

Lawn Problems

Cheat Sheet

March: Moss—lawn

A rolling stone gathers no moss!

Moss in lawns is a common problem in the Pacific Northwest and generally results from low soil fertility, high soil acidity, heavy shade, improper watering practices, diseased grass, poorly drained soil, compacted soil, or any combination of these. Permanent moss control depends on eliminating conditions which favor moss growth.

Here are some great informational links on controlling lawn moss.

- <https://s3.wp.wsu.edu/uploads/sites/2071/2013/12/Moss-in-Lawns-and-Gardens.pdf>
- <http://hortsense.cahnrs.wsu.edu/Search/MainMenuWithFactSheet.aspx?CategoryId=4&ProblemId=659>
- <https://catalog.extension.oregonstate.edu/em9175/html>



Moss in home lawns

- **February-April—Moss is actively growing**
- Have you noticed that moss usually shows up in areas where grass struggles to grow, but where weeds invite themselves? That's an area where your lawn is "sick," for one reason or another.
- Best way to deter moss is to have a healthy lawn so the grass can outcompete the moss and weeds.
- Always try the following cultural methods of controlling moss before escalating to chemical control. In a nutshell, to keep moss at bay:
 - (1) let the sunshine in
 - (2) mow properly
 - (3) manage soil moisture properly
 - (4) create good soil conditions for healthy grass.

Moss in home lawns

- **Sunlight:** best way to control moss in your lawn is to increase sunlight--prune trees to at least 6 feet from the ground, and possibly thin the branches to allow more sunlight. If you don't create more light, the moss will come back regardless of what other steps you might take to eradicate it!
- **Mowing:** Mow once a week to keep your lawn between 2-3 inches (no shorter!). Longer grass will put down deeper roots, and mowing it frequently will increase the density of the grass.
- **Soil fertility:** Moss loves acidic soil. You may need to add lime to maintain the pH around 6.0-6.5. Lime won't kill the moss, but it will help your soil to keep good nutrient values. Fertilize with a product that is high in nitrogen (N), low in phosphorus (P), and moderate in potassium (K); for example, NPK-3:1:2 or 4:1:2.
- Apply 1 pound of actual nitrogen at each application four to six times a year in spring and fall. Lush growth will overcome the mossy areas.

Moss in home lawns

- **Irrigate properly:** Moss loves wet conditions.
 - install French drains or a rain garden to divert rain runoff.
 - When you water, plan on giving it $\frac{1}{4}$ inch each time you water, 4 to 6 times a week, totaling 1 to $1\frac{1}{2}$ inches per week, especially during our dry summers. Measure the water with a rain gauge or a tuna can in the watered area.
- From mid-March through April when moss is actively growing, rake or dethatch your lawn in mossy areas to remove the dead grass stems and moss. Overseed the dethatched area. First apply fertilizer as directed above, then spread lawn seed over the area. Plant a fine fescue like creeping red fescue in shady areas. If your lawn has shade and sun, plant a combination a perennial ryegrass and fine fescue. After seeding, mulch with a bit of straw, and water daily for at least two weeks.

Moss in home lawns

- Chemical products should be used only after using above recommendations. Please be sure to follow all directions on the label!
- An environmentally friendly option is to apply products containing ferrous, iron, or ammonium sulfate from mid-March through April.
- Examples include Lilly Miller Moss-Out! for Lawns and Scotts Turf Builder with Moss Control 22-2-2. Keep in mind that ferrous sulfate will permanently stain concrete and other surfaces. Complete fertilizers with iron sulfate will kill moss rapidly, and stimulate healthy grass growth at the same time. Wait about a week to overseed if using these products.

Moss in Home Lawns

- Pacific Northwest Plant Disease Management Handbook [Lawn and Turf-Moss](#)
- Oregon State University: [Maintaining a Healthy Lawn ec1521](#)
- Oregon State University: [Managing Moss in Lawns in Western Oregon EM 9175](#)
- Washington State University: [Hortsense : Lawn and Turf Moss Factsheet](#)
- University of Alaska Fairbanks: [Moss Control in Lawns HGA-00133](#)

March/April: Moss—Roof

A rolling stone gathers no moss!



Unfortunately, another big concern and a lot of questions get asked regarding moss on roofs. Below are links from some roof professionals on handling this problem.

Here are some great informational links on controlling roof moss.

- <https://www.asphaltroofing.org/algae-moss-prevention-cleaning-asphalt-roofing-systems/>
- <https://www.roofpedia.com/removing-moss-on-roofs/>



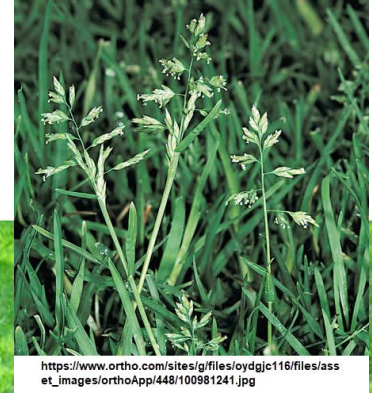
Spring: Does your lawn look like this?

- Hoe and hand-pull the annual bluegrass to remove it, and of course, maintain healthy turf (proper mowing, irrigation, fertilization) to out-compete the weedy grasses.
- Use a pre-emergent herbicide, which isn't very effective on this side of the Cascades, or using a post-emergent pesticide. Some of the more effective chemical options are available only from a registered pesticide applicator.

WSU Hortsense has more [recommendations](#)

Poa annua—annual bluegrass

It's a tough one to eradicate



Winter Cutworms Turf Damage



IPM for Turfgrass
<https://vimeo.com/113410441>
IPM for Turfgrass, WSU CAHNRS Video Production
<https://vimeo.com/113410441>

Armyworm turf damage



pupa
e

Winter Cutworms

- Large caterpillars –from 1/8 inch to 2 inches, depending on development
- Eat grass roots
- Might large numbers of birds on damaged lawn—eating larvae
- Nocturnal—go out at night and dig under edge of area where healthy grass meets dead grass
- If tiny “worms” are present, you can treat with BT products (E.g., DiPel, Bonide Thuricide BT Conc)—doesn’t work on larger larvae (treatment same for armyworms)



Winter Cutworms

- If there are more than 12 caterpillars in a 12 x 12 inch section, you should treat for it
- Apply granular spinosad (Success or Entrust) according to label (treatment same for armyworms)
- Keep your lawn fertilized, irrigated, and cut during summer.
- Control weeds--cutworms migrate from weedy areas even across pavement

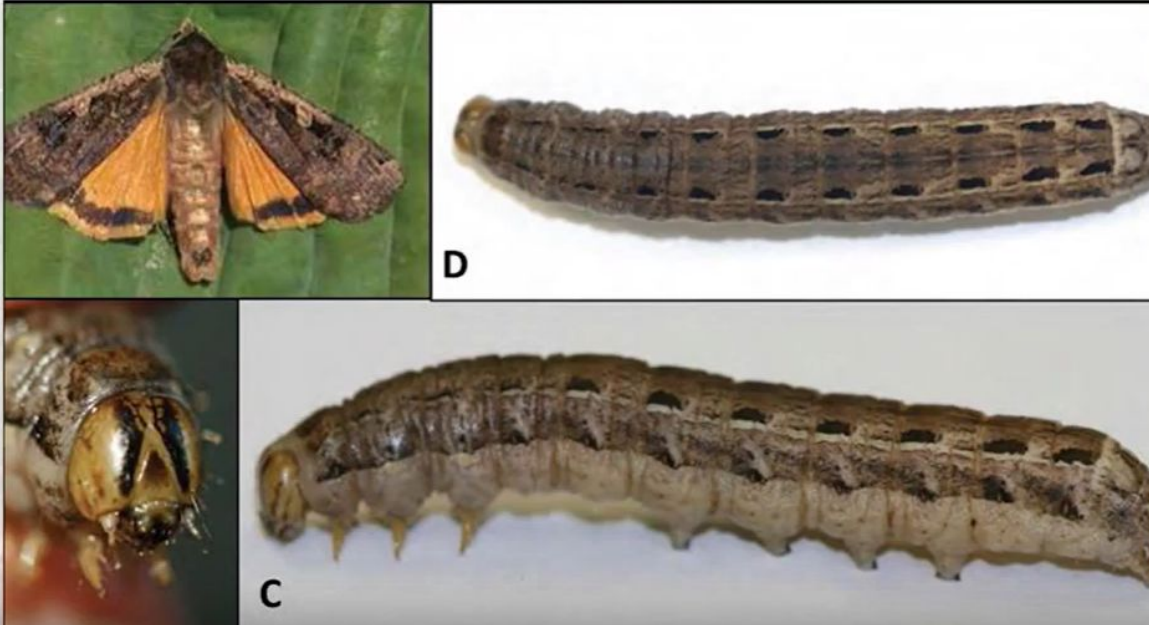


IPM for Turfgrass
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IMP for Turfgrass, WSU CAHNRS Video Production
<https://vimeo.com/113410441>



Winter Cutworms

Noctua pronuba (Large yellow underwing moth)



- More info:
- PHW Handbooks
- <https://pnwhandbooks.org/insect/legume-grass-field-seed/grass-seed-winter-cutworm>
- If you'd like to learn about other turf pests, watch this video from OSU: IPM for Turfgrass

IPM for Turfgrass
<https://vimeo.com/113410441>
IPM for Turfgrass, WSU CAHNRS Video Production
<https://vimeo.com/113410441>

Both army worms and Cutworms

- They are equal opportunity root, seedling and young plant destroyers in your garden

- Hand pick caterpillars
- Make collars around stems
- NO CHEMICALS recommended

https://extension.umn.edu/sites/extension.umn.edu/files/styles/caption_medium/public/cutworms2_600px.jpg?itok=ug-_oWJ2



<https://s3-us-west-2.amazonaws.com/hobbyfarms.com/wp-content/uploads/2017/06/07152552/preventing-cutworms.jpg>



[https://www.almanac.com/sites/default/files/d6/images/cutworm\(2\).jpg](https://www.almanac.com/sites/default/files/d6/images/cutworm(2).jpg)

Read about cutworms in the garden here:

<http://hortsense.cahnrs.wsu.edu/Public/FactsheetWebPrint.aspx?ProblemId=6035>

Lawn Care Calendar

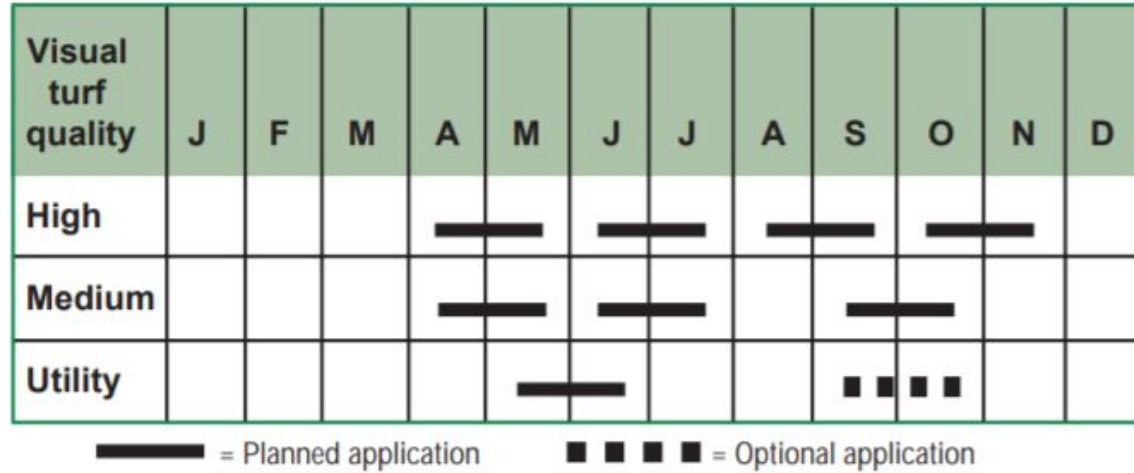
December-January	Avoid piling snow on turf areas, stay off frozen grass.
February	Stay off muddy grass areas. When not muddy, gently rake lawn to remove debris.
March	*Mow (0-2 times a month) Annual Grass Pre-emergent Control Dethatch, Moss control
April	*Mow (4 times a month), Moss control
May	*Mow (4-6 times month) Fertilize -Memorial Day (1 to 1.5 lbs/1000 SqFt), Broad-leaved Weed Control, Core Aeration, Overseeding, De-thatching (if > 3 inches thick)
June	*Mow (4-6 times a month), Irrigation (adjust for rainfall)--1 inch per week, divided into 5 sessions at 2/10 of an inch each time (will run off if more than 2/10 inch at a time)
July	*Mow (4 times a month) Fertilize-4 th of July (.5 to 1 lb), Irrigation (adjust for rainfall)--1 inch per week, divided into 5 sessions at 2/10 of an inch each time (will run off if more than 2/10 inch at a time).
August	*Mow (4 times a month), Irrigation (adjust for rainfall)--1 inch per week, divided into 5 sessions at 2/10 of an inch each time (will run off if more than 2/10 inch at a time)
September	*Mow (4 times a month) Fertilize Labor Day (.5 to 1 lb), Broadleaved Weed Control, Overseeding, Irrigation (adjust for rainfall)--1 inch per week, divided into 5 sessions at 2/10 of an inch each time (will run off if more than 2/10 inch at a time).
October	*Mow (2-3 times a month), Irrigation (adjust for rainfall)--1 inch per week, divided into 5 sessions at 2/10 of an inch each time (will run off if more than 2/10 inch at a time)
November	Fertilize Before Thanksgiving (1 to 1.5 lbs/1000 SqFt).

*Mowing--raise mowing height and increase frequency to maintain height of 2-2 ½ inches. Never cut more than 1/3 of the grass blade. Mulch grass clippings (leave on lawn) to add nitrogen back into soil.

- <https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/ec1278.pdf>
- <https://s3.wp.wsu.edu/uploads/sites/2071/2013/12/Lawn-Care-Calendar.pdf>
- <https://s3.wp.wsu.edu/uploads/sites/2062/2014/04/eb0482.pdf?x96359>
- Turfgrass management--EXCELLENT video! <https://www.youtube.com/watch?v=Yd9jC9KiTuM>

About Fertilizing your lawn

Figure 1. Fertilizer calendar for irrigated lawns in western Oregon.



Horizontal bars indicate time for each application. Adjust timing based on your goals and personal experience with your lawn. Each application is assumed to be at 1 lb N per 1,000 sq ft. On hungry lawns, 1.5 to 2 lb N per 1,000 sq ft can be used to stimulate density and color. Unless lawns are very weak, avoid early-spring applications since grass normally grows vigorously by itself at that time.

https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/e_c1278.pdf

Care schedule for parts of your lawn that matter most for visual appeal

<https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/ec1521.pdf>

High-input lawns		*Grass cycling ads up to 2 lbs N/1000 ft²/yr.												
	Notes	J	F	M	A	M	J	J	A	S	O	N	D	
Mowing	Increase frequency with increased growth			■										
Fertilization	*4–6 lb N/1,000 ft ² /yr. April application may not be needed. Utilize slow-release materials.				■		■		■			■		
Irrigation	Monitoring will indicate when needed at start of season						■							
Core aeration	Relieves compaction and improves percolation; can combine with overseeding				■									
Overseeding	Prevents weed encroachment in bare areas.				■					■				
De-thatching	Only if > 3/4" layer				■									

Care schedule for parts of your lawn that don't need to be golf-course perfect, and it won't take up too much time and energy keeping it looking good.

<https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/ec1521.pdf>

Medium-input lawns		*Grass cycling ads up to 2 lbs N/1000 ft²/yr.												
	Notes	J	F	M	A	M	J	J	A	S	O	N	D	
Mowing	Increase frequency with increased growth.			■										
Fertilization	*2–3 lb N/1,000 ft ² /yr.						■					■		
Irrigation	Monitoring will indicate when needed at start of season						■							
Core aeration	Relieves compaction and improves percolation; can combine with overseeding					■								
Overseeding	Prevents weed encroachment in bare areas.					■								
De-thatching	Only if > 3/4" layer.					■								

APRIL: Lawns

- Time to fertilize—first of 3 times this year—in April. The fertilizer should be high in nitrogen (N) and low in phosphorus (P) and potassium (K) (E.g. NPK = 12-4-8 blend)
- Recommendation: For lush, green turf, add one pound of nitrogen per 1,000 square feet; for example, if you use a fertilizer that is 20% nitrogen (e.g., 20-x-y labeled on the package), you will apply 5 pounds for 1,000 square feet of healthy lawn.
- Mow at least every week, if possible, through October.
- Don't cut it too short. If you aren't sure what kind of grass you have, set the mowing height to 2 inches.
- Keep your mower blades sharp
- Mulch grass clippings and return to lawn to return the nitrogen to the soil.
- Source: OSU 10 minute university Handout Lawn Care:
<https://extension.oregonstate.edu/sites/default/files/documents/12281/lawncare.pdf>



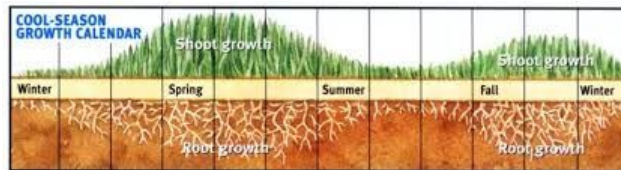
Late Spring/Summer: Lawns

Lawn care is a classic love/hate scenario. We love it in the spring and fall and hate it in the hot dry summers.

Lawns will seasonally ebb and flow in how they look and perform because of our climate and species selection.

We can help them last and persist through tough times by:

- Properly fertilizing at the right times
- Encouraging growth when it is most needed
- Managing weeds
- Reseeding at choice times to rejuvenate the lawn



https://www.psu.edu/dept/agosciences/agsci/elearn/0course-samples/STMA/Ln_4a/images/L4a_8.png

Late Spring/Summer: Lawn

Mowing frequency should match rate of growth. Do not remove more than 1/3 of the leaf blade in a single mowing and keep your mower blades sharp.

Aerating helps rejuvenate lawns and loosen soil to promote root growth, not to mention removing thatch annually will increase soil oxygen, water penetration and encourages grass root growth.

Biggest problems with lawns are moss due to heavily shaded areas, moles (covered under vertebrate pests), crane fly and army cutworm covered in the links below.

<https://pubs.extension.wsu.edu/home-lawns>

<https://extension.oregonstate.edu/sites/default/files/documents/12281/lawncare.pdf>

<https://extension.wsu.edu/benton-franklin/gardening/lawns/>

MOLES!

- Hortsense:
<http://hortsense.cahnrs.wsu.edu/Search/MainMenuWithFactSheet.aspx?CategoryId=16&ProblemId=7112>
- Living with Wildlife-Moles:
<https://wdfw.wa.gov/species-habitats/living/species-facts/moles>
- Controlling Moles:
<https://extension.oregonstate.edu/pests-weeds-diseases/nuisance-wildlife/backyard-moles>
- OSU Video—dueling with diggers: <https://youtu.be/p9Nv5ladB3A>
- OSU Other resources, including videos:
<https://extension.oregonstate.edu/pests-weeds-diseases/nuisance-wildlife>