

Writers' Supplement to EDN 104

We often come across interesting material related to articles in EDN that could not fit into the space available for the articles. We share the most relevant of those here. For more information on the following, click on the article name:

[Further Resources about Vermiculture](#)

[More about African Redworms](#)

[Lost Crops of Africa and Other Books from National Academies Press Can Be Read for Free Online](#)

Further Resources about Vermiculture

The Worm Guy - Video

http://www.youtube.com/watch?v=sl9gY_SqyxM. Danny Blank commented, "The video shows two different systems for raising worms with possibly two different species. The first is a system for producing uniform and large worm castings. A consistent and very fine-particle sized feed (grain, dairy supplement, and finely composted bedding material) is given these worms. Though the exact species is not given in the video, a local worm farmer near ECHO uses a nearly identical system with what he calls the African redworm or nightcrawler, *Eudrilus eugeniae*, that produces a decent sized worm casting that he separates and sells. He explains the casting from the African redworm as larger and easier to harvest than the common smaller composting redworms. The second system in the video uses a mix of different organic scraps, so the worm diet is varied. This is a flow-through system for easier harvest of castings. This type of feeding strategy is very similar to ECHO's approach. Our systems use composting worm species that produce a small-sized cast. Our result is vermicompost, a nutrient and microbe-rich combination of castings and decaying vegetable and bedding materials."

Manual of On-Farm Vermicomposting and Vermiculture

by Glenn Munroe, Organic Agriculture Centre of Canada

www.organicagcentre.ca/DOCs/Vermiculture_FarmersManual_gm.pdf

This document contains a good discussion of different approaches to vermiculture and vermicomposting. It addresses challenges and possibilities in temperate areas.

Worms Eat My Garbage by Mary Applehoff

Rick Burnette commented that this is perhaps the most popular book about vermicomposting. It is available from the [ECHO bookstore](#).

Worms for Composting (Vermicomposting)

<http://www.attra.org/attra-pub/vermicom.html>

A publication from ATTRA (National Sustainable Agriculture Information Service) by Alice Beetz.

HappyDRanch, <http://www.happydranch.com/articles.html>

Though HappyDRanch is a commercial site, several potentially helpful articles can be accessed from this page.

More about African Redworms

We encountered some confusion about the scientific name of the African redworm, but we have concluded that *Fudrillus* and *Eudrilus* are either the same genus (mis-spelled) or are "synonyms." One website listed *Fudrillus eugeniae* (i.e. the same species name as *Eudrilus eugeniae*). References to *Fudrillus* on the web are in Spanish. Mark Hare commented in an e-mail, "In terms of the scientific name of the worms, I found very little on Google when I entered *Fudrillus*. I have always assumed that it was an incorrect spelling that led to that name being used in Nicaragua, since *Eudrilus* is extremely close to *Fudrillus*, especially when everything is hand-written."

Mark works at MPP in Haiti, where the community has had success using old tires as containers for vermiculture (see photos, below). He commented, "Information I looked at on the Internet suggests that *Eudrilus* tends to "wander", i.e. it sometimes crawls away from where you're trying to raise it. That seems to be true for the African redworms with which we are working. Sebas and crew [from Rancho Ebenezer in Nicaragua] showed me how, when first starting a tire of worms, to put the worms in the middle of the tire and put the fresh manure in a ring around the mass of worms, so that they could "wander" away, directly into the food.

"Nevertheless, despite the wandering, from our experiences here at MPP and, from what I understand from Sebas and Uriel at Rancho Ebenezer, the African worm processes food much more rapidly than *Eisenia foetida*."



Photo on far left: Octave Justimé stands beside a number of recycled tires being used for vermiculture. Center photo: Wilner Exil checks the worms in a vermiculture bed made from a tire. Photo on far right: A close-up of the worms. Photos taken in Haiti by Danny Blank.

A book called *Earthworm Ecology* by Clive Arthur Edwards includes this information about the African redworm: "The *Eudrilus eugeniae* species of earthworm. . .is a native African species that lives in both soils and organic wastes but has been bred extensively in the United States, Canada, and elsewhere for the fish-bait market, where it is

commonly called the African night crawler. It is a large, robust earthworm that grows extremely rapidly, and it is relatively prolific when cultured. Under optimum conditions, it could be considered an ideal species for animal feed protein production. Its main disadvantages are a relatively narrow temperature tolerance and some sensitivity to handling. *Eudrilus eugeniae* can live in soils and has high reproduction rates.”

Here is a link to a picture of an African redworm:

http://animaldiversity.ummz.umich.edu/site/resources/Grzimek_inverts/Oligochaeta/Eudrilus_eugeniae.jpg/view.html

***Lost Crops of Africa* and Other Books from National Academies Press Can Be Read for Free Online**

The three volumes in the *Lost Crops of Africa* series (Volume 1: Grains; Volume 2: Vegetables; Volume 3: Fruits) are available for purchase from the National Academies Press website, but I [DRB] learned while looking it up that the volumes can also be read for free online. Follow this link to see a list of books in the category of “Crop and Plant Production.”

http://books.nap.edu/catalog.php?record_id=11879