



Agronomy - Forages Project Brief

Learning Objectives

- Identify manageable sized fields with similar characteristics
- Identify nutrient status of fields
- Learn how to collect a soil sample
- Learn the appropriate time to collect a soil sample
- Interpret Soil Test Results
- Identify beneficial and non-beneficial insects in field crops
- Learn about field crop problems
- Learning to develop a successful forage system
- Selecting forage species based on yield distribution and forage quality

Fair Projects

- Hay judging display
- Samples of hay
- Weed identification poster
- Anatomy of grass or legume poster
- Photos of hay and production
- Photo story of your hay field
- Photo story of your corn field
- Photo story of your soybean field

Demonstration Ideas

- How to use a hay probe
- How to judge hay
- How to read a hay test
- How to figure a least cost ration
- Explain different forages
- Herbicide use
- How to take a soil sample
- Explain soil samples information

Field Trips

- Local equipment dealer
- Forage testing lab
- Farm tour
- Soil Lab
- Local herbicide/fertilizer distributor
- Local conservation department native prairie
- Extension Office - visit with Agronomist
- Extension Office - visit with Livestock Spec
- Weather station

Ideas for Speech Topics

- The importance of soil samples
- How to develop a forage system in your region of Missouri
- Field crop problems
- How to analyze your soil samples
- Weather impacts on forages

Critical Thinking

- Thinking through forage selection
- Deciding when to fertilize
- Understanding herbicides
- Understanding forage proteins related to livestock feed

Community Service

- Buck bales for a member of your community
- Spread straw for Master Gardeners
- Plant appropriate ground cover in vacant lot
- Volunteer with Conservation Department Prairie project

Science & Technology

How have you used science and technology in this project area?

Examples:

- Formulate assumption (hypothesis)
- Calculate and measure seed volume
- Calculate and measure fertilizer needs
- Analyze soil sample

Show Me Character

Trustworthiness - includes honesty, promise keeping and loyalty.

- Always be honest with your project leader
- If someone asks if you have taken care of your garden - weeding, hoeing and watering - tell them the truth
- It's OK to have family members help; it makes the project more fun!

Respect - includes courtesy and proper treatment of people and things.

- Pick your produce on time; don't let it stay on the vine too long
- Remember that you chose this project; you have the responsibility to grow the best product possible
- Are others counting on you? If you have promised someone produce, remember to get it to them on time and in good condition

Responsibility - includes the pursuit of excellence, accountability and perseverance.

- Respect Mother Nature
- Provide proper nourishment to the soil by applying nutrients like fertilizer
- Return produce to the earth through composting
- Understand that others may not enjoy every type of produce that you grow

Fairness - involves consistently applying rules and standards appropriately for different age groups and ability levels.

- Don't charge others unrealistically high prices for your product. Remember they are helping you by testing your vegetables and telling you what you can improve
- Learn the rules of your local fairs and farmers markets so you know what to expect when you enter and sell

Caring - promoting the well being of people and things in a young person's world. It denotes action and not just feelings.

- Share what you have grown with others'
- Don't forget the birds and insects; they like to eat leftovers from your produce and can help keep your garden healthy
- Many people can benefit from your garden; think of ways to share your produce with people who may not have fresh food to eat

Citizenship - includes making the home community and county a better place to live for themselves and others.

- Grow a garden in community space to see what it's like for people who don't have their own gardens
- Be a good citizen by keeping your space neat and clean
- Don't use more than your share of the ground; remember you're not the only person or animal enjoying the earth

Share what you know about insects; help others see the benefit of having them around

Show Me Standards

Missouri 4-H members will acquire the knowledge and skills to gather, analyze and apply information and ideas, communicate effectively, recognize and solve problems, make decisions and act as responsible members of society.

4-H members will acquire a solid foundation which includes knowledge of:

- **Health/Physical Education** - consumer health issues (such as the effects of mass media and technologies on safety and health)
- **Mathematics** - addition, subtraction, multiplication and division; other number sense, including numeration and estimation; and the application of these operations and concepts in the workplace and other situations.
- **Social Studies** - economic concepts (including productivity and the market system) and principles (including the laws of supply and demand).

Resources

981 Forages

Y620 4-H Project Record, NC
M169 A Guide To Common Forages and Weeds
G4652 Seeding Rates, Dates, and Depths for Common Missouri Forages
G4661 Warm Season Annual Forage Crops
PS8 Common Forage Insects

Resources for Forages and Grains

G4050 Trouble Shooting Field Crop Problems
G9112 Interpreting Missouri Soil Test Reports
G9131 Sampling Plant Tissue and Soil for Analysis
G9217 Soil Sampling For Hayfields and Row Crops
PS13 Beneficial Insects in Field Crops

University of Missouri Extension guides available for download at <http://extension.missouri.edu/explore/agguides/crops/>

To Order

Extension Publications online at <http://extension.missouri.edu/explore/shop/> or by phone 1-800-292-0969
For additional resources check with your local University of Missouri Extension Center or the 4-H Source Book at <http://www.4-hmall.org/educationalresources.aspx>.