



# Lawn Mowing

## **Notes From New Century:**

*You have been left this information today due either your request for the information or because of a problem noticed by our technicians with your mowing. We have found a considerable difference in weeds, crabgrass and drought stress on lawns cut too short. The best quality lawns in our area are mowed at 3-3.5 inches. Customers expect to see a considerable improvement in their lawn when hiring New Century for their lawn care. Even the best products & services will never bring about the results our customers expect when their lawn is mowed too short.*

Mowing is one of the most important cultural practices performed in lawn maintenance. Regardless of whether the lawn is fertilized, irrigated or receives applications of control products, proper mowing practices are essential if a high quality lawn is to develop. Properly mowed lawns will have fewer weed populations, better moisture stress tolerance and generally better quality than lawns not properly mowed.

The mowing height should be a minimum of 2.5-3.0 inches. Taller cut grass will have deeper, more extensive root systems than short cut grass which will help enable the turfgrass plants to withstand summer stresses. Taller cut turfgrass will provide more shading of the soil thereby keeping soil temperatures cooler and reducing evaporation of soil moisture. Mow the lawn only as needed and preferably during the morning or evening hours when less stress is being imposed on the lawn. Also, make certain the mower blades are properly sharpened to avoid "tearing" the ends of the grass blades.

If daytime temperatures are elevated (mid-80's or higher) consistently through the stress period, only 3 to 4 weeks of survival should be anticipated. Dormant grass is lost once the crowns, rhizomes and roots begin to dehydrate. Homeowners will often find the areas of the lawn along sidewalks, curbs, driveways, south facing slopes, etc., to encounter the most stress and will be the first areas to be lost during extended periods of drought.

## **Lawn Mowers**

The blades (leaves) of the grass plant are cut with mechanical machines called mowers. Lawn mowing is a partial defoliation of the turfgrass plant.

The primary type of mower used on most home lawns is the rotary mower. This mower uses an engine (gasoline or electric powered) to horizontally rotate a blade. The blade is designed to create a vacuum resulting in the grass being lifted then sharp edges of the blade cut the leaf blades. Rotary mowers are constructed to trim close and are useful for mowing at higher mowing heights. Making the correct height adjustment of rotary mowers is relatively easy. Many sizes and models are currently on the market ranging from small push models to large riding units capable of mowing large areas in a short period of time.

## **Cutting Heights**

Mowing height is probably the most important parameter of mowing. Turfgrasses, like other plants, must manufacture sugars through photosynthesis in the leaves if they are collectively to develop into a high quality lawn. Turfgrasses mowed at low heights have limited leaf area to sustain photosynthesis rates necessary to maintain good plant vigor.

In addition to leaf area, a direct relationship exists between the height of the turfgrass and the depth and total mass of the root system. Research with Kentucky bluegrass has shown that root growth was more than twice as great when the grass was mowed at a 3.0 inch height versus a 0.75 inch height. In general, a lawn mowed too short will have a shallow root system with little total root mass. The impact of shallow, weak root systems is most apparent during summer stress periods. When soil moisture becomes limiting, the closely mowed lawns usually exhibit stress first and the loss of turfgrass plants is more likely. Turfgrass mowed at the recommended height will have deeper, stronger root systems.

Higher mowing heights during the summer period will keep soil temperatures cooler, preserve soil moisture and help maintain turfgrass quality. Mowing height can play an important role in prevention of lawn weed establishment. Research has shown

that higher mowing heights result in fewer weeds per unit area. This is due to higher grass providing more shading and competition to the weed seedlings during the initial establishment phases.

### **Mowing Frequency**

The lawn should be mowed frequently enough so that no more than 1/3 of the leaf blade length is removed during any one mowing. For example, if Kentucky bluegrass is normally mowed at 2 inches, the height should not be allowed to grow beyond 3 inches before it is mowed back to 2 inches. If 1 inch is mowed, 1/3 of the total blade length is removed and the 1/3 mowing rule has been followed. During periods of active turfgrass growth, many lawns will require mowing more than once per week if this recommendation is to be followed. Proper mowing frequency is a key to successful implementation of the "Don't Bag It" clipping return program. If extended wet periods prevent timely mowing and the turfgrass gets excessively tall, move the mower height adjustment to the highest setting and mow the lawn. Once the clippings dry, lower the height adjustment to the desired height and then mow the lawn a second time in a different direction. This approach is termed "Double Cutting."

### **Mow When Dry**

Turfgrass should be mowed when it is dry. Wet grass is more difficult to cut and has the tendency to clog under rotary mowers. Mowing should not, however, be delayed for long periods of time because the grass is wet.

### **Fall Mowing Practices**

During the fall period, mowing should continue as long as the turfgrass is actively growing. If the maintenance height is 2.5 inches during the fall period, it is permissible to lower the height to 2.0 inches during the last 1 to 2 mowings of the year. A lower mowing height going into the winter is important if the lawn is in a region susceptible to outbreaks of winter diseases.

### **Clipping Return**

Turfgrass clippings contain measurable amounts of nitrogen, phosphorus and potassium. Research has shown that when clippings are removed, 20 to 25 percent more fertilizer was necessary to maintain comparable color and quality as areas where clippings were returned. Contrary to popular belief, turfgrass clippings do not contribute to thatch accumulation if proper mowing practices are followed.

Information obtained through the Ohio State Extension Bulletin Fact Sheet HYG-4020-93



*Lawn Maintenance Fact Sheet Compliments of New Century*



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