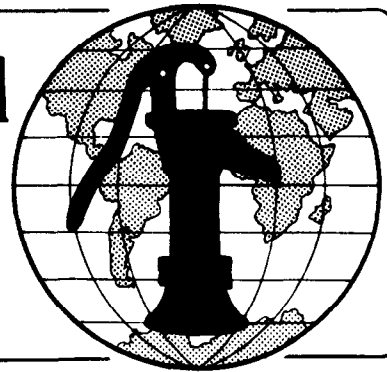


Water for the World



Operating and Maintaining Compost Toilets Technical Note, No. SAN. 1.0.6

A compost toilet consists of a pair of waterproof vaults that receive excreta, ashes, sawdust, straw, and grass. Each vault is equipped with a slab for defecating, a rear opening for removing compost, and a hole for a vent pipe. Operating a compost toilet involves keeping it clean and periodically changing vaults and removing compost. Maintaining a compost toilet requires monthly inspection and repair of any damage.

Correct use of the compost toilet is necessary in order to prevent severe problems with fly breeding and foul odors, and to maintain the bacterial action that produces compost.

Materials Needed

For operating and cleaning a compost toilet: (1) lid; (2) anal cleansing material; (3) box or jar for ashes and straw; (4) can or coconut shell for sprinkling ashes; (5) brush or broom.

For changing vaults and removing compost: (1) tar or other material for sealing openings; (2) shovel; (3) hoe; (4) wheelbarrow.

For repairing toilet and shelter: the same materials used for construction--cement, sand, gravel, mixing containers, trowel, boards, bamboo, wire, hammer, saw, nails, and fly-proof screen.

Preparing a Compost Toilet for Use

Only one vault is used at a time, so be certain the squatting hole of the vault not in use is covered with a heavy lid. Prepare the vault to be used by putting in a loose layer of leaves, weeds, straw, grass clippings or sawdust. This will soak up liquids.

Useful Definitions

BACTERIAL ACTION - The process of organic matter being digested and broken down by tiny organisms.

COMPOST - A dark, fairly dry, crumbly, odorless material that is produced by sealing excreta, ashes, sawdust, straw, and vegetable wastes for 6-12 months in the vault of a compost toilet. Compost can be used to fertilize crops.

EXCRETA - Human body wastes.

Place a lid with a handle over the squatting hole. Put a box or jar of ashes or powdered soil in the shelter along with an empty can or coconut shell. Also stock the shelter with a supply of anal cleansing material. See Figure 1. The compost toilet is now ready for use.

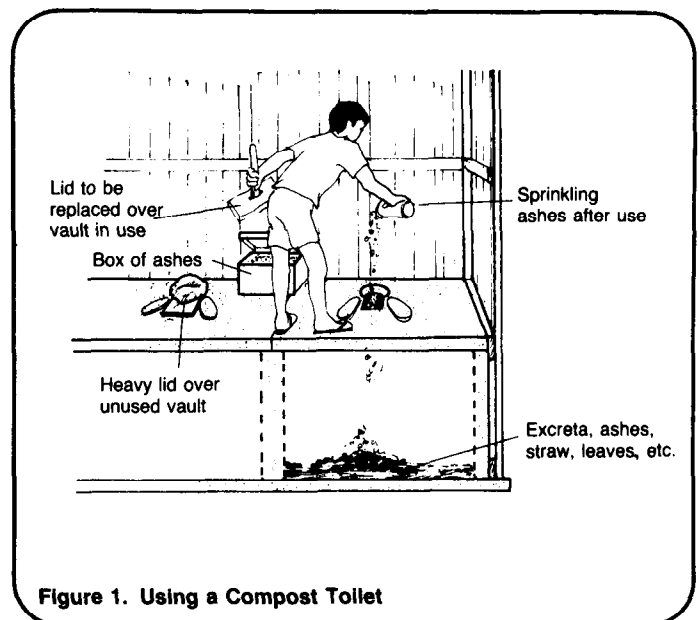


Figure 1. Using a Compost Toilet

Using a Compost Toilet

After the toilet is used each time, use the can or coconut shell to sprinkle in ashes or fine earth. This will soak up liquid and help prevent odors and fly-breeding. Replace the lid over the squatting hole. See Figure 1.

At the end of each day, put in kitchen scraps and house and yard sweepings. Once or twice a week put in grass clippings, straw, leaves, or sawdust to cover the contents of the vault. Do not worry about over-filling the vault, because bacterial action will greatly reduce the volume of the contents.

It might be necessary to prepare a leaflet showing pictures of how to use the compost toilet. This will help people who cannot read understand and remember how to use the toilet.

Clean the toilet at least once each week by sprinkling ashes or powdered earth on the slab and around the squatting hole and sweeping them into the vault. Replenish the supply of ashes or fine earth in the box.

Caution!

Do not use the toilet for a washroom or pour water into the vault. The contents will become a soggy, smelly mess.

Do not put material such as wood, glass, metal, or discarded clothing in the toilet. This material will not break down readily into compost. Wear gloves when handling compost.

Changing Vaults

The vault will gradually fill with excreta and other material. When the contents reach 0.2-0.3m below the squatting slab, probably after 6-12 months of use, it is time to change vaults.

Fill the used vault with fine soil. Remove the heavy lid from the empty vault and place it over the squatting hole of the full vault. Prepare the empty vault by putting in a layer of leaves, weeds, straw, grass clippings, sawdust or similar material. This vault is now ready for use (see "Using a Compost Toilet").

After 6-12 months of use, it will be time to seal this second vault and reopen the first one.

Removing Compost

Once the contents of a vault have been sealed for 6-12 months, they will turn to compost.

Remove the cover from the rear wall opening of the first vault. Use a hoe or rake and shovel to remove compost from the vault and load it in a wheelbarrow or cart. See Figure 2. Leave a shallow layer of compost in the vault to prepare it for use. Reseal the cover over the rear wall opening.

Cart the compost to a garden or field of crops, shovel it on the ground, and work it into the soil. See Figure 3.

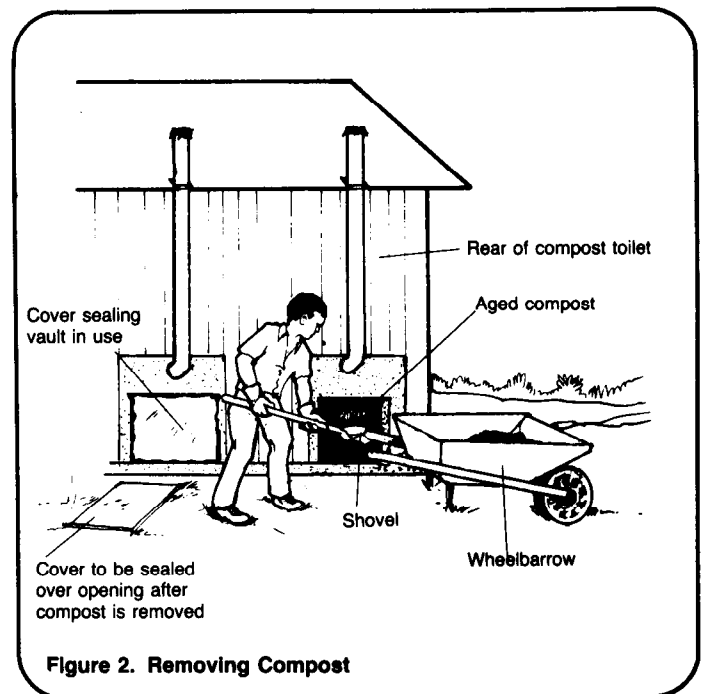


Figure 2. Removing Compost

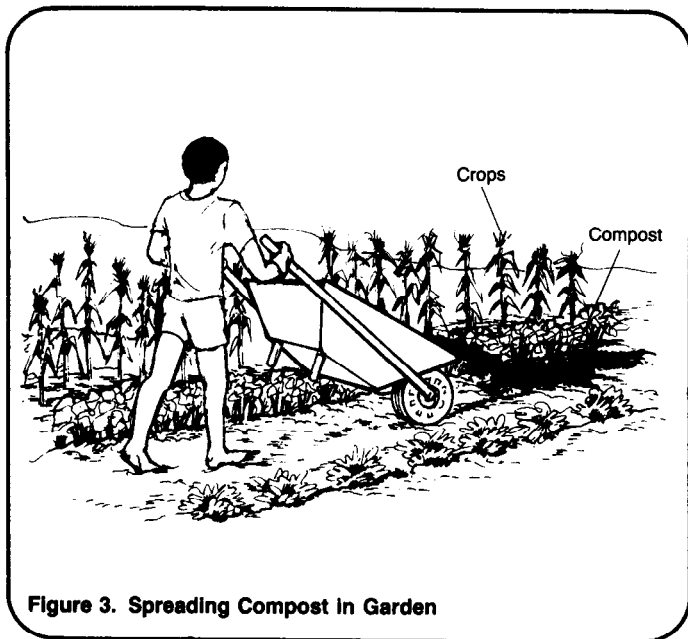


Figure 3. Spreading Compost in Garden

Maintaining a Compost Toilet

A properly constructed and operated compost toilet will require little or no maintenance. However, you should inspect it once each month for possible damage due to weather or other causes.

Inspect the rear wall covers to be certain they are tightly sealed. If necessary, reseal them with tar or other material. Inspect the base for cracks and repair with concrete mortar. Inspect the privy shelter and vent pipes. Repair or replace damaged parts. Maintain the grounds around the compost toilet, and keep surface water from flowing near it.

Keep a maintenance record similar to the sample shown in Table 1.

Table 1. Sample Maintenance Record

Date	Task
8/82	Inspected toilet and grounds. Okay.
9/82	Inspected toilet and grounds. Okay.
10/82	Inspected toilet and grounds. Filled in rain-eroded ground near toilet.
11/82	Inspected. Okay.
12/82	Inspected. Repaired vent pipe damaged by wind.
1/83	Inspected. Okay.
2/83	Inspected. Okay.