



## Notes on the Autumn Season

As the Summer turns to Fall, we are presented with several very nice opportunities. The cooler Fall weather will actually inhibit the growth of many problem weeds like Crabgrass and Nutsedge. In addition, the other annual weeds (dandelion, clover, etc) are no longer actively trying to grow in.



We also have the opportunity to apply beneficial Limestone or Gypsum (shown below).



These products provide a whole variety of different nutrients that aren't typically found in normal fertilizers. If compared to human nutrition, Normal fertilizers are similar to proteins, carbohydrates, and fats. Limestone and Gypsum are more similar to vitamins.

During the upcoming months, we can't stress enough the importance of keeping the leaves off your lawn. Nothing in nature is more destructive to a lawn

than leaves that have been left on it for too long. Please make sure the leaves are cleaned up weekly. It will be worth the effort.



# Today Teed & Brown performed your Mid-Fall Service.

Please read below to better understand what was done.

A soil amendment was added to your lawn today. This was either Gypsum, Limestone, or a combination of the two. These two items can greatly enhance the long term health of your lawn.

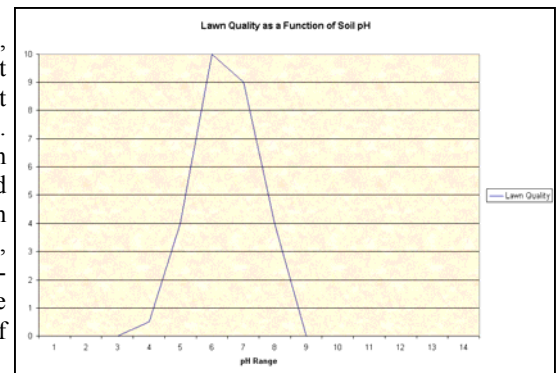
Your lawn's quality depends greatly on the pH of the soil. When the pH is too low, we can raise it by applying Limestone. Gypsum does not have this pH raising effect.

In addition to raising the pH, Limestone also contributes a great variety of nutrients that are not normally found in typical fertilizers. Normal fertilizers are a combination of Nitrogen, Potassium, and Phosphorus. Limestone and Gypsum contribute Calcium, Magnesium, Sulfur, Zinc, and other micro-nutrients. This helps in meeting the overall nutritional requirements of your lawn.

Since Gypsum contains the

same nutrients as Limestone, we add it to those lawns that are already in the optimal pH range. If we were to add limestone to those properties, we would run the risk of raising the pH too high, thereby creating even more problems.

The chart here shows the optimal pH ranges for an average lawn.



## Why is pH Important?

(Read at your own Risk!)

When the pH in a lawn is neutral (7.0), this means the hydrogen ions ( $H^+$ ) and the Hydroxide ions ( $OH^-$ ) are in balance. Since opposites attract, the negative and positive charges of the two will pull these ions together (under the right circumstances) and form a water molecule ( $H_2O$ ). When there are more  $H^+$  and fewer  $OH^-$ , the soil pH is considered to be low, or *ACIDIC*.

All of the positively charged  $H^+$  ions running around simply cannot sit around by themselves. They begin looking for negatively charged ions with whom they can match up and create a larger molecule. Once the  $OH^-$  are taken up, they must look elsewhere, and that is where the problems begin.

Many of the nutrients your lawn needs, like Potassium for example, are only usable in certain forms. Often times, the  $H^+$  ions will join up with a Potassium containing ion and they will form a larger molecule that is not usable by the grass. In essence, the  $H^+$  ions will bind up and trap many of the nutrients that could otherwise be available to your lawn. Your lawn then suffers from malnutrition, even though the proper nutrients are there.

By adding Limestone, we are actually giving the  $H^+$  ions some extra friends to play with! Some of the nutrients in the limestone use up the excess  $H^+$  ions, thereby freeing up the other nutrients for your lawn.