Sustainable pastures education

Greener Pastures—Presenter’s Guide

INTRODUCTION

This series of presentations is intended to introduce the student to the basics of grazing cattle, sheep and goats. The module is broken into two parts: *Getting Started with Grazing*, which discusses the foundations of good pasture management, and *Getting the Most out of Your Pastures*, which focuses on optimizing pasture production and carrying capacity of pastures. This two-part series is designed to help the learner maximize profits derived from grazing animals in an environmentally sustainable and socially responsible way.

This curriculum is intended for use in the Upper Midwest, or “North Central Region.” It may be adaptable to other geographies, but if it is used outside the American Midwest, the presenter should be aware of differences in environment and climate.

The PowerPoint presentations contain speaker’s notes which should be consulted prior to presenting.

PART 1: GETTING STARTED WITH GRAZING

Educational objectives

After completing the lesson, the student will be able to:

* Understand the basic concepts of grazing animals.
* Understand issues of sustainability in agriculture.
* Feel more confident in getting started grazing.
* Be better equipped to make good decisions about grazing livestock.
* Have outlined goals for their grazing system.

Activities and discussions

Activity 1: Sustainability stool

Sustainability in agriculture involves balancing individual economics while considering environmental impact and utilizing practices that are socially acceptable. Engage students in a brief discussion about each of these 3 categories. Small groups can create lists for each category to generate discussion points for the larger group. Examples are given in the presenter’s notes on slide #4.

Activity 2: Grazing goals

Ask participants to take a few minutes to write down goals they have for their operation. Why are they grazing livestock? Responses can vary widely and are an important first step to determining their grazing plan.

Activity 3: Pasture planning activity

Use the aerial photo on slide 39 or have participants use maps or sketches of their own pastures. Allow 5-10 minutes for learners to brainstorm different considerations for pasture layout. Ask students to determine how paddock layout might influence factors like:

* Providing access to water
* Shelters and sacrifice areas
* Perimeter and interior fences and gates

Activity 4: Grazing goals

Ask participants to revisit their goals from Activity 2. Have any of their goals changed? Are there other items they would add to their list? Facilitate a short discussion about what their next steps may be.

PART 2: GETTING THE MOST OUT OF YOUR PASTURES

Educational objectives

After completing the lesson, the student will be able to:

* Understand ways to maximize animal growth and/or milk production.
* Maximize forage plant growth on their farm.
* Measure and calculate animal and plant production in their pastures.
* Determine their costs of production and profitability of the operation.

Activities and discussions

Activity 1: Discussion of goals

Ask participants to spend 5 minutes writing down goals for their grazing business. Think about long term (5+ years) goals first; then intermediate (2-5 years), and finally, short (within a year). Spend less time if you just completed the Level one presentation, since the goals will be fresh in their minds. Spend more time if this is a stand-alone session and they haven’t thought about it.

Activity 2: Calculating forage needs

Refer participants to the Grazing Systems Planning Guide, pages 9 and 34 for the tables on monthly forage needs throughout the year. Ask students to spend 5-10 minutes determining the forage requirements for their herd. If they don’t have animals yet they can work with a partner or use figures based on their goal herd.

Activity 3: Forage stand assessment (optional)

If location and weather permit, have students use page 37 of the Grazing Systems Planning Guide to assist them with assessing a nearby forage stand. Working in small groups may be helpful.

Activity 4: Calculating available forage

Ask students to utilize page 15 of the Grazing Systems Planning Guide along with known information (or estimates) from their pasture. Allow 5 minutes for participants to calculate available dry matter for the given pasture acres. Use the information to determine grazing time (slides 27-28).

Activity 5: Pasture sketch

Ask participants to draw their own pasture. Include existing items such as fences, gates, waterers, trees, etc. This drawing can be as accurate as they feel comfortable with. It will be used again in the next activity.

Activity 6: Developing a pasture plan

This activity builds upon the other activities in this lesson. Ask participants to use the information they’ve gathered about the requirements of their animals along with the expected production from their pasture and the pasture sketch to develop a grazing plan. Ask participants to determine how many paddocks they will need, the size of each paddock, grazing timing, etc. Will the pasture meet the needs of their livestock?

Resources

* Montana Private Land Stewardship Program, Livestock Health Session, developed by: Lisa Schmidt, Dave Phillips, Krista Campbell, Larry Hoffman.
* “Nutrient Requirements for Beef Cattle” from Oklahoma Cooperative Extension(2000). Publication # E-974
* Flight Zone Graphic- Howstuffworks.com
* Photo Credit: 1,000,000 Pictures facebook page, http://www.facebook.com/1mpics
* Photo Credits: Betsy Wieland, UMN Extension
* Photo Credit: Body Condition Scoring Beef Cows by Virginia Cooperative Extension, http://pubs.ext.vt.edu/400/400-795/400-795.html
* Image Credit: ‘Watching Grass Grow’ by Ken Moore, ISU. http://www.agron.iastate.edu/moore/434/grass.html
* Photo Credit: Stock photo, posted on farmer chat, http://farmingforum.co.uk
* Grazing Systems Planning Guide, University of Minnesota Extension
* Image Credit: Colorado State University, Small Acreage Management Pasture/Range Management Resources Website http://www.ext.colostate.edu/sam/pasture.html
* http://www.extension.umn.edu/beef/components/homestudy/plesson3.PDF
* https://utextension.tennessee.edu/publications/documents/pb1541.pdf
* ftp://ftp-fc.sc.egov.usda.gov/MI/ecs/Grazing/FencesForTheFarm.pdf
* Photo credit: http://cattlefencing.net/
* http://www.sheep101.info/201/fencing.html
* Photo Credit: Four Seasons Farm, www.fsfgoats.com
* Pasture renovation: refreshing a tired pasture, Dennis Johnson http://www.extension.umn.edu/agriculture/dairy/grazing-systems/pasture-renovation/
* Ohio State University Enterprise Budgets: http://aede.osu.edu/research/osu-farm-management/enterprise-budgets
* “Pastures for Profit: A Guide to Rotational Grazing.” 2002. University of Wisconsin (A3529) and University of Minnesota Extension Service publication FO-06145.
* “Improving Pasture Productivity: Pasture Establishment and Species Selection”, Cosgrove, Dennis. Extension Forage Specialist, University of Wisconsin, River Falls



This product was developed with support from the Sustainable Agriculture Research and Education (SARE) program, which is funded by the U.S. Department of Agriculture — National Institute of Food and Agriculture (USDA-NIFA). Any opinions, findings, conclusions or recommendations expressed within do not necessarily reflect the view of the SARE program or the U.S. Department of Agriculture. USDA is an equal opportunity provider and employer.

© 2014 Regents of the University of Minnesota. All rights reserved. University of Minnesota Extension is an equal opportunity educator and employer.

In accordance with the Americans with Disabilities Act, this material is available in alternative formats upon request. Direct requests to efans@umn.edu.

 Printed on recycled and recyclable paper with at least 10 percent postconsumer waste material.