



VILLAGE OF MOUNT HOREB

E. Main Street

Mount Horeb, WI 53572

Phone: (608) 437-6884 Fax: (608) 437-3190

Email: mhinfo@mounthorebwi.info Web: mounthorebwi.info

SUSTAINABILITY & NATURAL RESOURCES COMMITTEE

Tuesday, October 24, 2023 at 7:00 PM

Municipal Building Board Room

138 E. Main Street

Mount Horeb, WI

- 1) Call to order
 - a. Roll Call
- 2) Agenda Items
 - a. Consideration of September 26, 2023 Meeting Minutes
 - b. Consider creation of workgroup for Wildones Seed Grant
 - c. Solar 101 Program
 - d. SolSmart Update
 - e. Continued Discussion on Bee Keeping
 - f. Discussion on Creation of Sustainability Plan
 - g. Discussion on Municipal Composting
 - h. Clarification on Committee Email Communications
 - i. Future Agenda Items
- 3) Meeting adjournment.

UPON REASONABLE NOTICE, EFFORTS WILL BE MADE TO ACCOMMODATE THE NEEDS OF DISABLED INDIVIDUALS THROUGH APPROPRIATE AIDS AND SERVICES. FOR INFORMATION OR TO REQUEST THIS SERVICE, CONTACT ALYSSA GAFFNEY, CLERK, AT 138 E MAIN STREET, MOUNT HOREB, WI (608) 437-9404.



VILLAGE OF MOUNT HOREB

E. Main Street

Mount Horeb, WI 53572

Phone: (608) 437-6884 Fax: (608) 437-3190

Email: mhinfo@mounthorebwi.info Web: mounthorebwi.info

SUSTAINABILITY & NATURAL RESOURCES COMMITTEE

Tuesday, September 26, 2023 at 7:00 PM

DRAFT MEETING MINUTES

- 1) Call to order
 - a. Roll Call

Chair White called the meeting to order at 7:00 p.m. Members present: White, Beheler, Grabe, Saltes and Gottwald. Members absent: Butosov, Fendrick and Gauger. Also present: Administrator Owen.
- 2) Agenda Items
 - a. Consideration of August 22, 2023 Meeting Minutes
 - b. Presentation: Jackie Harrison-Jewell, Couillard Solar Foundation solar canopy

Jackie Harrison Jewel, Executive Director of Couillard Solar Foundation presented an over view of her organization and the offerings they have for grants and other opportunities to make solar more affordable for non-profits and school districts.
 - c. Discussion: Lorrie Otto Seeds for Education Program

The committee reviewed the seeds for education program. Consensus of the committee was that their best role is sharing was trying to distribute information on the program to any interested parties.
 - d. Sol Smart Update

The subcommitee will meet again in October and is closing in on completion of the application.
 - e. Discussion: Solar 101 Program

Chair White reported that the CCS is interested in partnering on the event and are still discussing details of events with outside entities. The event may occur in November.
 - f. Discussion: Allowing bee keeping

The committee reviewed and discussed information regarding allowing bee keeping in the Village. Members will continue to research the issue and discuss further a future meeting.

- g. Update: Mount Horeb Public Library hosting Dane County Trash Lab, Thursday November 2nd at 2:30 p.m.
The library will be hosting the Dane County Trash Lab Thursday November 2nd at 2:30 p.m.
 - h. Discussion: Sustain Dane Summit
As a member of Sustain Dane we have 1 free ticket to the event. Members Grabe and White expressed interest in attending. Administrator Owen will register them.
 - i. Update Mount Horeb Children's School, Mount Horeb Community garden and Home Energy Consultant LLC to receive Dane County Climate Champion status
The committee was in favor of forwarding the proclamation to the Village Board for consideration at their October 4th meeting. If approved, they will invite the Climate champions to their October meeting for a photo opp and article for the paper.
 - j. Future Agenda Items
Future Items: Sol Smart update, continue bee keeping discussion, Solar 101 Program, information card on SNR Committee.
- 3) Meeting adjournment.
Motion by Gottwald, second by Grabe to adjourn. Motion carried at 8:19 p.m.



AGENDA ITEM REPORT

MEETING DATE

October 24, 2023

PREPARED BY**AGENDA ITEM # 2.b**

Consider creation of workgroup for Wildones Seed Grant

BACKGROUND**RECOMMENDATION****ATTACHMENTS**

None



AGENDA ITEM REPORT

MEETING DATE	PREPARED BY
October 24, 2023	
AGENDA ITEM # 2.c	
Solar 101 Program	
BACKGROUND	
RECOMMENDATION	
ATTACHMENTS	
None	

October 24, 2023

Solar 101 Program

None



AGENDA ITEM REPORT

MEETING DATE	PREPARED BY
October 24, 2023	
AGENDA ITEM # 2.d	
SolSmart Update	
BACKGROUND	
RECOMMENDATION	
ATTACHMENTS	
None	

October 24, 2023

AGENDA ITEM # 2.d

SolSmart Update

BACKGROUND

RECOMMENDATION

ATTACHMENTS

None



AGENDA ITEM REPORT

MEETING DATE

October 24, 2023

PREPARED BY

AGENDA ITEM # 2.e

Continued Discussion on Bee Keeping

BACKGROUND

We will continue our discussion on allowing bee keeping in the Village. Committee member Elizabeth Grabe provided the following information on bee stings:

A very small proportion of the adult population (3%) and children (about 0.5%) are allergic to bee stings and are at risk of possible systemic reactions including anaphylactic shock.

<https://www.pollinator.org/pollinator.org/assets/generalFiles/NAPPC.NoFear.brochFINAL.pdf>

Only a very limited portion of the population—one to two people out of 1,000—is allergic or hypersensitive to bee or wasp stings.

<https://ipm.ucanr.edu/PMG/PESTNOTES/pn7449.html#:~:text=It's%20an%20unpleasant%20experience%20that,to%20bee%20or%20wasp%20stings>

Quick stat: Number of Deaths from Hornet, Wasp, and Bee Stings Among Males and Females — National Vital Statistics System, United States, 2011–2021

<https://blogs.cdc.gov/nchs/2023/07/07/7414/>

RECOMMENDATION

ATTACHMENTS

None



AGENDA ITEM REPORT

MEETING DATE	PREPARED BY
October 24, 2023	

AGENDA ITEM # 2.f

Discussion on Creation of Sustainability Plan

BACKGROUND

RECOMMENDATION

ATTACHMENTS

None



AGENDA ITEM REPORT

MEETING DATE

October 24, 2023

PREPARED BY

AGENDA ITEM # 2.g

Discussion on Municipal Composting

BACKGROUND

RECOMMENDATION

ATTACHMENTS

1. #1 Composting in WI _ Dane County #1 Department of Waste & Renewables
2. #2 Teach Others About Composting – Extension Dane County
3. #3 MasterComposterWEbsitePost



Dane County Department of Waste & Renewables

Now Accepting Applications for 2023 Organics Management Grant Program!

Applications will be reviewed on a rolling basis until available funds are awarded. [Please submit applications](#) to Sujata Gautam at gautam.sujata@countyofdane.com. Check out more details on past projects awarded below for inspiration.

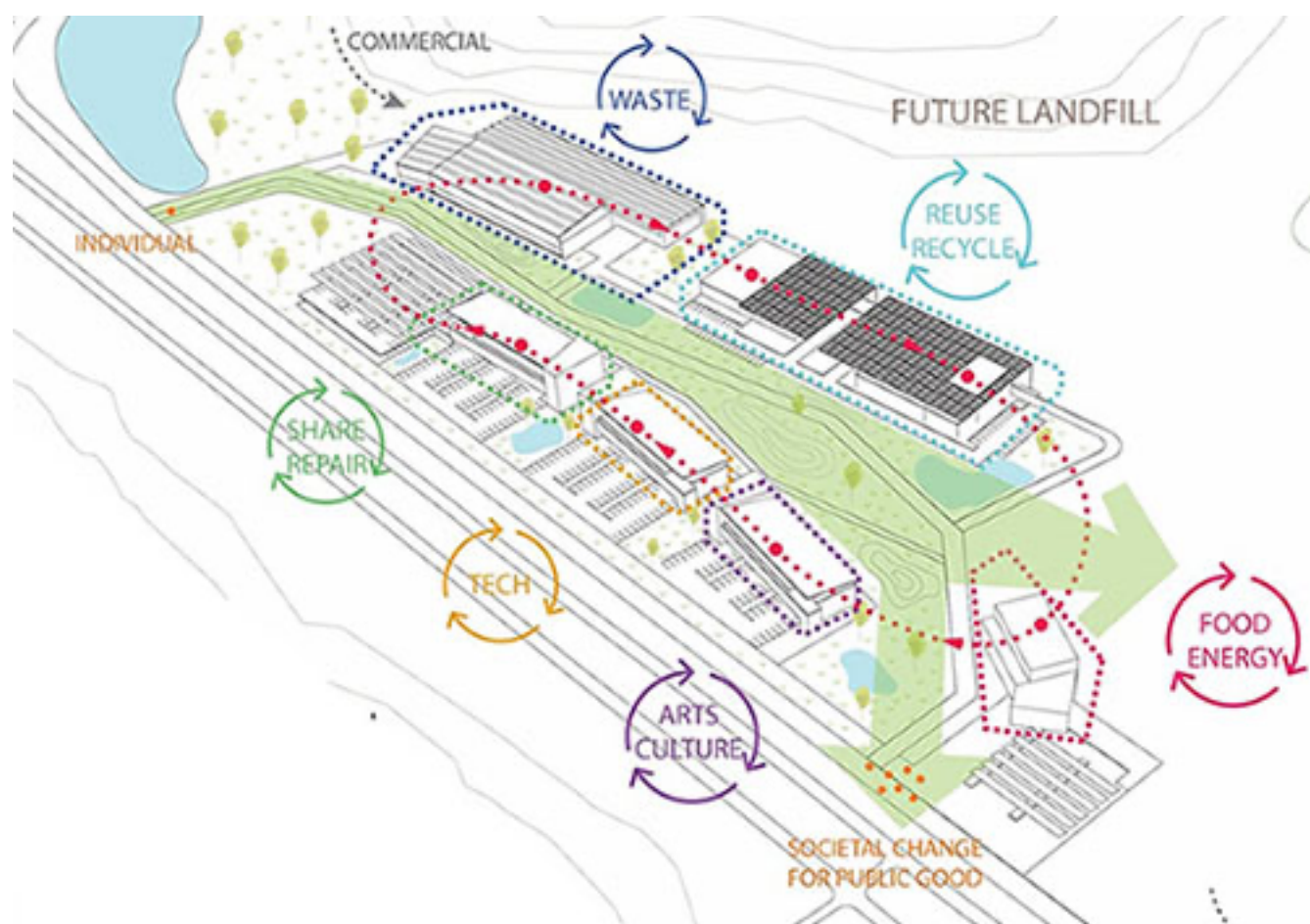
Under Wisconsin law, yard materials including leaves, grass clippings and small pieces of brush/branches are prohibited from disposal in landfills. Composting at home is a great way to manage your yard waste and household food items. There are many resources available to help you compost at home and the finished material is a great source of microorganisms and nutrients for your lawn and gardens. Benefits of using compost include:

- Restoring or enhancing the ability of sandy soil to hold moisture and clay soils to drain
- Repairing or preventing damage caused by erosion
- Aiding plant growth – e.g., in residential gardens, public landscapes, or after construction and mining projects are completed

Composting in Wisconsin

Composting at Dane County's Sustainability Campus

Organics, such as food waste, comprise about one-third of the materials being sent to the Dane County landfill. When food waste can be composted instead of landfilled, valuable nutrients can be recovered and applied to Dane County farmlands to increase soil health. In order to reduce the amount of food waste going to the landfill and increase capacity of food waste recycling in the region, Dane County plans to establish a compost facility at its Sustainability Campus by Spring of 2026. This facility will aid in securing and quantifying a steady stream of feedstock of organic material, such as food scraps and yard waste, making it the first step towards designing and building a digester facility in the future.



[Learn More About the Sustainability Campus](#)

Dane County Organics Management Grant: Helping Pave The Way for More Community Composting in Dane County

Administered by the Dane County Department of Waste & Renewables, the Organics Management Grant seeks to provide funding for community composting projects that help reduce the amount of organics (foodscraps, yard waste) being sent to landfills. All Dane County businesses, institutions, municipalities, Native American tribal governments and organizations, community groups, and nonprofit organizations are eligible to apply.



Now Accepting Applications for 2023 Organics Management Grant Program!

Applications will be reviewed on a rolling basis until available funds are awarded. Please submit application below to Sujata Gautam at gautam.sujata@countyofdane.com.

[2023 Organics Management Grant Application](#)

[Learn More About the History of the Grant Program](#)



Congratulations to the following 2022 Organics Management Grant Awardees!

[Dane County's Farmers' Market](#)

[Sustain Dane](#)

[City of Sun Prairie](#)

[Madison Children's Museum](#)

McFarland Highschool Eco Club

[Check out the Project Summaries Here!](#)



How to Compost at Home

Residents can make their own compost for garden and landscape projects by composting yard materials and certain food scraps at home. Composting is also a preferred alternative to burning yard materials, something which many Dane County communities do not allow without a permit.

When at home, compost can be made in bins or a heap. Bins are generally a better way to manage materials and can be either bought commercially or made. View the DNR's home [composting brochure](#) to get started or for tips on improving your current system.

Currently, the state of Wisconsin has no regulations on small-scale, home composting operations of fewer than 50 cubic yards, but please keep in mind that

all composting should be done in a nuisance-free and environmentally-sound manner. This includes minimizing odors, not attracting excessive numbers of pests, and not placing compost piles in wetlands or other sensitive areas. Check with your municipality to find out if any local regulations apply.

[Click Here For More Resources On Teaching About Composting In Your Community](#)

What to Compost

Along with yard materials, certain food scraps can also be easily composted at home. Be sure to follow [recommendations](#) on what types of food scraps can be composted at home in order to prevent odors and avoid attracting animals and other pests.

What to compost

- Yard materials
- Vegetable and fruit scraps
- Coffee grounds and filters
- Tea bags
- Nut shells
- Eggshells
- Clean, unwaxed paper, such as newspaper and cardboard
- Animal manure (not pet waste)

What not to compost

- Meat or fish scraps, bones, and packaging
- Dairy products (milk, cheese, egg yolks, etc.)
- Fats and oils or foods containing fats and oils
- Pet waste
- Diseased or insect-ridden plants
- Highly-invasive plants like garlic mustard, unless completely dry and without flowers or seeds
- Plastics labeled as "compostable" or "biodegradable" (these items should go to a composting facility)

Information gathered from the Wisconsin DNR, read more [here](#).



Can't Compost At Home? Explore Your Pickup & Drop-off Options

Most municipalities offer curbside pickup or drop-off sites for yard waste, leaves, and brush for their residents. [Check with your local municipality](#) for details on guidelines, locations, and hours of operation.

If you are interested in composting the organic waste generated in your home, there are some subscription-style services available in Dane County. Check out the companies below to learn

more:

[Curbside Composter](#)

[Earth Stew Composting Services](#)

[Green Box Compost](#)

TRANSLATE

English Español Hmooob

Select Language





Extension Dane County

University of Wisconsin-Madison

Search...

- Home4-H and YouthAgricultureHorticulture »Teaching GardenFoodWlseFamilies & FinancesFood Systems
- Community DevelopmentNatural Resources »Upcoming EventsEn EspañolBlogs and PodcastsClimate Change

Home » Natural Resources » Composting & Food Waste » Teach Others About Composting

Teach Others About Composting

[Composting Basics Presentation](#) PowerPoint presentation, An Introduction to Home Composting

At Home Composting Display

What is it? A table top Home Composting Display can be borrowed free of charge for use at public events. See pictures below. The display comes with two retractable banners, four different compost bins, and a ‘What Can Be Composted?’ card game.

What will participants learn? The display educates about the environmental benefits of composting, quick steps on how to compost, and showcases different types of compost bins you can use.

How can I borrow this? Reserve this display through the [Natural Resource Education Center](#) by contacting Michelle Probst at probst.michelle@countyofdane.com at least two weeks before your event.

These displays are available in English, Spanish, and HMoob/Hmong.



Compost Display in Spanish



Compost Display in English



Compost Display in HMoob/Hmong

UPCOMING EVENTS

[Retirement Planning Today Series](#)

September 19th – November 2nd, 2023

[Triple P: Positive Parenting Program – Family Transition](#)

October 2nd – 30th, 2023

[Fit & Healthy Kids – Online](#)

[Professional Development Series](#)

October 2nd, 2023 – April 1st, 2024

[4-H Project Leader Training](#)

October 22nd, 2023

[Money Matters Live: Strategies for Getting Out of Debt](#)

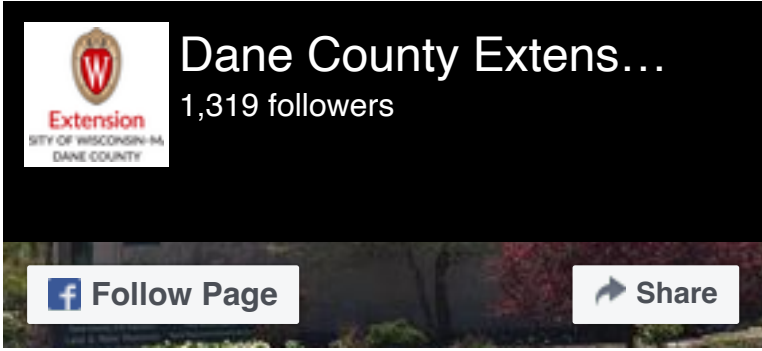
October 24th, 2023

[View More Events](#)

HAPPENINGS

[Click to subscribe and see past issues of the monthly Dane County Extension Newsletter.](#)

FIND US ON FACEBOOK



COMMUNITY DEVELOPMENT

[Videos on Parliamentary Procedure from the Local Government Education Center](#)

[Dane County Public Issues:](#)

[Affordable Housing](#)

[Wisconsin One Stop Business Portal](#)

4-H & YOUTH NEWS

[Dane County 4-H Youth Development Video](#)

[Dane County 4-H & COVID-19](#)

[Leadership Washington Focus](#)

[Experience offered for summer 2019](#)

AGRICULTURE NEWS

[Private Pesticide Applicator Training](#)

[We invite you to participate in the UW-Dairy Brain survey](#)

[Information for Immigrant Workers](#)



CONNECT WITH US



FIND DANE COUNTY EXTENSION ON

[Facebook](#) [Twitter](#)

[YouTube](#) [Instagram](#)

THE LEARNING STORE



COOKIE NOTICE

We use cookies on this site. By continuing to browse without changing your browser settings to block or delete cookies, you agree to the [UW - Madison Privacy Notice](#).

Under Title VI, Title IX, the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act, requirements

GOT IT!



Composting for Home Gardeners



University of Wisconsin-Extension
Mindy Habecker



Extension

UNIVERSITY OF WISCONSIN-MADISON
DANE COUNTY

January 2021
Page 12 of 56

What is composting?



Controlling the natural process of decay to transform organic wastes into a valuable soil amendment called compost.



Why compost?

Waste management

- Yard waste banned from landfills
- Encourages responsibility for your waste
- Reduces need for municipal collection

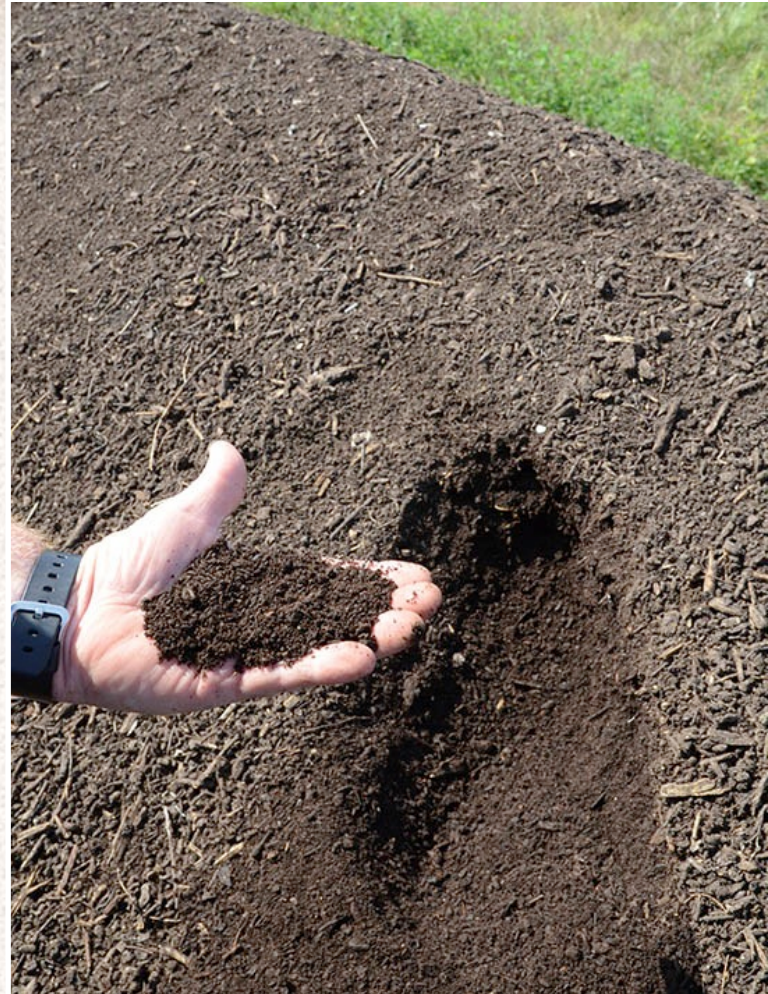
Finished Compost

- Valuable soil amendment
- Healthy soil leads to healthy plants
- Save \$



Benefits of adding compost to soil

- **Supplies organic matter**
- **“Lightens” heavy soils**
- **Improves moisture retention in sandy soils**
- **Contains humus – “soil glue”**
- **Improves soil structure**



Benefits of adding compost to soil

- **Encourages vigorous root growth**
- **Allows plants to more efficiently utilize nutrients**
- **Enables soils to retain nutrients**
- **Buffers soil pH**
- **Supplies beneficial microorganisms**
- **Feeds soil life**



How is compost made?

Natural process:

Biological decomposition of organic matter in the presence of oxygen

Human influenced:

We can speed up or slow down the process



Microbes do the work

- Bacteria (including actinomycetes) and fungi
- Chemical decomposers – enzymes
- Found in:

- Soil
- Leaves

- Food scraps
- Manure

- Finished compost

Are compost
starters
needed?

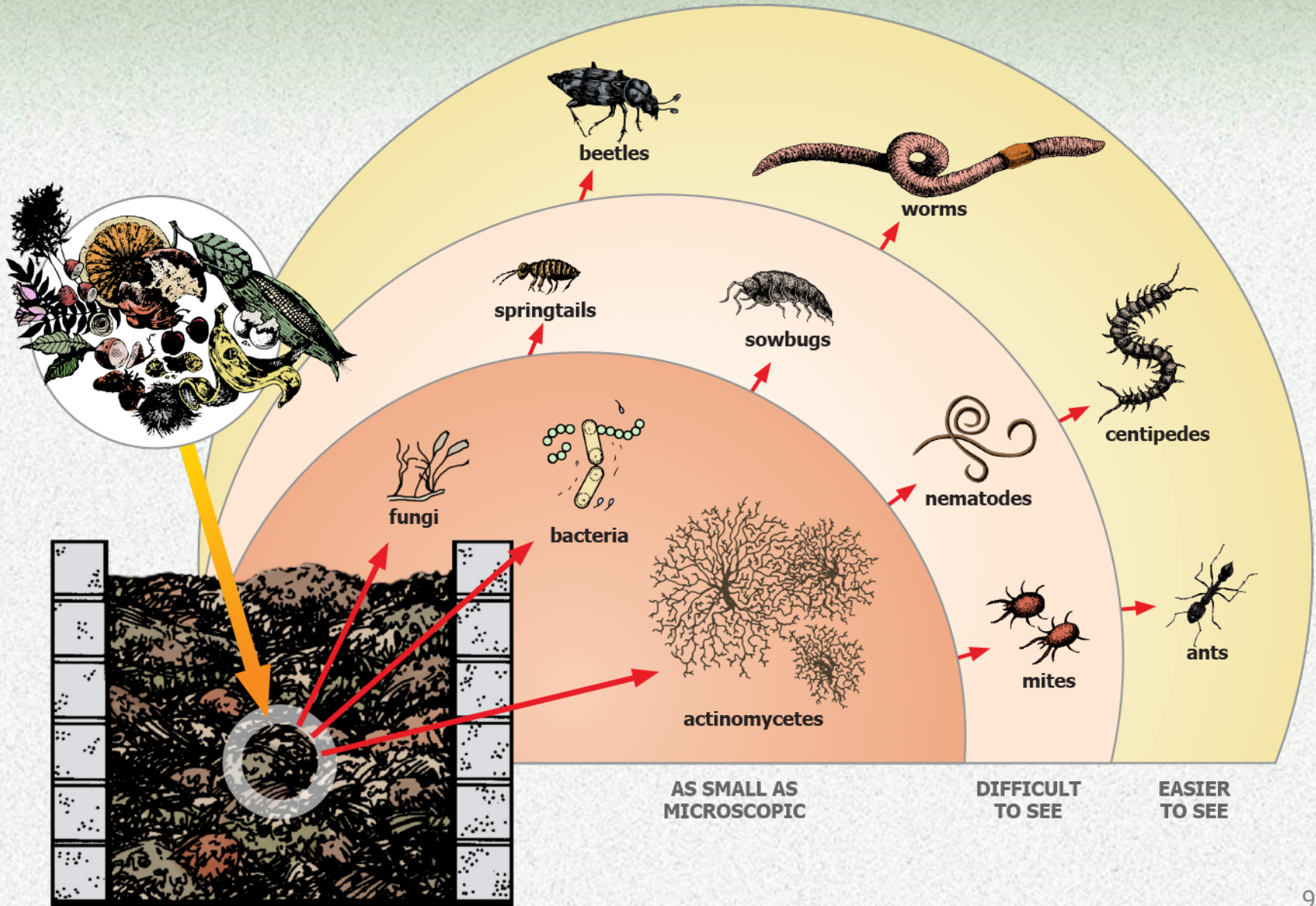


One teaspoon of good garden soil to which compost has been added may contain:

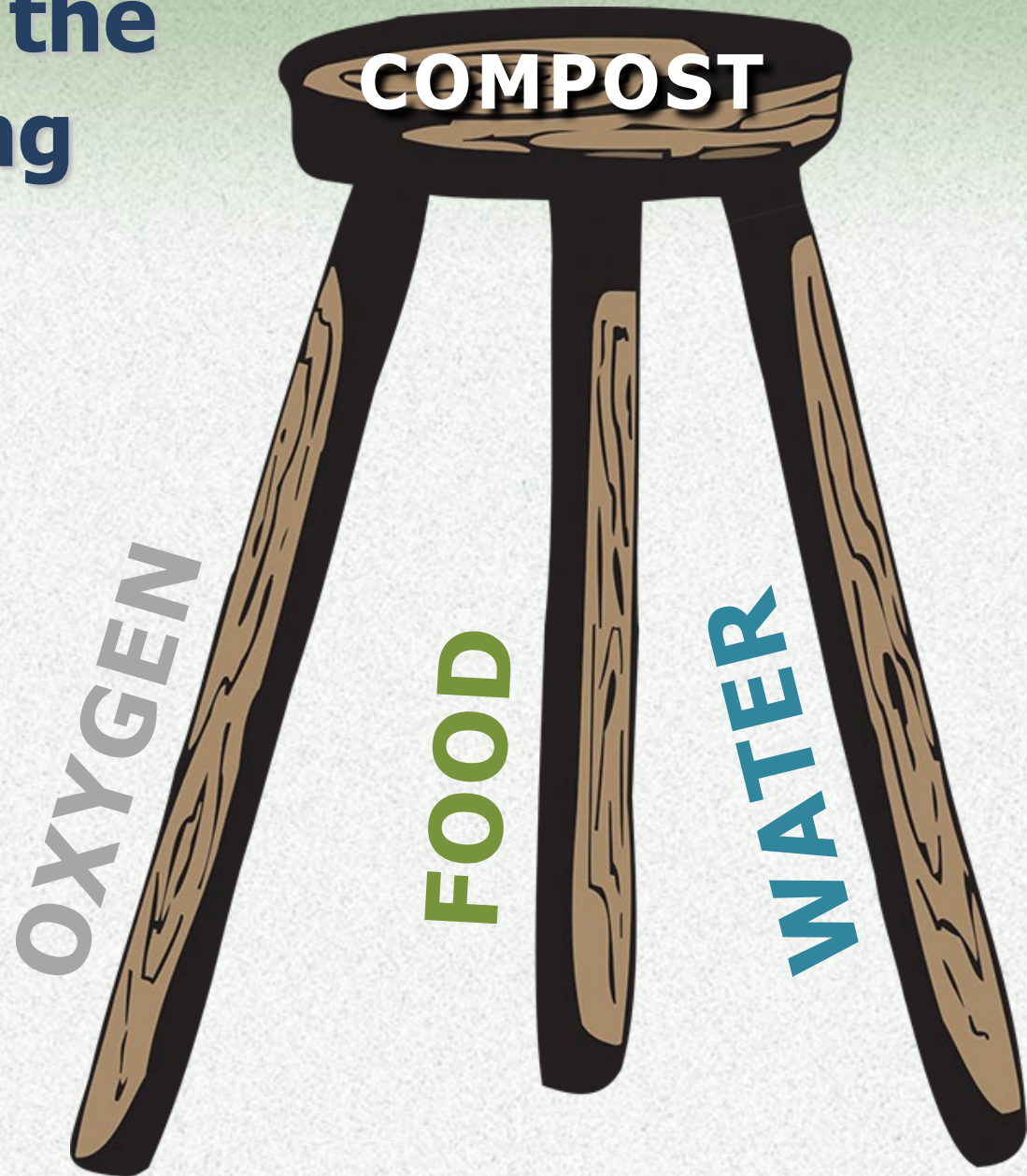
- 100 million bacteria
- 800 feet of fungal threads



Macroorganisms



Needs for the composting process



Acceptable materials – “food for decomposers”

- Leaves, grass clippings and yard debris
- Kitchen scraps: vegetable and fruit peels, coffee grounds and egg shells
- Used potting soil
- Most weeds and garden debris
- Paper and cardboard
- Sawdust, hay and straw
- Manure from herbivores
- Hair, fur and other natural fibers



Compost pile “food” to avoid

- **Persistent weeds: crabgrass and quackgrass, invasive species and weeds gone to seed**
- **Meat, dairy and oils**
- **Cat or dog waste**
- **Diseased plants**
- **Lime and ashes**
- **Treated lumber or sawdust**



Don't Add - Plant materials treated with pesticides

- Some pesticides can be persistent
- Some survive the composting process
- Can damage other plants



Materials with special needs

**These require additional consideration
or limited volume added**

- **Pine needles**
- **Walnut leaves**
- **Sod**



Organisms need a balanced diet

– Carbon (C) and Nitrogen (N) –



Composting will be most rapid if the decomposers are fed a diet of carbon-rich and nitrogen-rich materials

- Carbon-rich materials are known as “browns”
- Nitrogen-rich materials are known as “greens”

General Guide - add 2-3 browns for every green by volume



BROWNS

Leaves

Straw

Paper

Sawdust

**Animal bedding
mixed with
manure**

GREENS

Grass clippings

Vegetable scraps

Coffee grounds

Manure

- **Cow**
- **Horse**
- **Poultry**
- **Rabbit**

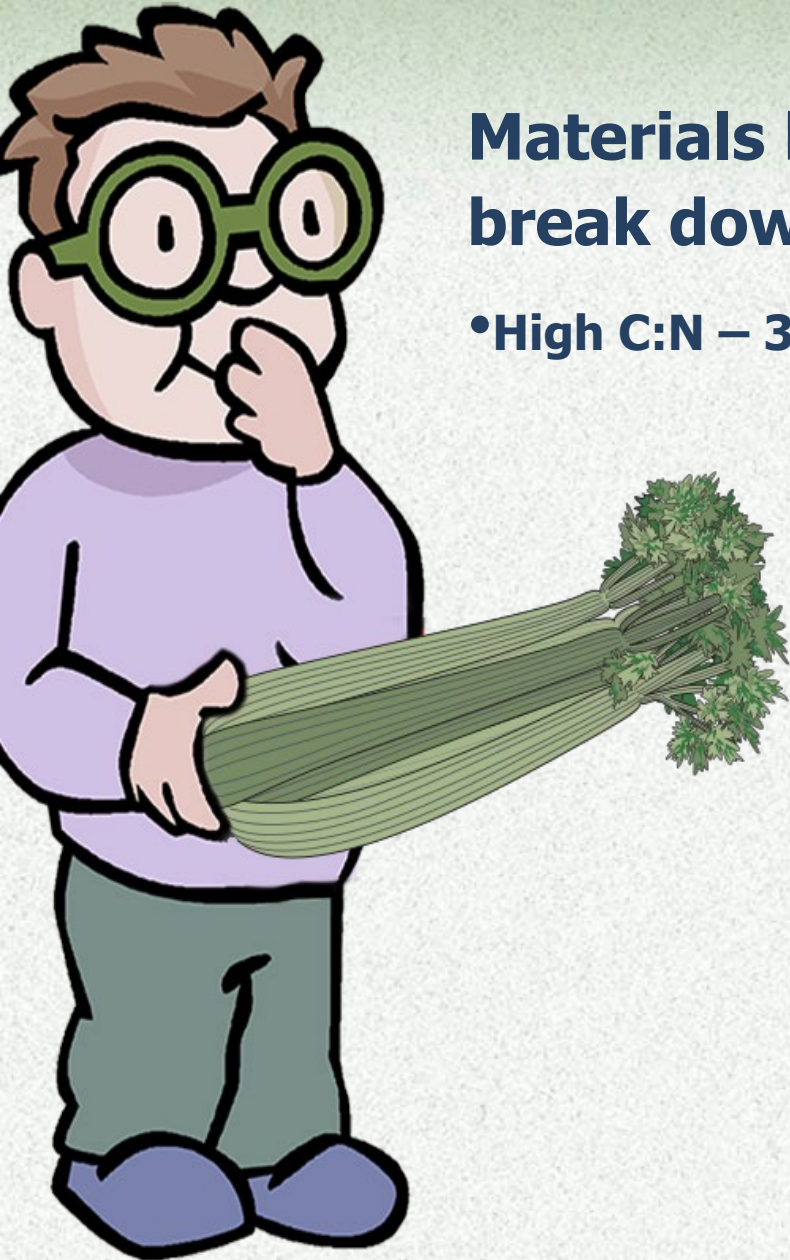
BROWNS

- **Decay very slowly**
- **Coarse browns keep pile aerated**
- **Tend to accumulate in fall**
- **May need to stockpile until can be mixed with greens**

GREENS

- **Decay rapidly**
- **Aerate poorly – may have foul odors if composted alone**
- **Tend to accumulate in spring and summer**
- **Supply nitrogen**
- **Best composting when mixed with browns**

Diet continued



**Materials high in carbon
break down slowly**

- High C:N – 30:1 and higher amounts of C

**Materials that are
too rich in nitrogen
can lead to anaerobic
conditions in the
compost pile**

- Low C:N – less than 25:1

A final thought on C:N ratio

Mix two
or three
volumes

BROWN

to one of

GREEN



Oxygen

A pile starved for air will become anoxic or even anerobic

- **Oxygen acids and amines (stinky compounds)**
- **Aerobic activity stops**

Compost pile is out-of-balance

- **Food or water out-of-balance (low C:N ratio or pile is too wet)**
- **Too many greens**



Three types of venting

Particle size

Smaller particles have a greater surface area

Some larger particles are needed to maintain air flow

Particles create pore space within the pile

A compacted pile lacks the needed pore space



Water

Vital to support compost pile organisms



“Damp as well as wrung-out sponge”

40% to 60% moisture

Temperature

90°– 140° is optimal

Temperatures above 130° can kill pathogens and weed seeds

Excessive temps (greater than 160°) can kill beneficial organisms



Questions about Troubleshooting ?



Troubleshooting

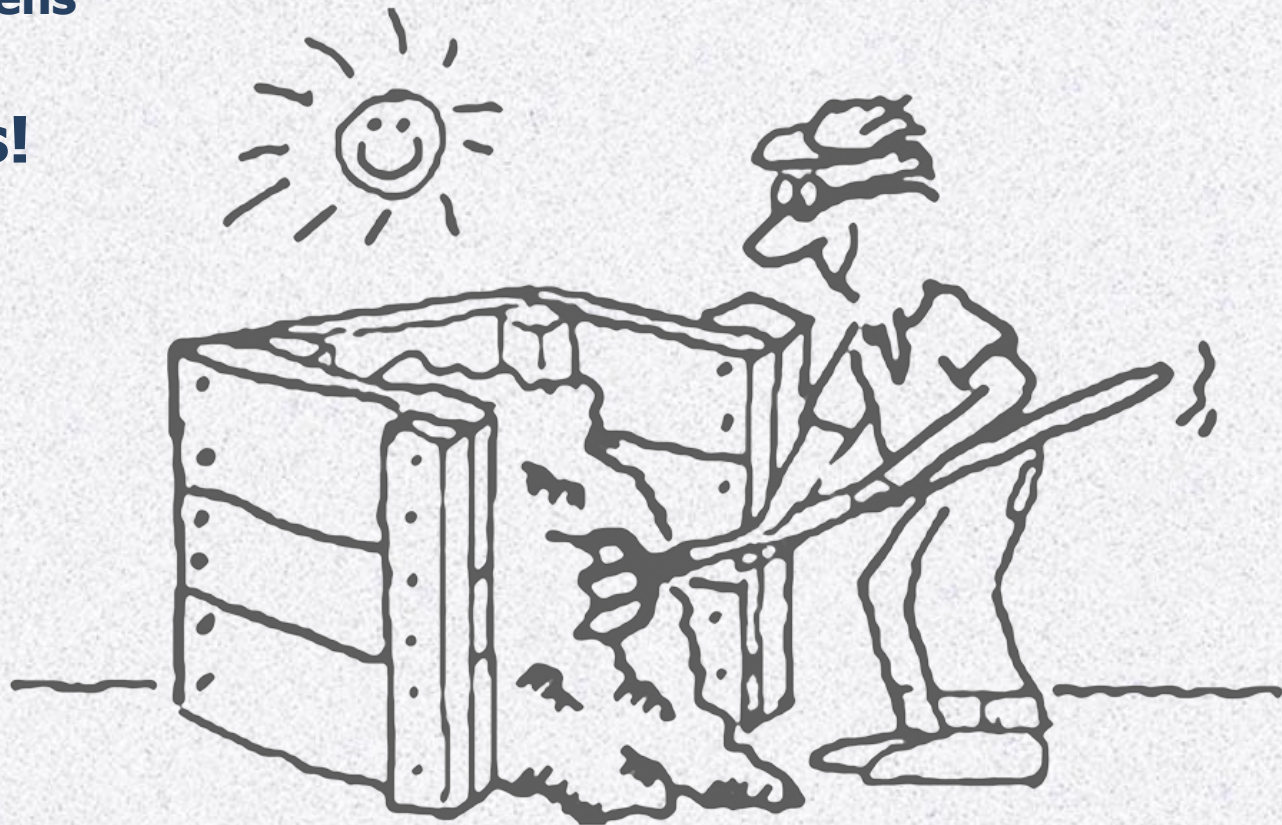
Nothing is happening!

- Pile is too dry
- Not enough "greens"

My pile stinks!

- Too wet
- Excess "greens"
- Pile compacted

Pests



Does my compost have to get **hot**?

Good compost can be made in a pile that never gets hot, but

- **Decay will be slower**
- **Not enough air, too little water or too many browns in the mix could all keep a pile from heating**

High pile temperature provides the benefit of

- **The most rapid composting**
- **Killing pathogenic (disease causing) organisms**
- **Killing weed seeds**

Pile size

Pile should be about 1 cubic yard to maintain temperature

- **under 1 cubic yard is generally too small to reach temperatures above 130°F**

Larger piles (greater than 3 cubic yards)

- **May prove difficult to turn**
- **Lack oxygen in pile center**

Choosing a compost strategy

Hot piles

- Process takes about three months
- Plan ahead
- Store brown

Cool piles

- Process takes one-half to two years
- Add materials as they accumulate
- Less effort



Hot compost pile

Pile built all at one time

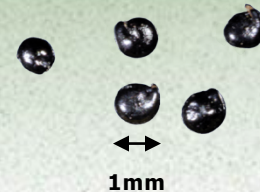
Pile must be tended often

Compost in about 12 weeks

Benefits:

- Faster than cool method
- Reduces weed seeds

Lambsquarter seeds



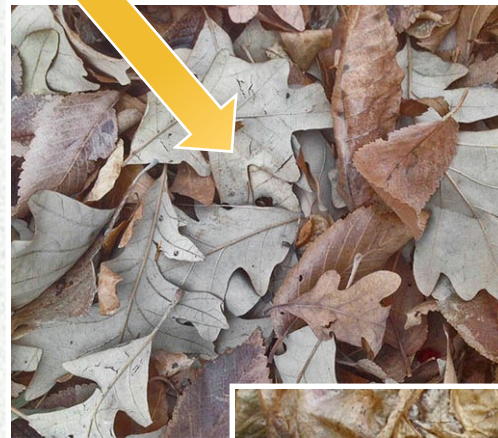
Hot compost pile

Mix 2-3 volumes of **BROWNS** to 1 of **GREENS**

Water as you add materials

Turn pile:

- Weekly for first 4-6 weeks
- Bi-weekly for next 4-6 weeks
- Let cure (let stand without turning) for 4 weeks after pile begins to cool



Cool and easy composting

Pile built as materials accumulate

**Less intensive
management**

6 months to 2 years

**Good method for
kitchen scraps**

**Keep browns handy
to cover**

- **Leaves**
- **Straw**



Pile turning tips

Mix materials from outside to middle

Open pore space

**Use garden fork
or shovel**

Add water if needed

**Commercial
turning (mixing)
tools for compost
are available**



To bin or not to bin

Composting does not require a bin, but be sure to select a method that will work for you and your community

- **Compost heap, pile, trench and sheet may have aesthetic concerns**
- **Bins can be home-built or manufactured**



Examples of home-built bins



Wood/Wire



Concrete Block Three-Bay



All-Wood



Wood Pallets



Wire Mesh

Examples of commercial bins



Orb



**Home
Composter**



Tumbler

Bin or pile location

Near where the compost will be used

Two feet or more from buildings

Good drainage

Away from wells

Be a good neighbor

Check local ordinances



Using compost

**Gardens, flower beds, lawns
and houseplants**

- **Clay soils – improves drainage and tilth**
- **Sandy soils – increases moisture holding**
- **All soils – improves soil structure**
- **All soils – adds nutrients: nitrogen, phosphorus, potassium and micronutrients**



When the composting process should be finished

Finished is also known as “mature” or “stable” compost

Compost is dark, loose and crumbly

Organic materials are unrecognizable

Ambient temperature





Simple test for mature compost

Germination test

- Will seed germinate in compost?
- Good test if using for potting soil

Bag test

- Seal compost in a plastic bag for 5-7 days
- Should produce no foul odor



Compost use continued

Unfinished compost can pull nutrients from the soil where it is placed

Compost can be screened

- **Removes larger particles**
- **Necessary if used for top dressing**

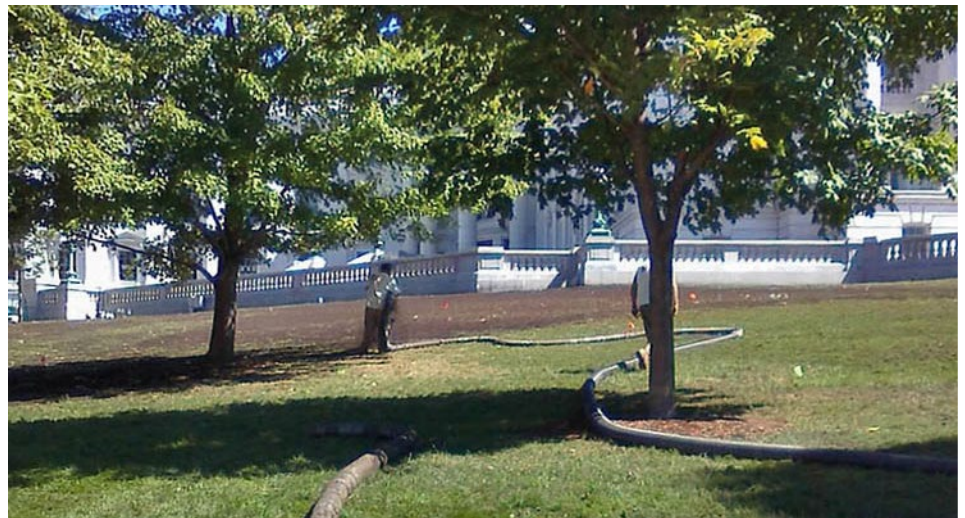


Compost application rates

2 inches mixed into top 6 to 8 inches of soil

**Side-dress or mulch:
1-3 inches**

**Top-dress lawns:
up to 1/2 inch
screen compost**



Spreading compost on the Wisconsin State Capitol lawn

Composting key points

- ✓ **Balanced diet**
- ✓ **Keep pile damp**
- ✓ **Turn pile when you need to**





Extension

UNIVERSITY OF WISCONSIN-MADISON
DANE COUNTY

Melinda.habecker@wisc.edu

Photos and illustrations courtesy of: Joe Van Rossum, Penn State Cooperative Extension, UW-Madison CALS, USDA-NRCS, Ken Chamberlain/OSU/bugwood.org, Kevin Erb, Jeffrey J. Stobel, Jeff Miller, Kevin Schoessow, and David Parsons/NREL.

University of Wisconsin-Extension —





AGENDA ITEM REPORT

MEETING DATE

October 24, 2023

PREPARED BY**AGENDA ITEM # 2.h**

Clarification on Committee Email Communications

BACKGROUND**RECOMMENDATION****ATTACHMENTS**

None



AGENDA ITEM REPORT

MEETING DATE	PREPARED BY
October 24, 2023	
AGENDA ITEM # 2.i	
Future Agenda Items	
BACKGROUND	
RECOMMENDATION	
ATTACHMENTS	
None	