Brewing Manual - DS30 Dirt Simple™ Brewer

Congratulations on buying a Dirt Simple™ Aerated Compost Tea Brewer! Brewing Compost Tea is a great adventure. The goal is to restore biological balance to the eco-system, to the soil and/or to plant surfaces. Enjoy the adventure.

You should receive the following:

Brewing Manual

Product Testing Supplies

Components:

- 40 gallon tank
- Linear Air Blower - 2.5CFM
- Mesh bag
- Scrub Brush

Assembly Instructions:

The DS30 comes pre-assembled. Please note that the components are designed to be assembled one way only. The air blower hose is connected to a fitting at the top of the tank. The other hose goes from the other side of the connection to the bottom of the tank. This is a safety feature designed to minimize the chances of liquid getting into and damaging the blower due to an electrical outage. Now the air will flow from the blower to the top of the tank, then to the bottom of the tank. Air will not flow into the top of the tank.

1. Before starting the blower, ensure that both the air valve and the drain valve on the bottom of the tank are in the off (closed) position, so that the valves are at right angles to the fittings.

2. Double check to make certain you brewer is level and, if not sitting on the ground, is firmly supported. **NOTE: Tea brewers are very heavy, approximately 900 lbs per 100 gallons of water. They can tip over and cause injury if not properly supported. They must be kept perfectly level at all times.**

3. Fill the tank with water to the desired level. This system is designed to successfully brew up to 35 gallons of compost tea.

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RECIPES

To get the maximum fungal yield from your tea, we recommend that you treat your compost with soluble kelp and water before using it to brew. The brewing process typically yields more than enough bacteria without bacteria-specific foods. Therefor, this recipe focuses on maximizing fungi and larger biological species, which are always in short supply. Our recipes limit the use of fish hydrolysate because it is usually stabilized at a very low pH.

1. Place 2 lbs of compost into a tote, tub or other confined area that can be partially covered. The compost should be no more than 2" deep in the container.
2. Mix 2 oz of humic acid with 2 oz of water, then add to compost. Mix thoroughly.
3. Partially cover the container, but do not seal it shut. After 48-72 hours, the compost will be covered with fuzz (biology) and ready for brewing.

Foods to be added to the tea during the brewing cycle:

2 oz of Kelp, and 2 oz of Fish Hydrolysate and 7oz of premium quality humic acid are to be added for a 30G brew. See the chart below for brewing of other quantities. It is best to add these to the brewer immediately before adding the compost as the humic acid can neutralize chlorine and other chemicals in the water. If you would like to reduce foaming, add 2 oz of corn oil after eight hours. If you are using a foam collection bucket, the foam collected in the bucket can be added back into the brewer at the completion of brewing.

Dirt SImple Brewer	Premium Compost	Fish Hydrolysate	Premium Humate	Soluble Kelp	Approx. Cost/ Brew	OR Substitute Soil ReVive™	Approx. Cost/Brew
DS15	1 lbs	no	5 oz	2 oz	4.00	4 oz	$6.00
DS30	2 lbs	2 oz	7 oz	2 oz	5.00	8 oz	$12.00
DS60	3 lbs	3 oz	12 oz	4 oz	9.00	12 oz	$15.00
DS100	5 lbs	5 oz	30 oz	8 oz	16.00	20 oz	$35.00
DS200	8 lbs	8 oz	40 oz	12 oz	21.00	32 oz	$45.00
DS300	10 lbs	10 oz	50 oz	16 oz	32.00	40 oz	$62.00
DS700	15 lbs	15 oz	80 oz	24 oz	48.00	60 oz	$85.00
DS1000	20 lbs	20 oz	100 oz	32 oz	60.00	80 oz	$100.00

Foliar applications typically use the tea straight from the brewer. Soil drenches may require additional food resources. Call for additional information.

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BREWING

1. Know the quality of your water before you begin brewing. Water quality can dramatically impact the quality of your compost tea. Most chemicals in the water, like chlorine, Chloramine, fluoride, etc., can be neutralized with humic acid. With the blower running, put enough humic acid in the water until it begins to change color. **WARNING - do this BEFORE you place compost in the brewer!**
2. Place 2 lbs. of compost in the compost brewing container.
3. Secure the brewing container so that it cannot accidentally open during brewing. The compost container can hang close to the top for 30G brews, and lower in the tank for smaller brews. The compost container should be completely covered with water.
4. Place the filled container into the brewer, add foods and start the air blower.
5. Once the air blower is running at full speed, open the valve at the bottom of the tank. This keeps tea from filling the air hose if you want to keep it as clean as possible.
6. When the water in the tank starts agitating you are brewing tea. Congratulations!
7. Close the valve at the bottom of the tank before turning off the blower to keep the hose clean.

REMOVING THE TEA FROM THE TANK

The DS30 is designed to drain using a common garden hose that you probably already own. A suitable pump can be attached to the discharge hose with the appropriate couplers for quick transfer. We do have pumps, hose and fittings available to meet your needs. Simply call Green Pro Solutions at 866-609-4172 for any additional equipment.

Transferring tea out of the brewer may be done with gravity by sitting the brewer up on blocks or a sturdy platform. **NOTE: Tea brewers are very heavy, approximately 900 lbs per 100 gallons of water. Compost tea brewers can tip over and cause injury if not properly supported and kept level.**

CLEANING THE BREWER

You will need a scrub brush, long-handled hose-cleaning brush, a wash mitt and Simple Green (microbe-friendly cleaner available at Lowe's, Home Depot and many other stores). **Cleaning your brewer on a consistent basis is critically important in brewing high quality compost tea.**

1. Disconnect the blower and air hose from the bottom of the tank. Drain all of the tea from the tank. While it is draining, spray down the inside walls with a spray hose to clear most of the stuck-on soil. The small amount of extra water will not adversely affect your tea.
2. As soon as the tank has been completely drained, begin cleaning all components using the scrub brush, a wash mitt, a spray nozzle on the end of your shop water hose or a pressure washer and some Simple Green. It is critical to remove the invisible bio-film that remains

on all surfaces at the end of a brewing cycle. **Failure to remove this Bio-Film will negatively impact future brewing.**

3. When scrubbing the inside of the tank, pay special attention to the compost brewing container and the suspension band, as it can accumulate bacterial growth, which will reduce the quality of future teas if not adequately cleaned. These items can be machine washed. Permit them to air dry. Now the system is ready to make more tea!
4. Since it is very difficult to clean, the easiest way to keep the air hose clean is to never get it filled with tea. Following the brewing instruction completely will keep the hose clean. If it does get dirty, clean the tanks as above but leave the air valve open so that the cleaning solution will get into the hose. If the hose is discolored and you can not get it clean, it can be replaced for just a few dollars.

TESTING

If you wish to have your compost tea tested, you may submit it to one of the two companies listed below. Submit one form for submission of each test. Be certain to include the test date and source of compost on each submission form.

1. We suggest a water quality test before you begin to brew compost tea. Water quality can have a significant impact and may require slightly different recommendations in using your brewer.

2. You should receive a Biological Test Report on any compost you are using to make compost tea. The tea can be no better than the biology that is in the compost. If you do not receive a compost biology lab report from your compost supplier, you can send Soil Foodweb a sample of the compost you are using for a biological test. Green Pro can supply you with quality compost.

3. If you are submitting samples of compost tea, fill an empty, dry 10-12 oz. water bottle halfway with compost tea, close the cap securely so that it will not leak, then send **OVERNIGHT** to Soil Foodweb (635 SW Western Blvd - Corvallis, OR - 97333). For copost testing, send a plastic ziplock bag. Use the form supplied with your brewer or the form on the Soil Foodweb website.

   Compost tea degrades quickly so overnight shipments are imperative. Submit a sample after your first brew of tea at the conclusion of the brewing cycle.

4. Depending on the results of your first compost tea test, you will receive information on what adjustments to make for subsequent brews.

5. If you have not previously verified the biological quality of the compost you are using, and a small bag is included with your brewer, you may use the bag to send in a sample of your compost to the Soil Foodweb for testing. The the compost has already been tested, you may use any clean bottle in order to submit an additional compost tea test instead of testing the compost.

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CLEANING YOUR SPRAY EQUIPMENT

Use Simple Green, put in the proper dilution into the spray tank, fill it with water, then run everything until the whole system is filled with the diluted Simple Green. Let it sit overnight then, in the morning, rinse thoroughly. That will take care of 99% of the gunk build up in the hoses and spray tips. For wands and nozzles, they should be taken apart once a week and scrubbed up, or immersed in cleaner overnight or over the weekend.

Green Pro Solutions manufactures specialty wands for compost tea applications, both soil drenching and foliar sprays.

FURTHER RESOURCES:

Compost & Compost Tea Testing

Soil Foodweb, LLC 10062 Billings Road Live Oak, CA 95953
Phone: (541) 257-2612 jennifer@SoilFoodweb.com

Educational Resources & Consulting

Earthfort - 635 SW Western Blvd - Corvallis, OR - 97333
Phone: (541) 257-2612 Info@Earthfort.com

Compost & Compost Tea Food Products

Earthfort www.Earthfort.com
Green Pro Solutions, LLC www.GreenProSolutions.com

Brewers, Spray Equipment, Parts & Service

Green Pro Solutions, LLC - 2144 Route 22, Suite A, Jonestown, PA 17038
Phone: (866) 609-4172 Fax: (877) 262-8737 Info@GreenProSolutions.com

Soil Testing - Nutrient Availability
A More Advanced Soil Testing Procedure for Biological Systems

Prescription Soil Analysis, LLC - 2144 Route 22, Suite A, Jonestown, PA 17038
Phone: (800) 645-6464 Keith@PrescriptionSoilAnalysis.com