UNIT - FORAGES

Lesson 3: Selecting Forage Crops for New Pastures

TEACHING PROCEDURES

A. Review

Review the previous lessons.

B. Motivation

Numerous factors influence the choice of forage species. It is very important to pay attention to these factors because permanent pastures produce for many years. Mistakes are not easily corrected and can be quite costly.

C. Assignment

D. Supervised Study

E. Discussion

1. Ask the students what factors might influence their choice of forage species. Write these factors on the board and elaborate if necessary. Be sure to emphasize factors particularly pertinent to your area. (TM 2, TM 3)

   **What are some factors that will affect your selection of forage species?**

   1) Soil and climatic adaptation
   2) Intended use
   3) Types of livestock system planned
   4) Amount of forage required
   5) Whether pure stands or grass-legume mixtures are desired

2. Ask the students if they know of any grass-legume mix pastures and why a grass-legume pasture might be desirable or undesirable. List examples of grass-legume pastures on the board and have students discuss advantages and disadvantages.

   **What are some advantages of pure stand and grass-legume mixtures?**

   1) Advantages of a pure stand
      a) Easier to manage
      b) More flexible in use for pasture, hay, or seed production
      c) If well adapted, can expect high yields
      d) Allow for use of high levels of nitrogen (grass stands only) which result in substantial increases in yield and protein content of forages

   2) Advantages of grass-legume mixtures
      a) Usually higher and longer productivity
      b) May allow earlier grazing
      c) More protein in grasses when grown in association with legumes
d) Mixtures are more easily made into hay or silage than pure legumes.
e) Adding a legume to a grass mixture can supply the grass with nitrogen.
f) Adding grass to legumes can reduce the danger of bloat.

3. Ask students to list and discuss the basic principles for establishing forage mixtures. List these on the board. (HO 2)

What fundamental principles or rules should you follow when establishing forage mixtures?

1) Include at least one grass.
2) Keep the mixture simple by using only two or three species.
3) Species must be adapted to the area.
4) Species must be appropriate for their intended use.
5) Species must be compatible with each other.
6) Species must not differ widely in palatability.
7) Species must be similar in maturity pattern and vigor.

4. Discuss why only one grass should be used in grass legume mixtures.

Why should only one grass be used in a mixture?

1) Wide variation in grass vigor, palatability and maturity patterns
2) May result in spotty grazing and wasted forage

5. Ask students to describe the forages grown in their area. Discuss what forage species they might utilize and why.

Considering all factors, what forages (mixed or pure stands) would you recommend for your county and why?

Note: There is no absolute answer. This should be used to bring together all the information previously discussed.

6. Discuss the use of a shotgun seeding method. Ask students if they think this could be applicable to conditions on farms in their area.

Why is a "shotgun" seed mixture used?

1) Use for sites with wide soil variation.
2) A wide assortment of species is seeded.
3) Each species will become established in areas for which they are adapted.
4) Result is a large number of species in the field but few in any one place.

F. Other Activities

Take a field trip to visit potential and/or existing forage fields. Evaluate these sites and determine appropriate forage species to be grown there.

2. Have the students discuss the following situations and summarize their conclusions.