

Fall Fertility: Is it a Good Idea or a Waste of Time?
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Soil fertility is a complex issue that most people take very lightly. Many people think that if a little nitrogen is good then more must be a whole lot better. This is not the case with plants, as they will only take up what they need for growth. Excess nitrogen will cause excessive growth in many plants that may not totally harden off at the end of the season or it may impact flowering and even fruit quality. Typically, trees and shrubs do not require additional fertilizer above what has been applied for turfgrass.

The amount of fertilizer one should use depends on several factors: how much maintenance you give your lawn, how much you water, your current soil fertility levels, and your views on using non-organic fertilizers. For a high maintenance lawn with a constant supply of water (one inch per week) apply four treatments of one pound of actual Nitrogen per 1000 square feet. For a lawn without water but higher maintenance apply only three treatments. A low maintenance lawn should have one or two applications yearly at this rate depending on whether you water or not. If clippings are left on the lawn you can reduce your total applications by one.

Current soil fertility can be measured with a soil test. There are many labs that will determine nitrogen, potassium, phosphorus, pH, salt, and organic matter in your soil. Soil test kits are available in our office; the cost of testing is around \$15.00. Soil testing will give you a very good indication of how much fertilizer to use at any given time. With this information it is possible to calculate the precise amount of fertilizer needed.

The question then remains as to what type of fertilizer to use. A good N-P-K ratio to use for your final lawn fertilization is 4-0-2 or 4-0-3. This means that the commercial analysis on the fertilizer bag should be within these ratios. Notice that the middle number is zero. Most of our soils have sufficient phosphorus, which does not leach out of the root zone. The first number is the important one; nitrogen leaches out of the root zone very quickly and is the most needed element for plant growth. Base your fertilizer calculations on this number.

Fall fertility is important in that the grass plants are able to take up nitrogen after the tops have stopped growing. Grass roots continue to grow as long as soil temperatures remain above 32 degrees. This enables the plants to store nitrogen until growth resumes in the spring resulting in a nice dark green color earlier. In addition to this the grass plants will be healthier and over winter better than those that go into winter with a nitrogen deficiency. Be sure to water the lawn well after fertilizer application if rain is not in the forecast.

More information on horticultural topics can be found by visiting the Pennington County website at <http://www.co.pennington.sd.us/extension/extsvc.html> call me at 605-394-2188 or by e-mail to ricky.abrahamson@sdstate.edu. Feel free to send me any feedback about my articles or our web site.