

# Annual Carbon Club - Instructions

## *“The Great Suburban Drawdown Challenge”*

### The Theory

The purpose is to increase not just any growth, but healthy growth of your trees and lawn. Healthy plant growth increases photosynthetic capabilities, which means your plant/tree/lawn produces more sugars that it can send down to exude out the roots. This is how compost literally feeds your soil. Your soil is the microbiome of fungal, prokaryotes, protists and animals living in conjunction with your tree's roots. Their combined lifelong activities cause carbon to be stored in the soil. This is how we draw down carbon.

*“Applying compost to your trees and yard should be considered annual standard maintenance for the land you are caretaking.” - Andrew Brousseau, Black Earth Compost*

### The Trees - Start here

Use your compost first to feed your trees. Instructions on the next page will have you apply compost in a ring around the tree where its feeder roots can access the compost's nutrients.

### The Lawn - Use your remaining compost here

Use what is left to feed areas of your lawn that are not as green as you like BUT are not heavily trafficked. If you plan to seed, lay the seed down first, then follow the Lawn Instructions outlined later on

### The Pollinator Garden - Save 1 cubic foot of compost for this.

Start a pollinator bed of native flowers from seed. If this is your first time, then follow the Pollinator Bed Instructions and be prepared to cordially meet wildflowers and pollinators next year.

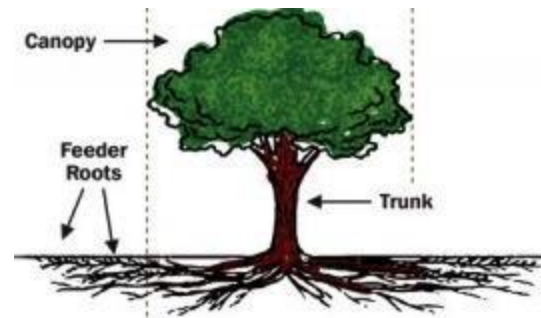
### The Tools -

- *Spring Rake* - pictured here, refers to the action of the metal tines rather than the season.
- *Shovel* - for loading Wheelbarrow
- *Wheelbarrow* - for distributing small piles of compost. You can also use a 5 gallon bucket or other container.
- *Measuring Tape/Stick* - for measuring 5 ft. from the tree trunk.
- *Ribbon or other Marker* - for laying out a guide on where to place compost.



# Start – Feed the Trees

Your tree's feeder roots exist at their highest concentration under the edge of the canopy. This donut shaped area around the tree is called the 'Drip Line'. Just like us humans, these roots consume nutrients, drink water and breathe oxygen from the air. Oxygen produced by the tree's leaves does not move through the sap to the roots so compact soil or grass roots can reduce air supply to your tree.



Every Sept/Oct you should feed your trees by applying compost in a donut shape around the tree. The compost will feed the roots and loosen the soil. This donut will likely cross over lawn, garden, sidewalk and pathway, so it is usually not practical to apply compost all the way around (see donut crossing list below).

## Step 1 - Locate the Drip Line

To find the Drip Line, look up to find where the canopy ends and use the chart on the right as a reference (measure the diameter of the trunk at knee height).

Lay a ribbon to mark the Drip Line. If there are multiple trees nearby, lay multiple ribbons.

Trunk Diameter	Drip Line Distance from Trunk	Too Close to Trunk
< 1 inch	3ft	1ft from trunk
2 to 5 inch	5ft	2ft from trunk
6 to 12 inch	10ft	5ft from trunk
13 to 24 inch	15ft	7ft from trunk

## Step 2 - Decide where you will put compost.

You should apply compost about 5ft on either side of your 'Drip Line ribbon'. This 10ft width is your donut. For practical reasons you may not want to put compost in the entire donut. You don't want to put compost (or any fertilizer) too close to the trunk. Therefore, where the donut crosses...

... **Lawn** - Apply compost.

... **Lawn where you walk frequently** - Don't apply compost.

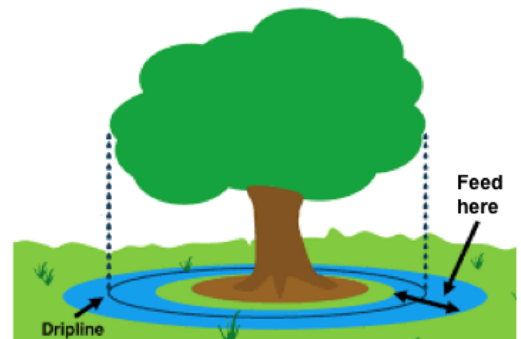
... **Lawn that you want to give back to the tree roots** -

Apply compost ½ inch thick, then apply sticks in Step 5.

... **Garden** - Apply compost a bit thicker, about ½ inch thick, then apply sticks in Step 5.

... **Pavement** – Obviously, don't apply compost here.

... **'Too close to Trunk' zone** – Don't apply compost (or any fertilizer). See chart above.



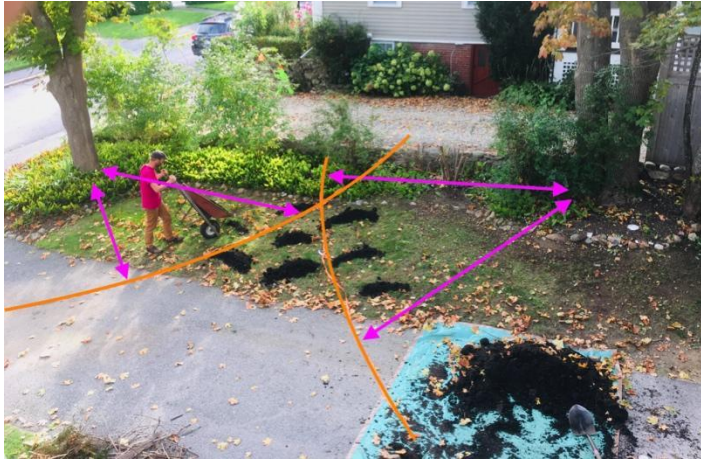
**Step 3 - Dump small piles of compost** from the front of your wheelbarrow on both sides of the ribbon. You can also use a 5 gallon bucket or other container in lieu of a barrow.

**Step 4 - Rake out compost.** Use your spring rake to spread compost between grass blades. Rake any clumps towards a garden bed. Should look like 'Salt and Pepper', not a black mat (See lawn section for example pictures).

**Step 5 - Optional - Apply Sticks/Twigs to make a Natural & Free Mulch.** This is a technique to give your trees the type of mulch they have always been expecting. By applying the sticks first, you create a textured surface that prevents the Autumn leaves from matting flat when they fall. Matting prevents oxygen flow to the soil. Do not add extra leaves after the Autumn fall, one layer is sufficient. See the following page for pictorial examples of this technique.



Step 1, Step 2 and Step 3 – Lay out marker (orange line in picture). Purple arrows indicate distance from tree. Make small piles on either side of marker line.



Step 4 – Rake out compost.



-Fin-

Go to Step 5 where applicable





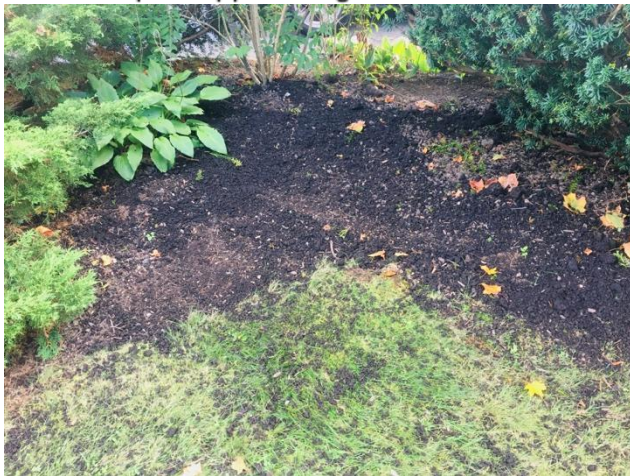
## **Step 5 - Optional - Apply Sticks/Twigs to make a Natural & Free Mulch**

Use this technique in any 'Drip Line Donut' area that you applied compost to. This is Not for any area you want to keep as lawn. Applying sticks and leaves will kill your grass, which is the point.

Use this technique also in the area inside the donut up to the trunk, but still do not get within a couple feet of the trunk. 'Mulch volcanoes' around the trunk are bad for the tree.

- Do not add extra leaves** after the Autumn leaves fall. This can smother the roots you are trying to enrich. You can add leaves to bare spots that are wind swept down to the sticks.
- Do not clean up the leaves** in the fall or spring. Leave them as they fall. The soil life will eat them during the year which feeds the tree. Add compost, sticks and leaves again next year.
- You will get funny looks from your neighbours.** Modern landscape aesthetics made tradeoffs that are not beneficial to your trees or soil. A manicured lawn with pockets of wild flowers and trees as you would see in a forest has a new beauty.
- Children love to break up sticks** and put them in places. Your mulched landscape is a great way to dispose of brush and sticks as they come down.
- Protect this area!** Clearly mark with branches, flags, buckets, cones, tape, or rocks so landscapers do not 'fall cleanup' nor 'spring cleanup' this area. Large branches are the most aesthetic delineation maker.
- Repeat every year.** This is now the soil situation that your tree has always been expecting! It can now proceed with Healthy Growth which in turn keeps your neighbourhood cool and draws down carbon!

Compost applied to garden and lawn.



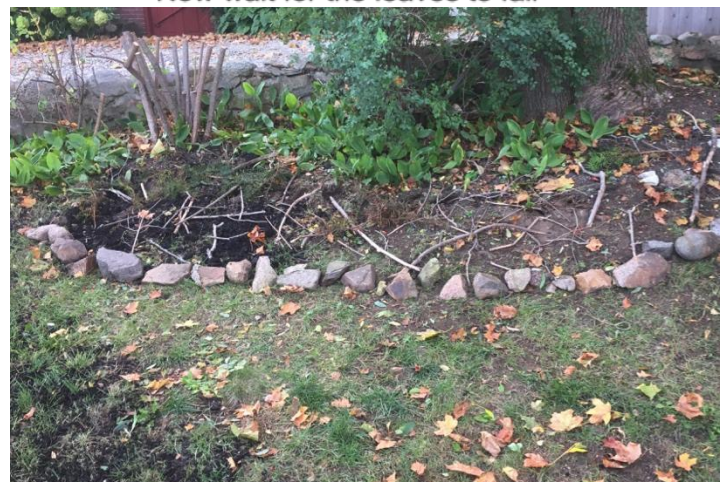
Sticks applied in garden Now wait for the leaves to fall



Compost applied to lawn. Inside the donut, we extend a rock border over grass.



Sticks applied in garden and over some lawn. Now wait for the leaves to fall





## Next – Feed the Lawn

This compost is screened to a ½ inch so it fits between the blades of grass. You can use this compost to seed or to improve general lawn health. Seeding has instant results, general lawn health takes a few years of continued application. Pick an area of your lawn that you want to see improve and give compost a try.

**Step 1 - Pick an area** of your lawn that has never really done well.

**Step 2 - Determine** if the reason for the malings of this area are an issue that compost can not fix; for example... constant foot traffic, very compact soil. Compost may be able to fix problems such as root feeding insects, poor soil nutrients, poor water holding capacity.

**Step 3 - If Seeding** - Spread seed in the area (and a little beyond).

**Step 4 - Dump compost**

**Step 5 - Use 'spring leaf rake'** to distribute compost in between grass and even out clumps.

**Step 6 - Repeat** for the next 2 years.

Too thick.

Will kill grass that is covered.



Just right.

Grass can come up between blades



## Next - The Pollinator Garden

With 1 cubic foot of leftover compost you can start a small 4ft x 4ft pollinator garden. The purpose is to create a test zone/window/sandbox/small investment/dabble into the world of natural landscapes. This is your 'experiment and observe' zone of your yard. Ideally, different native flowers will bloom from April to October and attract a myriad of pollinator insects and birds to this space.

**Step 1 - Dig up Sod.** Use a shovel to dig down about 3 inches to remove mat of grass roots.

**Step 2 - Order Seeds.** Look for North East region wildflower seed mixes rather than a generic 'wildflower seed packet'. You can collect seeds from existing meadows. Plants are putting out seeds from August to November.

<https://www.prairiemoon.com/seed-mixes/>

<https://grownativemass.org/Great-Resources/nurseries-seed>

**Step 3 - Spread Seeds upon arrival** (earlier the better, but done before Christmas).

**Step 4 - Cover with up to 1 inch of compost.**

**Step 5 - Mark your calendar**

May 21st, 2022 - Visit your pollinator garden mid-day. Look for pollinator insects and identify the three most prolific plants present.

June 18th, 2022 - Cut down all growth to 8 inches of height.

Sept 3rd, 2022 - Visit your pollinator garden mid-day. Look for pollinators. Identify the plants.

Nov. 19th, 2022 - Cut down all growth to 4 inches of height. Save seeds of favorable plants.

# More ways to reduce your Carbon Footprint.

**Cut Grass Taller.** Raising your blade by ½ inch can give you another 5-10 days between mows. Some landscapers may not want to do this because it messes up their schedule and causes more wear & tear on the blade. You could suggest that you pay a little more for an 'every other week' schedule which should reduce their work and your bill.

Fewer mows means less gas burned and more resilient grass. Short grass is very susceptible to drying out.

[Result - Less fuel used on your lawn.](#)

**Re-Naturalize 6ft out from trees** Flag or mark off the area extending 6ft out from your trees as a No Mow Zone. This allows tree frogs and insects to inhabit this area. This enhances your tree's ability to act as a habitat. Look into "Soft Landings"

[Result - Promotes tree health and biodiversity.](#)



**Grow Greens (Arugula, Lettuce, Radicchio, Mizuna, Tatsoi).** Greens need to be fresh at the grocery store, which means lots of refrigeration, transportation and ultimately waste when they go bad. Grow greens at home to tap into Black Earth's mineral content. Look up Cut-and-Come-Again greens on the Internet.

[Result - Fresh greens every night through fall.](#)

**Other ideas.** Eat less meat. Drive less. Buy less. Use less. Key is to reduce consumption! If investing your money, choose stocks, banks and indices that do not invest in fossil fuel projects.

**Hire organic lawn care company.** Visit your Black Earth account page and click Sustainable Partners. Get a quote for organic lawn care.

[Result - Reduces inputs on your lawn, increases soil carbon and allows a professional to take care of it.](#)

**Share your tools** - Just because mowers, hedge trimmers, leaf blowers, weed wackers etc. are becoming electric, does not mean there is zero impact. Typically, these tools only get used by each homeowner a few times each year. That is a lot of idle copper/lithium and other mined minerals sitting in sheds! Consider sharing your yard equipment with your neighbour to reduce the total amount of materials that society needs to mine. If each house shared with 1 other house, we could halve the amount of power tools needed. That is the power of going from 1 to 2!

[Result - Reduces current mining of minerals, which preserves in-ground reserves for future generations.](#)

**Regenerative Farming.** Read up on Regenerative Farming techniques that can be applied to the home garden. These practices focus on nutrient dense soils and low disturbance in order to improve soil health.

## Mark your calendar - Aug 20th 2022

This is when you will place your order for your 1 yard of compost from Black Earth to be delivered a little earlier, in September, next year. Join the Annual Carbon Club!