



Oregon State University Fertilizer Recommendation for

Irrigated Clover-Grass Pastures (Willamette Valley)

Irrigated pastures in western Oregon usually consist of Ladino or New Zealand white clover and Alta fescue, perennial ryegrass, orchardgrass, or meadow foxtail. These recommendations are intended for improved pastures with a good stand of clover and improved perennial grasses. Fertilizer seldom pays on weeds or weedy grasses.

Top yielding pastures require good management. The following points are important:

1. Maintain a good stand of adapted improved legumes and grasses.
2. Provide adequate irrigation throughout the growing season.
3. Harvest pastures by rotation grazing, daily rationing or as green chop.
4. Pasture should be 6 to 8 inches high before grazing.
5. Close grazing (about 2") favors clover.
6. Light grazing (over 4") favors grass.
7. Well fertilized grass will outgrow legumes in the fall and early winter.
Avoid winter smothering by grazing or clipping excess growth.
8. Retest the soil and adjust fertilizer use at least every other year to keep up with heavy drain on mineral nutrients.

Nitrogen

Never apply more than 40 lbs. of nitrogen (N) at one time.

Thirty to 40 lbs. of nitrogen (N)/A applied in late February or early March will stimulate the grass and make early feed.

Nitrogen applied in late August will provide additional grass for fall grazing.

If the legume stand is adequate, summer nitrogen applications seldom pay and nitrogen may stimulate grass at the expense of legumes.

Lime

Acid soils can limit legume production. Apply lime at recommended rates and mix thoroughly with 5" to 6" of surface soil in advance of seeding.

Sulfur

The yearly fertilizer program should include 20 to 30 lbs. of sulfur each year. If not included in other material, use gypsum.

Magnesium

There have been no observed indications of response from applications of magnesium to pastures in the Willamette Valley but trial applications are suggested with soil test values below 0.8 me (Mg)/100g.

(OVER)



Phosphorus

On established stands -- Broadcast in fall or early spring.

1. With soil test values below 20 lbs. of phosphorus (P)/A--
Apply 60 to 80 lbs. of phosphate (P₂O₅)/A.
2. With soil test values between 20 and 40 lbs. of phosphorus (P)/A--
Apply about 40 lbs. of phosphate (P₂O₅)/A.
3. With soil test values above 40 lbs. of phosphorus (P)/A--
Phosphate response is not expected.

On new seedings -- Increase the above rates by 1/3 and--

With soil test values between 40 and 60 lbs. of phosphorus (P)/A--
Apply 40 lbs. of phosphate (P₂O₅)/A.

If possible, band phosphate 1/2" to 1" to the side or below seed when seeding. Some soil should separate seed from fertilizer. Do not band boron.

Potassium

On established stands -- Broadcast in fall or early spring.

1. With soil test values below 150 lbs. of potassium (K)/A--
Apply a total of 150 lbs. of potash (K₂O)/A in two applications--
75 lbs. in fall or early spring and 75 lbs. about July 1.
2. With soil test values between 150 and 250 lbs. of potassium (K)/A--
Apply 80 to 120 lbs. of potash (K₂O)/A in two applications--
1/2 in fall or early spring and 1/2 about July 1.
3. With soil test values between 250 and 400 lbs. of potassium (K)/A--
Apply 60 lbs. of potash (K₂O)/A about July 1.
4. With soil test values above 400 lbs. of potassium (K)/A--
No potash is recommended, but watch soil tests. Heavy yields
substantially reduce levels.

On new seedings -- With soil test values below 300 lbs. of potassium (K)/A--
Broadcast 40 to 60 lbs. of potash (K₂O)/A before seeding.

Boron

Adequate boron is necessary for legumes. Apply in fall or early spring.

1. With soil test values below 0.7 ppm of boron (B)/A--
Apply 2 to 3 lbs. of actual boron (B)/A annually.
2. With soil test values between 0.7 and 1.0 ppm of boron (B)/A--
Apply 1 1/2 to 2 lbs. of boron (B)/A annually.
3. With soil test values above 1.0 ppm of boron (B)/A--
No boron is recommended.

Phosphorus, potassium, lime, boron, and magnesium recommendations are based on soil test values from the Soil Testing Laboratory, OSU, Corvallis, Oregon.

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