

# **MONTANA'S KIDS, CRITTERS, & COMMODITIES**

## **RESOURCE GUIDE FOR TEACHERS**

### **LESSONS AND ACTIVITIES FOR GRADES K-3**

These materials have been developed by Agriculture In Montana Schools. This has been designed to provide you with ideas and materials which facilitate integration of agricultural concepts into your classroom lessons and provide many hands-on activities to encourage learning. These lessons have been aligned to the Montana Content Standards. Contents may be reproduced for classroom use and other educational programs.

Dear Teacher:

Montana's Kids, Critters & Commodities Resource Guide for Teachers will give you the tools to explore the wonders of Montana's agriculture with your students. We have developed some fun hands-on lessons and activities to encourage learning about food and fiber. The lessons will help you to teach the importance of agriculture to their lives. Many do not realize the health, economic and social impact of agriculture, or even understand what agriculture really is.

Definition from Webster's New World Dictionary:

- Agriculture: the science and art of farming; work of cultivating the soil; producing crops and raising livestock.
- Agri: meaning food, meaning any substance taken into and assimilated by a plant or animal to keep it alive and enable it to grow.
- Culture: 1. the cultivation of soil; 2. the raising, improvement or development of some plant, animal or product.

Agriculture is everywhere! It is the wheat that becomes toast for breakfast, the wool that becomes a sweater to wear and the tree that becomes paper to write on and boards to build a house. It is the miracles of life! Agriculture is the science of the food and fiber system. This Resource Guide can be used in your classroom in math, history, geography, science, social studies, art, music, language, and nutrition. Agriculture is Montana's number one industry. One in five Montana jobs is agriculture related.

Using agriculture as a tool to integrate and connect learning can motivate students and provide them a greater understanding of what agriculture does for them, their family, their school, their community, and their world.

Margie Thompson  
Agriculture in Montana Schools President

**We would like to thank all of the people and businesses for supporting AMS in the creation of this book.**

Montana Department of Agriculture -- Growth Through Agriculture  
Northwest Farm Credit Services  
Montana Farm Bureau  
Association of Montana Turf and Ornamental Professionals, Inc.  
Keith and Cyndee Braaten  
Broadwater County CattleWomen  
Bruce Seed Farm, Inc.  
Flynn Hay and Grain, LLC.  
Hahn Ranch Feed and Supply, LLC.  
Montana Seed Trade Association  
Seed Source, Inc.  
The State Bank of Townsend  
Bob Graveley Ranch & Trucking  
Bob & Linda Davis  
Townsend Seed

**We would also like to thank the teachers and volunteers that helped in creating the lessons.**

*Margie Thompson ~ Wolf Creek*  
*Helen Hanson ~ White Sulphur Springs*  
*Vicki Baker ~ Choteau*  
*Judy Cosgriff ~ Melville*  
*Terri Linger ~ Bridger*  
*Julie Lutgen-Hanson ~ White Sulphur Springs*  
*Helen Turcotte ~ Townsend*  
*Lisa Graveley-Larson ~ Townsend*  
*Margaret Wilhelm ~ White Sulphur Springs*

**Some of the resources used in creating this book came from around the United States, and we would like to thank you for letting us share your ideas and adapt them to Montana.**

# HOW TO USE THIS GUIDE

## **Overview:**

This guide contains information and activities to help teachers acquaint students with Montana agriculture.

## **Objective:**

Students will be exposed to information concerning various aspects of Montana agriculture.

## **Keywords:**

Many terms used in the lesson may need explanation or definition.

## **Brief Description:**

Each lesson includes background information for the teacher in preparing a class presentation or discussion.

## **Lesson:**

Complete instructions are listed, including a list of necessary materials, procedures, activities, and discussion questions. These are detailed as teacher-led activities to be presented to a group of students.

Student activities can be adjusted as appropriate for the age and grade level. Some of the lessons can be presented as a demonstration rather than a group hands-on activity. There are worksheet masters designed for student use, as homework, quizzes, or individual assignments.

## **Assessment:**

These sections contain information that the students should understand by the end of the lesson. It also includes any additional materials, activities, and resources pertaining to the current lesson.

# TABLE OF CONTENTS

## INTRODUCTION

- 1 Title Page
- 2 AMS Letter
- 3 Acknowledgments
- 4 How To Use this Guide
- 5 Table of Contents
- 6 Montana Agriculture Overview

## HEALTH & SAFETY

- 70 Farm Safety
- 76 Nutrition

## LIVESTOCK

- 86 Beef Cattle
- 99 Dairy Cattle
- 114 Honey bees
- 124 Horses
- 133 Leafcutter bees
- 136 Pigs
- 149 Poultry
- 157 Sheep

## CROPS

- 8 Beans
- 11 Cherries
- 17 Christmas Trees
- 27 Horticulture
- 32 Potatoes
- 42 Apples (*Specialty Crop*)
- 46 Corn (*Specialty Crop*)
- 48 Grains (*Specialty Crop*)
- 52 Sunflowers (*Specialty Crop*)
- 56 Sugar Beets
- 60 Wheat & Barley

## NATURAL RESOURCES

- 172 Soil
- 180 Water
- 190 The Farmer
  
- 194 Appendix A
- 200 Index

# MONTANA'S AGRICULTURE

Agriculture is Montana's number one industry. There are many different types of products grown throughout the state. Montana is divided into 56 counties with a variety of climates. Each county generates a variety of products. What does your county produce?

Agriculture is an important part of your life. You eat, wear, or use some type of agricultural product each day. You cannot live without agriculture! What have you used or eaten today that comes from agriculture?