West Virginia Pasture Management

Planning a Forage System for the Total Farm

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Introduction

A good forage plan combined with proper plant and animal management will create a favorable environment for plants. Without a plan, animals and weather influence the plant environment at random. The producer can only react to a variety of situations as they develop. Apply your knowledge of plants and animals. Have a forage management plan. Follow it.

Why

1. Forages are the most economical source of livestock feed. Forages are very responsive to management. Only when properly managed will they be most beneficial.
2. A great deal of satisfaction can come from knowing you are practicing good stewardship of farm resources.

Types of Forage Plants

1. Pasture: Plans can be developed that deal only with pasture or with pasture for only part of the year.
2. Hay land: Plans can involve only hay land or use a hay land to provide pasture during critical periods.
3. Whole farm: In most cases, forage plans should involve the whole farm. Plans should include all months in the year.

General Plan

1. Farm resources: No two farms are alike. In planning a forage system, take an inventory of the basic resources especially soil and water. They are difficult to change and need highest priority in planning. Start with soil and water.
2. Labor: Quality and quantity of available labor may vary considerably among farms. Intensive forage plans nearly always increase labor and the skill required to make management decisions.
3. Objectives: It is necessary to know what you want from a forage plan. Goals need to be clearly in mind. The plan can be modified as you go to meet some needs, but not changed drastically if goals are to be reached. Goals should be realistic and in keeping with livestock needs and farm resources.

Specific Plan

1. Variation in species: Forage plans should take into consideration the natural variations that exist among species. For example, species like orchardgrass grow upright and cannot tolerate frequent low grazing, whereas bluegrass grows more prostrate and is affected less by close, repeated grazing. Species also differ in fertility, light, and moisture requirements. Some species grow best in the spring; others grow best in the summer and fall. Species vary in nutritional value as well.
2. Natural plant growth curve: All plants have an initial period when they
grow slowly followed by a period of more rapid growth followed by a third
period of slow growth. Forage plans should be designed to keep the plant
in the period of more rapid plant growth.

3. Plant requirements: Plants have critical periods and specific
requirements for growth and survival. These critical periods such as early
spring when leaves are produced from stored reserves and specific
requirements such as leaf area for photosynthesis need to be considered in
the plan.

4. Livestock requirements: The reason for a forage plan on most farms is to
increase livestock performance. Thus the plan needs to recognize
livestock needs. At times the plan should favor the forage; at other times
it should favor animal needs.

5. Production level: Production on any field can vary widely due to
management. Maximum production requires high inputs. Minimum
production requires low inputs. Optimum production varies from plan to
plan but is usually neither minimum nor maximum production for the
field.

6. Emergency situations: A forage plan should consider emergency
situations, such as drought, in order to lessen their impact.

Summary

When planning a forage system for the total farm remember to consider
species variations, growth curves, plant and animal requirements,
production levels, and possible emergency situations. Set your goals,
examine your resources and begin with your soil and water.

Where to Get Help

For more information about planning a forage system, contact your local
office of the Soil Conservation Service or the West Virginia University
Extension Service. They are listed in the telephone directory under "U.S.
Government" and "West Virginia," respectively.

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Rachel B. Tompkins, Director, Morgantown, West Virginia. Published in Furtherance of Acts of Congress of May 8 and June 30, 1914.

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