



Proper Cultural Practices Mowing, Watering, Thatch Control & Fertilization



Mowing





Mowing

- **Rotary**
 - Most common of all mowers
 - Blade doesn't actually cut, but rips grass plant



Mowing

- **Rotary**
 - Needs blade sharpened on a regular basis
 - Advances in design and technology make the rotary mower the most versatile and cost-effective





Mowing

- **Reel**
 - Mostly used on golf courses
 - Only type of mower that cuts the grass plant
 - Difficult to find and costly to purchase



Mowing

- **Reel**
 - Requires special sharpening equipment and calibration
 - May be difficult to use in wet conditions or if the grass is long





Mowing

- Reel
 - Can be very dangerous due to the exposed blades



Mowing

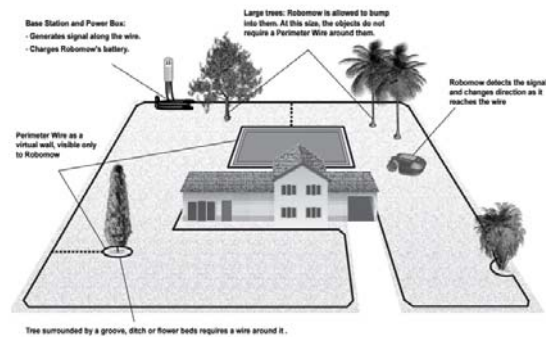
- Robomowers
 - Prices range from \$1,300 and up





Mowing

- Robomowers
 - Initial set-up is time consuming



Mowing

- When is the best time of day to mow?
 - Late afternoon or early evening is preferable if it is above 85 degrees.





Mowing

- **When is the best time of day to mow?**
 - Try not mow during the heat of the day.



Mowing

- **Recommended Mowing Heights:**
 - Tall Fescue 3 to 4"
 - Bluegrass 2½ to 3"
 - Perennial Ryegrass 2½ to 3"
 - Fine Fescue 2½ to 3½"





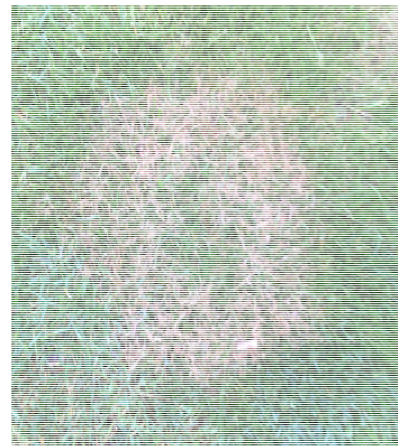
Mowing

- What happens when a grass plant is cut?
 - Carbohydrate production is reduced
 - Shading of the lower leaves and soil is reduced



Mowing

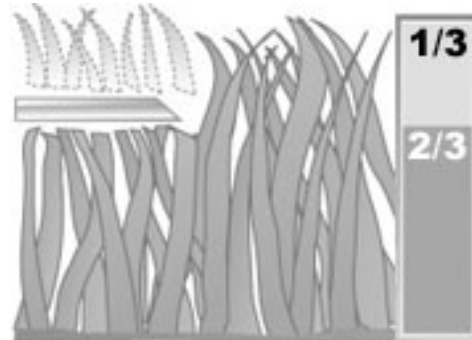
- What happens when a grass plant is cut?
 - The port of entry for pathogens is increased
 - Uses food reserves to grow a new shoot





Mowing

- How often should you mow the grass?
- When it needs it
 - Remove no more than one-third of the green tissue
 - More often in the spring



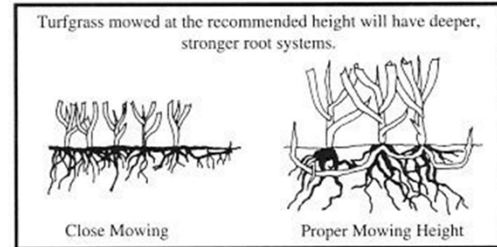
Mowing

- How often should you mow the grass?
- When it needs it
 - Less in summer
 - Continue to mow in the fall as long as the turf remains growing.



Mowing

- **Advantages of Mowing Lawns At A Higher Setting**
 - The grass blade is the food producing part of the plant
 - Longer grass blades will shade the soil underneath to prevent weed seeds from heating up and germinating
 - Shading the soil will also keep it cooler and therefore more moist meaning less watering necessary
 - The roots will grow in depth to the height of the grass plant



Mowing

- **Collect the clippings or leave them on the lawn?**
 - When less than 1/3 of the grass blade is removed at one time, leave the clippings lay on the lawn
 - Grass decomposes quickly as it is mostly water
 - Don't leave clipping clumps
 - As much as 30% of the nutrients applied to the lawn may be removed if clippings are collected each week



Watering



Watering

- **Customers can supply water to their lawns in many ways.**
 - *Underground sprinkler systems*
 - *Pros*
 - *Cons*





Watering

- **Customers can supply water to their lawns in many ways.**
 - *Pulsating Sprinkler*
 - *Pros*
 - *Cons*



Watering

- **Customers can supply water to their lawns in many ways.**
 - *Oscillating Sprinkler*
 - *Pros*
 - *Cons*





Watering

- **Customers can supply water to their lawns in many ways.**
 - *Soaker hose*
 - *Pros*
 - *Cons*



Watering

- **Customers can supply water to their lawns in many ways.**
 - *Misc. Sprinklers*
 - *Pros*
 - *Cons*





Watering

- **Customers can supply water to their lawns in many ways.**
 - *Hand watering*
 - *Pros*
 - *Cons*



Watering

- **Customers can supply water to their lawns in many ways.**
 - *Traveling or walking sprinklers*
 - *Pros*
 - *Cons*





Watering

- ***How much water does a lawn need per week to stay green?***
 - 1 to 2" of water - one to two times per week
 - Variables
 - Temperature
 - Water pressure
 - Watering restrictions
 - Grass type

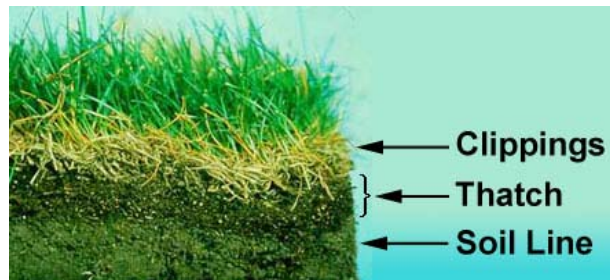


Watering

- ***What is the best time of day to water?***
 - Early morning is the preferred time
 - Avoid watering in late afternoon or evening
 - Increases disease development



Thatch Control



Thatch Control

- *What is thatch?*
 - Thatch is a build-up of living and dead stems, leaves, roots, stolons, and other organic material at the soil surface





Thatch Control

- ***What are the advantages of thatch?***
 - Acts as an insulator
 - Provides a 'cushion' for the lawn
 - Helps to hold in moisture



Thatch Control

- ***What are the disadvantages thatch?***
 - Acts like a sponge
 - Ties up insect and disease control materials, which may render them useless.





Thatch Control

- ***What are the disadvantages thatch?***
 - *Acts as an incubation chamber for diseases and insects*
 - *Winterkill is increased because the roots are exposed to cold weather extremes.*



Thatch Control

- ***What are the disadvantages thatch?***
 - *May become hydrophobic or will repel water.*
 - *May cause uneven mowing*
 - *Overall reduction in turf quality*





Thatch Control

- *What methods are available to reduce thatch?*
 - *Power raking or verticutting*



Thatch Control

- *What methods are available to reduce thatch?*
 - *Core aeration*





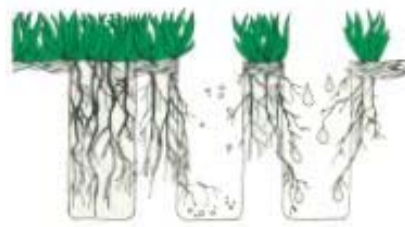
Thatch Control

- ***What are the benefits of thatch removal?***
 - ***It will open up the turf it allow more:***
 - ***Air penetration***
 - ***Water penetration***
 - ***Nutrient penetration***
 - ***Will allow for better root growth***
 - ***Improves mowing conditions***



Thatch Control

- ***What are the benefits of thatch removal?***
 - ***Increases thatch decomposition***
 - ***Reduces insect and disease incidence***
 - ***Decreases the potential for winter kill***
 - ***Increases overall turf health and quality***





Thatch Control

- *What are the benefits of thatch removal?*
 - *Alleviate soil compaction.*



Thatch Control

- *What are the benefits of thatch removal?*
 - *Provide a place for the seed to germinate*





Thatch Control

- *Will every lawn benefit from core aeration?*
 - **Yes!**



Fertilization

What do the three numbers on a fertilizer bag represent?

- % by weight of Nitrogen (N), Phosphorus (P) and Potassium (K)





Fertilization

What does each nutrient do for the lawn?

- Nitrogen is for greening and growth and is usually needed in the greatest amount
- Phosphorus is for root and shoot development
- Potassium or potash is for plant strength and hardiness



Fertilization

If a 50-pound bag of fertilizer has an analysis of 32-3-10, how many pounds of each nutrient are in the bag?

N: $.20$ (20%) $\times 50 = 10$ pounds

P: $.05$ (5%) $\times 50 = 2.5$ pounds

K: $.10$ (10%) $\times 50 = 5$ pounds





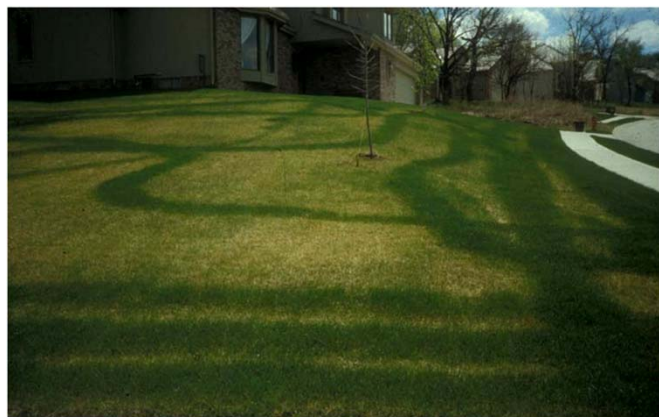
Fertilization

The following are some pictures of
application mistakes.

Enjoy



Fertilization





Fertilization



Fertilization





Fertilization



Fertilization

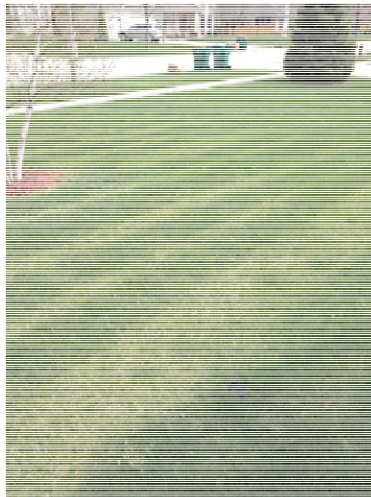




Fertilization



Fertilization





Fertilization



Thank you
Harold A. Enger
henger@spring-green.com

