



Self Watering Containers and Sub-Irrigated Planters

Brandon Merchant

- Arizona Native
- Owner of Southwest Victory Gardens
- Former Pima County Certified Master Gardener
- Former President of Tucson Organic Gardeners
- SmartScape Certified





WWW.SOUTHWESTVICTORYGARDENS.COM/DOCUMENTS

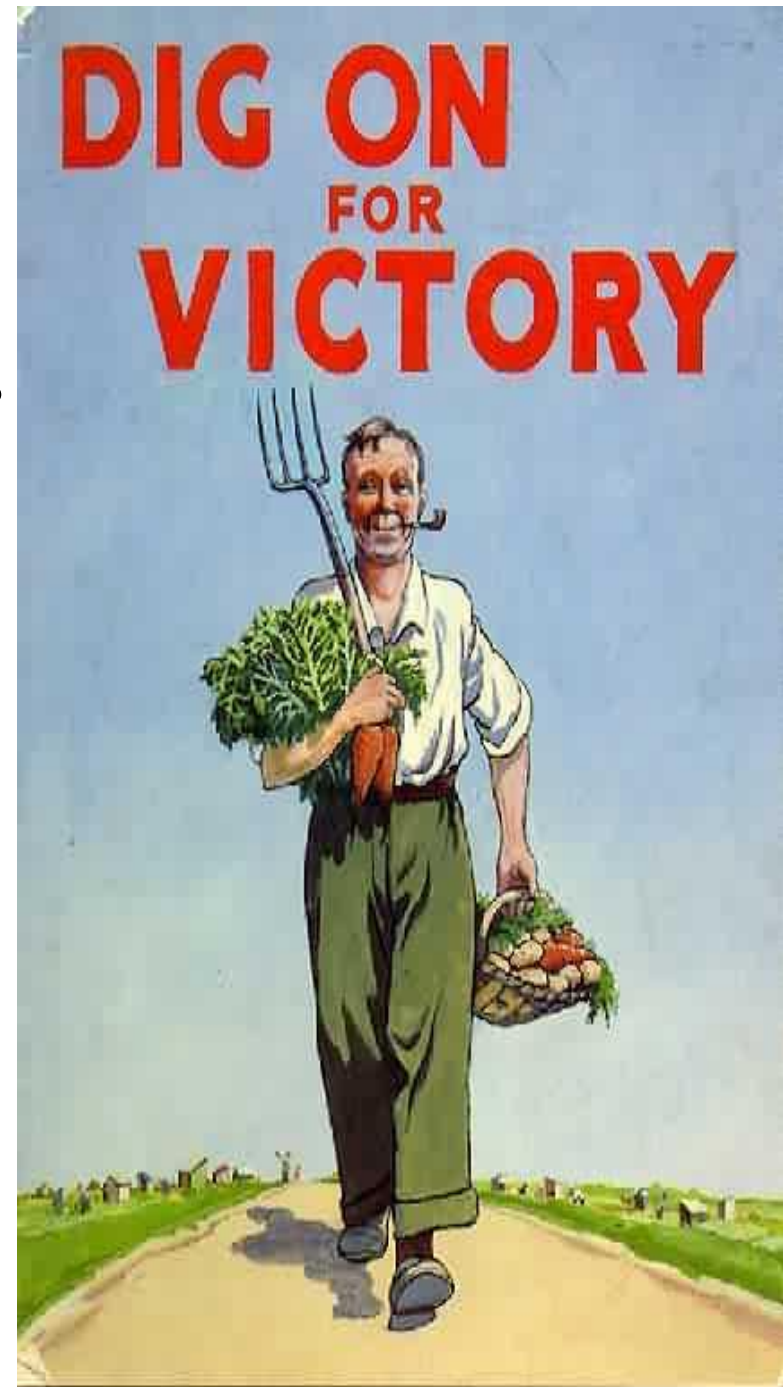
UPCOMING EVENTS IN TUCSON

- DIY: Make your own Worm Bin – November 2nd CFB
- DIY: Protect your Plants from Frost – November 16th CFB

www.facebook.com/southwestvictorygardens/events

Our Philosophy

- Healthy soil encourages healthy plants
- Healthy plants care for themselves
- Limit external inputs
- Reduce water usage
- Garden with our climate not against it
- Encourage a natural ecosystem
- Build community through gardening



Course Materials:

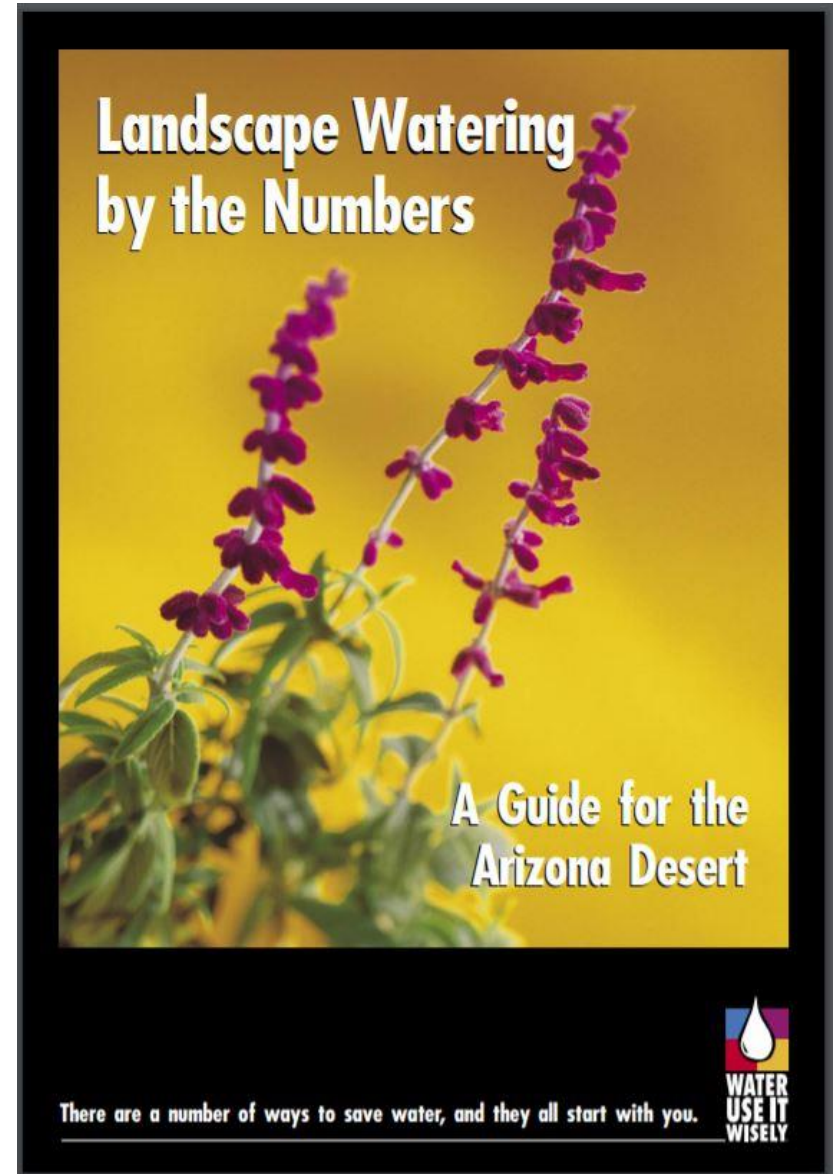
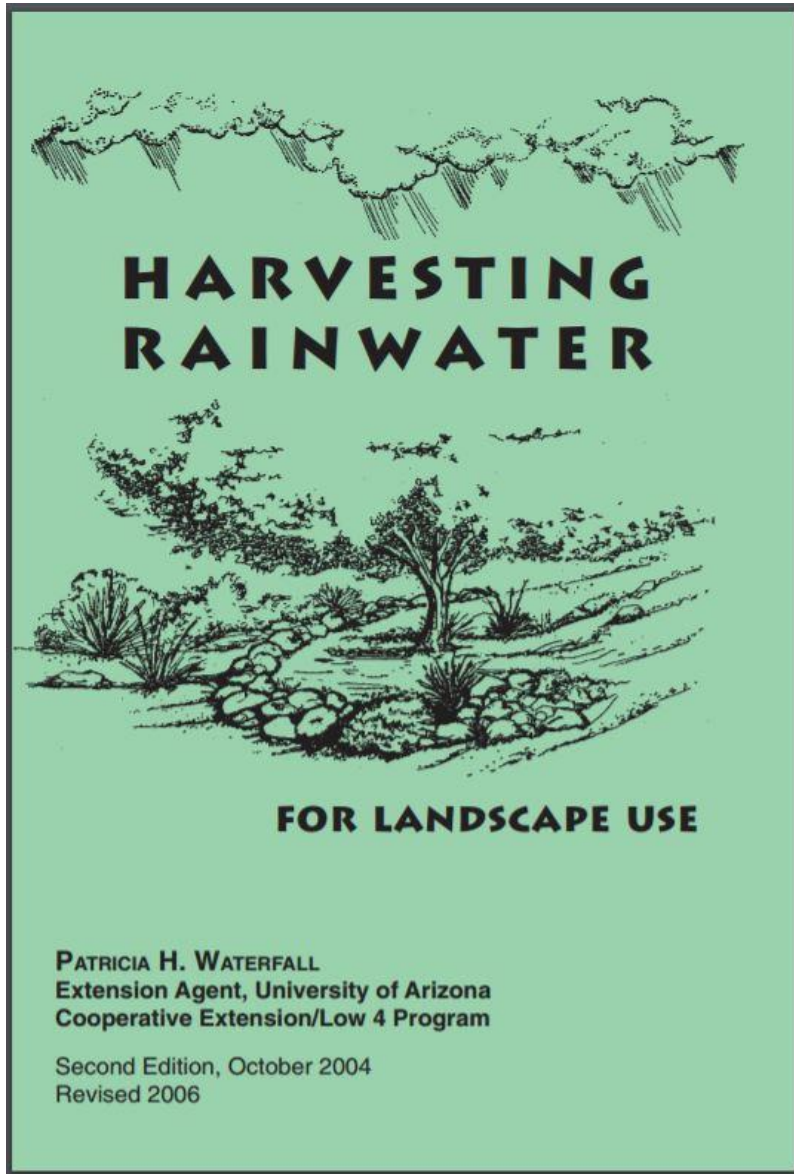
The Good Guys at



931 S. Highland Avenue, 85719
(520) 624-1788

- 5 Gallon Buckets:
 - \$1/ 1 Bucket
 - \$.80/ 3 – 10
 - \$.70/ 11 – 20
 - \$.60/ 21 – 50
 - \$.50/ 50+
- 55 Gallon Barrels:
 - \$12/ 1 – 3
 - \$10/ 3+

Resource List:



Resource List:



COLLEGE OF AGRICULTURE
AND LIFE SCIENCES

Watering Trees and Shrubs

Simple Techniques for Efficient
Landscape Watering



AZ1298

February 2014

Rainwater Harvesting

for Drylands
and Beyond

VOLUME 1 *2nd Edition*
Guiding Principles
to Welcome Rain into Your
Life and Landscape

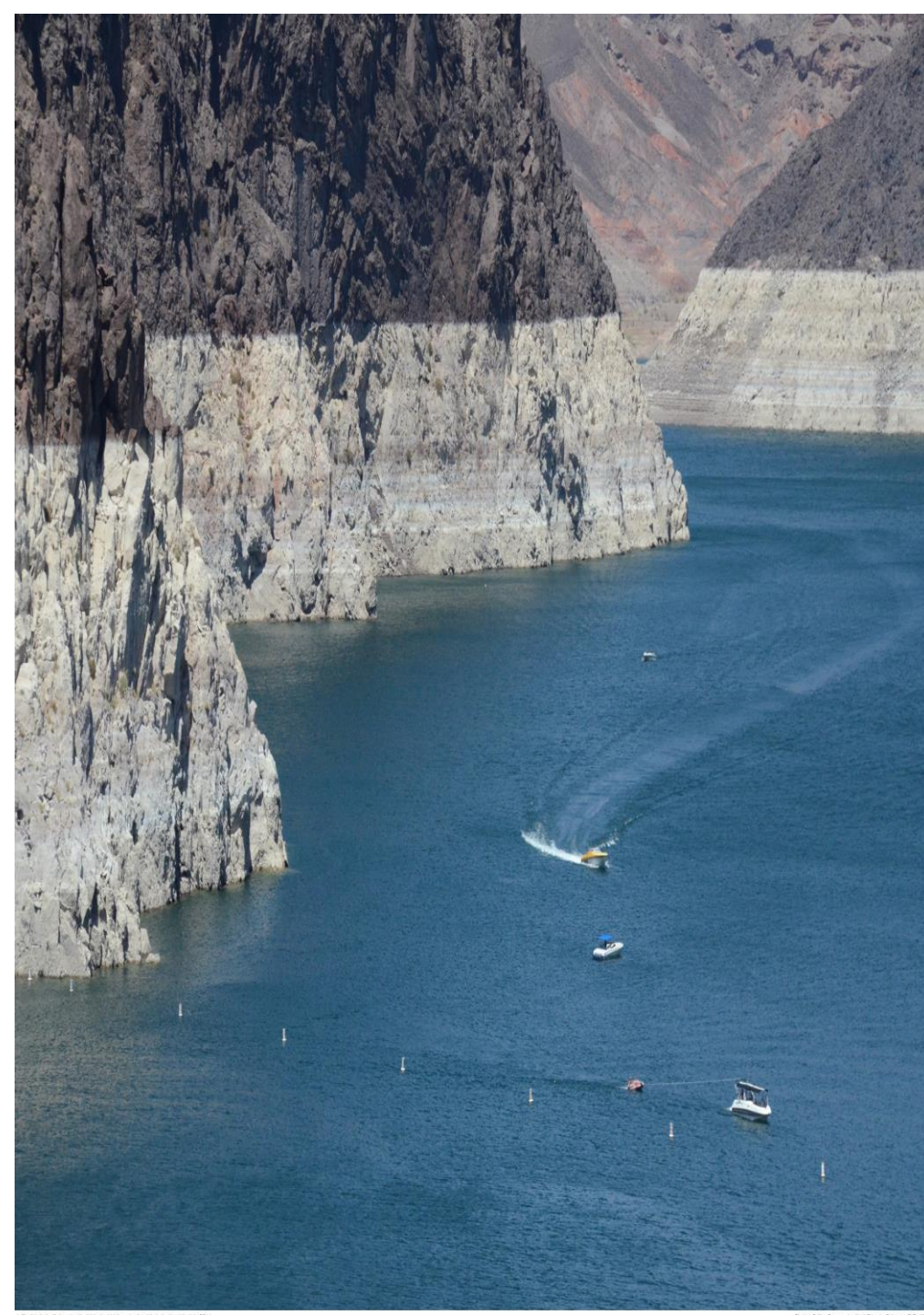
Brad
Lancaster

Revised & Expanded
with more
integrated
Sun, Wind, & Shade
Harvesting

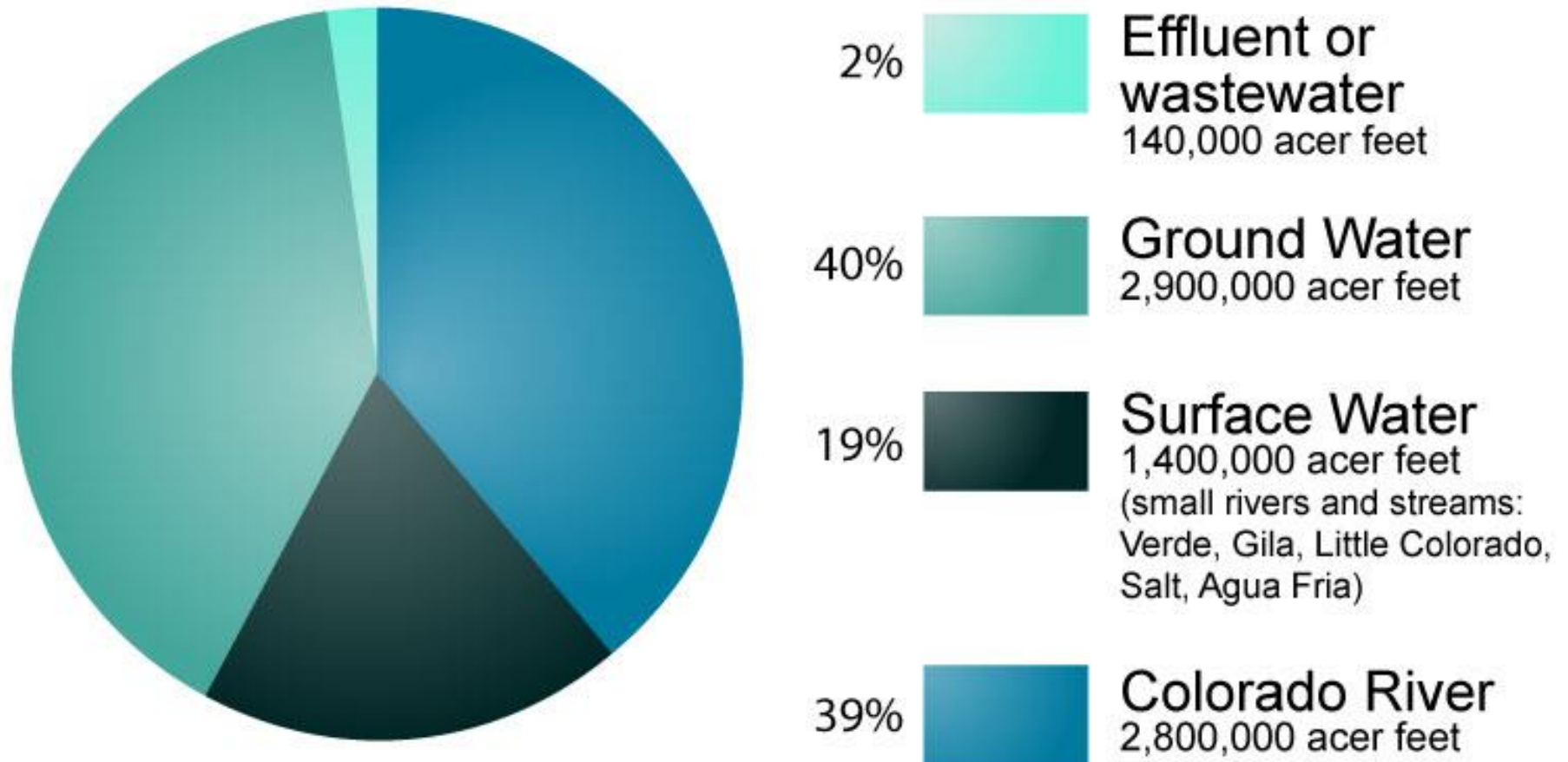
Foreword by Gary Paul Nabhan

We Live in a Desert

- 3% of World's water is potable
- 66% of that is Frozen
- .001% is Easily Accessible
- Water is NOT a renewable resource

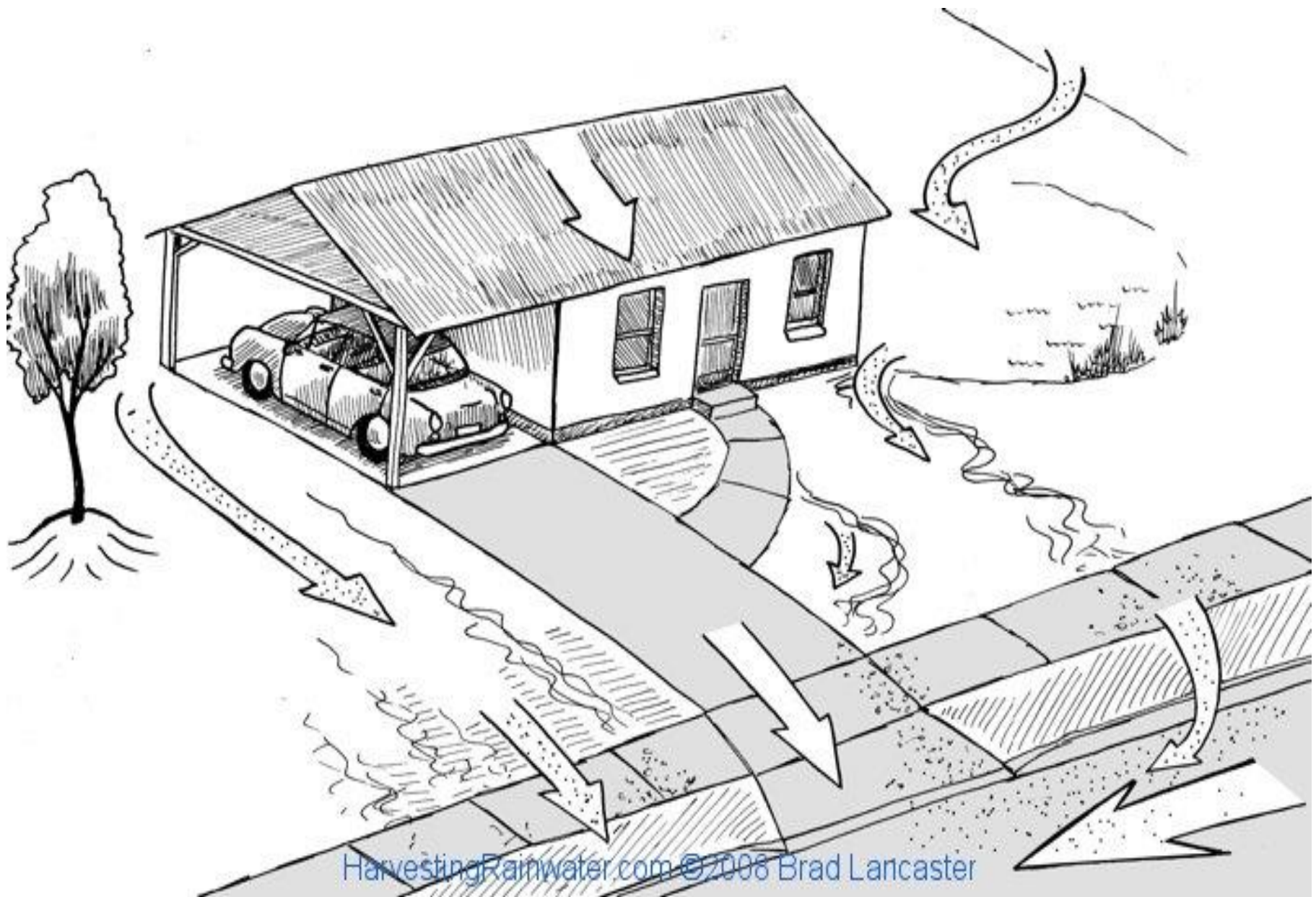


Arizona Water Sources



Values based on Arizona Department of Water Resources ABC's of Water
<http://www.azwater.gov/AzDWR/PublicInformationOfficer/ABCofWater.htm>

Rain Treated as Waste



Rain Treated as a Resource



Permaculture



Container Gardening Pro's



- No Digging
- Space
- Mobility
- Portability
- Aesthetically Pleasing
- Low Water Use*
- Security
- Soil
- Plant Selection*

Container Gardening Con's

- Limited Space
- Unique Challenges
- Initial Cost
- Plant Selection*
- Frequent Watering*
- Fluoride Toxicity
- Micro-Climate, Soil Food Web, and Beneficials



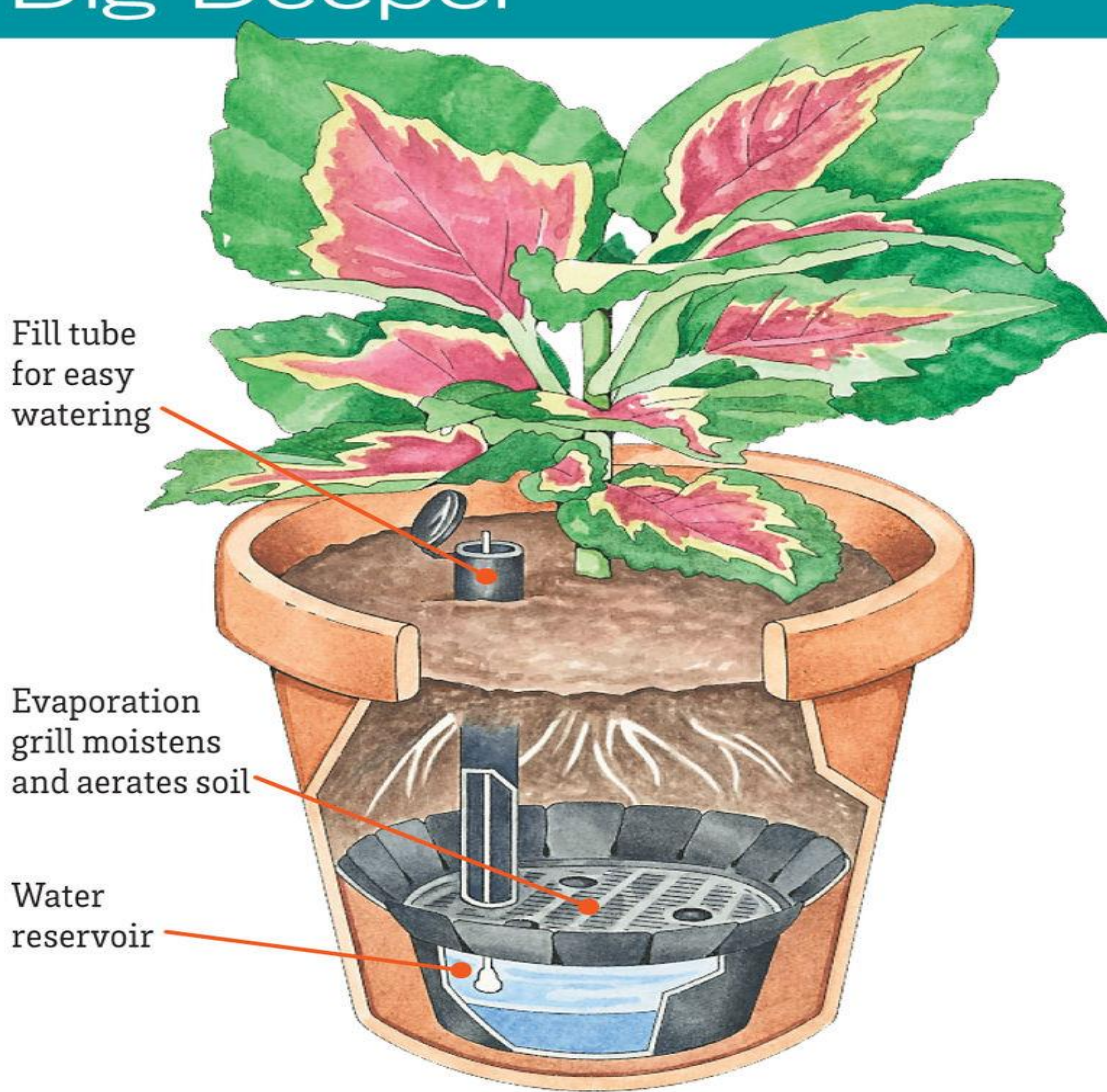
Getting Started - Location



- Right Plant, Right Container, Right Place
- Direct Sun with Afternoon Shade
- Create a “Micro-Climate”
- Plant Hardiness
- Water Source

Self- Watering Containers

Dig Deeper



- Water reservoir
- Wicking Chamber
- Overflow
- Soilless Potting Mix
- Suitable Container

Selecting a Self Watering Container

- Purchase or DIY
 - Small or Big
 - Usually Plastic
 - 5 Gallon Bucket
- Most Common
- Can be Any Shape or Size





*FARM AND GARDEN
TEAM*



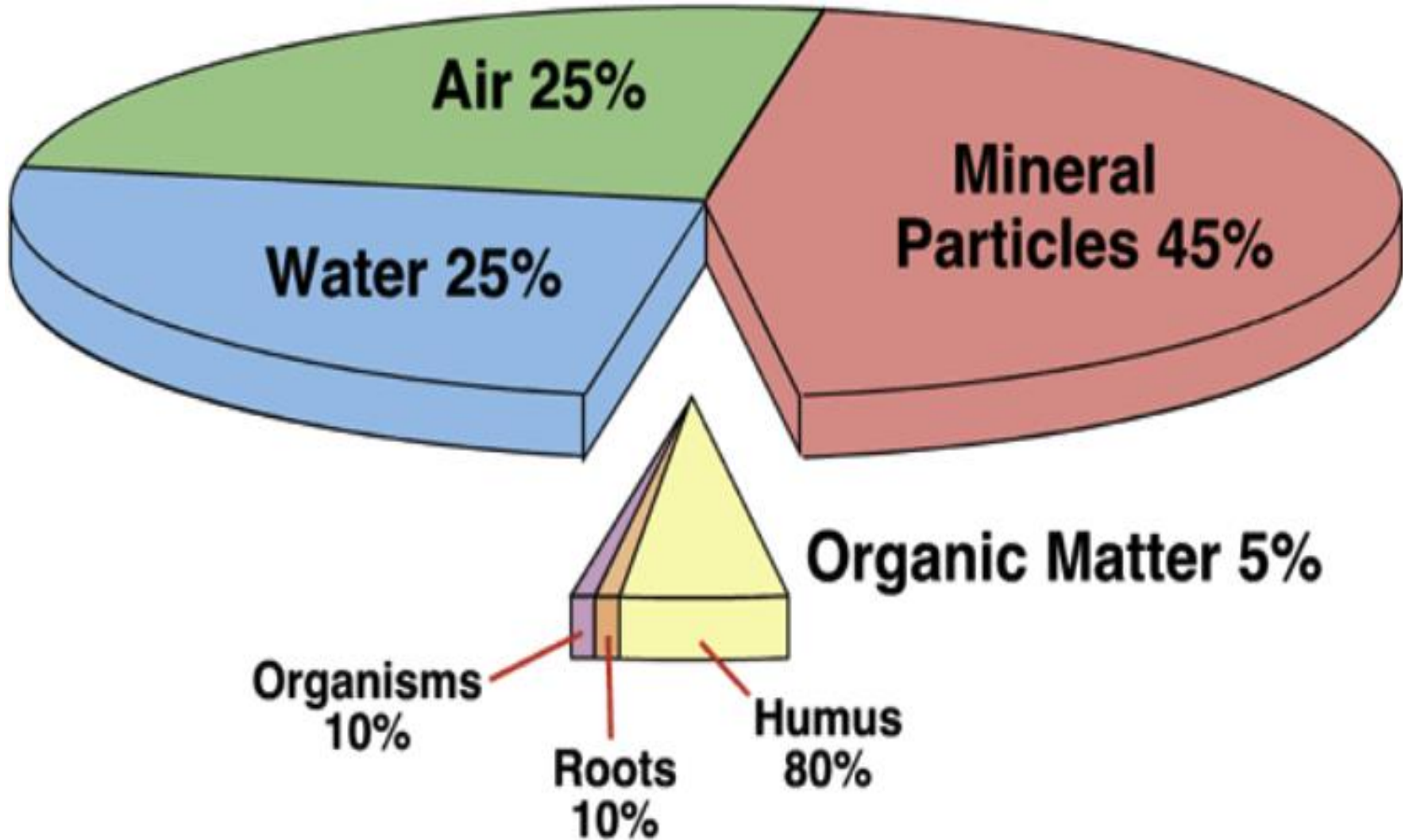
COMMUNITY
FOOD BANK
OF SOUTHERN ARIZONA

Filling your Container

- Avoid Native Soil
- Avoid Peat Based Mixes
- Avoid Woody Mixes
- Avoid Synthetic Mixes
- Avoid Expensive Mixes
- Make your Own and Save!
- Gravel Unnecessary



What is Soil?



What is Potting Mix?



- Compost
- Coco Coir*
- Perlite
- Vermiculite
- Pumice
- Fertilizers
- Amendments

Plant Nutrients

- Compost
- Vermiculite*
- Fertilizers
- Amendments



Aeration and Water Holding Capacity



- Coco Coir
- Perlite
- Pumice
- Other Ingredients

POTTING MIX RECIPES:

- Seedlings & Small Pots
 - 2 parts coco peat
 - 1 part compost
 - ½ part perlite
 - ½ part vermiculite
 - Organic fertilizer
- Large Containers
 - 1 part coco peat
 - 2 parts compost
 - ½ part perlite
 - ½ part vermiculite
 - Organic fertilizer
- Raised Beds
 - 5 parts compost
 - 4 parts coco fiber
 - ½ part perlite
 - ½ part vermiculite
 - Organic fertilizer
- Root Cuttings
 - 1 part coco fiber
 - 1 part perlite

Ongoing Maintenance

- Low Dose Frequent Fertilizing
- Water Completely
- Replenish Soil Periodically



TUCSON URBAN FARM ACADEMY

SPRING 2020





WWW.SOUTHWESTVICTORYGARDENS.COM/DOCUMENTS

Resources

- Tanks Green Stuff
- EcoGro
- CFB
- Reading List
- Gardening Clubs
- Local Businesses
- Friends and Family





Thank you!

www.southwestvictorygardens.com/Documents

(520) 576-7085