Growing & Maintaining a Fescue Lawn

A Bay-Wise Fescue Lawn
Master Gardeners educate Maryland residents about effective and sustainable horticultural practices that build healthy gardens, landscapes and communities.
Lawn Care

• The way you care for your lawn can help prevent pollutants from reaching Maryland’s streams and rivers and the Chesapeake Bay!
• According to the Maryland Dept. of Agriculture, there are over 685,000 acres of residential lawns in Md.

• If everyone over-fertilized their lawn by just 1 lb., a huge amount of contaminants could end up in our groundwater, streams, rivers, lakes and the Chesapeake Bay.
Planting healthy, dense grass

- Produces an attractive lawn.
- Keeps pollutants out of streams and rivers.
- Slows the flow of water running off the landscape so water soaks into ground.
- Holds soil and filters water.
- Traps sediments and chemicals.
Follow these steps

• Have your soil tested.
• Plant the right grass in the correct place.
• Follow a proper feeding program.
• Practice integrated pest management.
• Mow grass to the proper height.
Choose the correct site

- Avoid heavy shade and severely sloped areas.
- If you have these problems use native groundcovers.
This is my lawn in early March
The same lawn at the end of March
End of May – no fertilizer since last fall.
Soil Preparation

• Get a soil test.
• Remove debris.
• Till in recommended lime & fertilizer.
• Loosen compacted soil.
• Direct drainage away from house.
• Fill in all depressions.
• Incorporate organic matter into top 4-6 in.
Soil Testing

• Every 3-5 years
• Need pH of 5.8 – 6.2 so nutrients can best be taken up.
• Use dolomitic lime (CaMgCO3). The Mg keeps the lime from dissolving too fast and burning the grass.
NEW FERTILIZER LAW

- No fertilizer on impervious surfaces
- No fertilizing from Nov. 15 to March 1
- No fertilizing when ground frozen
- No fertilizing within 15 ft. of waterway
- Restricts amount of phosphorus
- Establishes maximum amount of nitrogen
- Establishes maximum application rates for efficiency controlled-release products.
Choose the best seed

- We live in a cool season grass area.
- Fescue is the recommended seed.
- The next slide shows a sample of a grass seed (fescue) which would be good for a lawn with sun and shade.
Sun-Shade Blend

- A blend containing top-rated, turf-type tall fescues
- Ideal for full sunlight or partial shade
- Wide range of adaptation
- Good heat and drought tolerance
- Good disease resistance
- Tolerates heavy traffic
- New Lawn - This bag covers 750 sq. ft.
- Overseeding - This bag covers 1500 sq. ft.
The next slide indicates information you should expect to find on a good grass seed bag.
The basic information that should appear on the label is as follows:

- Name and address of labeler.
- Lot number.
- Kind and variety of turfgrass seed listed in order of predominance.
- Percentage by weight of pure seed of each species and variety (percentage purity).
- Germination percentage (percentage of viable seed).
- Percentage by weight of other crop seed.
- Percentage by weight of weed seed. (Should be less than 0.5% by weight.)
- Percentage of undesirable grass seed. (Should not contain any.)
- Percentage by weight of inert matter. (Chaff mostly.)
- Date on which the germination test was conducted.

The name and address of the labeler represents the party responsible for the container’s contents. The lot number is listed so that the contents can be traced back to
<table>
<thead>
<tr>
<th>Pure Seed%</th>
<th>Germination%</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>19.60% Jaguar 3 Tall Fescue</td>
<td>85%</td>
<td>OR</td>
</tr>
<tr>
<td>19.60% Avenger Tall Fescue</td>
<td>85%</td>
<td>OR</td>
</tr>
<tr>
<td>19.60% Raptor Tall Fescue</td>
<td>85%</td>
<td>OR</td>
</tr>
<tr>
<td>9.80% Inferno Tall Fescue</td>
<td>85%</td>
<td>OR</td>
</tr>
<tr>
<td>9.80% Titanium Tall Fescue</td>
<td>85%</td>
<td>OR</td>
</tr>
<tr>
<td>9.80% Constitution Tall Fescue</td>
<td>85%</td>
<td>OR</td>
</tr>
<tr>
<td>9.70% Raven Kentucky Bluegrass</td>
<td>85%</td>
<td>WA</td>
</tr>
</tbody>
</table>

5 LBS. NET WT.  
(2.25 KG)  
Lot 173187-8-1N  
Tested Jan. 2008  

All Tall Fescues are turf type noxious weeds none.
Overseed as needed
Fertilizer

• What is N-P-K?
• Nitrogen – keeps it green & healthy
• Phosphorus – roots
• Potassium – disease resistance and drought tolerance
29-2-10
1.5 lb. Nitrogen/1,000 sq. ft.
4/10 of the Nitrogen is Slow Release
When

- Late August to November
- In March to June only when needed
- Avoid: dormanant periods (July-Aug.)
  frozen turf/ground
  high precipitation
  water-logged
Why?

- Applying fertilizer at the wrong time or in the wrong amount can make things worse.

  Insect and disease problems

  Wash away before the grass takes it up
How much?

- Total of 0.9 lbs N/1000 sq. ft. at a time
- 0.9 lb. in September; 0.9 lb. in October;
- ½ lb. in May if needed
How much do I need to buy to put down 1 lb?

- For 0.9 pound per sq ft.
  - Divide 0.9 by the % of nitrogen (the N #)
Let’s practice

- Use 24-6-6
- Formula:
  - $0.9/\% \text{ nitrogen} = \text{lbs. needed per 1000 sq ft}$
  - $0.9 \text{ lb} / 0.24 = 3.75 \text{ lbs}$
- If your lawn is 5000 sq ft:
  - $3.75 \text{ lbs} \times 5 = 18.75 \text{ lbs}$
What is soluble & insoluble

- Soluble nitrogen dissolves immediately. It is nitrate and ammonia.
- Insoluble nitrogen dissolves slowly as the microorganisms of the soil help it release depending on moisture and temperature. Examples are sulfur, resin, or polymer coated urea, ureaformaldehyde and IBDU. Look for water insoluble nitrogen (WIN).
Which is best?

- The best fertilizer has at least 40% insoluble nitrogen!
What if the label doesn’t have WIN!

- For example: 20 – 10 – 10 fertilizer
- Divide the % of insoluble nitrogen by the % of total nitrogen and multiply by 100.
- Example: Guaranteed analysis

  Total N: 20%
  Controlled release N: 8%
  Available phosphates: 10%
  Water-soluble potash: 10%

  \[
  \frac{0.08}{0.20} = 0.40 \quad \times \quad 0.40 \times 100 = 40\%
  \]
Total nitrogen (N)........................................... 26%
  4.0% ammoniacal nitrogen
  0.8% water insoluble nitrogen
  12.1% urea nitrogen
  9.1% other water soluble nitrogen*
Available phosphate (P₂O₅)............................ 3%
Soluble potash (K₂O)..................................... 12%
Sulfur (S)................................................... 8%
  8% combined sulfur (S)
Derived from: methyleneurea, ammonium phosphate,
potassium sulfate and ammonium sulfate.
*Contains 6.7% slowly available methylenediurea
and dimethylenetriurea nitrogen.
U.S. Patent No. 5,102,440
Product of U.S.A.
Information regarding the contents and levels of
metals in this product is available on the internet at
http://www.regulatory-info-sc.com
Practicing

• 0.8 plus 6.7 = 7.5
• 7.5 divided by 26 = 29 % (about)
• Is this a good fertilizer?
Are organic fertilizers better?

- Answer – not necessarily
- You must check the amount of insoluble nitrogen.
- Let’s look at an example.
Organic Fertilizer
GUARANTEED ANALYSIS

Total Nitrogen (N)  4.00%
  3.27% Water Insoluble Nitrogen (WIN)
  .73% Water Soluble Nitrogen (WSN)
Available Phosphate (P2O5)  2.00%
Soluble Potash (K2O)  3.00%
Calcium (Ca)  3.00%
Magnesium (Mg)  .50%
  .12% Water Soluble Magnesium (WSMg)

Nutrients derived from 100% chicken litter
This product has a natural pH of 7.5
Keep it off the sidewalk!

• Keep all fertilizers off the sidewalk, driveway and any other impervious area.
• Sweep it onto the lawn.
And another thing!

- Avoid getting fertilizer into natural drainage areas on your property.
- Don’t use fertilizer to melt ice. Avoid buying ice melting products with nitrogen.
Spreaders

• Drop are better than rotary because they can offer more accurate placement.
• Both need to be calibrated.

Put exact amt. fertilizer by weight into spreader. Fertilize at ½ rate. Then weigh what is left in spreader. Adjust calibration.

Fill and wash spreader over grass area.
Watering

• Water when the bright green grass has turned to gray/green and you see your foot print when you walk on it.

• Water to get 1 inch on the lawn at a time. It should seep down 6 inches. Set out coffee can to measure.

• Evening or early morning – not night

• Avoid windy days and water running off

• Allow to go dormant.
Mowing

• Mow to proper height – 3 to 3 ½ in.
  reduce broadleaf weeds
  microbes survive better if taller
• Mow often – cut off no more than 1/3
• Why? Reduce weeds 50-80 %
  Shade roots & keep greener
  because soil is cooler
  Thatch reduced.
• Mow so clippings are blown onto lawn.
  provides fertilizer; 1 lb/1000 sq ft/yr
• Keep mower blades sharp
  reduce stress and disease.
What is thatch?

• Def. – tightly intermingled layer of partly decomposed stems and roots of grasses.
• It develops between the green vegetation and the soil surface.
• It restricts the movement of water, air, plant nutrients and pesticides into the soil.
• It harbors diseases.
How to control thatch

• Good practices:
  • Lime when pH goes below 6.5
  • Avoid over-fertilizing
  • Periodic mechanical de-thatching every 2-3 years if conditions are right for rapid recovery
  • Mechanical aeration. remove plugs; do not compact
Weed control

• Broadleaf control in May or mid-Sept.
  Does it have fertilizer?
  Pull what you can
  Spot spray
  Crabgrass pre-emergent in spring – comes with N at rate of ½ lb/1000 sq ft. (Put down before forsythia blooms.)
PRE-EMERGENT HERBICIDE FOR CONTROL OF BROADLEAF WEEDS
Including Dandelion, Clover, Chickweed, Henbit, Spurge, Black Medic, Speedwell, Burweed, Parsley, Wood Sorrel, Wild Celery, and Others.

ACTIVE INGREDIENT:
Isoxaben: N-[3-(1-ethyl-1-methylpropyl)-5-isoxazolyl]-2,6-dimethoxybenzamide and isomers .................. 0.38%
INERT INGREDIENTS ........................................... 99.62%
TOTAL .................................................. 100.00%

NET WT. 10 LB. (4.5 kg)

Covers over 2,100 Square Feet

KEEP OUT OF REACH OF CHILDREN
CAUTION See Back Panel for Additional Precautionary Statements.
MANTÉNGALO FUERA DEL ALCANCE DE LOS NIÑOS
PRECAUCIÓN Vea detrás el panel para las declaraciones preventivas adicionales.

Portrait® - Dandelion Preventer
Super-Premium

Organic Weed Control

Corn Gluten Meal

Invented 4-Step Organic Lawn Care Program
INGREDIENTS:
Active Ingredient: corn gluten meal 99%, Inert Ingredient: corn oil
Diseases

- Prevention is simpler & cheaper than removal.
- Do your homework first!
- Call HGIC at 1-800-342-2507 or email questions at www.hgic.umd.edu.
- Choose the least toxic approach
Consider reducing lawn size

- Native perennial gardens add value and beauty to your home.
- They can be accented with small areas of lawn.
- These gardens absorb more runoff, save the bay and provide homes and food for wildlife.
In summary

• For a beautiful lawn that saves the bay:
  • Choose the correct site.
  • Test and prepare the soil.
  • Choose the best seed.
  • Fertilize and water wisely.
  • Mow at the proper height.
  • These practices control weeds & disease.
If all else fails, try these!
This program was brought to you by volunteers from Howard County Master Gardeners, University of Maryland Extension 410-313-2707

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Addendum: Notes to Accompany Slides

**Slide 2:**
Presentation updated in 2012 by Master Gardener Sylvia Huestis. Homeowners can arrange

**Slide 5:**
Lawn retains 35% water that flows over it. Garden retains 85%. Rain garden if built correctly retains 100%.

**Slide 7:**
Groundcovers – green & gold (Chrysogenum virginianum), epimedium, sweet woodruff,
Sun – creeping phlox, creeping thyme

**Slide 9:**
Don’t leave leaves on lawn at any time of year.

**Slide 10:**
You do not need fertilizer in the spring. Fall is the time for fertilizing.
Addendum: Notes to Accompany Slides

Slide 13:
Hand out copy of law. Give out pamphlet.

Slide 18:
Note that the best is turf type tall fescue.

Slide 23:
Waste of money. Remember this when lawn companies suggest fertilizing in summer.

Slide 24:
Maximum. October only when necessary.

Slide 27:
To find WIN on the label is easiest for you.

Slide 38:
If you have a flat driveway, measure a given area on your driveway. Fertilize the area. Note how much is used. Adjust calibration. Remember to sweep up all fertilizer on the driveway!
Addendum: Notes to Accompany Slides

Slide 41:
Mowing to the proper height reduces weeds by 85%

Slide 44:
Over-fertilizing puts your lawn on steroids. Right conditions are when the lawn is vigorous and growing.

Slide 45:
If it contains fertilizer, must include that amount in your yearly count.

Slide 47:
Varied reports on this product.

Slide 54:
Homeowners can arrange for a visit from Master Gardeners (call 410-313-1913) and we will provide advice and information. If you follow Bay-Wise principles, your yard can be Bay-Wise “certified” and you will receive a sign for your yard.