Desert Harvesters and Native Foods

Put ‘em in your mouth
yard, street, and neighborhood

www.DesertHarvesters.org

1940s

1980s

1996
Dunbar/Spring
Annual
Neighborhood
tree planting
began

Trees planted in basins to capture rainfall and runoff from the adjoining path

NATIVE MULTI-USE SHADE TREE LIST

VELVET MESQUITE (Prosopis velutina)

SCREWBEAN MESQUITE (Prosopis pubescens)

DESERT IRONWOOD (Olneya tesota)

CAT CLAW ACACIA (Acacia greggii)

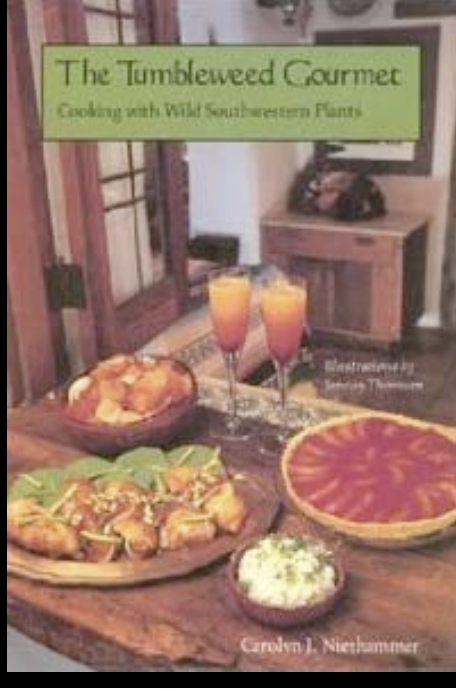
WHITE THORN ACACIA (Acacia constricta)

CANYON HACKBERRY (Celtis reticulata)

FOOTHILLS PALO VERDE (Cercidium microphyllum)

BLUE PALO VERDE (Cercidium floridum)

DESERT WILLOW (Chilopsis linearis)



TUCSON CLEAN & BEAUTIFUL INC.

NATIVE SHADE TREE APPLICATION

PLANTING NATIVE TREES ENHANCES OUR COMMUNITY AND SONORAN DESERT ECOSYSTEM

TREES FOR TUCSON

in partnership with Tucson Electric Power

Thanks to a grant from **TUCSON ELECTRIC POWER COMPANY**, TEP customers may be eligible to receive 1 or 2 five gallon sized trees (3 – 6 ft. tall) for only **$6.00 per tree including delivery (*PAYABLE TO TREES FOR TUCSON – ATTACH CHECK*)** if you agree to plant them to shade your house. Large shade trees can reduce cooling bills, especially if they shade windows or air conditioning units. *Supplies are limited.*

To qualify, each resident

A) Agree to plant trees within 15 of the house on the WEST, EAST, or NORTH sides to shade it from the rising and setting sun during the summer months, but retain access to direct winter sun/heat on the south side in the winter months. Planting location will be checked when trees are delivered. **Planting and maintenance instructions are provided with trees.**

B) Agree to hold Trees for Tucson and Tucson Electric Power Company harmless from all liability associated with the trees or tree planting.

Name: _____ Phone: _____ (H) _____ (O)

Address: _____ Zip Code _____

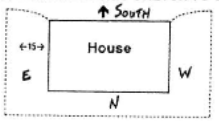
Indicate Your Native Tree Choice(s) (total of 2 trees per house) - all trees below are low water users:

___ **Velvet Mesquite** (*fast/moderate growth rate to 20'+ tall & wide, semi-winter deciduous, yellow flowers*)
___ **Desert Ironwood** (*moderate growth rate to 20' tall and wide, evergreen, plant in warm microclimate, purple flowers*)
___ **Blue Palo Verde** (*fast/moderate growth rate to 20'+ tall and wide, blue-green leaves and bark, yellow flowers*)
___ **Foothills Palo Verde** (*moderate growth rate to 20' tall and wide, yellow-green leaves and bark, yellow flowers*)
___ **Desert Willow** (*fast growth rate to 20' tall and wide, winter deciduous, no thorns, purple/white flowers*)
___ **Cat Claw Acacia** (*moderate growth rate to 20' tall and wide, winter deciduous, grey bark, yellow flowers*)
___ **White Thorn Acacia** (*moderate growth rate to 15' tall and wide, winter deciduous, red bark, yellow flowers*)

_____ _____
(Signature of Resident) *(Date)*

YOU MUST COMPLETE THIS SKETCH TO QUALIFY:

$6.00 per tree handling fee payable to Trees for Tucson



IMPORTANT:
Mark with an **X** where you will plant trees in the Planting Zone.

Native plants attract more beneficial native wildlife

Native velvet mesquites do not blow over or get their branches broken like South American varieties and hybrids do

Native velvet mesquite pods typically taste best

STOP

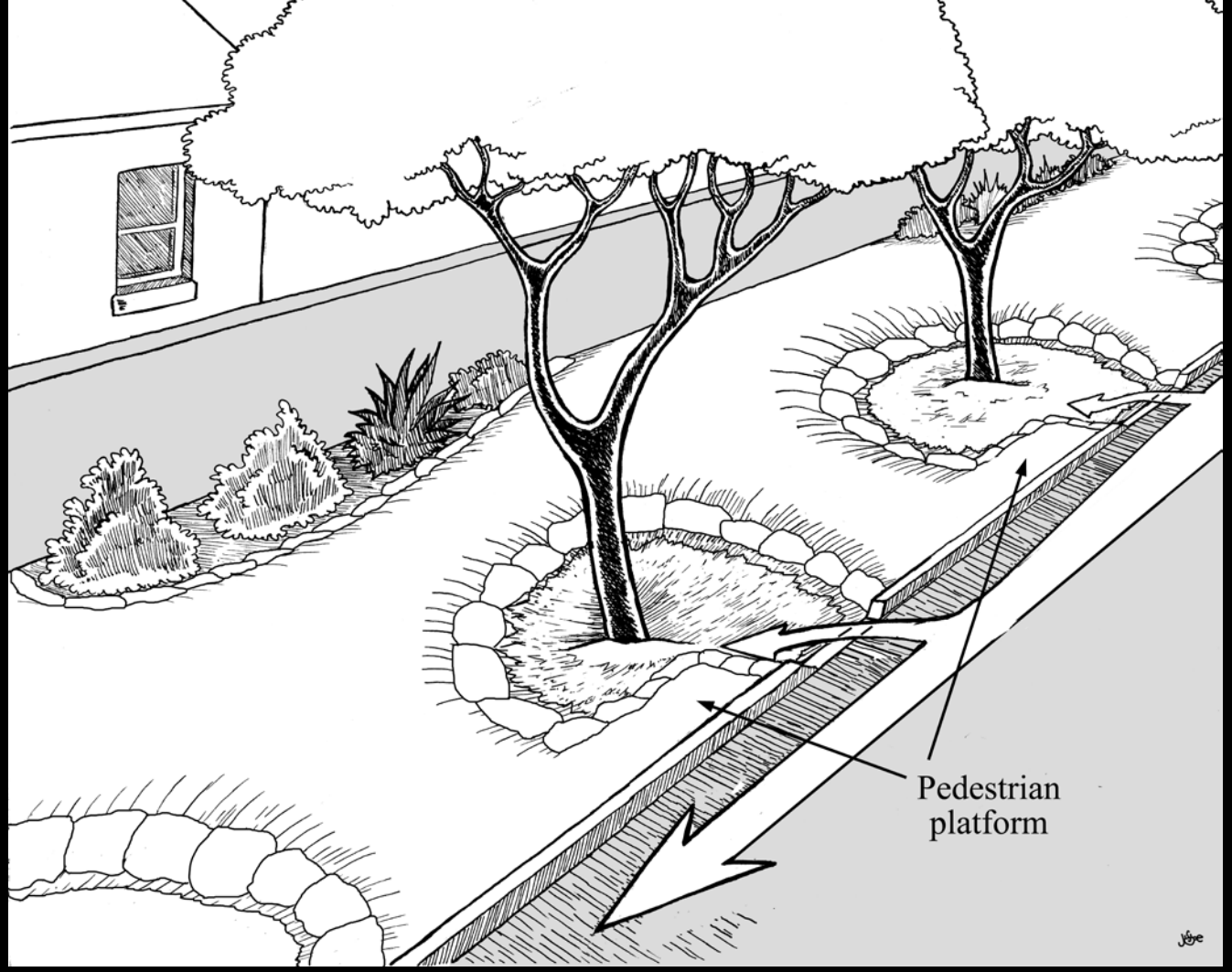
San Xavier Farm Cooperative harvests and sells mesquite flour

4th annual Cascabel Hermitage Association, mesquite milling & pancake and waffle breakfast
Cascabel, Arizona, 2002

SUZUKI
GLX

1st annual Dunbar/Spring
Mesquite Fiesta, 2003
3 griddles and 3 pancake flippers

The idea germinates to harvest stormwater as well as rainwater to turn a flooding liability into an irrigation asset



In Tucson, AZ (receiving 12 inches of annual rainfall)

One mile of an average residential street drains over ONE MILLION GALLONS of rainfall per year.

That's enough water to sustainably irrigate 400 native food trees per mile,

or one tree every 25 feet on both sides of the street - irrigated by the street.

2004 - 2005 curb cuts and street runoff harvesting began

Curb cuts legalized in 2007
$45 permit

Curb slice

Curb core hole
3-inch (75mm) diameter

^

2006

< 1996
Planting

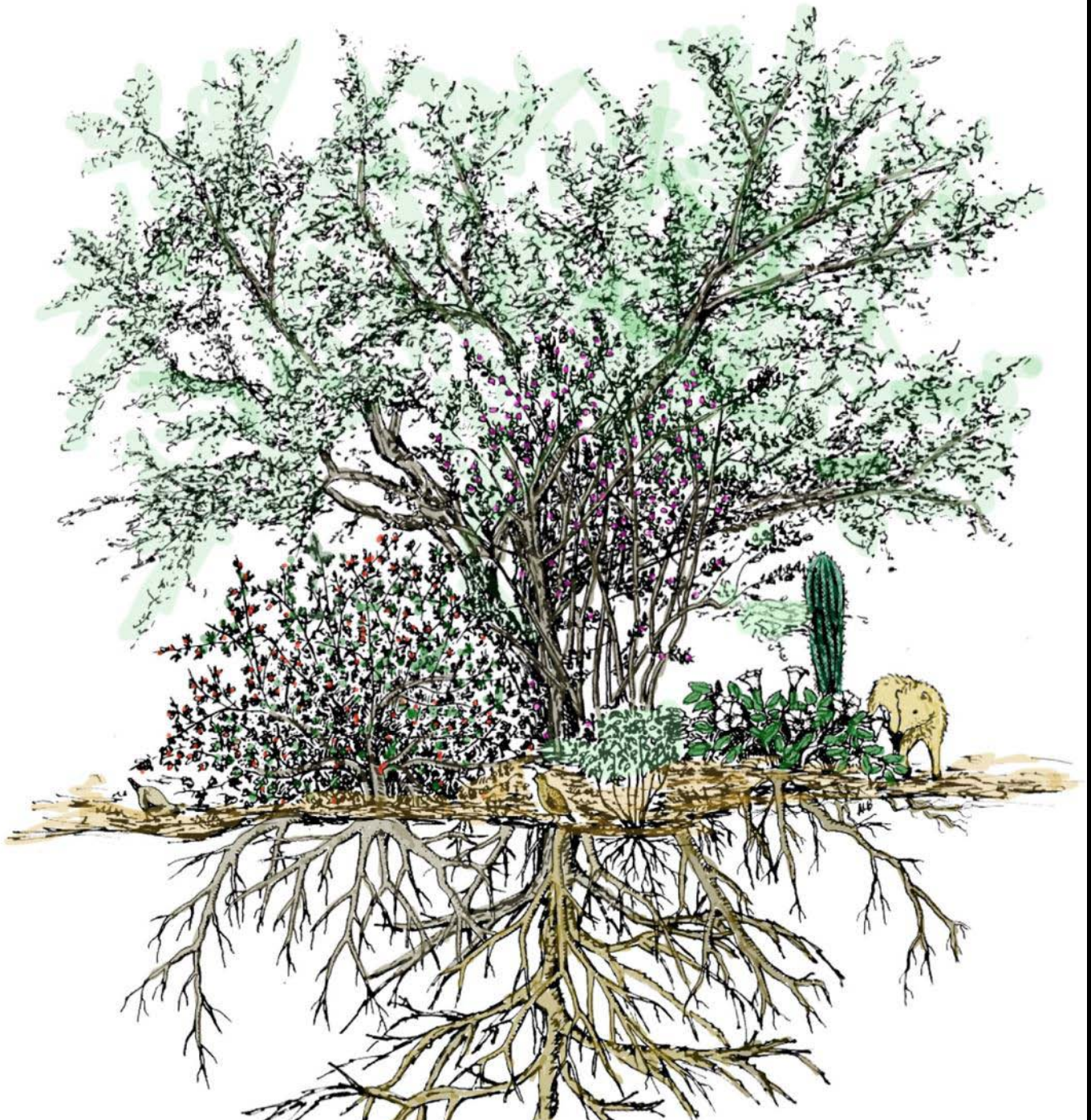
2006 >
Harvesting

Economic Engine: neighborhood harvesters can make $25 per hour harvesting, milling, and then selling mesquite pods grown in their own neighborhoods

< Good >

Bad
V

TESTCO
TESTCO



Mesquite Guild

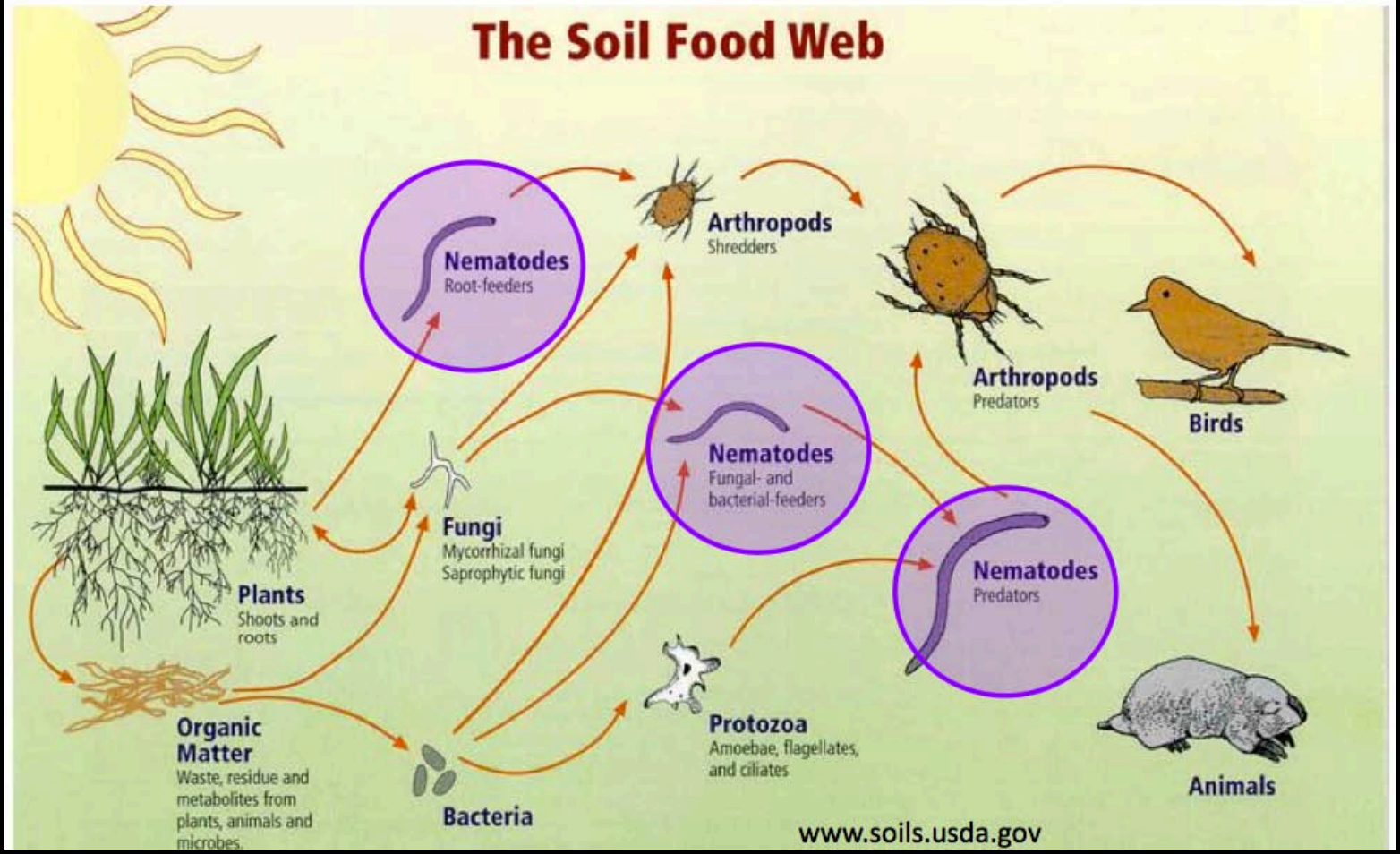
Velvet mesquite
Desert hackberry
Greythorn
Wolfberry
Saguaro
Datura
Chiltepine
Chuparosa

Prunings from tree used as mulch to fertilize tree and increase soil moisture

40 to 60% of the city's solid waste stream is mulch

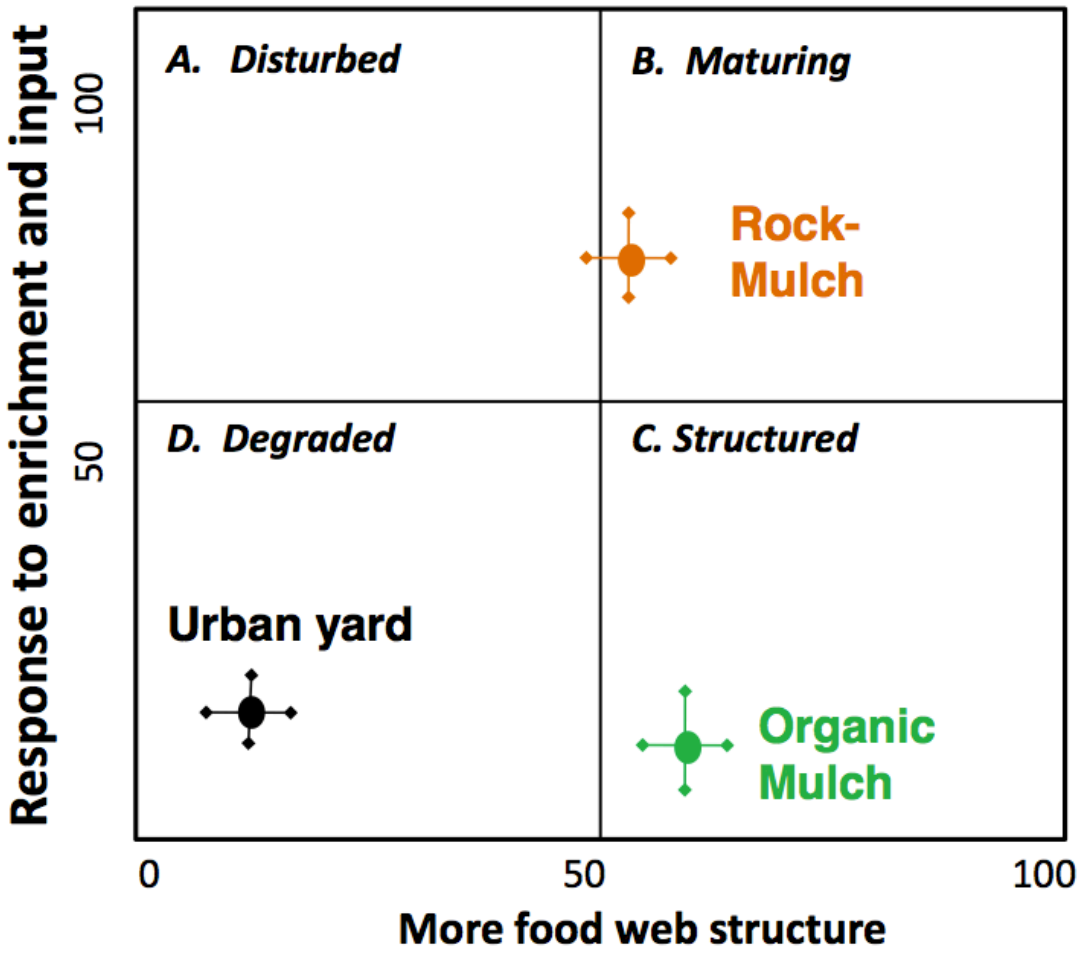
Brush and Bulky transformed to Chipped and Mulchy

Indicators of soil health – Soil food webs drive nutrient cycles



Mitchell Pavao-Zuckerman
Biosphere 2 & School of Natural Resources and Environment
University of Arizona mzuckerman@arizona.edu

Mulched Rain Gardens have more structured soil food webs



Basins bring more omnivores

Organic mulch:

- 5x increase in F:B ratio
- 6x increase in predators

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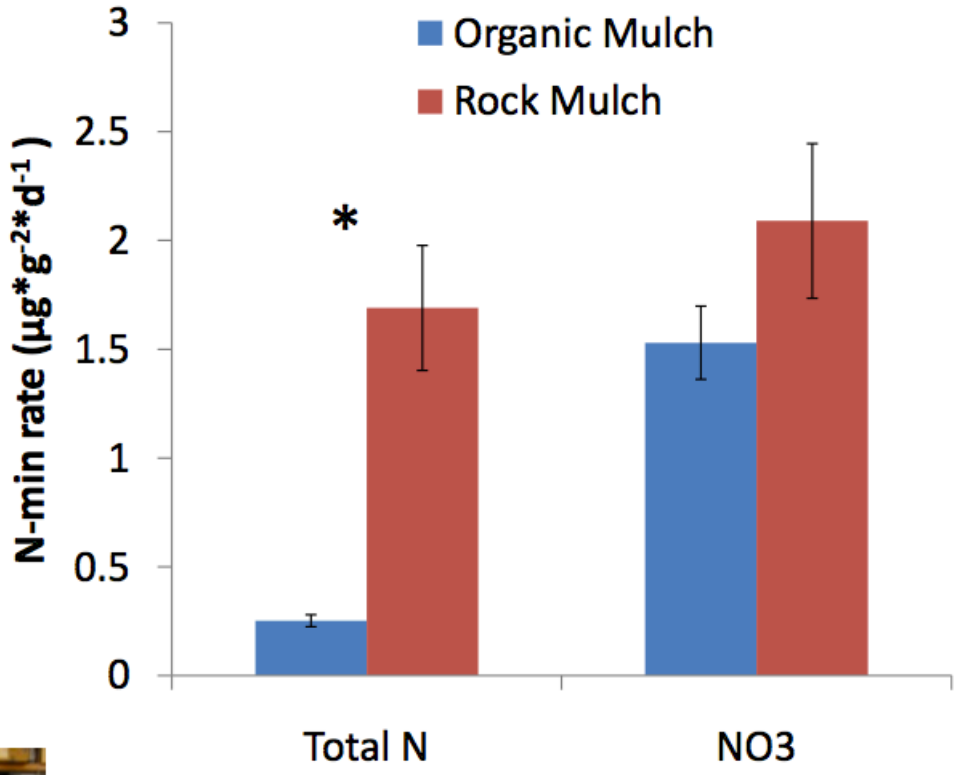
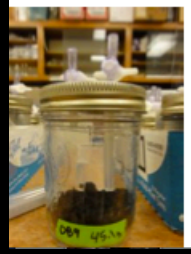
Curb-cut rain basin ecosystem services



- Reduction in potential N-mineralization rates
- Organic mulch provides C for microbes who assimilate N



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Dunbar/Spring neighborhood intersection repair, 2006

STOP
DRIVING
4-WAY
KEEP
RIGHT
9TH

© Ron Niebrugge / WildNatureImages.com

SANTA RITA MOUNTAINS
santa cruz river

Water harvesting chicanes or pull outs

4th Annual
Dunbar/Spring Mesquite Fiesta, 2007

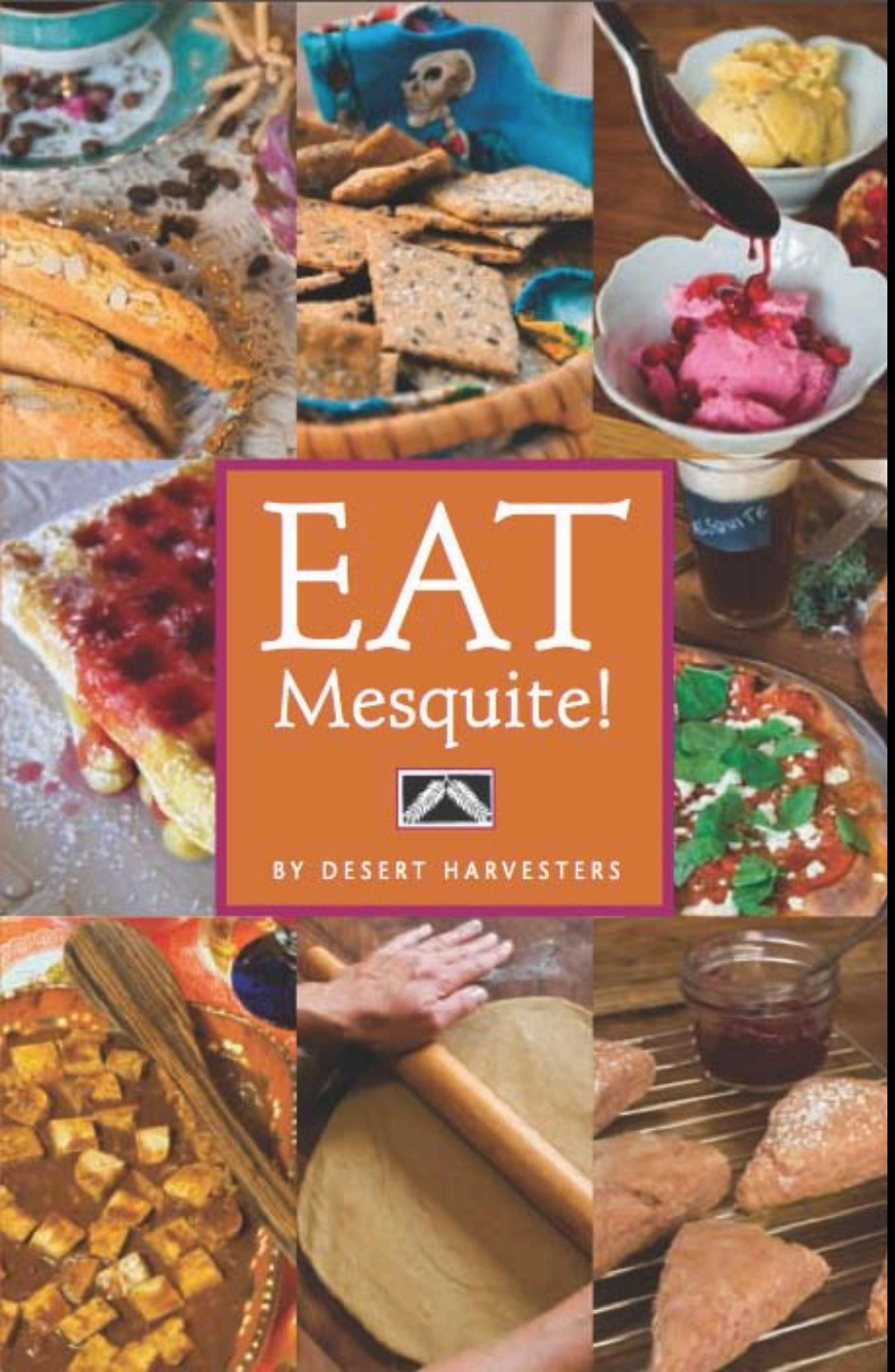
2009 Community Recipe Tasting

photos by Brad Lancaster and Ian Fritz

Mesquite harvest and milling demo, drinks, and recipe rating at June 2009 tasting

PieParty.org

Photos by Mario J.B. Juan



Local foods recipes

sold through

local retailers

Desert Ironwood (Oleyna tesota)

Palo verde (Cercidium microphyllum and Cercidium floridium)

Desert Harvesters

Appreciating the native foods of the Sonoran Desert

Subscribe to our email list:

enter email address Go!

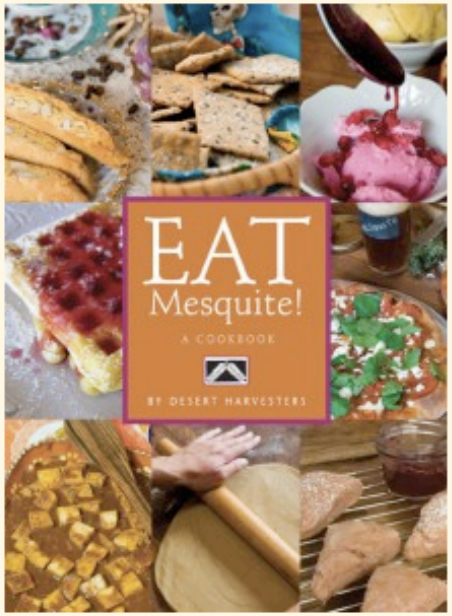
Don't forget to check/set your spam filter to assure you receive emails from desertharvesters.org

- Home
- Calendar of Events
  - Archived Events
- Mesquite Millings
- Hammermill Page
  - Hammermill Operation Manual
- Native Plant Food Guides: The Desert Can Feed You
  - Desert Ironwood (English)
    - Palo de Fierro del Desierto (Español)
  - Mesquite (English)
    - Mezquite (Español)
  - Palo Verde (English)
    - Palo Verde (Español)
  - Prickly Pear Cactus (English)
    - Tunas y Nopal (Español)
- Mesquite in the Kitchen
  - Sources of Mesquite Flour & Mesquite Cooking
  - Cooking with Mesquite
  - Eat Mesquite! A Cookbook

Welcome to the Desert Harvesters Website

Who we are

Desert Harvesters is a non-profit, volunteer-run, grassroots effort based in Tucson, Arizona, USA. We strive to promote, celebrate, and enhance local food security and production by encouraging the planting of indigenous, food-bearing shade trees (such as the Velvet mesquite or *Prosopis velutina*) in water-harvesting earthworks, and then educating the public on how to harvest and process the bounty. In 2003 we were able to purchase a Meadows Mills #5 hammermill with funds from a PRO-Neighborhoods grant. The mill is able to quickly grind mesquite pods into flour, and conveniently provide people with a fresh and nutritious local food product (click here for more info on the nutritional breakdown of mesquite). We've put the mill on a trailer so we can take it to various milling events around southern Arizona (Fig. 2).



Upcoming Events

4 March:

Brad Lancaster: Reception for Eat Mesquite! & the Story of Desert Harvesters, March 4, 2011 - Antigone Books, Tucson AZ (7:00 pm)

2010
Desert Harvesters
Mesquite Fiesta
over 1,500 mesquite pancakes served

Photos by Ruben Ruiz

8th annual Desert Harvesters
Mesquite Fiesta 2010

Three hammermills milling pods

photos by Ruben Ruiz

GROWING ORGANIZATIONS MILLING MESQUITE and/or organizing mesquite pancake fiestas and millings

Cascabel Hermitage Association Education Program, Cascabel, AZ 1998

Desert Harvesters, Tucson, AZ 2003

Kyle Young and Peter Ragan, Arivaca, AZ 2006

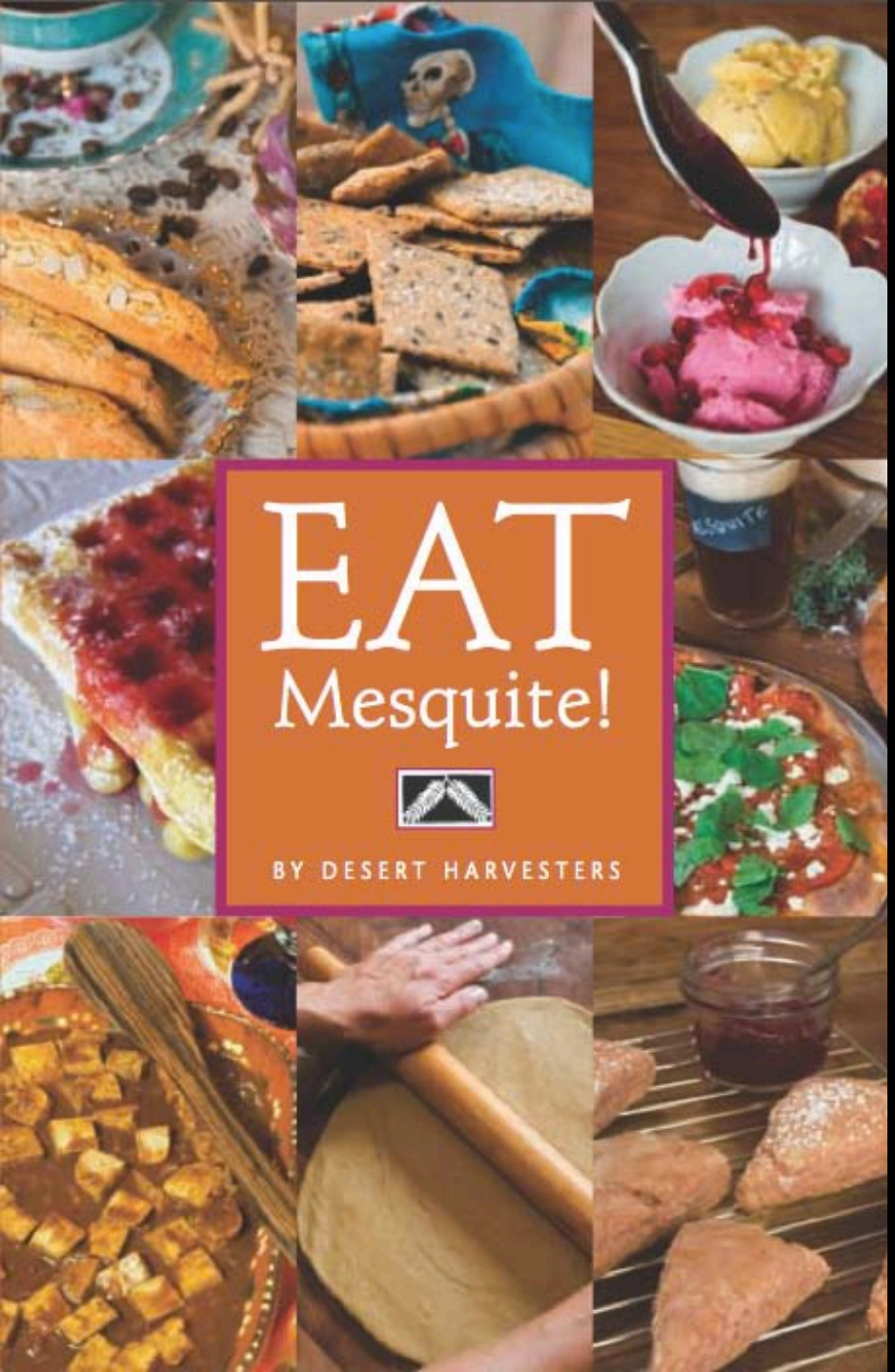
Prescott College, Prescott, AZ 2008

Tohono O'odham Community College, Sells, AZ 2008

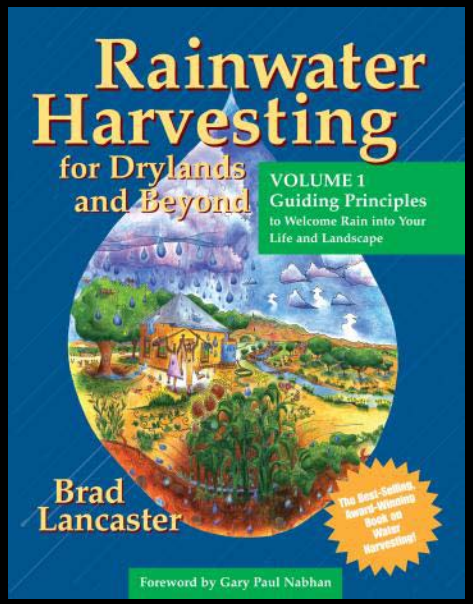
Gila Pima Nation, Sacaton, AZ 2009

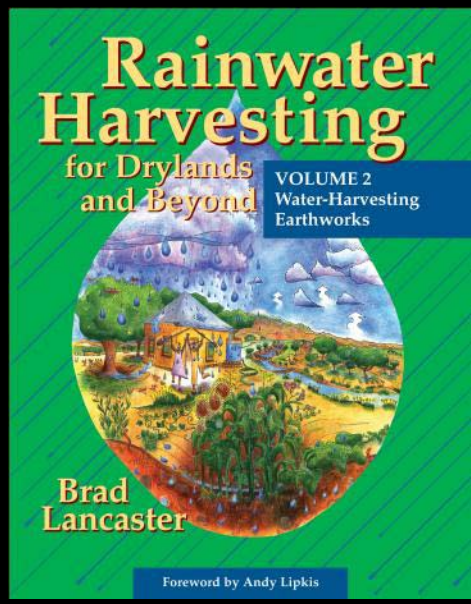
Baja Arizona Sustainable Agriculture, Bisbee, AZ 2010

Phoenix Permaculture Guild, Phoenix, AZ

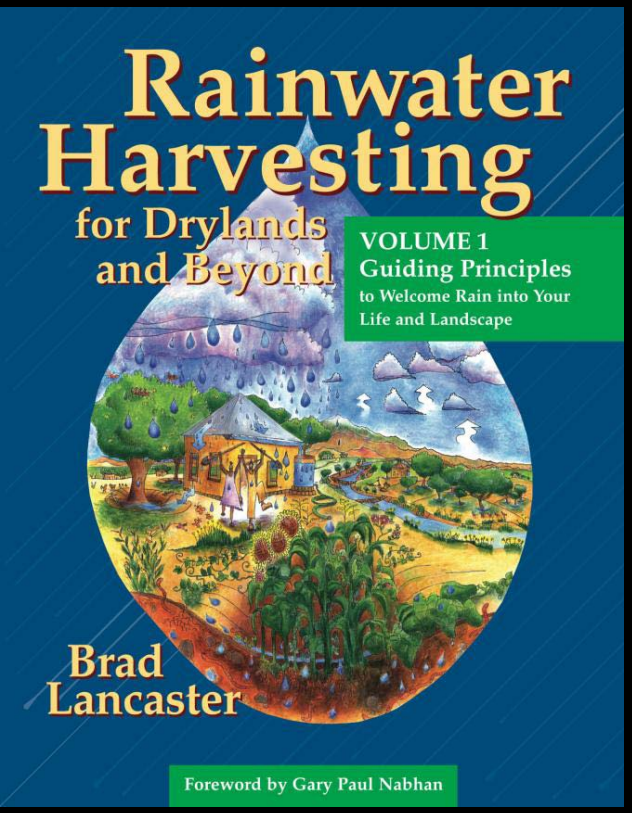


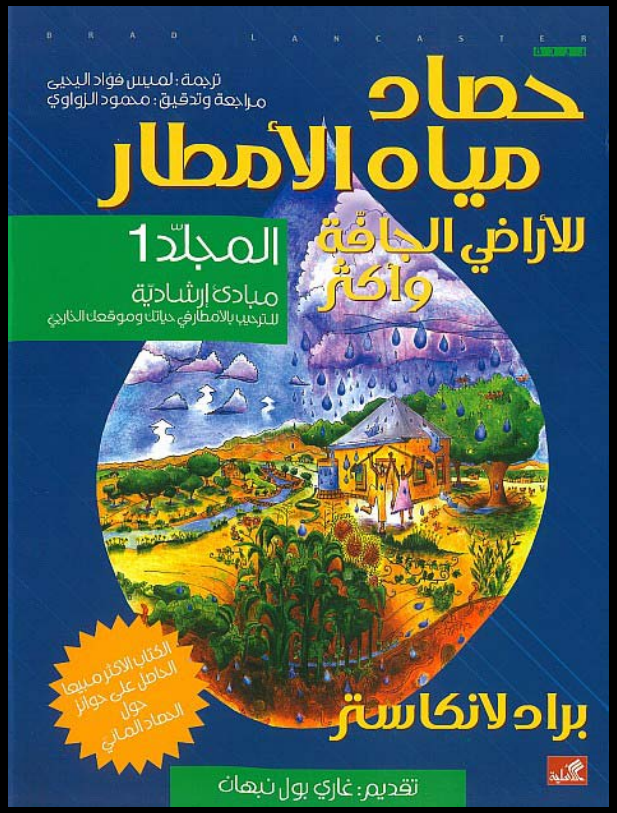
DesertHarvesters.org

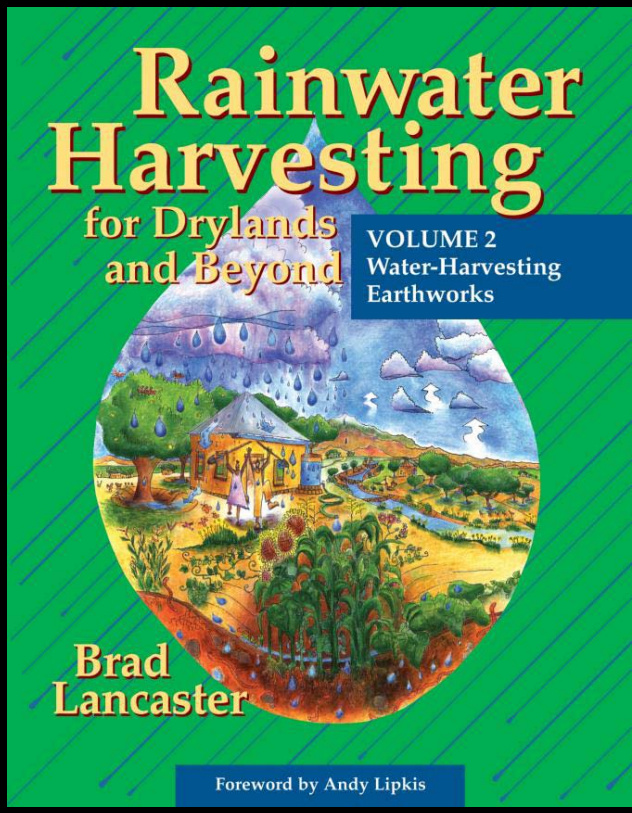




HarvestingRainwater.com







www.HarvestingRainwater.com

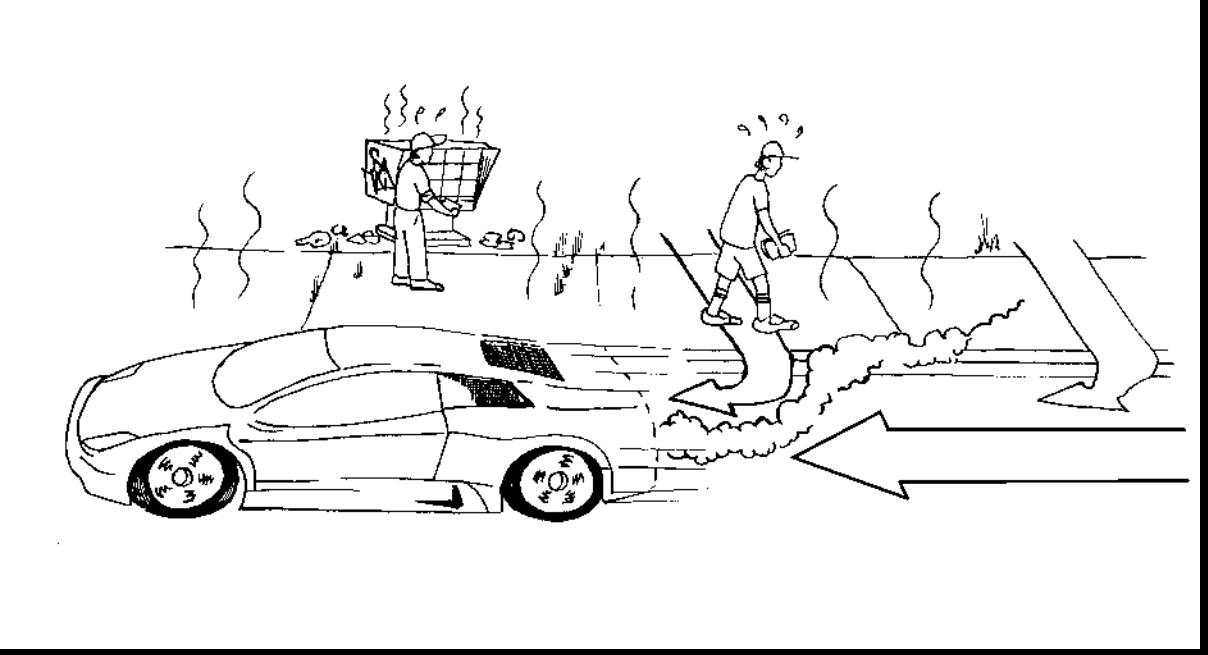
Arabic Edition: Al Ahlia Publishing & Distribution
King Hussein Street, Amman, Jordan
Email: alahlia@nets.jo

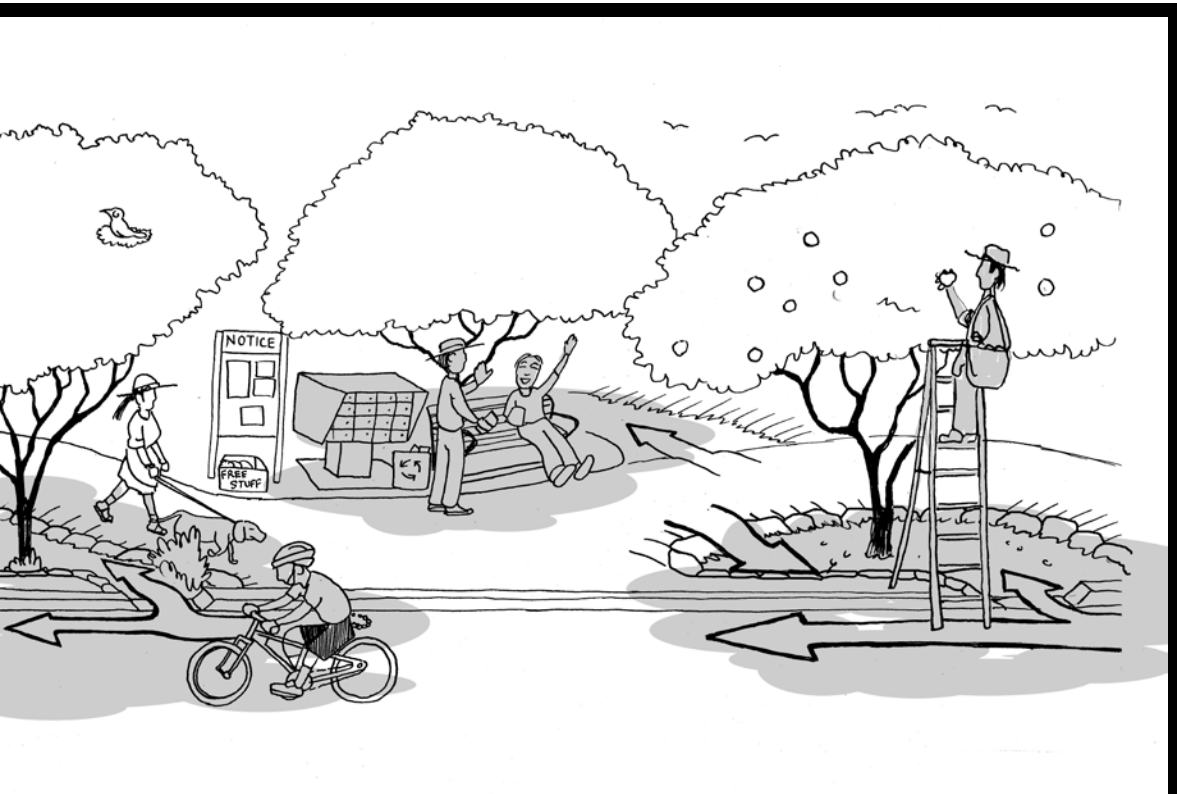
Prickly pear

Wolfberry

Saguaro

me next to one, Vaughn next to one, picking fruit, pie, tequila




NOTICE
FREE STUFF

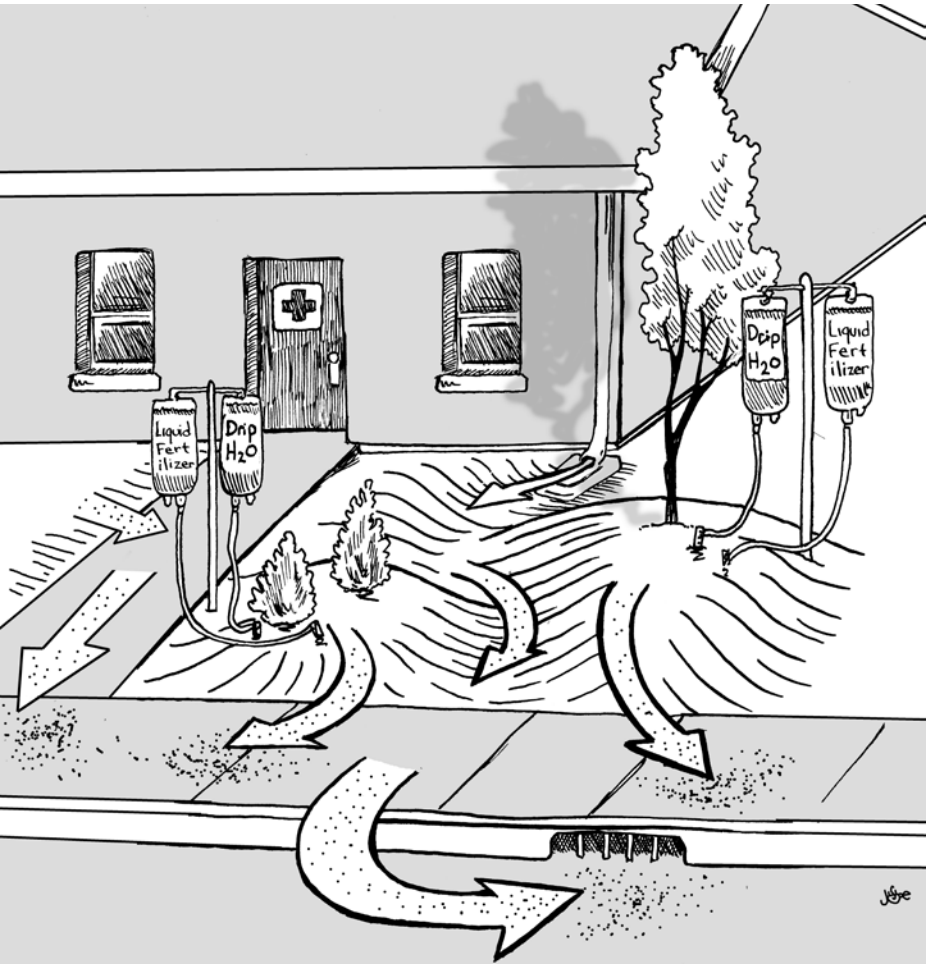
Scarcity

Abundance

Photos of brush and bulky piles, then turning these into mulch

Path to scarcity:

30 to 50% of the potable drinking water consumed by the average single family household in the western U.S. is used for landscape irrigation



Path to abundance:

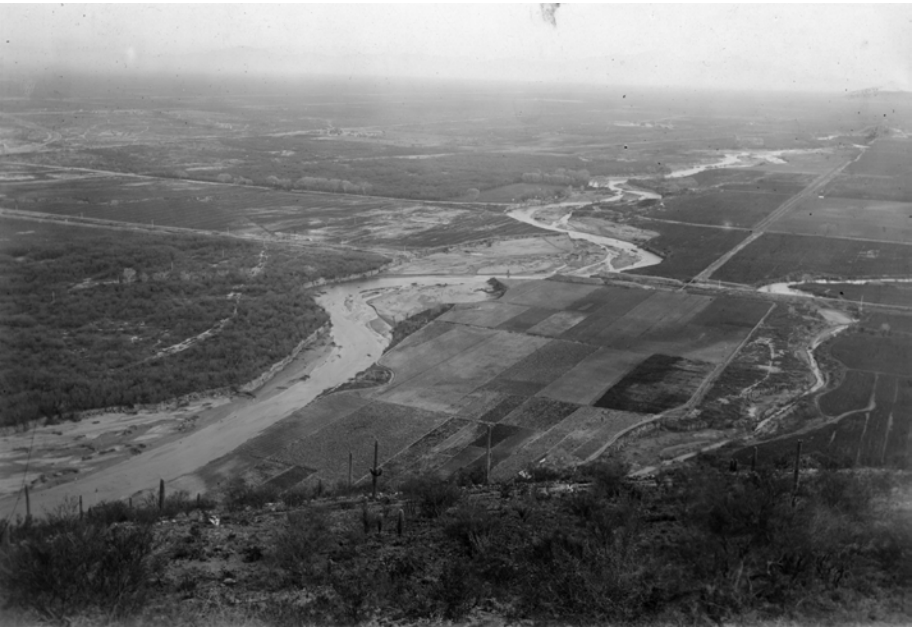
- Rainwater is primary water source
- Greywater is secondary water source
- Municipal/well water only a supplementary source

- Path to Scarcity

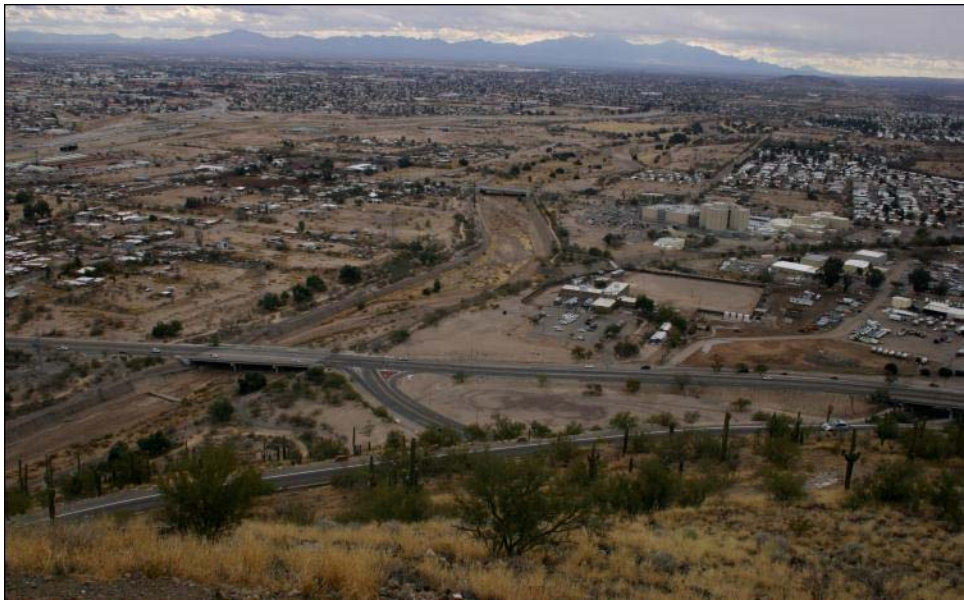
- Path to Abundance

Tucson, Arizona, USA

1904



2007



Scarcity

Heat island

Resource Drain

Abundance

Cool island

Resource Harvest

99¢
STORE

STOP

- Solar arc
- Other food trees - palo verde, ironwood, cholla, prickly pear, wolfberry, chuparosa, hackberries
- Gary nabhan foodshed data
- 2010 mesquite milling photos - grills and mill - compare to 2003
- Other groups - baja, tohono o odham, prescott
- Restaurants serving native foods - Sells, Janos, Tucker
- New companies - jeau, guy by colorado
- Nutrient info, production info, how much $ harvesters can make
- Other ROW strategies, bike blvd, 9th St., Keeling pullout, slice, core,
- Mulch project
- Cookbook and goodies photos
- Tucson heritage fruit trees olive and pomegranate - connect to greywater
- How we only sell cookbook through locals
- Parking lot shading requirements and commercial water-harvesting ordinance
- Holiday Bars
- Native foods pot lucks
- PRO Neighborhoods, Slow Food Tucson, Richard Felger and Neil