

Name _____

Period _____
Due date _____



Types of Turf PROJECT



In this project each team will grow a “lawn” with a different type of turfgrass. You will regularly water your lawn and measure the average length of the 3 longest blades of grass. At the end of the project, you will also “mow” your lawn and measure its mass.

DESCRIPTIONS: Observe and describe each of the 3 types of turfgrass seeds and write your descriptions below: What shapes and colors are the seeds? Are the seeds coarse or fine?

Perennial Rye Grass	Kentucky Bluegrass	Tall Fescue

MAKE A PREDICTION: Which lawn will grow the heaviest? Rank the 3 turfgrasses from above from greatest mass to least mass

GREATEST MASS #1 _____
#2 _____
LEAST MASS #3 _____



- MATERIALS:**
- | | |
|--------------|----------------|
| Growing pan | Turfgrass seed |
| Masking tape | Trowel |
| Sharpie | Beaker |
| Potting soil | Water |



PROCEDURE

(1) Make a label for your growing pan with a piece of masking tape.

- WRITE:
- Type of turfgrass (Perennial Rye Grass, Kentucky Bluegrass, or Tall Fescue)
 - Period

Tape this label on the side of the pan.

(2) Select your type of turf then plant your lawn according to the following steps:

TURFGRASS SELECTED: _____

- Add 1000 ml. of potting soil plus 40 ml. of turfgrass seed to your pan and mix well.
- Water your lawn with 500 ml. of tap water.
- Set your lawn in the grow cart in the back of the room



OBSERVATIONS

DAY	DESCRIBE YOUR LAWN (color of grass, thickness of blades, fullness of lawn, changes from day to day)
1	
2	
3	
4	
5	
6	
7	

Data Table

AVERAGE LENGTH (in.) of 3 Longest Blades
 (Please also write your data on the class wall chart)

DAY	1	2	3	4	5	6	7
Perennial Rye Grass							
Kentucky Bluegrass							
Tall Fescue							

Make a **LINE GRAPH** of the class data on the graph paper below.

You will need 3 LINES, one for each factor. Color each line a different color by using the color key on the left:

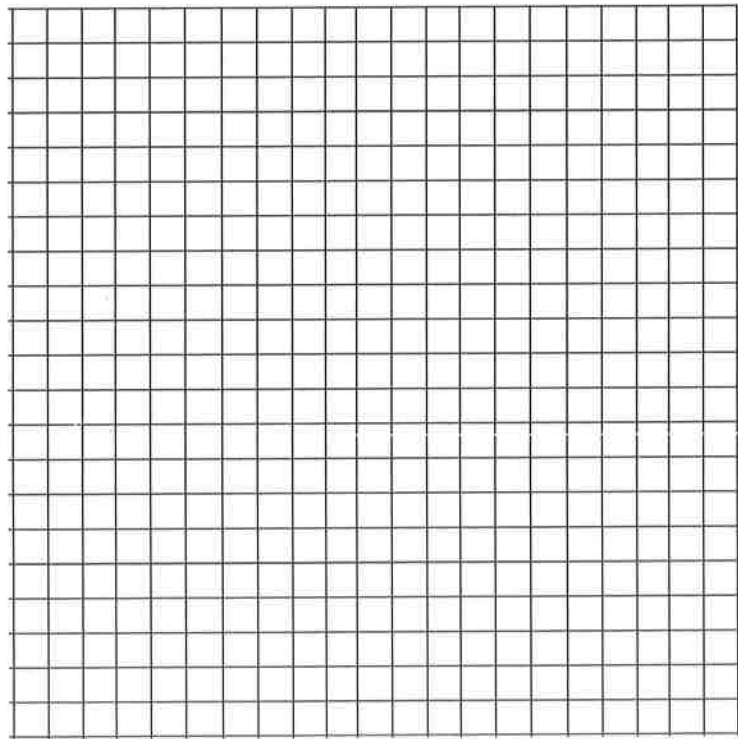
AVERAGE LENGTH OF GRASS BLADES

Perennial Rye Grass =

Kentucky Bluegrass =

Tall Fescue =

AVERAGE LENGTH (IN)



1 2 3 4 5 6 7

DAY

DATA TABLE

MASS (g) OF MOWED LAWN

(Please also write your data on the class wall chart)

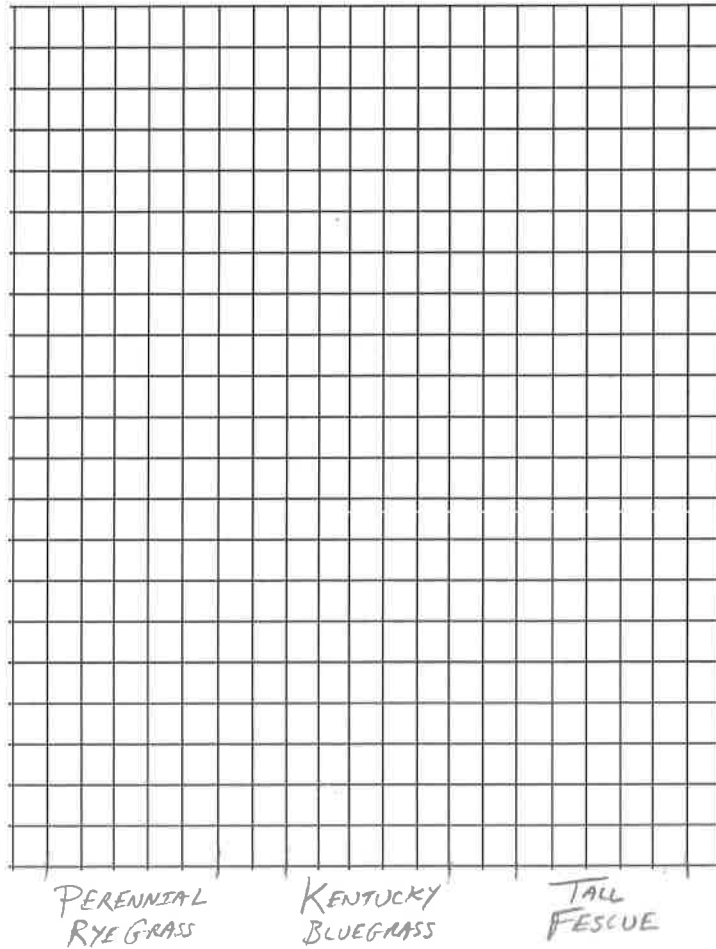
TURFGRASS	Perennial Rye Grass	Kentucky Bluegrass	Tall Fescue
MASS (g)			

Make a **BAR GRAPH** on the graph paper below.

- You will make 3 BARS, one for each factor
- Color each bar according to your color key on the previous page

MASS OF LAWNS

MASS
(g)



ANALYSIS AND CONCLUSIONS:

1. How accurate was your prediction on the 1st page (mass of lawns) compared to the actual results? Explain.

2. Which turfgrass grew the TALLEST? _____

3. Which turfgrass grew the HEAVIEST? _____

Read each of the following passages and answer the corresponding questions:

How to select the right turfgrass seed

One of the most important factors in selecting turfgrass seed for your site is to decide which species (or mix of species) best fits your needs. This is important whether you are deciding on the seed for athletic fields, home lawns or for renovating your existing turf to add newer improved varieties to your lawn. Turfgrass breeders are constantly making improvements every year, so do your homework and try to find the best new varieties available. The extra cost of high quality seed is a tiny part of the total cost of any seeding job, so choose the best seed varieties available that fit your needs.

This article will focus on cool season species because cool season species are most widely used in the northern two-thirds of the country. Each of the most popular cool season species has unique growth habits and I will discuss them briefly here.



Perennial Ryegrass

Perennial ryegrass has a non-spreading, bunch type growth habit. It germinates and establishes quickly. It has a dark green color, medium fine texture, and good mowing characteristics. Perennial ryegrass is best in mixtures with other species.

Kentucky Bluegrass

Kentucky Bluegrass is a widely adapted species that is used for many situations. Its dark green color and medium fine texture contributes to it sometimes being called the king of lawn grasses. Kentucky bluegrass is able to spread and recover because it grows by underground primary lateral stems called rhizomes. These rhizomes grow out from the main plant and form a new plant, allowing it to form a dense cover. Kentucky bluegrass is a good choice for athletic fields, home lawns, and golf courses.

Turf Type Tall Fescue

Tall fescue is another bunch type grass that persists in the warmer areas of the cool season range of adaptation. This is primarily due to the fact that it has a deep root system, which helps it be more heat and drought tolerant. Plant breeders have made great improvements in this species over the last decade. It does not tolerate as close a mowing height as Kentucky bluegrass or perennial ryegrass, so a mowing height of 2 –3 inches is recommended. Turf Type Tall fescue requires slightly less water and fertilizer than the others.

_____ 1. Which type of growth habit does Perennial Ryegrass have?

- A. Rhizomes B. Bunch type C. Stolons

_____ 2. Which type of growth habit does Kentucky Bluegrass have?

- A. Rhizomes B. Bunch type C. Stolons

_____ 3. Which type of growth habit does Tall Fescue have?

- A. Rhizomes B. Bunch type C. Stolons

_____ 4. Which type of turfgrass needs to mowed the highest?

- A. Perennial Ryegrass B. Kentucky Bluegrass C. Tall Fescue

_____ 5. Which type of turfgrass would be the best choice for an athletic field?

- A. Perennial Ryegrass B. Kentucky Bluegrass C. Tall Fescue

_____ 6. Which type of turfgrass is the most heat and drought resistant?

- A. Perennial Ryegrass B. Kentucky Bluegrass C. Tall Fescue

_____ 7. Which type of turfgrass is best used in mixtures with other species?

- A. Perennial Ryegrass B. Kentucky Bluegrass C. Tall Fescue

Whichever species you choose, always try to choose quality named varieties with superior genetics that have improved disease and insect resistance, and drought tolerance, and that will fit your long-term goals.

Consider the following before you choose which grass will work best for different areas of your lawn.

Shade tolerance. Grasses are sun-loving plants. They need an absolute minimum of 4 hours of direct sun a day. Areas that get much traffic require at least 6 hours. If your light is marginal, fescues tolerate shade better than regular bluegrass or ryegrass.

Drought tolerance. If you don't plan to water during summer droughts, or your soil doesn't retain much water, the Hybrid Bluegrasses and Turf type tall fescues are your best choice. Some professional mixes actually combine both.

Wear tolerance. Fine fescue doesn't stand up well to traffic. Choose one of the other species for lawn areas that take a lot of wear and tear.

Establishment. Perennial ryegrass is quick to germinate and protect the soil — an important consideration on slopes that are vulnerable to erosion. Kentucky bluegrass is the slowest. The fescues fall between the two.

When you purchase grass seed, it is often a mix of several species. Read the label to find out what's in the bag before buying. Again, cheap seed is never a bargain.

Never purchase a mix that contains more than 2% inert matter, or any noxious weed seeds. Avoid grass seed mixes with annual ryegrass. It will germinate and grow quickly, but usually dies over winter. It is very inexpensive and is usually a sign of poor quality mixes.

_____ 8. If you have a shady area, the best turfgrass to plant is:

- A. Perennial ryegrass B. Kentucky Bluegrass C. Tall Fescue

_____ 9. If you need a turfgrass that will germinate quickly and protect the soil choose:

- A. Perennial ryegrass B. Kentucky Bluegrass C. Tall Fescue

10. TRUE or FALSE: It is worth it to save money and buy cheap grass seed _____

11. TRUE or FALSE: A grass seed mixture with noxious weed seeds is okay _____

12. TRUE or FALSE: You should avoid seed mixtures with annual ryegrass _____