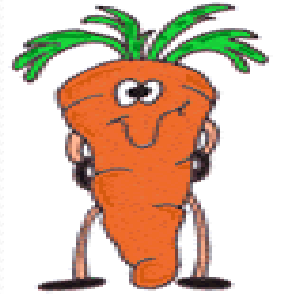




# **Local, Organic, & Plant-Based Eating**

By Dawn Ratcliffe

# Why What We Eat Matters



Food choices affect:

- our local community
- the environment
- our health
- communities across the world
- other animals

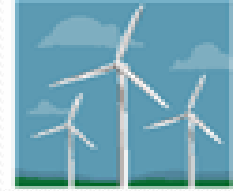
# How I Got Involved in Sustainability & Sustainable, Plant-Based Food Choices

- Snakes, frogs, & insects
- Recycling adventures with my Radio Flyer at seven
- Defending kids with disabilities
- UNCC public relations & critical thinking courses
- Making connection between human rights, animal welfare, & environmentalism





# How I Got Involved In Sustainability Cont'd



- UNCC Recycling Department
- Charlotte, N.C. & UNCC Earth Days
- Morning Glory Organic Farm
- D.C. Clean Energy Bill Passes
- Refining tactics to be more strategic

# My Definition of What a Sustainable World



## Would Look Like



- Trash would not exist as we know it.  
McDonough's Cradle to Cradle concept: all items created in a way that they can be recycled, reused or composted.
- We would use only what we need & justice for humans, the environment, and animals would naturally factor into all of our decisions.
- Compassion, equity, and respect would take precedence over profit in our decision making.



# Advent of Local Foods Movement

- For majority of human history, perishable foods were obtained locally.
- Then, advances in transportation, packaging, processing, refrigeration, & petroleum-based pesticides made it possible to transport produce and perishable food on larger scale.
- Local foods movement was formed out of concern for local farms, fresh foods, and sustainability – returning to basics

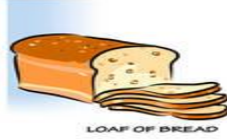
# Eating Local in the Desert



- Is it always best to eat local in the desert considering our lack of rainfall?
- Is eating local more important than eating organic?

# Food, Fuel, & Freeways Study

*2001 study on how far food travels, fuel usage, & green-house gas emissions with emphasis on Iowa*



- Produce arriving by truck traveled ave. of 1,518 miles to Chicago in 1998, 22% increase over miles traveled in 1981
- In comparison, food traveled ave. of 44.6 miles in local food projects where farmers sold to hospitals, restaurants, etc.
- Conventional system in which national sources supply Iowa with produce using large semitrailer trucks, used 4 – 17 times more fuel than Iowa-based regional & local systems, depending on system & truck type.

# Food, Fuel, & Freeways Study



- Increased use of trucks to transport goods is one reason for rise in U.S. fossil fuel use
- 1965: 787,000 trucks registered in U.S. that used 6.658 billion gallons of fuel
- 1997: 1, 790,000 trucks registered in U.S. that used 20.294 billion gallons of fuel
- (many of these trucks are used for food transport)

# Food, Fuel, & Freeways Study



- Price of cheap food doesn't often include true social & environmental costs of food production
- 1997 analysis showed that ave. lb. of produce from Jessup, Md. facility traveled more than 1,685 miles
- Look at overall food system when calculating environmental footprint of food. Ex: foods shipped longer distances might be better option if local foods are water or energy intensive (heated greenhouses)

# Community Supported Agriculture in Phoenix Area

Farmer sells directly to members of community who buy shares in the farm & receive whatever is harvested. The CSAs listed below don't use synthetic fertilizers or pesticides:

➤ **Crooked Sky Farm**

<http://www.crookedskyfarms.com/csf/index.php>

➤ **Desert Roots Farm**

<http://www.desertrootsfarm.com/>

➤ **Whole Earth Community Supported Agriculture**

<http://www.wholeearthcsa.com/>



# Backyard Gardens in the Desert



## Recommended readings for desert gardening:

- Phoenix Permaculture Guild:  
<http://www.phoenixpermaculture.org/>
- Teaming with Microbes by Lowenfels:  
explains soil cycle & composting

## Helpful suggestions:

- Keep a journal & remember that what works elsewhere may not work in the desert
- Important component of sustainable eating & creating healthy garden is a backyard compost pile
- Need tomato seeds that ripen as quickly as possible because intense heat can kill plants

# Backyard Gardens in the Desert

Best picks for desert garden based on season



- Plant these in Sept./Oct. for late winter harvest: lettuces, cabbages, kale, Brussels sprouts, broccoli
- Plant artichokes in fall for spring harvest
- Plant heirloom Alpine strawberries in Dec. & let them grow wild so leaves will provide shade in summer
- Plant basil & Armenian cucumbers in early spring for summer harvest



# Backyard Gardens in the Desert

Best picks for desert garden based on season

- Plant these in spring for fall harvest & make sure they are shaded in the afternoons:

eggplant, tomatoes (small varieties), tomatillos, squash, cantaloupes, watermelons



# Reduce Water Usage in Garden Via Use of Grey Water & Rain Barrels



- Wastewater generated from domestic activities such as dish washing, laundry and bathing – good option for watering plants, especially in water-parched desert
- AZ has one of most progressive gray water policies:  
<http://www.oasisdesign.net/greywater/law/#arizona>
- Consider purchasing or making your own rain barrel

# Urban Gardening

<http://www.youtube.com/watch?v=jRz34Dee7XY>





# Campus Harvest at ASU



- **Dates** – a variety of dates from the ASU Tempe & Polytechnic as well as the ASU Research Park are currently available in the bookstore
- **Sour Oranges** – are available in the summer & are great in marmalades, marinades, & orange-aid

# History of Organic Movement

- Like the local foods movement, organic growing methods have existed for majority of human history
- Organic movement began in early 1900's in response to shift towards synthetic nitrogen fertilizers & pesticides in early days of industrial agriculture

# Is Organic Healthier? Study That Makes You Kinda Go Hmmmm...



- Recent study reviewed all scientific studies of foods produced organically or conventionally from 1958 - 2008 . Due to flawed methods or poor quality, only 162 of 52,000+ studies were found to be reliable.
- Examining those studies' findings, researchers found that organically produced foods offered no nutritional advantages over conventionally produced foods.
- Didn't take into account pesticide residue.

# Why Choose Organic



- Reduces our dependency on petroleum-based pesticides
- Supports a system that reduces toxins that workers are exposed to
- Reduces pesticides consumers are exposed to
- Reduces pesticides that enter water supply
- Can be more beneficial to soil than conventional methods

# Organic Farming



- A nine-year study by USDA Agricultural Research Service (ARS) researchers at Beltsville, MD, has shown that organic farming can build up soil organic matter better than conventional no-till farming can.
- A 1987 study that compared adjoining organic and chemically treated wheat fields in Washington State found that the organic fields had eight more inches of topsoil than their chemical neighbors and only one-third the erosion loss.

# Shopping For Local & Organic Foods In Phoenix Area



- **Sunflower Market**
- **Trader Joe's**  
reasonably priced organic food but few local foods
- **Whole Foods**  
365 Brand Organics are usually the most affordable at Whole Foods; origin of produce is often clearly labeled
- **Market on Mill (Thursdays 5 – 9 p.m. downtown Tempe)**  
carbon-neutral farmers market featuring local growers & businesses alongside local artists and musicians

Most, if not all, chain grocery stores carry organic foods



# Plant-Based Diet History

- Vegetarian diets are thought to date back to religious groups in Egypt in 3,200 BC whose reasons for abstaining from meat stemmed from karmic beliefs in reincarnation
- Vegetarian & vegan diets also played a role in Hinduism, Buddhism, & Jainism since their advent. Some Christian groups & many Jewish Essenes also adopted a vegetarian diet.
- While it's unclear how many early philosophers were vegetarians, some of them promoted animal welfare & abstention from meat eating including Pythagoras.

# Plant-Based Diet History

- During the Progressive Era (1890 – 1913), activists were fighting for human rights & environmental protection & vegetarianism was increasing, especially at feminist gatherings.
- In 1930's, various meat industry groups joined forces to convince Americans to eat more meat through numerous marketing campaigns including equating vegetarianism with a lack of masculinity, “Just sit a big husky, he-man down to a meatless dinner, and watch him glance around expectantly, wondering when the ‘food’ will begin to appear.”

# Why People Move Towards Plant-Based Diets

- Ethical reasons
- Environmental
- Health
- Religious
- World Hunger



# Environmental Impact of Animal Agriculture

- World Resources Institute estimates that over 50% of U.S.-grain grown, much of which is produced with petroleum based chemicals, is fed to animals raised for food.
- "In February 2002, Iowa State University and the University of Iowa released a joint report finding that hydrogen sulfide and ammonia emissions from large-scale animal confinement facilities can pose a health risk to humans..."



# Environmental Impact of Animal Agriculture

- According to Food & Agriculture Organization of the United Nations, animal agriculture sector accounts for:
  - 9% of human-induced emissions of carbon dioxide
  - 37% of emissions of methane
  - 65% of emissions of nitrous oxide
- According to U.N. Food & Agriculture Organization 2006 report, livestock sector damages climate at rate that surpasses emissions from cars & SUVs
- According to Audubon Society, 50% of water consumed in the United States is used by the meat industry

# **The Low-Carbon Diet** by Mike Tidwell

**published in Audubon Magazine January/February 2009**

- Climate change will have tremendous impact on the poor throughout the world & Tidwell points out in article that our decisions impact other parts of world.
- “But in the Congo and other poor countries, in places like Bangladesh and Peru and Vietnam, where meat consumption is already low, severe climate change means *food* off the table. It means hungry children. It means the rains don’t come on time or at all in tiny villages like the one I lived in...”

# **The Low-Carbon Diet** by Mike Tidwell **published in Audubon Magazine January/February 2009**

Whether beef or lamb is from backyard or New Zealand, is organic free-range or factory farmed, it still has negative impact on global warming.

The feed can be local & organic, but methane is the same, escaping into the atmosphere & trapping heat with great efficiency. No matter what the farming method, livestock makes manure that produces nitrous oxide, an even more notable heat trapper.

# **The Low-Carbon Diet** by Mike Tidwell

**published in Audubon Magazine January/February 2009**

- Data released in 2007 by Cranfield University in England shows that when all factors are considered, organic, free-range chickens have a 20% greater impact on global warming than conventionally raised broiler birds. That's because these chickens take longer to raise and eat more feed.
- According to same study, organic eggs have a 14% higher impact on the climate than eggs from caged chickens.

# Environmental Benefits of Plant-Based Diets

- Greater overall efficiency – using land to grow food for direct human consumption versus using land to grow food for animal agriculture
- Uses less water & fuel
- Less water pollution & lower carbon footprint



# Veg Chefs Worth Checking Out

*Tal Ronnen*



- <http://www.talronnen.com/>
- Conducts master vegetarian workshops for students & staff at Le Cordon Bleu College campuses nationwide & has worked with Hyatt and Hilton hotels & AOL's & Yahoo's headquarters to assist with veg menu options.
- In spring of 2008, became known nationwide as chef who prepared vegan meals for Oprah Winfrey's 21-day vegan cleanse. Catered Ellen DeGeneres and Portia de Rossi's vegan wedding, Arianna Huffington's party at the Democratic National Convention, and first vegan dinner at U.S. Senate.

# Veg Chefs Worth Checking Out

*Rich Landau (Exec. Chef at Horizons)*

- On Nov. 3, 2009, Chef Richard Landau will become the first vegan chef to cook at the James Beard House in New York City
- Horizons named one of top 50 best restaurants in Philadelphia according to 2009 Philly Mag

# Horizons (Philadelphia)

*vegan restaurant that focuses on organic, local, & seasonal foods*

## ➤ Jamaican BBQ Seitan

jicama slaw, smoked chipotle dip

## ➤ Vietnamese Tacos

crispy lemongrass tempeh, sriracha mayo, daikon, cilantro, carrot and chile

## ➤ Grilled Seitan

yukon mash, grilled spinach, horseradish cream, roasted red pepper tapenade

# Horizons (Philadelphia)

- **Heart of Palm Cakes**

curried yellow split peas, grilled asparagus, shishito pepper remoulade

- **Saffron Crème Brulee**

lemon-hazelnut cookies

- **Key Lime Cheesecake**

mango ceviche

# Millennium (San Francisco)

*vegan restaurant that focuses on local & organic foods*

- **Black Pepper & Rosemary Glazed Tempeh**  
creamy roasted garlic polenta, toasted almonds, port & morel mushroom soubise, seared fennel & broccoli di cicco, marinated baby artichokes
- **Spring Vegetable Cilantro Coconut Curry**  
kaffir lime leaf & jasmine rice cake, sauté of snap peas, bok choy, shiitake mushrooms & sunchokes, lemongrass tofu, ginger-cucumber pickle, spicy peanut & shallot sambal

# Millennium (San Francisco)

- **Chocolate Almond Midnight**  
almond cashew crust, mocha chocolate filling, raspberry sauce, white chocolate mousse
- **Banana "Cheese" Cake**  
macadamia nut shortbread crust, Thai tea ice cream, candied macadamia nuts, kaffir lime anglaise
- **Mocha Crème Brulee**  
strawberry-rhubarb sorbet, chocolate coco nib tuile

# Vegan Treats



- Vegan Treat's founder won Best Overall Bakery out of over 50 other non-vegan bakeries in PBS's Feast of Sweets in Lehigh Valley, PA
- Chocolate Peanut Butter Mousse Bomb
- Over 35 French Pastries (Chocolate Encased Strawberry Shortcake, Smores Cheesecake, Hazelnut Praline, Raspberry White Chocolate Cheesecake)

# Vegan Treats

- 13 flavors of soft serve ice cream (coconut, cake batter, pineapple cream, peanut butter, strawberry, etc.)
- 35 flavors of cheesecake (chocolate peanut butter cup, brownie chunk, rocky road, caramel apple, french silk)
- Chocolate Peanut Butter Mousse Bomb
- 15 kinds of brownies

# Green (Tempe)

vegan restaurant that uses organic food when possible  
new american style “comfort” food

## ➤ **Ranchero Salad**

bbq “wings” with fresh greens & carrots tossed  
in our homemade ranch dressing

## ➤ **Original “G” Spicy Po-Boy**

spicy buffalo mock chicken, lettuce, tomato & vegan mayo.

## ➤ **Thee “Argentine” Po-Boy**

strips of seitan mock steak sautéed with caramelized  
peppers & onions, vegan mayo & a spicy chimichuri sauce.

# Green (Tempe)

## ➤ Samosas

curried potatoes, peas, carrots and fresh garlic wrapped in a thin fried samosa with tamarind dipping sauce

## ➤ Vegan Chili

## ➤ Tsoynami

vegan soy serve ice-cream with mix-ins

## ➤ Artichoke Gratine

cheesy, creamy, warm artichoke and roasted garlic dip with corn chips

# Plant-Based Cookbooks & Blogs

- Horizons: New Vegan Cuisine by Rich Landau & Kate Jacoby
- The Conscious Cook by Tal Ronnen
- Tal Ronnen Recipes on Oprah's site:  
[http://www.oprah.com/article/food/healthyeating/pkgoprahscleanse/20080520\\_orig\\_cleanse\\_recipes](http://www.oprah.com/article/food/healthyeating/pkgoprahscleanse/20080520_orig_cleanse_recipes)
- Vegan Cupcakes Take Over the World by Isa Chandra Moskowitz and Terry Hope Romero
- <http://veganlunchbox.blogspot.com/>

# Chewy Chocolate Chip Cookies

Makes 25 to 30 cookies

- 1 cup of softened soy margarine (Earth Balance is best)
- 1/2 cup brown sugar
- 1/2 cup sugar
- 1/4 cup soy milk
- 1 teaspoon vanilla
- 2 1/4 cups flour
- 1/2 teaspoon salt
- 1 teaspoon baking soda
- 12 ounces dairy-free chocolate chips



Preheat the oven to 350°F. In a large bowl, mix the margarine, sugar, and brown sugar until it's light and fluffy. Slowly stir in the soy milk then add the vanilla to make a creamy mixture. In a separate bowl, combine the flour, salt, and baking soda. Add this dry mixture to the creamy mixture and stir well. Then fold in the chocolate chips. Drop small spoonfuls onto non-stick cookie sheets and bake for 8 to 10 minutes although sometimes it can take just six minutes.