

# NEWS



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## Vermicomposting

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Compostable materials are a major component of household garbage. Through composting, homeowners can reduce their solid waste by up to two-thirds. However, building and maintaining a compost pile in the back yard may seem too involved and unsightly to some homeowners, but there is an alternative. Vermicomposting, or composting with worms, is a way to reduce household waste without the “hard work” of a compost pile. Previously reserved for apartment dwellers that don’t have back yards, vermicomposting is gaining in popularity with homeowners.

Worms used for vermicomposting are redworms (*Eisenia foetida*), also known as red wigglers. They prefer dark, moist conditions with plenty of air circulation and temperatures between 55 and 77 degrees Fahrenheit. Many commercially-available bins are on the market, though homemade versions can be just as good. Whether they are made out of wood or plastic, there are three key things to consider when assembling yours:

1) Size: Collect and weigh compostable kitchen scraps for one week. For each pound of refuse per week, you will need 1 square foot of surface area of bin space. Bins should only be 8-12 inches deep. Materials tend to pack down in taller bins which results in areas with reduced oxygen.

2) Placement: Make sure that you have a location where you can store your vermicomposting bin. Convenience is something to consider, so many people choose to place their bin under the kitchen sink. However, anywhere that temperature requirements can be met will work. This could be in the basement, garage, or even in the Earth.

3) Materials: Bin materials should have a clean history. Do not use materials that have been used for chemical or pesticide storage. Always clean materials well before using for vermicomposting. Wood bins absorb moisture which dampens temperature fluctuations and

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helps keep moisture levels inside the bin at optimal levels. Plastic bins do not breathe as readily, so extra attention will be needed to make sure the contents aren't too wet.

When you have your bin constructed and know where it will be placed, you're ready to begin filling it. There are two components that you will need to provide for the worms, bedding and food. Common materials used for bedding include shredded newspapers, computer paper, cardboard, leaves, straw, or other compostable material that can soak up water. Using bedding material from several sources helps to create a favorable environment for the worms. Soak the bedding in water for approximately 24 hours and then squeeze it to remove excess water. Fill the bin approximately 2/3 full with fluffed bedding. Allow the bin to settle for several days before adding the worms. During this time, begin collecting kitchen refuse. When you have gathered enough refuse to spread over the entire bin, add the worms (approximately 500 per cubic foot of bin space) and the refuse to the bedding in the bin. The worms will quickly work their way to the bedding and begin coming up for food as needed. Keep in mind that they like dark environments, so cover your kitchen waste with additional bedding to keep the light out. If animals will have access to the bin, you may wish to attach a more restrictive lid.

For more information on home vermicomposting, including compostable materials, where to get worms, and how to harvest the compost, contact your local University of Missouri Extension office.

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