

Fertilizer Guide

STRAWBERRIES (Western Oregon - West of Cascades)

Good management is essential if optimum fertilizer response is to be realized. These management practices include use of recommended varieties, disease-free plants, selection of adapted soils and sites, disease and insect control, weed control, and irrigation.

Strawberries respond to generous amounts of soil organic matter. It is advisable to incorporate straw or a green manure crop prior to planting.

New fields should be fertilized at planting time. Established fields should be fertilized after harvest.

It is of particular importance that the soil be sampled and tested before the establishment of a new planting.

Follow recommended soil sampling procedures to insure satisfactory fertilizer recommendation. The Oregon State University Extension Service agent in your county can provide you with instructions on correct soil sampling.

NITROGEN (N)

New Plantings:

1. Apply 30 to 40 lbs N/acre at planting time. This one application may be adequate particularly if following a row crop such as beans, cucumbers, etc. If a sod crop or cereal straw has just been turned under, use 60-80 lbs N/A.
2. Apply another 30 to 40 lbs N/acre in mid-July to mid-August of the planting year. Do not apply N after mid-August (see exception below).

Established Plantings:

1. Apply 30-50 lbs N/acre about August 1 followed by irrigation.
2. Delay the N application until about September 1 if no irrigation is available.

3. Spring applications of N are recommended only when plants are stressed by winter injury, soil insects or disease (root rot) or when plants are being grown on sandy soils. Apply 15 to 20 lbs N/acre.
4. Foliar sprays of urea can be used. Do not apply more than 10 lbs of N/acre per application. Make application when foliage is dry.
5. The Benton variety has a tendency to produce excess foliage. Reduced N levels may be advisable with this variety.

PHOSPHORUS (P)

Strawberries have shown marked response to P on some soils.

P fertilizer should be banded on both sides of the row. Bands should be 3 to 4 inches from plants and 4 to 6 inches deep at planting time or at the edge of the row when rows are trimmed following harvest:

Phosphorus should be applied at planting or in August on established fields.

If the OSU soil test for P reads (ppm): Apply this amount of phosphate (P₂O₅) (lb/A):

0 to 15	100-120
15 to 45	60-100
over 45	40-60

POTASSIUM (K)

For new plantings rates of K₂O up to 60 lb/A should be banded with N and P after planting. Any K₂O above 60 lb/A should be broadcast before planting.

If the OSU soil test for K reads (ppm): Apply this amount of potassium (K₂O) (lb/A)

below 75	100-120
75-175	80-100
over 175	40-80



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SULFUR (S)

The fertilizer program should include an annual application of at least 15 to 20 lbs S/acre. S is contained in some fertilizer materials used to supply the other nutrients and in fungicides such as sulfur sprays or dusts.

MAGNESIUM (Mg)

Applications of Mg are suggested when Mg soil test values are below 1.0 me Mg/100g.

Mg can be banded similar to P using such materials as potassium magnesium sulfate or magnesium sulfate (epsom salts) to supply 20-30 lbs Mg/acre.

Mg can also be supplied in dolomite, which is a liming material that reduces soil acidity to about the same degree as ground limestone.

BORON (B)

B should be broadcast and worked into the soil prior to planting.

B or borated fertilizer should never be banded.

If OSU soil test for B reads (ppm):	Apply this amount of B (lbs/acre):
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Below 0.5	1.5 - 2
0.5 to 1.0	1 - 1.5

With a soil test value below 1 ppm B, an annual maintenance application of 1 lb actual B/acre should be broadcast or applied as foliar sprays.

B can be very toxic to strawberries if applied in excess of recommended rates or if banded.

LIME

Strawberries are fairly tolerant of soil acidity and have a comparatively low lime requirement.

If the soil pH is below 5.4 and calcium (Ca) is less than 5 me/100g, an application of 1 to 1.5 T/acre lime or dolomite lime may be desirable.

Lime or dolomite lime should be applied a year or more before planting and worked into the soil.

If recent lime or dolomite applications have been made, the K application should be increased by 60 to 90 lbs K_2O /acre.

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

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