



Fertilizer Recommendations

Improved Nonirrigated Pastures (Coast Counties)

Improved nonirrigated pastures consist of subterranean clover, New Zealand white clover or lotus major (big trefoil). These legumes are generally planted with perennial or H-1 ryegrass, alta fescue, orchardgrass, or meadow foxtail. Fertilizing weeds and weedy grasses (bent, velvet, and June grass) seldom pays.

Key management points in maintaining high yielding pastures are:

1. Heavy grazing or mechanical removal of excessive forage in the late summer or early fall will help to insure establishment of subclover seedlings and will reduce competition from winter growth of grasses.
2. Delay grazing until the clover is 3 or 4 inches high. Fall and winter growing conditions will determine the amount of winter grazing.
3. Graze during the spring or cut for early silage. If grass makes excessive growth, it will shade out the clover. This is especially true where spring applications of nitrogen have been used.
4. Do not graze clover pastures continuously. Rotation grazing with short periods of heavy use will increase yields and provide more uniform grazing.
5. Rest periods and rotation grazing help maintain improved perennial grasses. Improved perennial grasses need 10 to 12 inches of growth at least once a year--this top growth is necessary to replenish grass root reserve.
6. To maintain subclover with bentgrass, frequent periods of heavy grazing during the spring are necessary.
7. Fertilizer applications at seeding time are necessary to insure a good stand.

Nitrogen

Apply 30 to 40 lbs. of nitrogen in February or early March to increase early spring growth. The subclover will furnish most of the nitrogen for the grass after good clover growth starts. Nitrogen fertilizer will not substitute for good management.

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Lime

Lime recommendations for all legumes are discussed in separate recommendations. Lime should be applied ahead of planting and thoroughly mixed throughout the surface 6 inches of soil.

Phosphorus—Annual Applications

1. With a soil test value below 20 lbs. of phosphorus (P)/acre --
Apply 60 - 80 lbs. of phosphate (P_2O_5) per acre.
2. With a soil test value between 20 and 40 lbs. of phosphorus (P)/acre --
Apply 40 - 60 lbs. of phosphate (P_2O_5) per acre.
3. With a soil test value between 40 and 60 lbs. of phosphorus (P)/acre --
Apply 30 - 40 lbs. phosphate on new seedings--none needed on old stands.
4. With a soil test value above 60 lbs. phosphorus, phosphate applications are not necessary.
5. Increase phosphorus applications one-third to one-half on "black prairie" soils mapped as Tillamook and Winema.

Phosphorus should be applied annually in fall or early spring. Banding phosphorus close to the seed helps establish good stands.

Potassium—Annual Applications

1. With a soil test value below 250 lbs. of potassium (K)/acre --
Apply 120 - 150 lbs. potash (K_2O)--60 lbs. K_2O in the fall plus 60 - 90 lbs. K_2O in early April.
2. With a soil test value between 250 and 350 lbs. of potassium (K)/acre --
Apply 80 - 90 lbs. of potash (K_2O) per acre about April 15.
3. With a soil test value between 350 and 450 lbs. of potassium (K)/acre --
Apply 60 - 70 lbs. of potash (K_2O) per acre about April 15.
4. With a soil test value above 450 lbs. of potassium (K)/acre --
No potash needed.

Do not apply more than 90 lbs. of potash (K_2O)/acre in one application.

Sulfur and Boron

Applications of Sulfur and Boron have shown a response on some fields in the coastal area. Trial applications of both are justified.

Magnesium

To date no response has been observed from the application of magnesium in the coastal area. Trial applications are justified when magnesium levels are below 0.8. m.e./100 g.

Manure

Include the nutrients added in manure in the annual fertilizer program--1 ton of manure will supply about 10 lbs. of nitrogen, 5 lbs. of phosphorus (P_2O_5), and 10 lbs. of potassium (K_2O). The amount of bedding will affect the concentration. Manure left exposed to winter rains will lose at least half of its fertilizer value. Liquid tanks avoid losses, but the concentration depends on the amount of water added.

Lotus Major (Big Trefoil)

On wet land, soil conditions may make it necessary to change dates of application.