

Late Fall Lawn Fertilization

Late fall lawn fertilization has been recommended in Wisconsin for a number of years. Usually that application is made at a 1 - 1½ # N rate in late October or early November. Larry Caplan explains proper timing, advantages, and reasons for fertilization at that time.

The last application should be made when the mean daily air temperature drops to 50 degrees F. or less for 4 or 5 days. The "M.D.A.T." is the average of the daily high and low temperatures. For example, a daily high of 65 degrees and a daily low of 35 degrees would result in a mean daily temperature of 50 degrees $(65+35)/2=50$.

Generally, at this time top growth is minimal, but the turf is still photosynthetically active. The carbohydrates produced are used for underground growth, winter hardening and storage within the crowns, roots, tillers, rhizomes, or stolons. The stored carbohydrates will be used by the turf plant in the spring for green-up and regrowth. Figure 2 shows the effects of the season and N applications for cool season turf.

The advantages of a fall and early winter fertilization program are:

- Improved root system
- Thicker turf - increased production of tillers, rhizomes and stolons
- Stays greener in fall & winter
- Improved early spring coloration without encouraging top growth (less grass clippings)
- Reduced N requirements in spring (less disease)
- Improved recovery from summer stress
- Maximizes carbohydrate buildup
- Fewer weeds from thickened turf

The best choice for N is urea or IBDU, which will release their N more slowly than inorganic nitrate fertilizer. You should see less winter injury using urea/IBDU because of carbohydrate buildup.

There is no data to show that properly applied fall fertilization will significantly increase snow mold activity. Fall N seems to speed up recovery from the disease when it occurs.

Phosphorus and potassium, when applied in the fall, will promote turf growth and reduce winter injury, but only when P & K are deficient in the soil. If P & K levels are adequate, additional applications will not affect turf quality. If clippings are removed, consider one fall application of P & K.

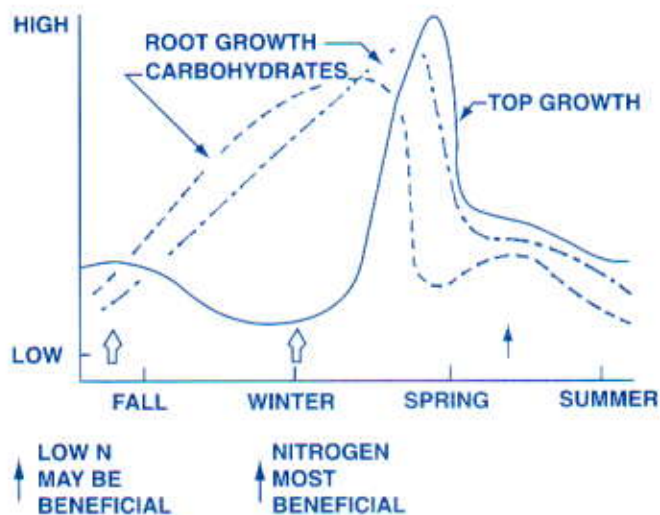


FIGURE 2

*Nitrogen fertilizer programming based on seasonal influence of topgrowth, root growth and carbohydrate content.
(R.E. Schmidt, VPI)*