

HIGH SCHOOL  
AP CLASSES  
INTRO COLLEGE COURSES



## LESSON AND DISCUSSION GUIDES FOR:

### SUSTAINABLE FOOD AND FARMING MANAGED GRAZING; A WIN FOR LAND, WATER, ANIMALS, AND PEOPLE

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## GRADE LEVELS

High School, Grades 9-12, AP Classes  
Introductory College Classes

## CONTENT AREA

Environmental Science;  
Agricultural Science

## UNIT THEME

Sustainable Food and Farming, Soil  
and Water, Food and Nutrition.

## TOPIC

Examine managed grazing as a "Best  
Practice" for sustainable land, water,  
animals & food.

## TIME REQUIRED

Two or Three, Fifty Minute Classes



## OVERVIEW

What if there were a sustainable farming practice that accomplished all the goals of sustainable farming for our society concerning; human food & health, health of the environment, health of the land and water, health of animals, and economic viability for farmers? Wouldn't that practice be embraced by our farmers, our health care system, our communities, and our policy makers? Shouldn't everyone learn more about it?

There is a practice that accomplishes most of the goals of sustainable farming; it is called **Managed Grazing**. It is a way of farming that is rooted in the way humans and herbivores have interacted for a thousand years. But, it is an improvement on the practice because it amplifies the benefits and mitigates negative impacts.

Most people, including many farmers, have not heard about managed grazing. Basically, it is a way of moving animals through a pasture in a systematic (managed) way. The animals move as a herd and graze a small area of a field (a paddock) for a specific amount of time. Then, the animals are moved onward to the next paddock and they are kept off the paddock they just left so that it can regrow and regenerate in a healthy, sustainable way. They return to the starting paddock after a few weeks when the pasture has regrown and can support them again. (More on this practice in the accompanying class materials will help teachers understand it.)

## CONCEPT Agricultural Sustainability; Healthy Food, Soil, Water, Animals, and People

### ENDURING UNDERSTANDING:

Students will understand how managed grazing works and how it is a key practice in sustainable farming. Students will know managed grazing improves land, water and animal health as well as how it contributes to high food quality for people.

### CONTENT & LEARNER OBJECTIVES:

In this lesson students will:

1. Explore managed grazing in more detail. How and why it works.
2. Examine the benefits managed grazing provides for the land and the water and environmental quality.
3. Reflect on animal stewardship and the philosophy of many farmers who adopt this practice.
4. Learn how this practice improves the quality of the food (meat & milk) for people from grazing animals.
5. Learn why farmers are embracing this important practice as a solution to some of most pressing problems with farming and lack of sustainability.

### PROCESS OBJECTIVES:

The instructor will engage students and familiarize them with managed grazing by viewing the documentary film. The instructor will then present the accompanying power point Guide to Managed Grazing that includes a voice-over slide presentation of important concepts.

The instructor will then give the class an assignment in which they are to develop a social media campaign to “get the word out” about managed grazing to the general public and the agricultural segments of their region. The ability to understand the information about grazing will be reflected by the students ability to “teach” it to others through social media. Teachers may wish to have students do this assignment with a partner.

Students will present their campaign ideas to their peers to further re-enforce the learning.

### MATERIALS NEEDED (each group, each student):

1. Access to Social Media

In this lesson students explore Managed Grazing as a method farmers use to farm more sustainably and lessen the impact of agriculture on the land and water. Students will watch the documentary film ‘Searching for Sustainability’ and view an accompanying narrated power point presentation.. Students complete a “social media” outreach assignment to re-enforce learning about this sustainable practice.

## PROCEDURES

### 1. Class one (50 minutes)

**45 minutes:** The instructor will run the documentary film “Searching for Sustainability”. The film depict managed grazings as well as other farming practices and their impacts on soil, land, water, and the nutritional quality of our food. (Learning cycle step 1: **Engage**).

The film is actually 68 minutes long, so the instructor should stop at about minute 45 and run the last 20 minutes at the beginning of the next class period.

### 2. Class two (50 minutes)

**20 minutes:** The instructor finishes showing the film and then switches to the power point presentation.

**20 minutes:** Power point presentation on Managed Grazing. (Learning cycle step 2: **Present**).

**10 minutes:** The instructor gives students their assignment to create a social media campaign about managed grazing. (Learning cycle step 3: **Practice**)

### 3. Class three (50 minutes) optional

**40 Minutes:** Each student is given the opportunity to explain and showcase the social media campaign they have created. (Learning cycle step 4: **Perform**. Peers can rate each campaign. A rubric accompanies this lesson and shows what the instructor should expect from each student.

**10 minutes:** Discussion and recap by the instructor both on the concept of managed grazing and on the power of social media.

## ASSESSMENTS:

1. A social media campaign. See the attached assignment page.



## ASSIGNMENT INSTRUCTIONS:

(This assignment assumes that your school policy allows use of computers and supervised social media for assignments.)

Learn more about social media at:

<https://www.edutopia.org/blog/social-media-resources-educators-matt-davis>

The assignment is to have students create an “outreach piece” that explains Managed Grazing. Students can use pictures they need from the materials on the Into The Outdoors website. They are part of creative commons.

Students should choose a method of delivering their message from the following:

- Make a poster
- Make a flyer
- Design a webpage
- Outline a social media campaign
- Record a radio commercial
- Design a T-shirt

Give students some leeway here. If they come up with another method of “outreach” let them do it if it is equivalent to one of the methods listed.

I’ve used this kind of assignment in my classroom with pretty good success. It gives the student some control over how they will reflect their learning back to you. It accommodates various learning styles and its fun and surprising with what students come up with. Students engage and enjoy it partially because they can play to their strengths and interests.

Some students will do minimal effort, so one technique I’ve used, if you want to go further, is to have a “fair” at which students display their work on the classroom wall. We go around the room and students get a chance to verbally explain to their peers what they were trying to accomplish with their piece. This “fair” motivates students to put some effort into the project because they know that their peers, not just their teacher, will be viewing their work. If time doesn’t allow for a fair, you simply skip that and grade the student work like usual.

The rubric students will see in their student instruction sheet (in miniature) is found below in full size so that you can give appropriate feedback. Feel free to modify the rubric if you like. This is call a “Single point” rubric. If you’d like to learn more you can read about it at <https://www.edutopia.org/article/6-reasons-try-single-point-rubric>

**Instructions to the student:** Be creative, and make something that demonstrates what you know about managed grazing. The rubric shows what I looked for when your outreach piece was graded.





## RUBRIC FOR "OUTREACH PIECE" FOR MANAGED GRAZING

THINGS THAT NEED IMPROVEMENT	I WILL BE ASSESSING YOUR SOCIAL MEDIA CAMPAIGN ON...	THINGS THAT WERE AMAZING
	<b>Outreach Strategy</b> – explain why you chose the outreach strategy that you did.	
	<b>Accurate portrayal of managed grazing</b> – its definition, how farmers do this.	
	<b>Benefits of Managed Grazing</b> - You mentioned 1) environment, 2) animal care, 3) food quality	
	<b>Outreach pieces is</b> - Creative and engaging, makes people want to know more.	
	<b>Communication</b> - You picked good, clear pictures/images to use and/ or your text or audio was clear and concise	



### TO LEARN MORE, VISIT THESE RESOURCES

Searching for Sustainability – the documentary film ([landsandlives.org](http://landsandlives.org))

Guide to Managed Grazing – a Power point audio/visual lecture or adaptation

Assignment instruction Page – gives instructions and a rubric for grading

Student Research Page – resources for students searching for more information

Social media guide – more information about the power of social media in society