

## **Foreword Review**

**ECOLOGY & ENVIRONMENT** 

## Terra Preta: How the World's Most Fertile Soil Can Help Reverse Climate Change and Reduce World Hunger

Ute Scheub Haiko Pieplow Hans-Peter Schmidt Kathleen Draper Greystone Books (May 10, 2016) Softcover \$16.95 (208pp) 978-1-77164-110-4

From the Portuguese "black earth," terra preta refers to a rich soil composed of humus (decomposed organic substances) and biochar (carbon derived from charcoal). "Nowadays, fertile soil disappears 10 to 100 times quicker than it can regenerate," the authors of *Terra Preta* reveal. Industrial agriculture strips away humus and contaminates soil with pesticides, leaving it dusty and lifeless—total regeneration of our soil is necessary.

In the 1960s, archaeological evidence proved that terra preta production was known to the original inhabitants of the Amazon region. Many Asian cultures have also used charcoal in agriculture. The authors survey some recent large-scale terra preta initiatives, including the Stockholm Biochar Project. However, terra preta can also be created for home gardening, incorporating compost and cooked food waste. To that end, the book includes a recipe with step-by-step instructions, along with a diary of one Berlin woman's efforts to make her own terra preta. Her newly fertile soil produced garden harvests two months early. Along with agricultural yields, some of the modern benefits of terra preta include carbon sequestration and inactivation of E. coli.

The most controversial ingredient of terra preta is human waste. Although the authors stress that this is optional, they do encourage you to "upcycle your own excrement." Reusing human waste was common among the Maya, ancient Greeks, and Romans. Urine is particularly nitrogen-rich, while feces fermented with biochar and buried under compost is freed from bad bacteria and odors. The "humanure" each person produces in a year could fertilize 100–1000 m2 of cropland.

This is the kind of creative thinking the world needs, in a practical guide that combines historical examples with cuttingedge ideas.

## REBECCA FOSTER (Fall 2016)

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