



ORCHARD GRASS SEED (Western Oregon--West of Cascades)

Nitrogen fertilization is important in the management of orchard grass seed crops.

The K content of fertilizer is expressed as the oxide (K_2O) on fertilizer labels. Multiply K_2O by 0.83 to convert to K.

NITROGEN (N)

N fertilization will not produce optimum yield increases unless there is an adequate supply of phosphorus.

Fall application

Where orchard grass is pastured during the winter--

Apply 30 to 40 lbs N/A in the fall.

Spring application

Split applications of N to established stands have given good results.

Apply 50 to 60 lbs N/A about March 1.

Apply 50 to 60 lbs N/A about April 1.

PHOSPHORUS (P)

P, when applied to established stands, should be broadcast in the fall.

If the OSU soil test for P reads (ppm):	Apply this amount (lb/A) $P_2O_5 \times 0.44 = P$	
0 to 15	40-60	18-26
15 to 30	30-40	13-18
over 30	None	

The P content of fertilizer is expressed as the oxide (P_2O_5) on fertilizer labels. Multiply P_2O_5 by 0.44 to convert to P.

POTASSIUM (K)

K, when applied to established stands, should be broadcast in the fall.

If the OSU soil test for K reads (ppm):	Apply this amount (lb/A) $K_2O \times 0.83 = K$	
0 to 100	60	50
over 100	None	

ON NEW SEEDINGS

Banding low rates of fertilizer below the seed at planting has increased seedling vigor.

With 12 to 14 inch row spacing:

1. Apply 20 to 40 lbs N/A banded at planting.
2. With OSU soil test for P below 45 ppm-- Include 30 to 40 lbs P_2O_5 /A in the band.
3. With OSU soil test for K below 150 ppm-- Include 15 to 30 lbs K_2O /A in the band.

SULFUR (S)

A minimum of 7 to 15 lbs of S/A should be included in the fertilizer program each year.

Heavier applications of S every second year should be adequate.

MAGNESIUM, BORON, AND ZINC

To date, no response has been observed from applications of these nutrients to grass seed crops in the Willamette Valley.

LIME

When the pH of the soil is below 5.8, or the OSU soil test for calcium (Ca) is below 7 me Ca/100g soil, apply lime and work into the seedbed before planting.

A lime application is effective over several years.

The use of N fertilizers for grass seed crops will tend to increase soil acidity (decrease soil pH). This should be considered in establishing or renovating perennial grass seed fields.

FG 45 (Cont.)

The surface application of lime to established seed fields could increase the soil pH in the surface one-half inch of soil and thereby increase the possibility of N loss from ammonium N and urea due to volatilization. Also, broadcasting lime on established stands of perennial

grasses is not as effective as mixing lime with the soil.

Evaluate the soil acidity problem before making new plantings. The lime application should allow for some decrease in soil pH during the life of a perennial stand of grass.

The P, K, and lime recommendations are based on soil test values from the Soil Testing Laboratory, OSU, Corvallis, Oregon.

Prepared by E. Hugh Gardner, Soils, and Rex Warren, Farm Crops, Cooperative Extension Service; and T. L. Jackson, Soils Department, Oregon State University, Corvallis, Oregon. Information obtained through consultation with H. H. Rampton, U.S.D.A., and Willamette Valley County Extension Agents.