" identifying the parts of the grain sorghum plant.
4. Use cutouts of farm animals to create an art project using sorghum grain and other grains from lessons taught in this curriculum.
5. Give a handout of by-products made from sorghum. Each child should be assigned a product to bring to school.
6. On the maps of Texas and the United States have students locate and color the states that grow grain sorghum.
7. Use as an assessment and have each child show his/her art work and by-product they brought to class.

## Extension

- Visit a feed store and examine all seeds studied in this curriculum.
- Have a farmer or rancher come in to speak to the students about sorghum.
- Visit a farm that grows grain sorghum

# Grain Sorghum in Texas

Grain sorghum is widely grown across the state of Texas. The ten counties that produced the most grain sorghum in Texas in 2004 were Nueces, Hidalgo, Cameron, Willacy, San Patricio, Wharton, Hill, Ochiltree, Williamson and Jim Wells. On the Texas map locate and color the counties that produced the most grain sorghum.



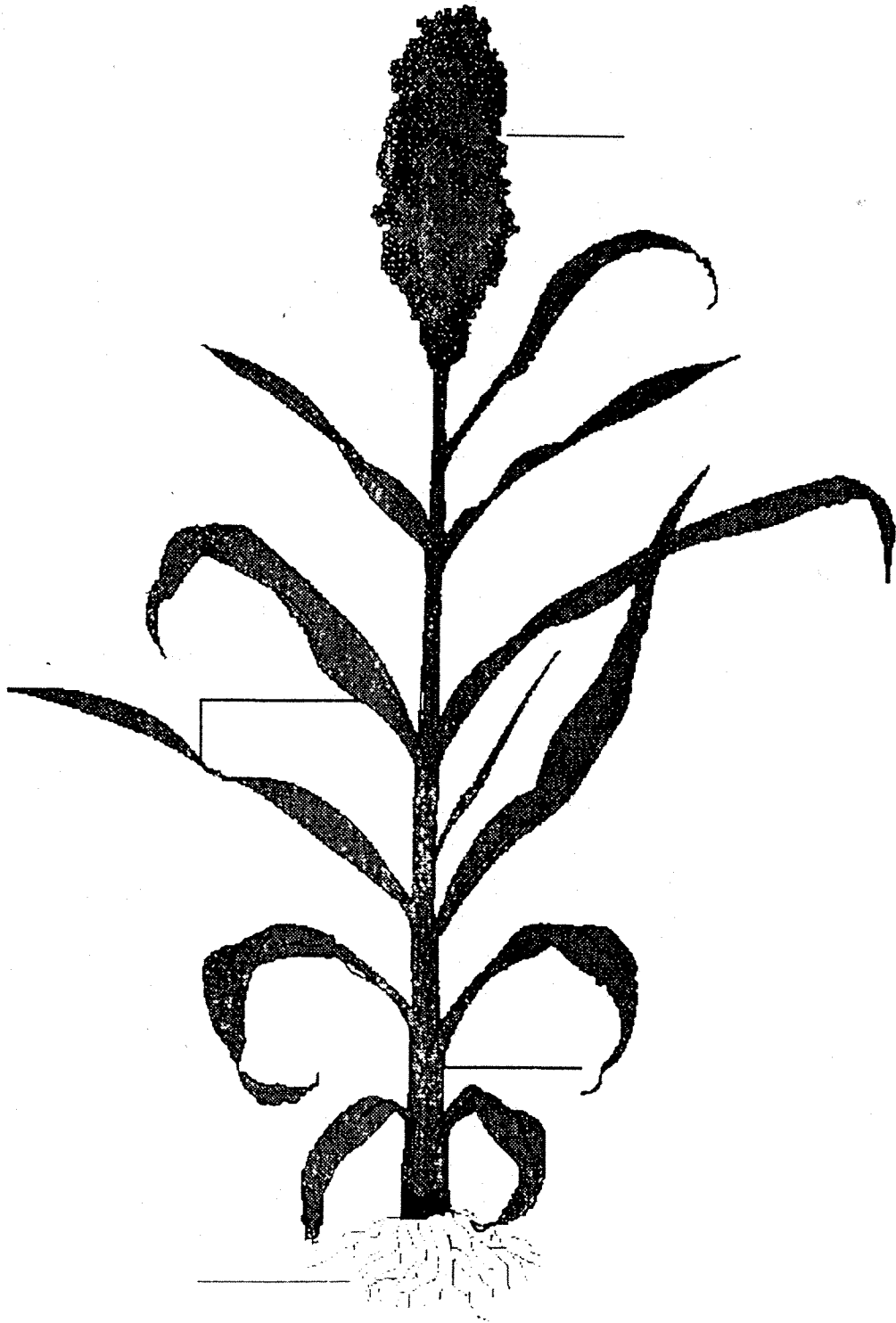
# Grain Sorghum in the United States

Grain Sorghum, also known as milo or maize, is grown throughout the mid-western United States. The ten states that produced the most grain sorghum in 2005 were Kansas, Texas, Nebraska, Oklahoma, Missouri, Louisiana, Illinois, Arkansas, South Dakota and New Mexico. On the U.S. map, locate, label and color the top ten grain sorghum producing states.



# A Sorghum Plant!

Label the parts of the sorghum plant. Briefly explain the function of each part.



# A Sorghum Plant!

## Answer Key

Roots- Anchor plant in the ground. Take in water and nutrients to feed the plant.

Stalk (stem)- Supports the plant and carries water and nutrients to the leaves.

Leaves - Convert sunlight and nutrients to energy (food) so the plant can produce fruit.

Head - Contains the seeds of the sorghum plant

