Foodilizer™ Gardening Guide



Food Cycle Science by

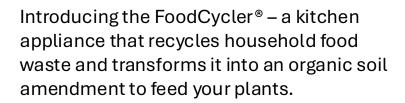
Rhoda deJonge Director Jason Henry Research Scientist

Olivia Marshall Research Technician **Sarah Papp** Senior Research Technician **Sarah Vezina** Research Technician



Getting Started

Introducing Foodilizer™





With the press of a button, the FoodCycler® transforms everyday scraps—like vegetable peels, fruit cores, and leftovers—into a nutrient-rich soil amendment known as Foodilizer™.

This FoodCycler® processes food waste quickly, is odorless, and the unit fits neatly into most kitchen spaces. Within a few hours, the FoodCycler® converts kitchen waste into a natural soil amendment Foodilizer™, that can boost soil health and support thriving plants.







In this guide, you'll learn how to properly apply Foodilizer™ in your garden. Experience a practical, sustainable way to manage food waste while enriching your garden—right from your kitchen.



Getting Started

Introducing Foodilizer™



Foodilizer[™] is a nutrient-rich soil amendment produced by the FoodCycler[®].

The FoodCycler® is a kitchen appliance that recycles food waste, reducing its volume by up to 90% and eliminating associated odours, stick residues, and CO2e gas emissions

The by-product left over after the FoodCycler® cycle, called Foodilizer™, has been scientifically proven to nourish plant roots and soil, amending garden soil with a plethora of important nutrients and organic matter that plans need to thrive.







In this guide, you'll learn how to properly integrate Foodilizer™ in your garden. Experience a practical, sustainable way to manage food waste while enriching your garden and compost piles—right from your kitchen!



Foodilizer™ Benefits

Your Garden will Love



High in organic matter

Foodilizer™ is rich in organic matter, which helps your soil hold water longer for your plants to use and slowly releases nutrients over time. As microorganisms break down this organic matter, your soil becomes more fertile and supportive of strong, healthy plants.



Nutrient rich material

Foodilizer™ is packed with essential nutrients that plants need to grow, like nitrogen, phosphorus, and potassium.
Adding it to your soil can give your garden a quick and healthy growth boost.

Nitrogen (N)

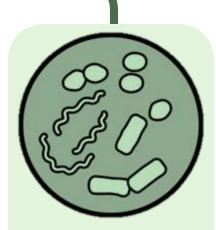
Promotes above ground plant growth

Phosphorous (P)

Promotes below ground root growth

Potassium (K)

Supports water and nutrient movement for plant survival



Feeds soil microbes

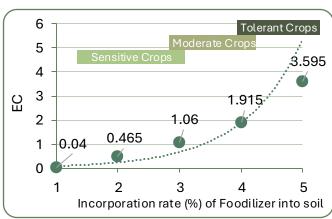
The organic matter in Foodilizer™ feeds beneficial microbes in your soil. These microbes are essential for improved nutrient cycling, ensuring that plants have continual access to the nutrients they require.

Nutrient Threshold

Knowing the electrical conductivity (EC) limits of the plants in your garden can help you apply the optimal amount of Foodilizer™

What is Electrical Conductivity? Electrical Conductivity (EC) is a simple metric used to identify the amount of nutrients (e.g., nitrogen, phosphorus, potassium) in a growing media or soil amendment by measuring the ability of a solution to conduct electricity. The higher the EC, the more nutrients are available.

Why is EC Important for Plants?
Plants need the right amount of nutrients to grow properly. Too low an EC indicates insufficient nutrients, which can lead to poor growth and deficiencies. Too high an EC can mean excess nutrients, which can harm plants by causing nutrient burn or water stress.



Note: each plant has a specific EC range that it prefers for optimal growth. Matching the Foodilizer™ EC to the target plant's preferred EC range will help ensure healthy plants. Seeds are a sensitive life stage and do not require added fertilization until they grow.

When your seedlings have 4-6 leaves, transplant them into pots or a garden bed with:

Sensitive EC crops

Lettuce, Herbs, Peas, Strawberry, Blueberry, Radish, Grass

~1/3 cup of Foodilizer per gallon of soil. This will give them a nutrient boost with a 2% mixture

Moderate EC crops

Moderate nutrient requirements

Carrot, Beet, Cauliflower, Garlic, Raspberry, Celery, Potato, Melons, Grapes, Kale, Onion, Squash, Corn, Zucchini, Spinach

~3/4 cup of Foodilizer per gallon of soil, for a 5% mixture.

Tolerant EC crops

High nutrient requirements

Cucumber, Pepper, Eggplant, Tomato, Broccoli, Beans, Cabbage

~1½ cup of Foodilizer per gallon of soil, for a 10% mixture.

Keeping Foodilizer™ Plant-Friendly

If you're planning to add Foodilizer™ to your garden, be cautious about adding food scraps that are high in salt to your FoodCycler®. The following items are typically high in salt content and could potentially alter the soil balance if added in large amounts:



Cured Meats
Bacon, salami,
ham, prosciutto,
and sausage

Salty Sauces
Soy sauce,
ketchup, mustard,
BBQ sauce, and
salad dressings

Deli MeatsTurkey, chicken,
roast beef slices,
and other deli-style

meats

Snack Foods
Potato chips,
pretzels, salted
nuts, and flavored
crackers

S Canned Meats
& Fish
Canned tuna,
salmon, chicken,
and spam

Pickled Foods Pickles, sauerkraut, and pickled vegetables

Processed Cheeses Cheese slices, spreads, and dips

Instead, opt for fresh fruits and vegetables, coffee grounds, eggshells, and other low-salt organic waste for optimal results.

Does my diet affect my Foodilizer™ and plant growth?

Yes, it can! Omnivore-based Foodilizer™ (made from plant and animal scraps) may promote better plant growth than vegetarian-based Foodilizer™ - in a lettuce trial, plants grown with omnivore-based Foodilizer had 10% higher fresh weight compared to using a vegetarian-based Foodilizer.

Richer nutrient profile - Omnivore-based Foodilizer[™] generally provides a richer and more diverse nutrient profile, which can enhance plant growth more effectively than vegetarian-based compost.

Both are better than none - Whether you're vegetarian or omnivore, using soil amendments will improve plant growth compared to not using any at all.

Tips for best results - Avoid high-salt foods and follow the recommended application rates, no matter what your diet is.





Enhancing Garden Soil (pre-planting)



Before planting: Prepare the garden bed

Foodilizer[™] can be incorporated into the soil to provide nutrients to promote continuous plant growth.



Before planting, add 1/3 to 11/2 cups of Foodilizer™ per square meter of soil. Gently incorporate the Foodilizer™ into the soil to a depth of 5 to 10 cm using a shovel and rake. After application, water the area and wait 1 day before planting transplants.

Seeds are sensitive to high nutrient levels and may not germinate if Foodilizer™ is applied directly. To support seed germination, use the lower application rate of 1/3 cup per square meter and allow the Foodilizer to rest for 1 day before planting.

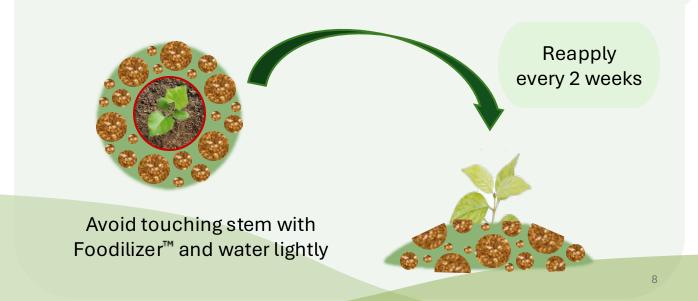


Enhancing Garden Soil (post-planting)



After planting: maintaining nutrient supply

To maintain nutrient supply throughout the growing season, thoroughly mix in 1 to 2 tablespoons of Foodilizer™ in the soil around each plant, without touching the stem and water lightly. As microbes break down the Foodilizer™, the nutrients will deplete over time – typically in 2 weeks. Re-apply the Foodilizer™ every two weeks to ensure a constant nutrient supply.



Applications

Four ways to apply Foodilizer™ in your garden

2. Lawn Amendment

Foodilizer™ can be added to your lawn to encourage grass growth



Sprinkle $\frac{1}{4}$ to $\frac{1}{2}$ cups per m² of FoodilizerTM onto bare or patchy areas of your lawn.



After adding the Foodilizer[™], gently rake it into the soil, creating a planting bed for grass seed.



Apply grass seed and top-up with soil. Grass seed requires ample water to germinate. Water daily for one week, and during hot periods.



3. Compost Pile Integration

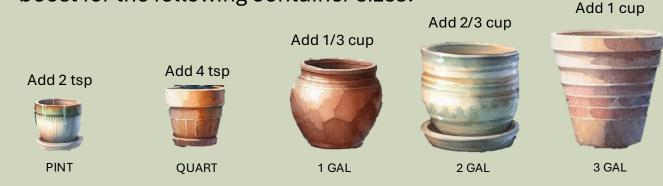
Foodilizer[™] can be added to your outdoor compost pile along with your leaf and yard waste

- Weekly Boost: Add ½ to 1 cup of Foodilizer™ to your compost each week. Foodilizer™ breaks down quickly, providing a rich source of nitrogen that feed your compost microbes.
- Balance with Yard Waste: Continue adding leaf and yard waste materials like grass clippings and leaves. These are high in carbon but low in nitrogen, making Foodilizer™ an essential addition to maintain the right nutrient balance.
- ➤ Seasonal Maintenance: Keep adding yard waste and Foodilizer[™] throughout the growing season, all the way until late fall when the leaves stop dropping. After the final additions, let the compost mature over the fall, winter, and early spring. However, this is primarily about colder climates and might differ in warmer climates.
- ➤ Turn and Water Weekly: Each time you add Foodilizer[™], water the compost pile and give it a good turn with a shovel. This routine helps control pests while ensuring your compost stays healthy.
- Ready for Spring: Let it mature for about six months (from November to April), and it's ready to add to your garden in May.



4. Container and Houseplants

When growing plants in containers, use these mixing rates to incorporate Foodilizer[™] into the potting mix for a nutrient boost for the following container sizes:



Apply 1-2 tablespoons of Foodilizer[™] per gallon every two weeks to provide a continuous nutrient boost as the plants grow.



Note about top dressing plants

Top dressing with Foodilizer $^{\text{\tiny{TM}}}$ on potted lettuce can lead to mold growth at the application site. To avoid mold growth, mix Foodilizer $^{\text{\tiny{TM}}}$ into the soil before planting rather than top dressing.

If you have mold allergies or sensitivities, or if you're growing houseplants indoors, avoid top dressing. If you choose to use top dressing, bury it under the soil surface to reduce the risk of mold.

Foodilizer™ in Action

Case Study: Findings from greenhouse potted lettuce

Adding Foodilizer™ to soil boosted plant growth by more than 4 times compared to potting mix alone

Plants grown in standard potting mix tended to be small with pale leaves, indicating nutrient deficiencies. However, adding Foodilizer™ boosted their growth by over 340%, resulting in healthier, more vibrant plants.



2 cups of potting mix + 1 tbsp Foodilizer

Allow the potting mix and Foodilizer™ to 'rest' before planting

Potting mix

1 week rest No rest
Seedlings grow healthier and larger

Seedlings grow healthier and larger when the potting mix has rested for a week before planting.

After adding Foodilizer™ to your potting mix, water it well and let the mixture sit for 1 week before planting seeds. If you're planting transplants, let the mixture rest for just 1 day. This waiting period allows the Foodilizer™ to break down and release nutrients aligned with the needs of lettuce plants.

Provide smaller amounts of Foodilizer[™] to sensitive young plants, and larger amounts to mature plants.

Seedlings grown in a 1% Foodilizer™ mixture (1tsp Foodilizer™ + 2 cups potting mix) thrive in the early stages. However, as they grow and develop, they need more nutrients to reach their full size. When your plants have 4 to 6 leaves, transplant them into a 3% Foodilizer™ mixture. After that, add more Foodilizer™ every 2 weeks to keep them growing strong.

