



Labor Day weekend is quickly approaching. This weekend signals many things: the end of the Nebraska State Fair, the start of school, and the perfect time to fertilize lawns. Find out the benefits of fertilizing lawns now, decode the mystery of fertilizer numbers, and compare application equipment.

Cool season grasses, like Kentucky bluegrass and tall fescue, are beginning to wake up from the summer slump and are vigorously growing. Actively growing turf means the perfect time to apply fertilizer applications. Fertilizing in mid-September encourages new vegetative growth, like tillers, rhizomes, and stolons, which help fill in those thin areas left behind by disease or summer stress and increase density of the turf. September fertilization also encourages root production and making of products that will be stored in the plants' crown. A turfgrass that has ample stored 'food' reserves will be better able to survive winters' stresses.

Fertilizer numbers can be confusing; 35-25-0, 10-10-10, 32-0-10, what do all of those numbers mean? A fertilizer tag will contain three numbers that describe the amount of nitrogen (N), phosphorus (P), and potassium (K) by percentage of weight. A fertilizer that has 18-46-0 on the bag contains 18 % nitrogen, 46% phosphorus (as phosphate,  $P_2O_4$ ), and zero percent potassium. A 50 pound bag of that fertilizer will have 9 pounds of nitrogen, 23 pounds of phosphate, and no potassium. The most desired fertilizers will have 25-50% slow release nitrogen like sulfur or polymer coated urea, methylene ureas, urea formaldehyde, or natural organics.

How much fertilizer should be put on? The best way to know how much fertilizer to apply is to have a soil test done. The soil test will provide exact recommendations for the amount of nitrogen, phosphorus, and potassium that should be applied. If there isn't enough time to get a soil test done, a product with a nutrient ratio of 4-0-2 or 4-1-2, could be used. Examples would be fertilizers that contain that ratio would be 24-6-12 or 20-0-10. Keep in mind the nitrogen recommendation may be specific to a given maintenance level as well as the nitrogen used by the turf. A highly managed sports field is going to require higher amounts of nitrogen for recovery and growth compared to a residential lawn. As the level of nitrogen is increased beyond what is needed for growth, management inputs are also increased. The moral of the story is the more excess nitrogen you apply, the more often you will have to mow.

Rotary spreader, drop spreader, is there really a difference in application equipment? There are many different types of application equipment, but the most common for the do-it-yourself homeowner are the drop spreader and the rotary spreader. Both have their own advantages and disadvantages. Drop spreaders offer more uniform application, but they can be more time consuming and less maneuverable. Rotary spreaders can cover large areas in a short amount of time, but accurate application can be a problem.

Regardless of the spreader, keep in mind the pattern in which the fertilizer is applied. The recommended pattern is to apply half the amount needed going in one direction and apply the other half in the perpendicular direction. Be sure to sweep or blow excess fertilizers off of paved surfaces back onto the lawn.

Now that you know about the benefits of fall lawn fertilization it's time to pick out your carefully selected fertilizer, fill up your spreading equipment, and start fertilizing.

*Elizabeth Killinger is the Horticulture Extension Educator with Nebraska Extension in Hall County. For more information contact Elizabeth at [elizabeth.killinger@unl.edu](mailto:elizabeth.killinger@unl.edu), her blog at <http://huskerhort.com/>, or HuskerHort on Facebook and Twitter.*