

# Fertilizer Guide

FG 31  
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## BLUEGRASS SEED (Northeast Oregon)

Good management practices are essential if optimum fertilizer responses are to be realized. These practices include use of recommended varieties, selection of adapted soils, weed control, disease and insect control, good seedbed preparation, proper seeding methods, adequate irrigation and timely harvest.

Recommended soil sampling procedures should be followed in order to estimate fertilizer needs. The Oregon State University Extension Service agent in your county can provide you with soil sampling instructions, soil sample bags and information sheets.

### NITROGEN (N)

Liberal amounts of available N are required for optimum yields of bluegrass seed. Irrigated fields require more N fertilizer than non-irrigated fields.

On new seedings. Apply 20-40 lbs N/A. A band application near the seed is an effective way to apply N. At least 1 inch of soil should separate the seed and fertilizer. For broadcast applications N should be applied at the higher rate.

If the soil test value for available N in the surface foot of soil exceeds 10 ppm N fertilizer is probably not required.

On established stands. Apply 15-20 lb N/A after post harvest burning and before the initial fall irrigation. Apply 100 to 120 lbs N/A in late October or early November.

With older stands apply 20 to 50 lb N/A in March or early April in addition to the fall application.

Soil tests are useful in predicting N fertilizer needs. N fertilizer rates can be reduced where significant amounts of available N are present in the soil.

If the soil test for available N in the surface 2' of soil equals

ppm
0 - 5
5 - 10
10 - 15
over 15

Apply this amount of N/A in October

lbs
100 - 120
60 - 100
0 - 60
0

### PHOSPHORUS (P)

Soil testing should be used to evaluate the need for P fertilization.

On new seedings, when the OSU soil test for P is below 15 ppm, place 40 lbs  $P_2O_5$ /A near the seed. At least 1 inch of soil should separate the seed and fertilizer. The application rate should be increased by 50% when P is broadcast rather than placed near the seed.

On established stands, P should be applied in the fall following post harvest burn with 15-20 lb N/A and K where applicable.

If the OSU soil test for P reads (ppm):

0 - 5
5 - 10
10 - 20
over 20

Apply this amount of phosphate ( $P_2O_5$ ) (lb/A):

50 - 60
40 - 50
30 - 40
0

### POTASSIUM (K)

Soil testing should be used to evaluate the need for K fertilization.

On new seedings, when the OSU soil test for K is below 100 ppm, place 40 lbs  $K_2O$  near the seed. At least 1 inch of soil should separate the seed and fertilizer. The K application rate should be increased by 50% where K is broadcast.



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On established stands, K should be broadcast in the fall following post harvest burn with 15-20 lb N/A and P where applicable.

<u>If the OSU soil test for K reads (ppm)</u>	<u>Apply this amount of potash (K<sub>2</sub>O) (lb/A)</u>
0 to 100	60
Over 100	None

#### SULFUR (S)

Include 10-15 lbs/A of S in the annual fertilizer program. S is sometimes contained in fertilizers used to supply other nutrients such as N, P, and K, but may not be present in sufficient quantity.

Plants absorb S in the form of sulfate.

Fertilizer materials supply S in the form of sulfate and elemental S.

Elemental S must convert to sulfate in the soil before the S becomes available to plants. The conversion of elemental S to sulfate is usually rapid for fine ground (less than 40 mesh) material in warm moist soil.

S in the sulfate form can be applied at planting time. Some S fertilizer materials such as elemental S and ammonium sulfate have an acidifying effect on soil.

#### MAGNESIUM, MICRONUTRIENTS, AND LIME

Responses of bluegrass seed crops to magnesium, micronutrients, or lime have not been observed in northeast Oregon.

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

This guide is based on experiments conducted by F. V. Pumphrey, Oregon Agricultural Experiment Station.

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