



VERMONT
MASTER
COMPOSTER

Composting Tips to Avoid Rodents (& Other Wildlife)

2023 Annual PMP Training

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THE UNIVERSITY OF VERMONT
EXTENSION

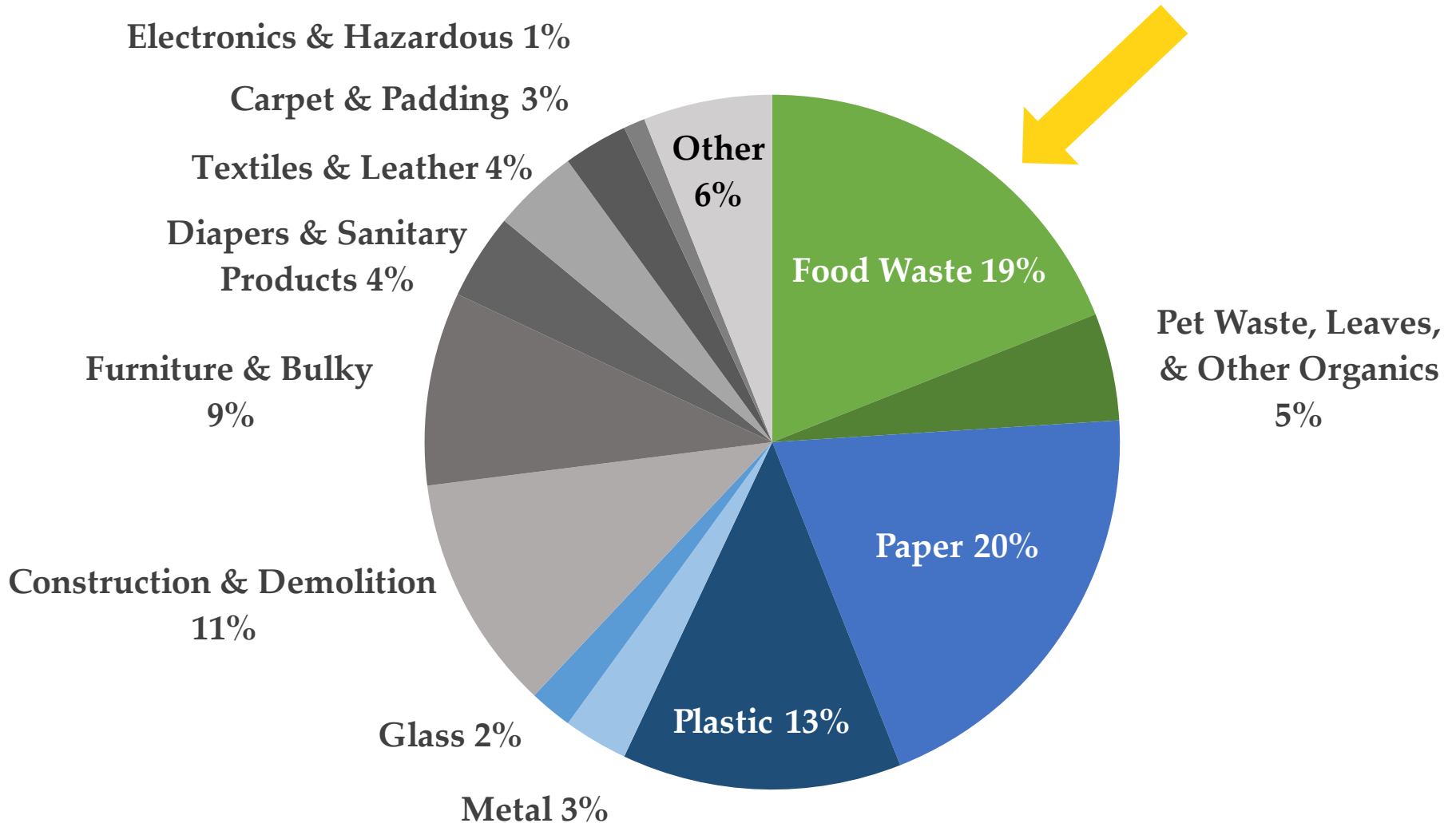


What's Up with Backyard Composting?!



Vermont's Trash in 2018

2018 Vermont Waste Characterization Study, DSM Environmental.



Source: Emma Stuhl, VT Department of Environmental Conservation, Waste Management & Prevention Division

What's Up with Backyard Composting?!

VT landfills ~77,000
tons of food scraps
each year.



Composting the
scraps



instead of trashing
them would...



reduce greenhouse
gas emissions



as much as not
driving ~115 million
miles.

That's like
driving
around Earth
4,629 times!



April 2019

Plus:

- Provides a free soil fertility source
- Closes the food system loop
- Supports green jobs
- Reduces burden on landfill

Universal Recycling Law (Act 148)

Goals:

- Reduce the total amount of waste disposed
- Increase recycling and composting

Phased Timeline:

- Act Passed in 2012
- Disposal Ban of Recyclables in 2014
- Disposal Ban of Leaf/Yard Debris in 2015
- Disposal Ban of Clean Wood in 2016
- **Disposal Ban of Food Scraps in 2017**





Compost with Confidence



State law bans food scraps from the trash.

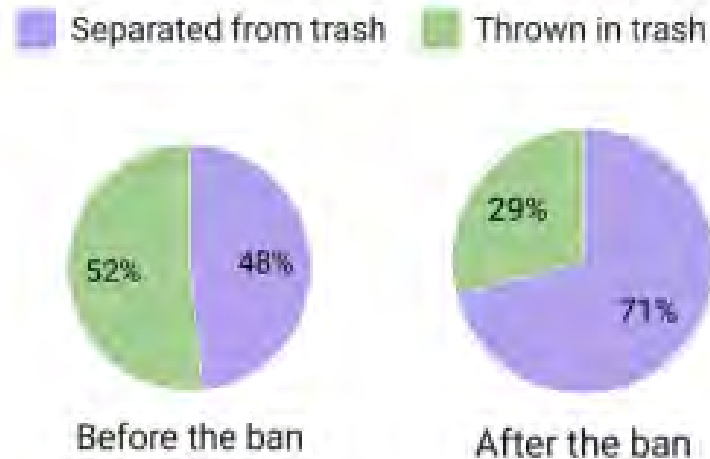


Figure 1. Proportion of food waste separated from residential trash before and after implementation of the food waste ban (%)

About 85% of Vermonters are now composting...
...25% are wondering how to compost correctly.



NEW AT 11:00

COMPOST ATTRACTS RODENTS

RATS INFILTRATE ESSEX JUNCTION NEIGHBORHOOD







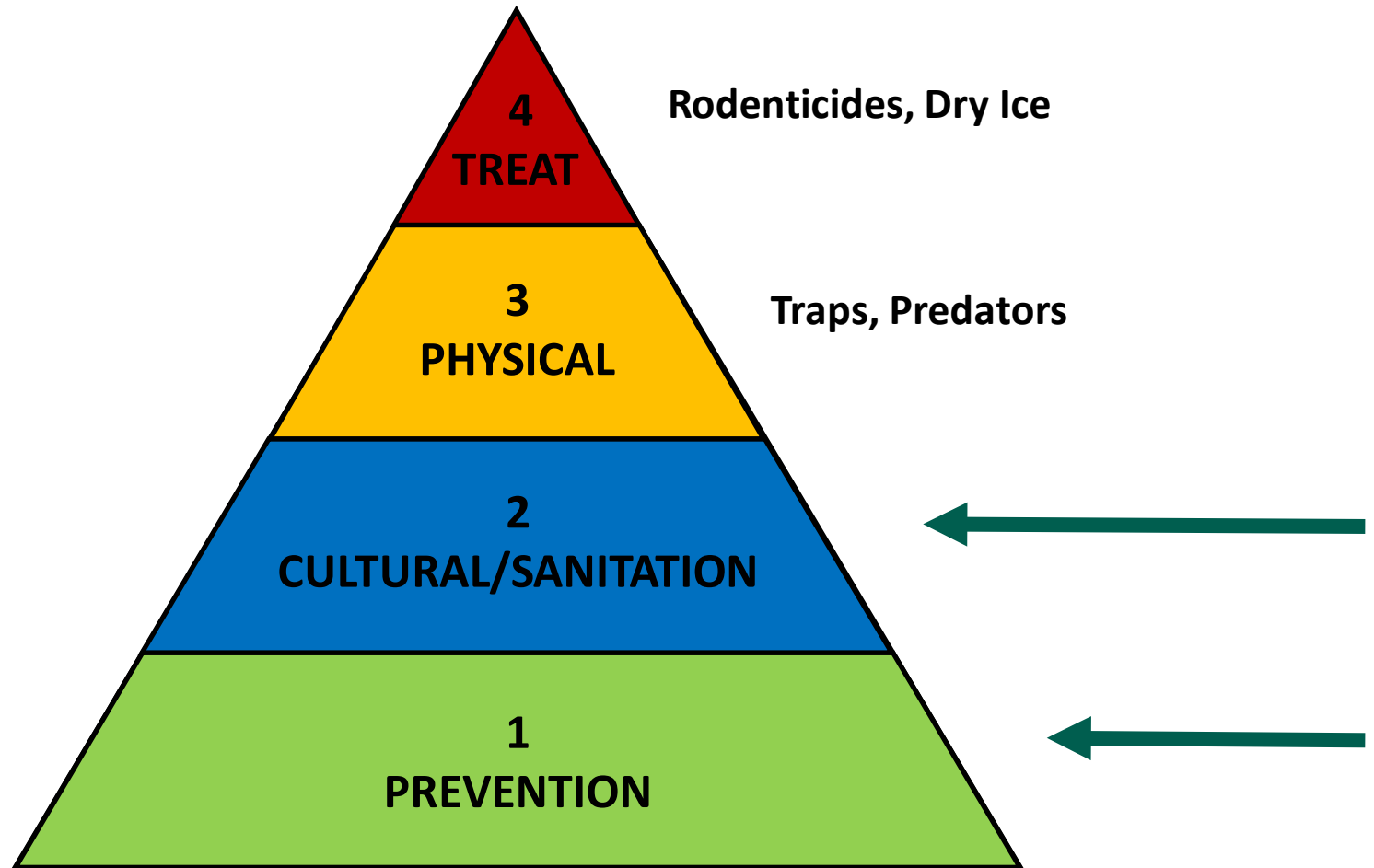


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Let's
talk
about
rats.



Rats in Compost – IPM Style



The IPM Pyramid

Rats in Compost IPM Style: Prevention

Know Thy Rat

The word rodent is derived from the latin word **rodere** meaning "to gnaw."



They are primarily active at night.

One healthy female can produce 84 babies in one year!



Reproduction can occur year-round.

Rats cannot thrive solely on vegetable and food scraps; they produce more babies on a balanced diet that includes protein.



Rat incisor teeth grow at a rate of **5 inches** per year. To keep them short and sharp, they gnaw on hard surfaces. Their teeth can chew through anything softer than steel, including concrete, wood, and wires.

Their urine glows under UV light.

Rats run along familiar paths and communicate by leaving pheromone scent trails in their urine and droppings.

Rat's Need:



Prevention Tips



Rat PREVENTION



Food Scraps are:

Parts of food not typically eaten
(peels, rinds, cores, shells, pits, seeds, bones, etc.)



Food no longer good for eating
(like plate scrapings or leftovers gone bad)



Coffee grounds and filters, tea and paper tea bags



Meat and bones UNLESS back-yard composting

Food scrap drop-offs and pick-ups accept meat and bones; home composters can throw them in the trash

Do you compost in your back yard?



You can throw meat and bones in the trash



Keep meat and dairy out of the bin.



Rat PREVENTION



Avoid feeding pets outside.



Rat PREVENTION



Keep bird feed in the feeders.

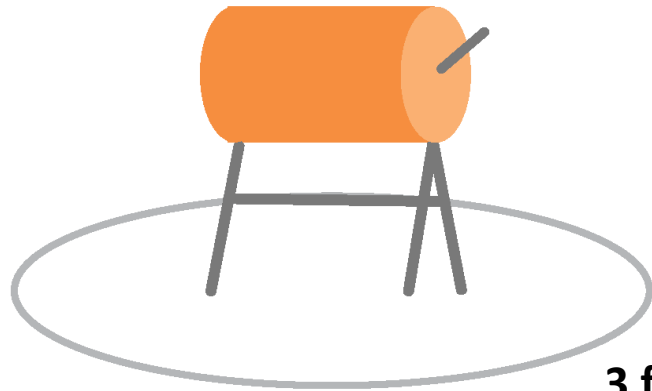


Rat PREVENTION

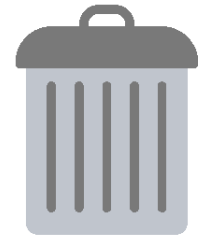


Feed chickens in the a.m.

Rat PREVENTION



At least 100 ft (300 ft better)



3 ft clearance around bin

Locate bin away from trash & provide open space / clearance.





Rat PREVENTION



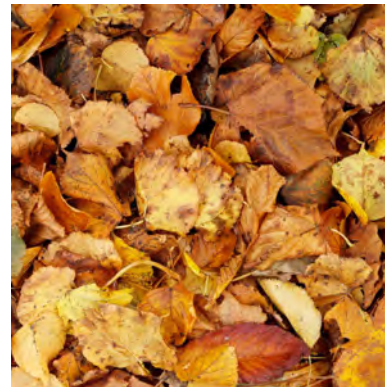
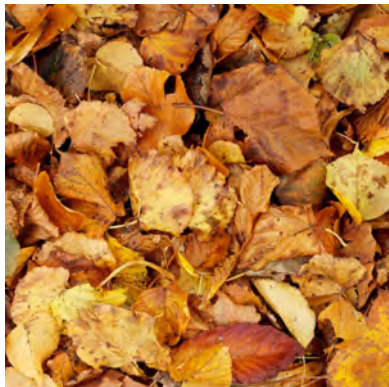
Use “Browns” = Carbon!

Carbon to Nitrogen Ratio

Examples of C Materials

“Browns”

Straw, hay, leaves, wood shavings, dried corn stalks, paper wastes



Examples of N Materials

“Greens”

Food scraps, green material, livestock manure



25-30 parts Carbon : 1 part Nitrogen

In practice, 2-3 buckets of C materials for 1 bucket of N materials

The “Magic” Ingredient: Carbon!



Rat PREVENTION



Manage an active bin – turn regularly.

SANITATION & CULTURAL CONTROLS

Goals:

- Create an inhospitable environment..
 - Reduce shelter and cover.
 - Disrupt trails and home (burrows).
- Install physical barriers.







SANITATION



Trim plants to <12" to remove hiding spots.





© Giuseppe Mercurante

SANITATION



Remove any clutter.



SANITATION



Scout for and disrupt burrows.



Source: <https://youtu.be/QmiTuZraFHI?si=PnwahRuHnJwbPbea>



SANITATION



Regularly clean whenever possible.



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CULTURAL CONTROL



Move bin off ground.



Use Compost Tumblers



Image source:
<https://www.joracomposters.com/>

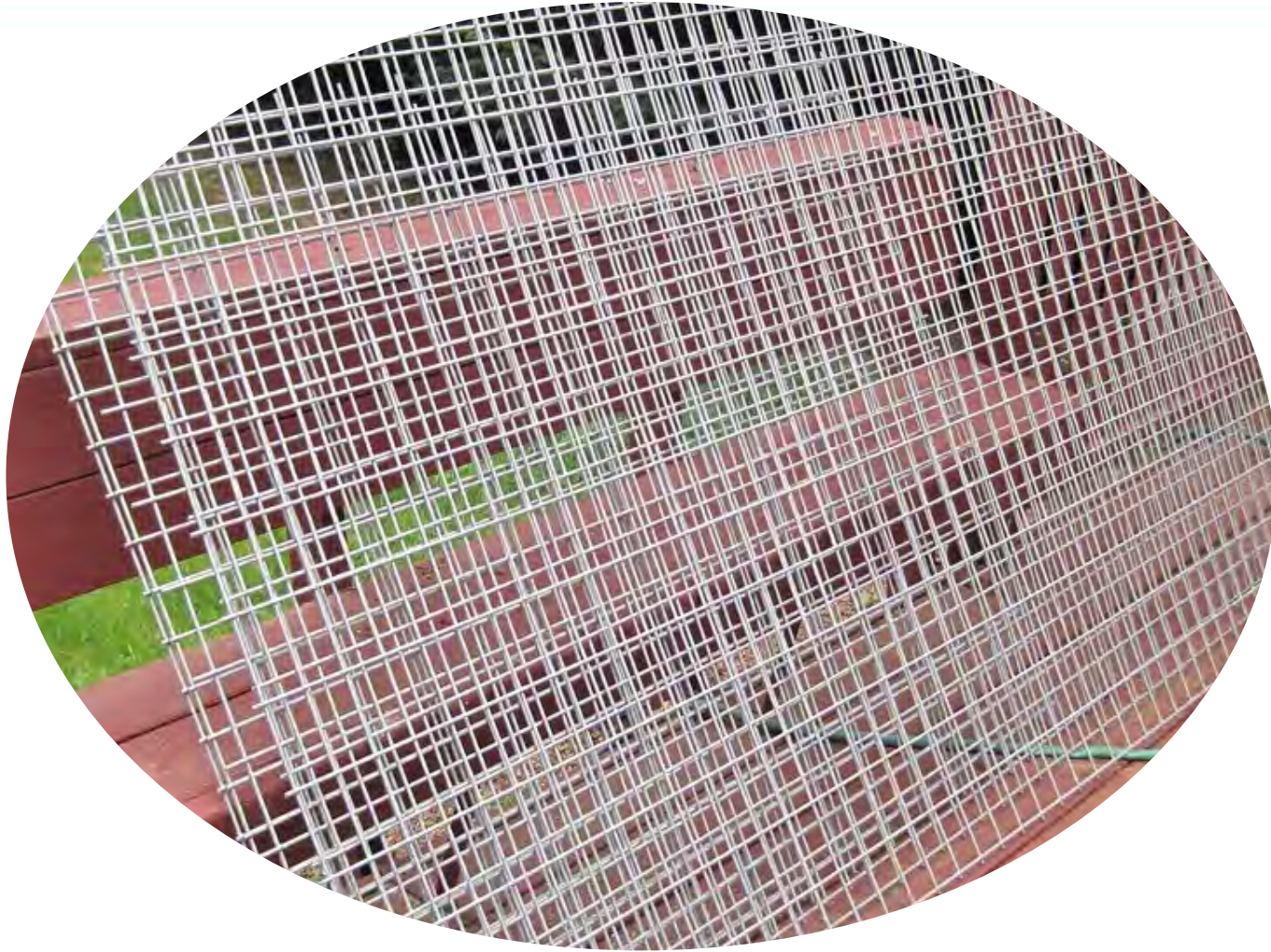


Image source:
<https://www.gardeners.com/buy/tumbling-composter-with-dual-chambers/8590359.html>



Image source:
<https://www.itsahusbandthing.com/make-diy-compost-tumbler-bin/>

CULTURAL CONTROL



Install hardware cloth (1/4" galvanized).



Photo showing how to cable tie the netting to a square compost bin. Image credit: Rod Boyes.

Source: <https://predatorfrenz.org/get-involved/backyards-and-neighbourhoods/rat-proof-your-compost-bin/>



Source: <https://www.marinhomestead.com/gardening/rat-proof-compost-bin/>

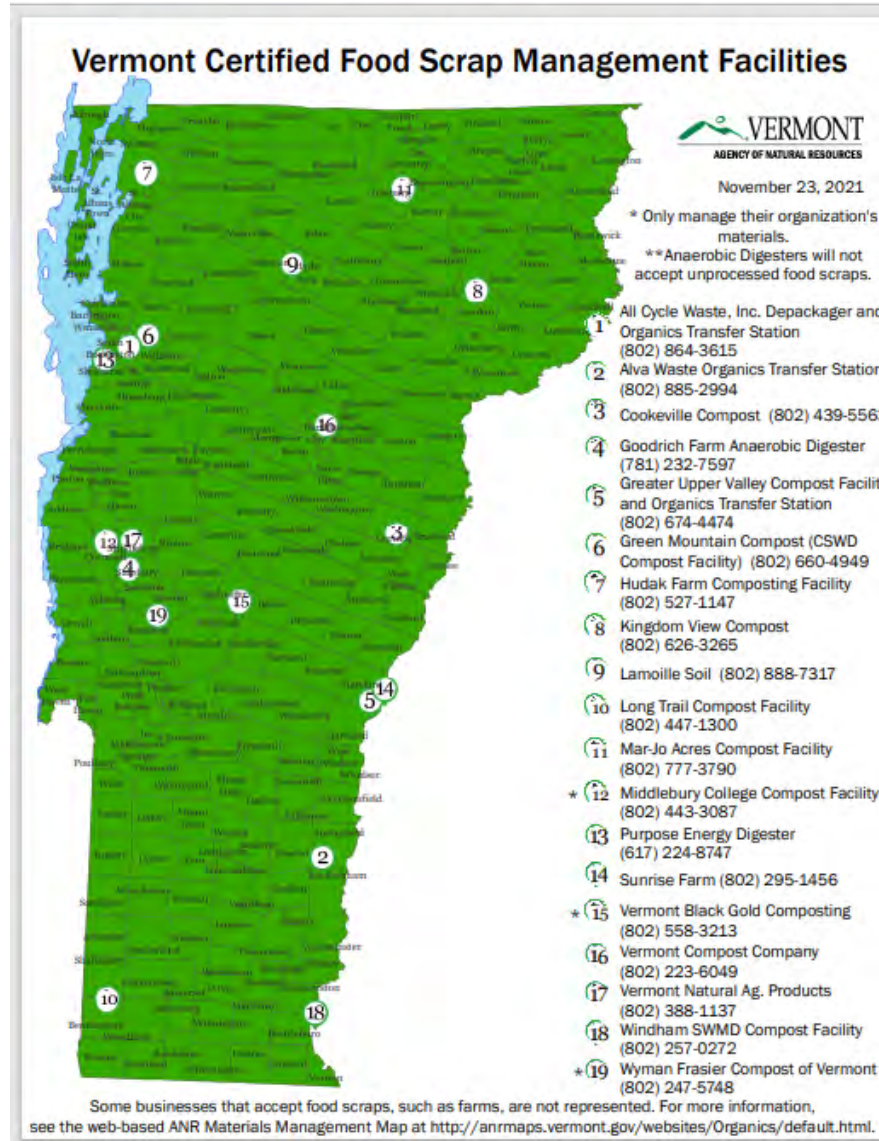
CULTURAL CONTROL



Stop backyard composting.

Vermont Food Scrap Haulers

https://dec.vermont.gov/sites/dec/files/wmp/SolidWaste/Documents/FoodScrapHauler_sSTATEWIDELIST.pdf



Learn more about effective composting.

UVM EXTENSION CULTIVATING HEALTHY COMMUNITIES

MENU

EXTENSION COMMUNITY HORTICULTURE

Master Composter Program



BECOME A BETTER COMPOSTER!

Composting is about recycling organic material back to the soil in a usable form. It's also about reawakening our awareness of the value of healthy soil in the food web. Composting is practical, convenient and inexpensive. Our Vermont Master Composter

program provides training to volunteers who'd like to help Vermonters learn how to become better composters. The program is supported by and offered in collaboration with the Vermont Agency of Natural Resources Department of Environmental Conservation.

[Vermont Master Composter Course](#)



[Learn about Composting](#)



<https://go.uvm.edu/vtcompost>



VERMONT MASTER COMPOSTER

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<https://www.uvm.edu/extension/mastergardener>





Rodent Prevention Tips

IISR INSTITUTE FOR Local Self-Reliance

Neighborhood Soil Rebuilders

For more info, visit: ilsr.org/composting-ohrats

✓ Do



Post signs on materials acceptable and not acceptable for composting.



Keep dry amendments and carbon sources on hand at all times (to promptly mix with food scraps, help manage wet materials, and to control odors).



Incorporate food scraps into composting piles immediately and cover with a biofilter.



Maintain at least 3 ft open space around each composting component (e.g., pile, carbon storage, tool shed).



Make sure active composting piles are on a surface or have a barrier that prevents rodent burrows underneath.



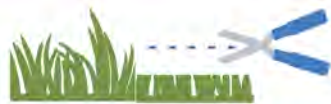
Be active! Turn, move, poke piles regularly.



Ensure any lids fit tightly and latches function properly.



Fix compost systems as needed and seal all cracks and holes.



Trim plants to 1 ft off ground to eliminate hiding spaces.

✗ Don't



Don't provide rats with protein by feeding birds or cats, or leaving pet waste on site. Dog poop can be a protein source for rats.



Don't compost with eggs, dairy, meat, fish, bones, fat, oil, grease, or cooked food.



Don't store food scraps on-site or leave food scraps exposed in your piles.



Don't give rats hiding places: remove clutter, weeds and dense vegetation.



Don't leave drains and aeration pipes unsealed. Cover with steel hardware cloth.