STEP 2. CONDUCT AN INVENTORY OF STREAMSIDE-GRAZING AREA

PHYSICAL FEATURES

Physical features are a key part of your inventory. They strongly influence:

- the suitability of grazing management systems
- site productivity
- the suitability of paddock layout and locations for management features
- the proximity and inclusion of sensitive areas, and
- the limitations and risk of environmental impact.

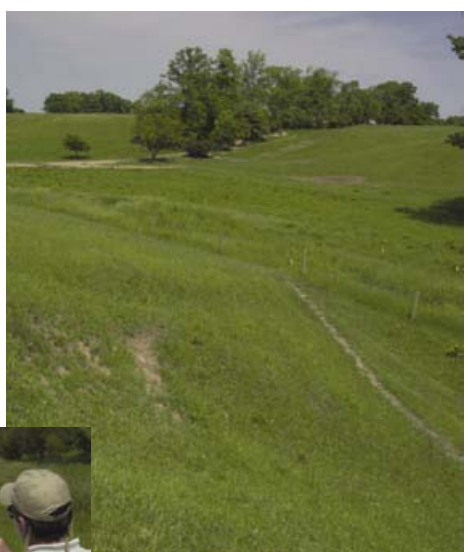
Physical features such as land, soil and water need to be described and mapped so as to help guide interpretation for management decisions.

LAND AND SOILS

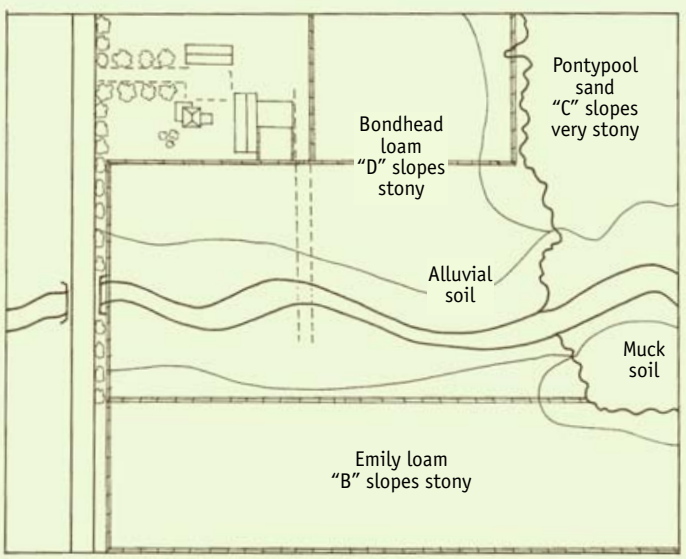
1. Locate or draw a map showing the boundaries of the land available for grazing.

A county soil survey is a good first step for determining soil types in your pastures. The publication contains general characteristics of each soil type, including soil texture, drainage, water-holding capacity, and organic matter content.

Soil and slope influence management choices.



SOILS MAP



Draw a map of your area.

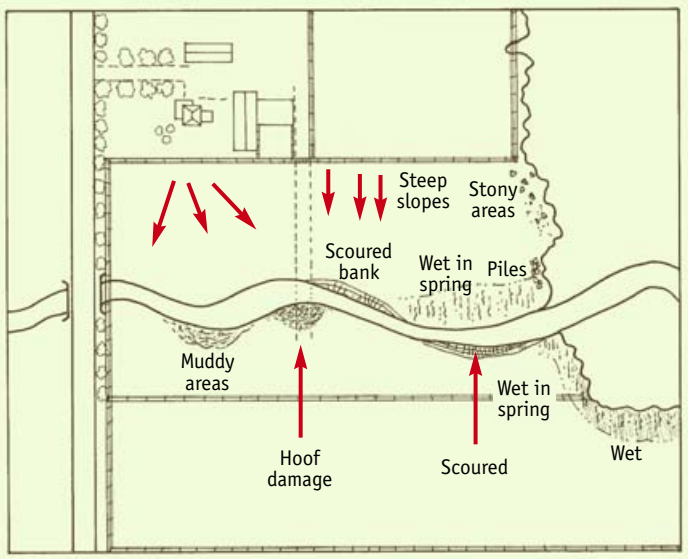
2. Identify sensitive land areas or soil limitations for grazing in the pasture.

Sensitive land areas have a high potential to generate or transport unwanted materials towards ground or surface water. The types of materials that could contaminate water are bacteria, nutrients from livestock manure, and sediment resulting from soil erosion.

Examples of sensitive land areas to be identified and referenced on a map include:

- location of surface waters (wetlands, ponds, lakes or streams)
- quarries, mines or sinkholes
- active or abandoned water wells
- coarse-textured (sandy and gravelly) soils
- steep slopes
- shallow soil to a water table or bedrock
- wooded areas
- intermittent waterways.

SENSITIVE AREAS AND SOIL LIMITATIONS MAP



Identify wet and other sensitive spots.

Limiting features also need to be identified and referenced on a map. You can learn a lot by walking the pasture with someone who's knowledgeable in soils and soil management.

The soil survey for your county will provide information on pasture features found below the soil surface. Examples of soil-limiting features include:

- **sandy soils, which have a high potential for drought**
- **shallow soils over bedrock, which limit the depth of root growth**
- **flood-prone soils, which either restrict growth of certain forages or limit grazing time**
- **organic soils, which limit accessibility and ability to withstand traffic**
- **extreme slopes or landscapes that make pasture areas difficult to reach.**

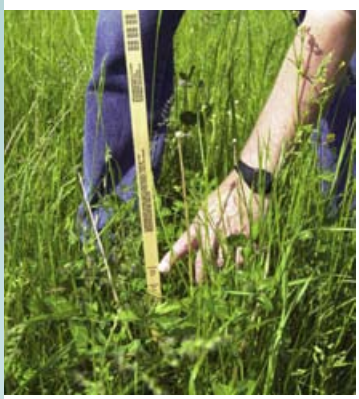
MANAGEMENT FEATURES

FORAGES

1. **List the existing forage species in the pasture.**

2. **Make a pasture vegetation map. Identify dominant plant species and areas in which they grow.**

3. **Determine pasture condition.**



4. **Estimate yields and seasonal distribution of the existing forages found in your pasture.**

Forage grass and legume species each have their own unique growth, persistence, and quality characteristics.

The plants that are currently growing in your pastures may differ from one area to another. Each species responds differently to soil conditions, weather patterns, fertility, and grazing management.

Take a walk through the pastures to gather information:

- identify desirable pasture species and weeds
- use references for grass identification – grass species are often difficult to identify during early stages of growth.

Good pasture condition is critical to a successful grazing system. Assessing pasture condition will help determine if pastures are in need of improvement and what areas need the most help. It's also a useful tool in evaluating impacts of management decisions.

Pasture quality may vary greatly from one pasture area to another, but the trend over time should show the direction in which the pasture condition is moving.

Use the pasture condition survey chart on pg. 101 to help you consolidate your findings.

Forage supply can be estimated for your grazing system – based on the plant species, pasture condition, and soil types found in the pastures and forage yields.

Pasture yields are directly related to forage-hay yields from similar local sites. Contact a professional grazing specialist for help in this regard.

Document the forage yields in lbs/acre. Please note that this is only an estimate to provide a starting point for future planning. Changes in climatic conditions from one year to the next can drastically change forage production and the outcome of seasonal forage supply.

Once the forage species and yield estimates have been estimated, you can determine a monthly forage supply by using the estimated forage production and seasonal distribution patterns.

The estimated monthly values follow seasonal growth patterns of common forage species. This exercise provides a good estimate of the total amount of forage available to livestock for any month of the grazing season.

Subtract the monthly requirement from the monthly forage production to:

- indicate forage balance for the growing season
- predict excess forage production by month
- predict where forage shortages may occur by month.

Total Yield

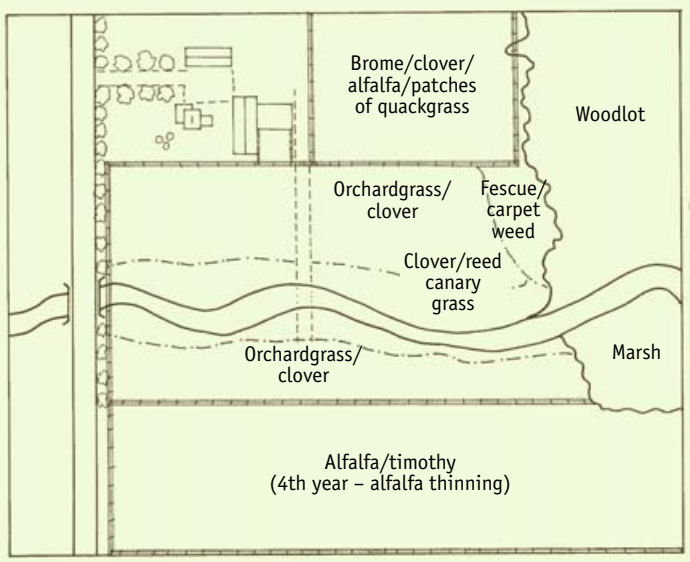
(forage yield) × (acres) = forage production

Example:
(2,500 lbs/acre) × (30 acres) = 75,000 lbs of forage (dry matter basis)

Forage Availability per Month

(total yield) × (% forage available by month) = monthly available forage

FORAGE MAP



Will your options for paddocks and grazing system require an investment in new fencing?

FENCING

Know the kind and condition of existing fences. Map the location of these fences, including both perimeter and interior fences.

Consider whether:

- the condition and location of the existing fence meet the needs of the grazing system
- there are other livestock handling facilities available such as corrals, dry lots, barns, or sheds that are part of the pasture or grazing system.

WATER SOURCES

Note and map the existing water sources and drinking facilities.

Consider whether:

- the water supply changes seasonally
- water is being transported to the paddock, and if so, how much storage is available
- a source of electricity is available nearby
- existing water sources are able to accommodate a pumping system that doesn't require electricity
- there are other potential water sources that could be made available to the pasture
- you need to drill a new well, and if so, what would be the best site
- a water source is nearby, where water can be obtained by constructing a pipeline system.

WATER SOURCES AND FENCES MAP