

Brewing Manual - DS300 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

Components:

345 gallon tank - **ONLY FILL TO 300G!**

Powerful air blower

Mesh brewing bag

Hose Cleaning Brush

(2) Sections of hose with quick lock cam couplers



Assembly Instructions: 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.

1. If you receive the tank unassembled and the valve is not attached to the bottom of the tank, apply Teflon tape (clockwise) to the elbow fitting that attaches to the bottom of the tank. Install the pre-assembled fitting which includes a valve and cam coupler. After hand tightening, give the fitting one full turn with a wrench.



2. Connect one hose to the fitting on the bottom of the tank. The other end connects to the fitting at the top of the tank. The second hose attaches to the blower at one end and the top of the tank. Use the appropriate length if the hoses are different lengths. Now the air will flow from the blower, through the air check valve and on to the bottom of the tank. Air will not flow into the top of the tank.



3. Ensure that the valve on the bottom of the tank is in the off (closed) position, so that the valve is at right angles to the hose.

4. Double check to make certain your 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.**

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5. Fill the tank with water to the desired level. This system is designed to successfully brew up to 100 gallons of compost tea. **Over filling the brewer will reduce performance.**

RECIPES

To get the maximum fungal yield from your tea, we recommend that you treat your compost with humic acid or Soil ReVive™ and water before using it to brew. The brewing process typically yields more than enough bacteria without bacteria-specific foods.

1. Place 10 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 1 oz of humic acid with 1 oz of water per pound of compost. Or use 4 tbsp of Soil ReVive™ plus 4 tbsp of water per pound of 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 and ready for 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	6 oz	2 oz	4.00	4 oz	5.00
DS30	2 lbs	no	8 oz	2 oz	5.00	8 oz	10.00
DS60	3 lbs	no	16 oz	4 oz	9.00	12 oz	12.00
DS100	5 lbs	2 oz	32 oz	8 oz	16.00	20 oz	30.00
DS200	8 lbs	3 oz	50 oz	12 oz	21.00	32 oz	40.00
DS300	10 lbs	4 oz	64 oz	16 oz	32.00	40 oz	56.00
DS700	15 lbs	8 oz	96 oz	24 oz	48.00	60 oz	75.00
DS1000	20 lbs	10 oz	1 G	32 oz	60.00	80 oz	95.00

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

1lb. (16 oz) of Kelp, 4 oz of Fish Hydrolysate (optional) and 64 oz of premium quality humic acid are to be added for a 300G 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 or the Soil ReVive™ can neutralize chlorine and other chemicals in the water. If you would like to reduce foaming, add 12 oz of corn oil after eight hours.

Foliar applications typically use the tea straight from the brewer. Soil drenches 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 8 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 100G 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 if you want to keep tea from filling the air hose.
6. When the water in the tank starts agitating you are brewing tea. Congratulations!
7. After 24 hours, dump the foam from the bucket back into the tank, adding a little corn oil to dissipate the foam. Once integrated, brewing is complete.
8. Close the valve at the bottom of the tank before turning off the blower if you want to keep the hose clean.
9. The full volume of the blower should run into the brewer, at least initially, so that the microbes will be knocked off of the compost into the water. The majority of this activity takes place during the first hour. After that, the brass valve can be opened to bleed off some of the air from the brewer. But the movement of the water must still be vigorous and remain so throughout the brewing process.

REMOVING THE TEA FROM THE TANK

The hoses supplied with the brewer can be used individually or linked together to the valve at the bottom of the brewer to drain the tea from the tank. Attach a suitable pump to a 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.**

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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. With the hose disconnected use the round brush with the shaft and handle to clean the hose. The fittings on the bottom of the tank must be cleaned from both the inside and the outside. Rinse thoroughly after cleaning.

TESTING

Your purchase of the Dirt Simple™ Brewer may have included materials to submit tests, either for compost tea and/or for the compost you are using. A copy of the submission form is included, which can be duplicated. 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.

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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. If 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.

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

Educational Resources & Consulting

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

Dr. Elaine Ingham, Chief Scientist at Rodale Institute - 611 Siegfriedale Road, Kutztown, PA. 19530 Phone: (610) 683-1400 Elaine.Ingham@RodaleInstitute.org

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 - P.O. Box 708 - Dillsburg, PA - 17019
Phone: (866) 609-4172 x6 Fax: (877) 262-8737 Info@GreenProSolutions.com

Soil Testing - Nutrient Availability

A More Advanced Soil Testing Procedure for Biological Systems

Prescription Soil Analysis, LLC - 172 Logan Road - Dillsburg, PA - 17019
Phone: (866) 609-4172 x2 Keith@PrescriptionSoilAnalysis.com