

RECOVERING NUTRIENTS PERSONALIZED SOIL



The careful selection, refinement and timing of the input materials makes the controlled metabolism of Terra Preta possible. The key elements in 'Amazonian Black Earths' are lignocellulose (from fresh wood shreds) and the carboxylic moieties (from plant-based charcoal) that stimulate the desired microbes to participate in the conversion (humification) to vital soil. This concerted metabolism sanitizes human waste products and makes them compatible with soil life and appetizing for the feeder roots of crops.



THE ANATOMY OF TERRA PRETA

List of ingredients to accommodate the output of two healthy human kidneys, following Dr. Jürgen Reckin's method of Terra Preta¹. The following ingredients result in about one cubic meter (6 wheelbarrow loads) of Terra Preta soil:

BIOCHAR, powdered (48 L from 2003' Mt. Majura bushfire): perpetual storage medium for moisture, microbes and nutrients.

WOOD SHREDS, freshly cut and sappy (900 L of forest litter from ANU Garden & Grounds): carbon buffer ensuring safe humus conversion.

LIVING SOIL (30 L from ANU/SLC Organic Garden): incubator with micro-organisms and critters.

WOOD ASHES (10 L from April 2013 controlled fire at Black Mountain): rich in Calcium and Magnesium.

VOLCANIC ROCK DUST, Dolomite Lime, (5 L): provides critical trace elements and balances acidity.

HUMAN KIDNEY SUPPLY, fermented, (240 L = 1.35L/day over 6 months): Potent source of Nitrogen, phosphorus and potassium.

EARTHWORMS (1000 pcs; Kookaburra Worm Farm and donated by Dr. David Freudenberg): Their digestion caters to plants.

SEEDS for cabbage, tomato, carrots, lettuce, basil etc.



BIOCHAR IS THE DURABLE STORAGE MEDIUM FOR MOISTURE, MICROBES AND NUTRIENTS

REFERENCES

¹ *Development Process and Possible Manufacturing Method, Notes from an Excursion to Dr. Jürgen Reckin's Terra Preta Garden on April 28, 2012* [German], Kathrin Ollendorf, Wendepunkt Zukunft, 2012.
http://wendepunktzukunft.org/wp-content/uploads/2012/07/TerraPreta_Exkursion_DrReckin-3.pdf