MINDLESS COMPOSTING

AT HOME STARTER GUIDE

ALLIANCE OF NURSES FOR HEALTHY ENVIRONMENTS
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ALLIANCE OF NURSES FOR HEALTHY ENVIRONMENTS

Bringing science and passion to the environmental health movement

Talya Briana • Elizabeth Flores • Andrew Jensen • Daniella Rossi

The Alliance of Nurses for Healthy Environments (ANHE) is a network of nurses and nursing organizations from around the world that are acting at the intersection of health and the environment to promote health.

ANHE launched the inaugural Student Nurse Committee in 2020 with eight student nurses from across the country. Students self-divided into two subcommittees that had the opportunity to explore their passion about environmental health, engage in peer learning and sharing, and develop educational materials geared towards nurses, nursing students, and community members.

Talya, Elizabeth, Andrew, and Daniella joined together to design the *Mindless Composting Guide* based on their passion for health, environmental activism, food waste, and their personal experiences with composting. As nurses, it is our ethical duty to care for the health of people, communities, and our planet. Composting is a feasible, environmentally friendly lifestyle change that will benefit our planet and, in turn, our health.

To learn more or to join us go to our website: www.enviRN.org/join

"WE DON'T NEED A HANDFUL OF PEOPLE DOING ZERO WASTE PERFECTLY. WE NEED MILLIONS OF PEOPLE DOING IT IMPERFECTLY"

Anne Marie Bonneau

What do you need inspiration on?

Take this quiz to find your personalized tip!

I want to **REDUCE** my waste

Do you want to take action or educate yourself?

- Educate → **EXPIRATION DATES ARE NOT SAFETY DATES**
- Action → Eating out or cooking at home?
  - Out → **ORDER WHAT YOU KNOW YOU'LL EAT**
  - Home → Do you want to prevent food spoilage or prevent overpurchasing?
    - Over purchasing → **WRITE A GROCERY LIST**
    - Spoilage → Do you take inventory of what you most commonly waste?
      - Yes → **THE FREEZER IS YOUR FRIEND**
      - No → **THEN, START HERE**

I want to **REUSE** my waste

Get creative with what you have or with what you would typically throw away?

- What I throw away
  - Produce → **DIY VEGGIE STOCK**
  - Bread → **HOMEMADE CROUTONS**
  - Coffee → **NATURAL SCRUB**
  - Grease → **HOUSEHOLD LUBRICANT**
- What I have → Looking to clear your fridge?
  - Yes → **UPCYLE LEFTOVERS**
  - No → **REGROW**

More details on pages 5 and 6

GIVE FOOD ANOTHER CHANCE

BY DANIELLA ROSSI

TIPS FOR REUSING SCRAPS

DIY VEGGIE STOCK

Save the peels, stems, and skins of veggies such as onions, carrots, potatoes and whatever else you have! Store them in a container in the freezer until ready to use. Simmer in water adding additional flavoring as desired and a touch of salt.[1]

HOMEMADE CROUTONS

Cut up stale bread into cubes and toss with oil or butter and seasonings of choice. If your bread is too hard to cut, wrap it in a wet paper towel and microwave to soften.[2] **Need Breadcrumbs?** Add stale bread to a food processor and store in an air tight container.

NATURAL SCRUB

Mix used coffee grounds with sugar and coconut (or olive) oil in a 2:2:1 ratio and use as an exfoliator or ditch the add-ins and use the grounds as is to scrub stubborn gunk off pots and pans.[3]

HOUSEHOLD LUBRICANT

Save used oil in a jar and use on squeaky hinges or sticky keys.[4]

BACON GREASE

Use in place of oil or butter to fancy up stovetop popcorn or add flavor to scone and biscuit recipes.[5]

UPCYLE LEFTOVERS

Use your fridge and pantry as your inspiration! Get creative by turning leftover meats, veggies, and grains into burritos or quesadillas, fritters or croquettes, dumplings or wontons, gourmet salads, casseroles or pot pies, soups or stews, sandwiches, stir fries, pizza toppings, or of course, scramble them up with eggs![6]

REGROW

Multiply your fruits and veggies by fostering root development then transferring to soil. You can regrow almost anything from strawberries and pineapples to carrots and onions. Some of the easiest just require you to place in water such as green onions. Lookup regrowing food scraps online for more specifics on this waste-sparing, money-saving tip.[7]

BEFORE THROWING IT AWAY...

BY DANIELLA ROSSI

TAKE INVENTORY*

Start to track what foods you most commonly waste. This can be as simple or as structured as you'd like. The first step is becoming aware so you can adjust accordingly. From there, you may be able to implement the other tips on this page.

GROCERY LISTS*

Shop your fridge and pantry first for recipe inspiration. Write a list keeping in mind the quantities you need (i.e. salad greens- enough for 4 lunches), and realize buying in bulk only saves money if you can use it before it spoils![8]

*Check out resources from the EPA's *Food: Too Good to Waste Implementation Guide and Toolkit* on pages 7 - 10.

EXPIRATION DATES

According to the USDA, "Best if Used By/Before," "Sell-by," "Use-by," and "Freeze-by" dates are for quality purposes only except for infant formula. Foods may be consumed past these dates if no spoilage is present.[9]

STORAGE AND FREEZING

Did you know carrots should be stored submerged in water? Look up proper food storage tips to extend their lifespan. Additionally, you can freeze virtually anything, and buying frozen versus fresh is a valid option.[8]

EATING OUT

Only take what you can eat at all-you-can-eat buffets to reduce waste. Be knowledgable of portion sizes, and order what you know you will eat, whether as dine-in or as leftovers.

Spare waste, wallet, and world with these simple changes!

GET SMART: TAKE THE CHALLENGE

KEEP GOOD FOOD FROM GOING TO WASTE

WHAT IS THE CHALLENGE?

Did you know that in 2013 Americans threw 35 million tons of food into landfills and incinerators? Research shows that nearly everyone wastes more than they think they do. The **Food: Too Good to Waste** Challenge will help you figure out how much food is really going to waste in your home and what you can do to waste less. By making small shifts in how you shop for, prepare, and store food, you can save time and money, and keep the valuable resources used to produce and distribute food from going to waste!

WHAT DO YOU NEED?

You only need a few basic tools to get started, which include 1) a pen/pencil, 2) paper or printed worksheets, 3) small garbage bags, and 4) a small scale (optional).

GET SMART: SEE HOW MUCH FOOD (AND MONEY) YOU ARE REALLY THROWING AWAY

WEEKS 1 & 2: Measure how much food your family wastes in a week and record the volume and/or weight.

WEEKS 3 through 5: Try out one or more of the smart strategies listed below while continuing to measure how much goes to waste each week. Keep notes on what works to reduce food waste and what doesn't.

- Smart Shopping: Buy What You Need – Make a shopping list with the Meals-In-Mind Shopping List template based on how many meals you expect to eat at home before your next shopping trip. By buying no more than what you expect to use, you will be more likely to use it up and keep it fresh.
- Smart Storage: Keep Fruits and Vegetables Fresh – Store produce so it stays fresh longer with the help of the Fruits and Vegetable Storage Guide.
- Smart Prep: Prep Now, Eat Later – By preparing perishable foods as soon as possible, preferably post shopping, you'll make it easier to serve snacks and meals later in the week, saving time, effort and money.
- Smart Saving: Eat What You Buy – This involves being mindful of leftovers and old ingredients that need using up. The "Eat First" prompt can be used to designate an area in your refrigerator for leftovers and food that won't keep long.

Week 6: Measure and record your final weekly food waste amount. See how much food (and money) you saved compared to weeks one and two.

EPA United States Environmental Protection Agency
EPA-530-F-014-B
February 2016

GET SMART: TAKE THE CHALLENGE

KEEP GOOD FOOD FROM GOING TO WASTE

TIPS FOR TAKING THE CHALLENGE

1. Explain the challenge to members of your household/community and ask for their participation.
2. At the start of each week, line one paper bag with a green compostable bag. Over the course of the week, place all your PREVENTABLE food waste into the bag. Discard NON-EDIBLE food in the usual manner. (PREVENTABLE food waste is both food you bought to eat but has since spoiled and food that was prepared but not eaten and was then thrown away. NON-EDIBLE food waste is everything you wouldn't normally eat, such as banana peels, egg shells, apple cores and chicken bones.)
3. At the end of each week, measure both the weight and the volume of food waste in the bag. Record both the volume and the weight for the week on the attached worksheet. Once you get started, it should take no more than 15 minutes a week to measure and record your food waste.
4. If the bag fills before the end of seven days, weigh or record the volume of the full bag and record how many days you collected food in that bag. Then begin collection in a new bag. At the end of the week, total your weight and/or volume of food waste for the entire week.
5. After you record the weight and volume of food wasted for the week, dispose of the collection bag, including food, appropriately and as acceptable for your collection service, by composting, through organics collection or in the garbage.
6. Except for the new strategies you try starting in week 3, keep to your usual routine as much as possible during the challenge. For example, unless you regularly clean out your freezer, do not clean it throughout the challenge.
7. At the end of week 6, compare your totals for weeks 1 and 2 to weeks 3 through 6 and see how much food you saved from going to waste! Many families have reduced their food waste by 25% or more.

ADDITIONAL WASTE COLLECTION TIPS:

- If you are concerned about leakage, then you might use a plastic bag as a second liner.
- If concerned about odor, you can clip the top of the bag shut; or you can start using a new bag mid-week, as long as you track the total volume of waste for the whole week.
- Do not collect liquid waste such as soup or food-soiled paper products.

AFTER THE CHALLENGE

Once you've completed the challenge, share your successes and lessons learned with other individuals or organizations who may be interested in reducing wasted food.

For more information on sustainable management of food, please visit
http://www.epa.gov/sustainable-management-food

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GET SMART: TAKE THE CHALLENGE

KEEP GOOD FOOD FROM GOING TO WASTE

RECORDING WORKSHEET

WEEK 1

Start Date: _____ Day of Week: _____

_____ Bag Volume _____ Weight

_____ # of days collected

NOTES (WHAT GOES TO WASTE AND WHY)

_____

_____

_____

WEEK 2

Start Date: _____ Day of Week: _____

_____ Bag Volume _____ Weight

_____ # of days collected

NOTES (WHAT GOES TO WASTE AND WHY)

_____

_____

_____

Totals – Weeks 1 and 2

_____ Bag Volume _____ Weight

Averages – Weeks 1 and 2

Total Volume ÷ 2 = _____ Total Weight ÷ 2 = _____

WEEK 3

Start Date: _____ Day of Week: _____

_____ Bag Volume _____ Weight

_____ # of days collected

NOTES (WHAT WORKS, WHAT DOESN'T)

_____

_____

_____

WEEK 4

Start Date: _____ Day of Week: _____

_____ Bag Volume _____ Weight

_____ # of days collected

NOTES (WHAT WORKS, WHAT DOESN'T)

_____

_____

_____

WEEK 5

Start Date: _____ Day of Week: _____

_____ Bag Volume _____ Weight

_____ # of days collected

NOTES (WHAT WORKS, WHAT DOESN'T)

_____

_____

_____

WEEK 6

Start Date: _____ Day of Week: _____

_____ Bag Volume _____ Weight

_____ # of days collected

NOTES (WHAT WORKS, WHAT DOESN'T)

_____

_____

_____

Totals – Weeks 3 through 6

_____ Bag Volume _____ Weight

Averages – Weeks 3 through 6

Total Volume ÷ 4 = _____ Total Weight ÷ 4 = _____

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SMART SHOPPING: Shop with Meals in Mind

- Think about how many meals you'll eat at home this week and how long before your next shopping trip.
- Next to fresh items on the list, note the quantity you need or number of meals you're buying for.
- Shop your kitchen first and note items you already have.

FOOD ITEM	AMOUNT NEEDED	ALREADY HAVE
Salad greens	Lunch for a week	Enough for one lunch
2% milk	Gallon	NONE

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WHY COMPOSTING?

BY ANDREW JENSEN

Climate change is an issue that involves every part of the world, every sector, profession, and person. Everyone needs to do their part in keeping the global temperature from increasing 1.5 °C (3.47 °F).

Climate change will impact all parts of the world from the melting of glaciers in Greenland to increasing food instability in sub-Sahara Africa; it will force every industry to adapt to new challenges, including the healthcare industry, which emits close to 10% of the United States' total greenhouse gas emissions.[10]

Nurses, the most trusted profession in the United States for the past 18 years, need to use their voices and act on sustainable ways to help drawdown emissions.[11] Nurses Drawdown, a project of the Alliance of Nurses for Healthy Environments and Project Drawdown, identified five key areas in which nurses can step up and fight climate change.

One of these key areas to reducing greenhouse gas emissions is food. Nurses Drawdown highlights eating a plant-based diet, reducing food waste, and improving clean cookstoves.

CONTINUED ON NEXT PAGE

TAKE HOME POINTS

REDUCE WASTE FIRST

It is great to start composting, but the best way to reduce your carbon footprint is to first reduce your food waste.

COMPOSTING IS EASY

Composting may seem overwhelming, but with just a few easy steps you can have your compost system up and running. After that you can streamline your system and have it function smoothly while doing your part.

HELP FIGHT CLIMATE CHANGE

Nurses Drawdown identifies food as one key area nurses should focus on to help fight climate change. By reducing your food waste and diverting your left overs into compost, you can sequester carbon and prevent methane emissions.

SOIL BENEFITS

Compost, or black gold, increases soil structure which increases resilence to erosion, increases water and nutrient retention, and includes natural nutrients that synthetic fertilizers cannot promise.

While initial reduction of food waste is the best option, what can you do with your inevitable food waste? Compost it.

Why is it necessary to compost?
Nearly half of the waste produced globally is organic or biodegradable.[11] That means that material can breakdown in only a few weeks or months. Much of the food waste ends up in landfills where the waste breaks down without the presence of oxygen, which releases methane. Methane is a potent greenhouse gas, around 34 times more powerful than CO2.[11] Composting aerates the food while it is breaking down to prevent methane from being produced.

Composting can be simplified down to the process of breaking down organic material while ensuring sufficient moisture, air, and heat for soil microbes to consume organic material.[12] Through this process, it sequesters carbon and produces valuable fertilizer. Rather than producing methane, composting produces stable soil carbon.

Aside from the emission sequestration benefits from composting, the valuable soil carbon is a great reason to start composting. Often referred to as "black gold," compost provides enumerable benefits to the soil; increased water and nutrient retention, erosion protection, introduction of beneficial microorganisms that aid in growth, and the overall improvement of soil structure are just a few benefits compost has on soil. [13]

While composting is a great, easy way to help drawdown emissions, we must have a multi-modal approach. Take part in Nurses Drawdown's other key areas of focus, collectively organize against environmentally damaging practices, become involved with environmental and climate groups, voice the urgency of change needed to protect our planet, and fight for the health of us all and those to come.

Nurses Drawdown: Five Key Areas of Action

1. Energy
   Supporting a clean energy future by promoting energy efficiency and advocating for a transition to renewable energy
2. Gender Equity
   Supporting education for girls and access to family planning
3. Food
   Committing to eat a more plant-based diet, use clean-burning cookstoves, and reduce food waste
4. Mobility
   Promoting walkable cities, including improving bike infrastructure and mass transit
5. Nature
   Planting trees and protecting forests

*Listed above are other areas to focus on to help draw down emissions. [14]

COMPOST: Impacts More Than You Think

Composting is the aerobic decomposition of organic materials by microorganisms. It transforms raw materials—such as leaves, grass clippings, garden trimmings, food scraps, animal manure, and agricultural residues—into compost, a valuable earthy-smelling soil conditioner, teeming with life.

One Person's Trash is...

...another's black gold.

Every year, U.S. landfills and trash incinerators receive **167 MILLION TONS** of garbage.

> 50% of typical municipal garbage set out at the curb is compostable.

Landfills and incinerators are dangerous. Every bag thrown out contributes to:

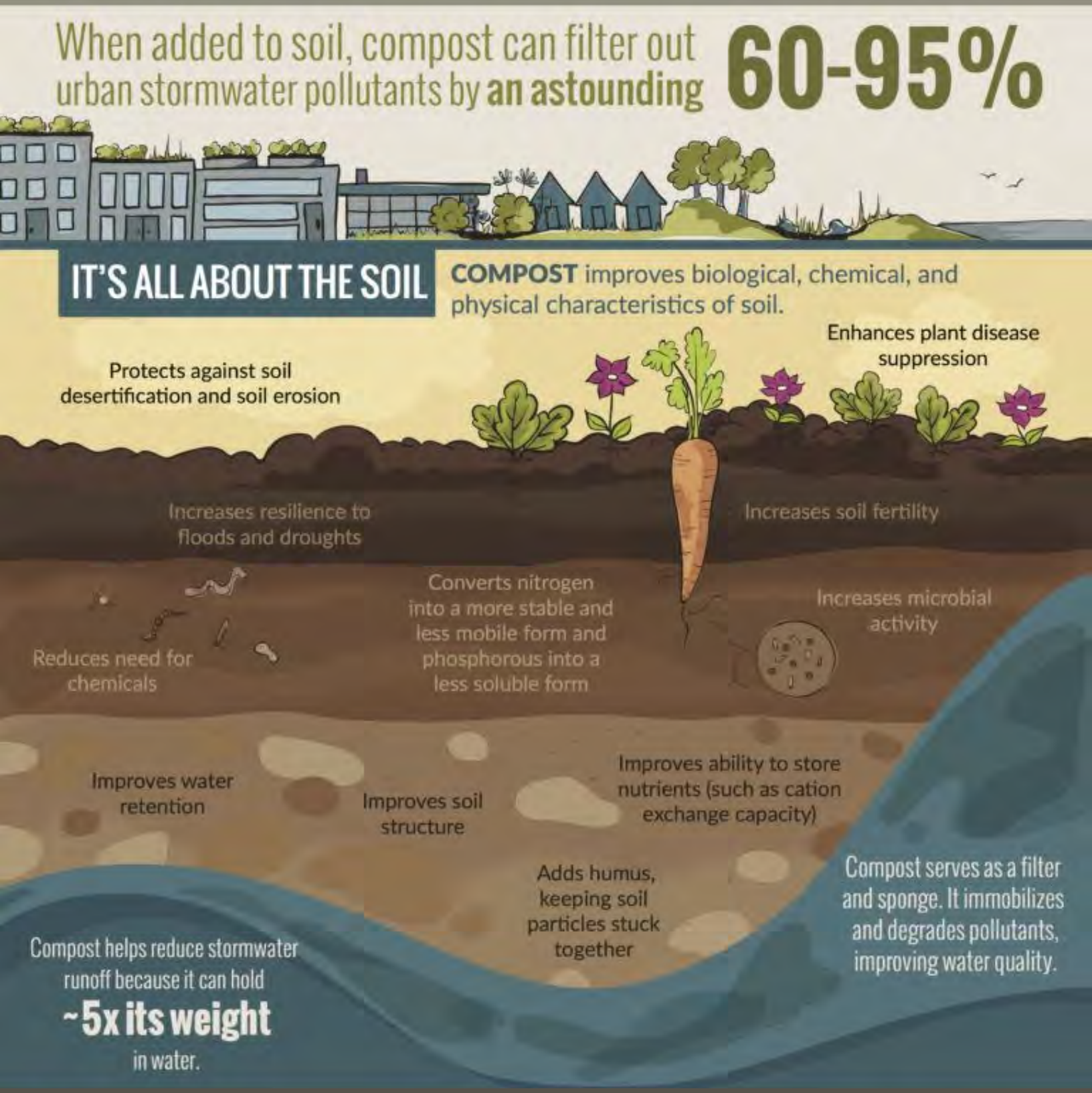
- Pollution of surrounding soil, air, and water
- Climate change
- Health hazards to humans and animals

- **21%** is food scraps alone
- **15%** paper/paperboard
- **8%** yard trimmings
- **8%** wood waste

The following comes from the Institute for Local Self-Reliance (www.ilsr.org), a national nonprofit organization working to strengthen local economies, and redirect waste into local recycling, composting, and reuse industries. It is reprinted here with permission. For original content, visit https://ilsr.org/compost-impacts/

Composting Enhances Soil and Protects Watersheds

Healthy soils are essential for protecting watersheds. Compost is the best way to add organic matter—which is vital—to soils.



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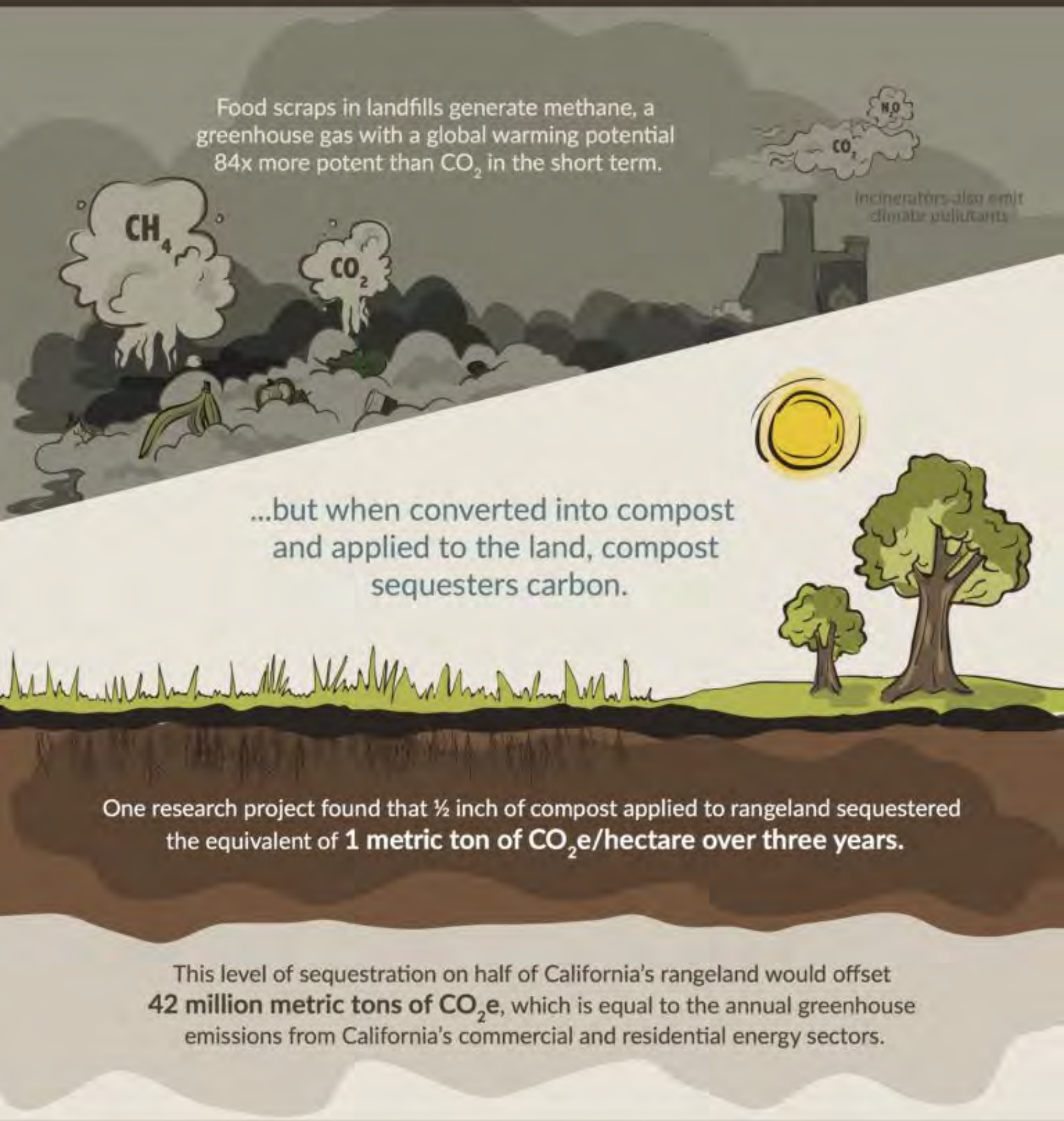
Composting Protects the Climate



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HOW TO START COMPOSTING

BY TALYA BRIANA

Regardless of whether you are a home-owning garden enthusiast or a space restricted apartment dweller, there is a method of composting that is suited to your living situation and mindful of your budget. All you need to get started is the right compost bin and a little bit of knowledge.

Composting systems range from free unconfined backyard systems and city services to fairly priced commercial private-services and special composting bins. Although, there are a lot of options, the quiz on the next page will help you identify the best option for you to get started!

WHAT'S YOUR BUDGET?

$0-50 ONE TIME

The most affordable and effortless way to compost is to gain access to a garden. Create one in your backyard, on your patio, or ask to partner with a friend, neighbor, or local farmer! You can collect compost in any container you already have or purchase a specially designed composting bin. Purchased bins often have a carbon filter to absorb odors.

Don't have outdoor space? Some cities offer various composting services such as a lockable composting cart for free or at a small cost.

See page 18 for more details.

$0-50 WEEKLY

With a small, regular budget you can invest in a private pick-up service. Private composting services are best for those who don't have outdoor space for a garden or access to municipal services.

See page 19 for more details.

$50+ ONE TIME

With a larger budget, you can begin composting in a contained system. These systems are suitable for both indoor or outdoor.

See page 19 for more details.

WHAT COMPOSTING METHOD IS BEST FOR ME?

Once you discover the composting method(s) that suits your living situation, read on for more info about starting each method on pages 18-19. You'll learn what composting bin is best to use, where to get more information on city composting, how to find a private pick-up service, and some contained composting methods.

BACKYARD GARDEN

Free
All your uncooked food waste can get dumped directly into your garden. Collect scraps in any container you want. Transfer scraps as often as you'd like. Be sure to balance organics with brown materials (*See page 21*).

Have outdoor space, but no garden?
Check with your city to see if they will subsidize the cost of a backyard composting bin for you![15]
Have a $50+ budget? Try a Contained System discussed on the next page.

COMMUNITY GARDEN

Free
Check with your city coordinator or city website for access to a community garden plot. Usually, plots are given out by lottery, so fill out the online application and use a different composting method until you gain garden access![16]

Once you have a garden plot, treat it like a backyard garden. Collect scraps in any container & transfer organic scraps to the soil with double the amount of the brown materials (*See page 21*).

CITY COMPOSTING SERVICES

Many cities have various options for composting. Check with your city coordinator or city website to find out what's available. Be sure to ask about:

Curbside Pick-up
Price varies by city ($0 or start-up fee)
Participate in your city's composting program by using their designated rodent resistant bins.[17]

1. Fill it up: Line your kitchen bin with a compostable bag. Keep your bin on the counter or under the sink. Fill it with food scraps and food-soiled paper while preparing food and cleaning up after meals.
2. Drop it in: After 3-4 days, tie the bag off and drop it in the compost cart. Some carts have locks to keep critters out. Bring your cart to the curb on the same day as your trash & recycling.
3. Repeat

Drop-off Locations
Free
Check to see if the city has specific compost drop-off locations.[18] Bins are not usually provided. Use any container or purchase a small bin.

NOT FINDING ANY COMPOSTING SERVICES OF COMMUNITY GARDENS IN YOUR CITY?
WRITE TO YOUR LOCAL OFFICIALS TO REQUEST A PILOT PROGRAM!

PRIVATE PICK-UP SERVICES

If you're looking for convenience, then you can sign-up for a private composting service for a small monthly fee. The company drops a bucket off for you to collect scraps and then picks it up and brings it to a composting facility, leaving a fresh bucket for you. Some companies offer free soil with your membership!

Find some options for your state & city here.[19]

OR

Search by company*:
City Compost[20]
$12-25 start-up cost
$9/month
Black Earth Compost[21]
$24-34 start-up cost
$9.99/ month
Garbage to Garden[22]
$15/month
Bootstrap Compost[23]
*$40/ month**

**Costs as advertised in 2020 and subject to change by each company.*

Reference in this document to any specific commercial product, process, or service or the use of any trade, firm, or corporation are for informational purposes only and does not constitute endorsement, recommendation, or favoring by the Alliance of Nurses for Healthy Environments.

CONTAINED COMPOSTING

A contained indoor or outdoor system that prevents pests and requires limited space.
$50+ start-up cost

Vermi Composting (Worm Bin)
This composting method uses red wiggler worms. They are safe to bring indoors since they do not burrow and won't escape! The worms break down the waste more efficiently than a traditional backyard compost pile. Plus, worm compost has been proven to have ten times the nutrients of traditional backyard compost. Purchase the worms and a specially designed bin online or build one![24, 25]

Stealth Composting
You can purchase a tumbling system like Envirocycle or build a contained system using two plastic containers. Follow these simple directions to build your own.[26, 27]

Bokashi
This composting method uses a fermentation process that requires a garden or compost pile to complete decomposition of the food waste into soil. Purchase the compost accelerator and a specially designed bin online like the SCD All Seasons Bokashi Indoor Composting Kit.[28]

"NATURE DEMANDS A GIFT FOR EVERYTHING THAT IT GIVES, SO WHAT WE HAVE TO KEEP DOING, IS RETURNING [LEAVES & FOOD WASTE] BACK TO THE SOIL, THEN WE'RE CONTINUOUSLY GIVING THE GIFTS TO NATURE, BECAUSE WE HAVE A RETURN CYCLE."

GEOFF LAWTON

MINDLESS UPKEEP

BY ELIZABETH FLORES

For those who decided to start their own composting bin, here are some tips and tricks for you to have success.

Whether you purchase a compost bin or make your own with chickenwire, it is important to have holes in which air can pass through. This will help keep your bin aerated so the *aerobic* bacteria can thrive. Otherwise, more turning of the pile may be necessary.[29]

Our microscopic friends are essential to maintaining a successful compost pile. In order to introduce the right bacteria, add soil or a compost starter to the bottom of your bin.[29]

To begin a bin, you will need the right compostable materials. These materials are described as "green" or "brown" based on the core element, nitrogen or carbon.[30] *Refer to the next page for further details.*[31]

Recognizing greens vs browns is necessary in order to create the perfect ratio. In practical terms, there should be 1 part green and 2 parts brown. That means the brown materials will have a slight majority in the bin. For example, say you repurpose a 1 gallon ice cream container and fill it with your green food scraps. When you decide to dump it into your pile, put 2 containers worth of the brown material.

CONTINUED ON PAGE 22

THE STEP-BY-STEP PROCESS

STEP 1: COLLECT

To begin composting, you need to collect materials that can break down naturally. Collect your left over produce or other kitchen scraps to later add to the pile.

STEP 2: DUMP

Add collected materials to a designated bin or pile. Ensure the correct ratio of greens and browns (1:2) to enhance the process.

STEP 3: AERATE

To aerate the pile to ensure the bacteria has enough oxygen, turn the pile after the first two weeks. Use a shovel to move the pile around and shake it up. Do this once every 2 - 4 weeks.

STEP 4: WATER

Compost piles need moisture to help the process. The pile should be like a damp sponge in moisture. When you turn the pile, consider adding water to ensure it has enough moisture.

STEP 5: USE IT

After 4 - 6 weeks, compost should be ready to use, although time varies per pile. Use it in your garden, sprinkle it along your lawn, or used unfinished compost as mulch.

GREEN MATERIALS

- VEGETABLE AND FRUIT SCRAPS
- GRASS CLIPPINGS
- COFFEE GROUNDS
- COFFEE FILTERS
- TEA LEAVES
- TEA BAGS
- MOLDY BREAD
- COOKED PASTA AND RICE
- GREEN SHRUB PRUNINGS
- HOUSEPLANTS

BROWN MATERIALS

- DRY LEAVES
- PINE NEEDLES
- TWIGS AND BRANCHES
- WOOD ASH
- SHREDDED PAPER AND NEWSPAPER
- SHREDDED CARDBOARD
- EGG SHELLS
- BROWN PAPER BAGS
- PAPER TOWELS
- TOILET PAPER ROLLS
- CARDBOARD EGG CARTONS

WHAT TO AVOID

- DAIRY
- FISH
- MEAT
- BONES
- OILS
- PLASTIC
- PRODUCE STICKERS
- METALS
- GLASS

THE GOLDEN RATIO OF GREENS TO BROWNS

1 PART GREEN : 2 PARTS BROWN

When dumping the compostable waste into the bin, try layering the materials. Along with the soil at the bottom, the next layer should be some bulky browns.[32] The bulkiness from sticks or cardboard will help keep the pile aerated. Then, alternate between greens and browns in the middle.[32] You want to end with browns on top because it can help keep the smell and pests away. Don't worry about turning the pile and messing with the layers, as this is a strategy to help ensure the ratios in the beginning.

Many of the brown materials are recyclable or a part of your yard waste. Consider adding a separate waste bin to collect your browns. You may quickly notice that you have much more browns than greens, so you can recycle what you do not need. In some cases, people add nitrogen fertilizer as a "green" source (remember how green is nitrogen?)[34] In other cases, you may have too many greens and not enough browns, especially during the spring and summer time. You can buy hay or saw dust, or ask neighbors for their old newspapers.[34]

Although maintaining the perfect ratio is ideal, sometimes it is not feasible. Remember: ***compost happens***, it just may take some more time to get there.

Another tip to help your materials quickly decompose is to chop it up.[30] Instead of throwing in a whole cardboard box, be sure to cut it up into smaller pieces. Same with any other materials like your food scraps. The smaller the pieces, the faster microbes can eat it up.

As a recap, your compost pile should have different properties. First, it should be well aerated. Second, it should be moist like a damp sponge. Thirdly, it should be hot. The heat comes from the decomposition process, so no manual heating is necessary. In fact, this is why you should wait to turn the pile the first two weeks so the pile can heat up. However, consider insulating you compost bin in the winter by moving it to a sunny spot. With this basic knowledge, anyone can start composting.

COMPOST HAPPENS

GETTING THE HANG OF COMPOSTING? TAKE IT TO THE NEXT LEVEL

Advanced Composting: *Using multiple piles for year round compost*

After your pile has been established, you need to let your pile finish decomposing. Consistently adding material will not allow the file to completely decompose into compost. *But what do I do with the compost I am still creating?* Start another pile!

By the time you fill up a second pile, your compost may be ready to use! By using the compost, you make space to start the process again. For some, a two bin system will suffice. For those who produce high amounts of compost, three bins may be necessary. This allows for year round collection and composting.

COMPOST SUMMARY

1 Location

Find a shady, dry area to put your pile. A pile should be big enough to heat up, around 3ft x 3ft (a cubic yard).

2 Collect+Add

Add your browns and greens according to the 2:1 ratio. Remember to shred or chop materials for faster decomposition.

3 Moisture

Add water to your pile to help the decomposition process. The pile should be like a damp sponge. Not too much!

4 Aerate

Let your pile sit for the first two weeks to heat up. Afterwards, turn every 2 to 4 weeks to help the aerobic process.

5 Temperature

A compost pile that is decomposing will heat up. Do not be alarmed if you see steam coming from the pile; it's working!

6 Enjoy!

Compost is finished when all materials are decomposed completely, with an earthy smell. Add it to a garden or lawn!

Source: Brazell, Karen. "How to Compost." PBS Nature. August 5, 2013. Accessed, July 22, 2020. https://www.pbs.org/wnet/nature/blog/inside-nature-infographic-how-to-compost/

WHAT'S STOPPING YOU?

BY TALYA BRIANA & ELIZABETH FLORES

THE SMELL

Rotten Eggs

Compost needs oxygen to properly decompose. By keeping the food waste in any sealed container for too long, you prevent aeration which aids the composting process. The food waste can become odorous and slimy.

Solutions:

- Turn the pile, add more bulking browns like woodchips or chopped up sticks.[33, 34]
- Try keeping your compost bin in the freezer until you dump the contents to avoid the smell!
- Carbon filters can also combat odor. Look into purchasing a composting bin with changeable carbon filters.

Ammonia

Compost needs a balance of carbon and nitrogen. When nitrogen overpowers carbon, an ammonia smell can occur. Your compost needs more carbon to create balance!

Solutions:

- Add brown materials like paper and mix into the compost pile. Make sure there is enough moisture.
- If you are producing more organic (nitrogen) materials than brown (carbon), materials store the organics in the freezer.[33, 34]
- Carbon filters can also combat odor. Look into purchasing a composting bin with changeable carbon filters.[33, 34]

I DON'T KNOW WHAT'S COMPOSTABLE

It may seem like there is a steep learning curve with composting, but soon it will become mindless. You will be able to recognize what is compostable. In other words: the greens and browns.

You likely have been practicing composting without you even knowing it! You know that yard waste you drag to the street during the summer and fall? All of that goes to a composting plant. So, anything in those yard waste bags + kitchen scraps + paper products are a good baseline to start with!

BUGS AND PESTS

Compost piles can be completely free of bugs when set-up properly. Be sure to do the following to prevent any unwelcome visitors:

Solutions:

- Cover your food scraps with a mesh screen, a layer of brown material, or try an enclosed composting system.[33, 34]
- Avoid adding meats, oils, or fats as they can attract pests.[33, 34]

WEEDS ARE GROWING

Compost piles are known to sprout many of the composted food scraps. The rich nutrient soil fosters growth. You may notice seeds effortlessly sprout. The downside to this is that weed seeds can also grow.

Solutions:

- Maintain proper aeration and moisture levels.
- Pull weeds by hand.[33, 34]
- Add weeds to the center of the pile where there is the most heat. The weeds will die if the pile is hot enough.[33, 34]
- Keep your compost pile separate from your garden to avoid weeds overtaking your crops.[33, 34]

THE WEATHER

Composting can be done year-round in any climate. With four seasons, you may want to compost outdoors from Winter to Spring and then transition to a contained system from Summer to Fall. This grants you full access to your black gold for planting and harvesting!

THE COMPOST ISN'T DECOMPOSING

Our biggest take-home point is that composting can be mindless once it is set-up! In time, your organic and biodegrabale materials will create black gold. However, if it's been a couple weeks with no signs of decomposition then you want to give your compost pile some attention. Don't give up! It is likely your pile is simply too dry or imbalanced.

Too Dry

Solutions:

- Add green materials and water.[33, 34]
- Protect your compost from wind and sun by covering with a lid or tarp.[33, 34]

Too Cold

Temperature is a sign that the organic materials in your compost pile are breaking down effectively. Without proper balance between greens and browns, the compost will stay stagnant. If your compost pile isn't warm, try . . .

Solutions:

- Just starting? Make the pile at least 3 ft x 3 ft and keep collecting.[33, 34]
- Nitrogen is the main source of heat in the compost pile. If you have no greens then you can add nitrogen fertilizer.[33, 34]
- Check moisture levels.[33, 34]

CHECK OUT THE NEXT PAGE FOR A BRIEF SUMMARY

WHAT'S THAT SMELL?

MY COMPOST PILE SMELLS LIKE ROTTEN EGGS...

PROBLEM: Compost has gone anaerobic
SOLUTION: Needs air
ACTION: Turn the pile, add more bulking browns like woodchips or chopped up sticks.[33, 34]

WHAT'S THAT SMELL?

MY COMPOST PILE SMELLS LIKE AMMONIA...

PROBLEM: Compost has too much nitrogen
SOLUTION: Needs brown materials
ACTION: Add brown materials like paper and mix into the pile. Make sure there is enough moisture. If you have excess nitrogen material, store them in the freezer.[33, 34]

WHERE'S THE HEAT?

MY COMPOST PILE ISN'T HEATING UP...

PROBLEM: Compost is not hot
SOLUTION: Needs green materials
ACTION: Make the pile at least 3 ft x 3 ft to start the heat. Keep collecting if it's a new pile. Nitrogen is the main source of heat in a pile. If you have none on hand try nitrogen fertilizer. Check moisture levels.[33, 34]

WHAT'S TAKING SO LONG?

MY COMPOST PILE STOPPED DECOMPOSING...

PROBLEM: Compost is too dry
SOLUTION: Needs green material and water
ACTION: Turn, add nitrogen rich materials like kitchen scraps and water. Protect your compost from wind and sun by covering with a ld or tarp.[33, 34]

WHO'S THAT IN MY PILE?

MY COMPOST PILE ATTRACTS BUGS AND PESTS...

PROBLEM: Food scraps are not covered
SOLUTION: Put greens in middle and cover with browns
ACTION: Hot compost will kill fly eggs. Add a mesh screen if necessary. Cover food scraps with browns. Do not add meat, oils, or fats as they attract pests. Use a lid or keep covered.[33, 34]

WHAT'S GROWING IN THERE?

MY COMPOST PILE HAS WEEDS GROWING...

PROBLEM: Compost is growing weeds
SOLUTION: Ensure water and air quality
ACTION: Check aeration and moisture levels. Weed seeds will die if the pile is hot enough. Add weeds to the center of the pile where there is the most heat. Try not to add weed seeds. You can remove weeds as well.[33, 34]

"INFORMATION IS LIKE COMPOST; IT DOES NO GOOD UNLESS YOU SPREAD IT AROUND."

Eliot Coleman

Please share this Mindless Composting Starter Guide with your friends, family, & colleagues!

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About the Authors

TALYA BRIANA

MGH Institute of Health Professions, Direct-Entry in Nursing Program, 2022

As an avid backyard composter and green lifestyle enthusiast, I am thrilled to now have this guide to motivate fellow nurses and community members to begin composting, too! When I graduate, I hope to be able to work as a Holistic Family Nurse Practitioner where I can educate individuals on the connection between the environment and their health. I plan to continue collaborating with ANHE throughout my nursing career to continue learning about and spreading awareness of how our behaviors influence our planet and our health.

ELIZABETH FLORES

University of Minnesota - Twin Cities BSN-RN Student, 2021

At the start of this project, I knew the benefits of composting, but I was stuck on how I could do it for myself. I am proud to now say composting is *mindless* for me! While at school, I use the city's Organic Waste Program. As for nursing, my ultimate dream is to become a Psychiatric and Integrative Health Nurse Practitioner. I aim to continue participating in ANHE workgroups to spread awareness, stay updated on current research, and reach out to legislators about the reasons they should support climate action.

ANDREW JENSEN

University of Minnesota - Twin Cities BSN-RN Student, 2021

Through my love for the outdoors, passion for animals, and desire to work in nursing, I wanted to discover ways to better the planet. Composting is one way Project Drawdown lists as a way to reduce emissions. Through collective and systemic action, I believe we can build a more just future. I hope to work in various fields, including public health, during my career in nursing. I want to continue my involvement with ANHE to continue to educate myself and others on the importance of supporting a healthy environment.

DANIELLA ROSSI

University of San Francisco, ME-MSN, CNL Program, 2020

I am so grateful to have had the opportunity to work with such an amazing team to spread awareness about food waste and composting. I studied at UC Davis, a global leader in sustainability, where I developed a passion for environmental health and picked up lifelong, waste reduction habits along the way. I hope this guide can inspire others and help start the conversation. I plan to stay involved in ANHE and continue educating myself and others about the importance of a healthy environment for a healthy you!

"Never doubt that a small group of thoughtful, committed citizens could change the world; indeed, it is the only thing that ever has."

Margaret Mead

ANHE