

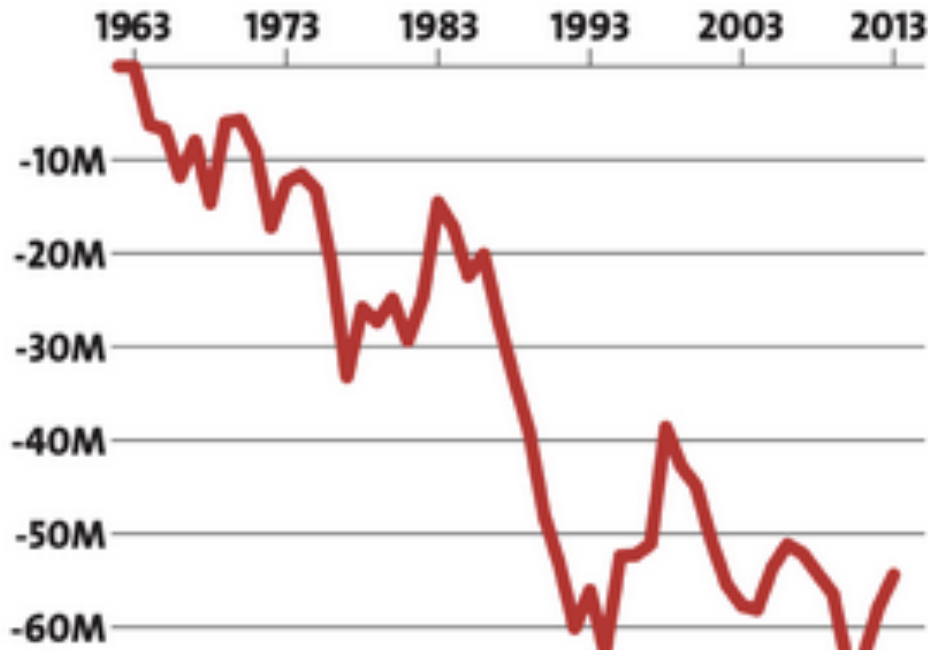
# The Water We Eat: Why Food Choices Matter for Water Conservation

Kari Hamerschlag  
Friends of the Earth  
August 18<sup>th</sup>, 2015

Public Health Alliance of Southern California webinar



## ...the Central Valley's Groundwater Keeps Dwindling (in acre-feet)



Sources: United States Geological Survey;  
USDA; Jay Famiglietti, NASA/UC Irvine

Mother Jones





**Limit showers  
to 2 minutes.**

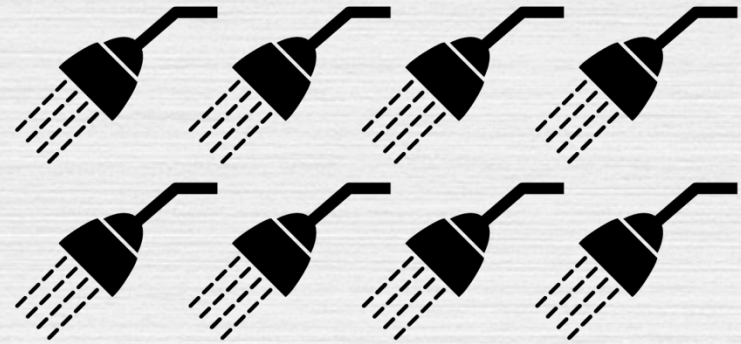
# WATER AND YOUR FOOD



Quarter pound burger

=

8 showers



OR

5 days of indoor washing activities  
(washing dishes, laundry, showers etc).



Please

ext

# CONSERVE WATER

## For California

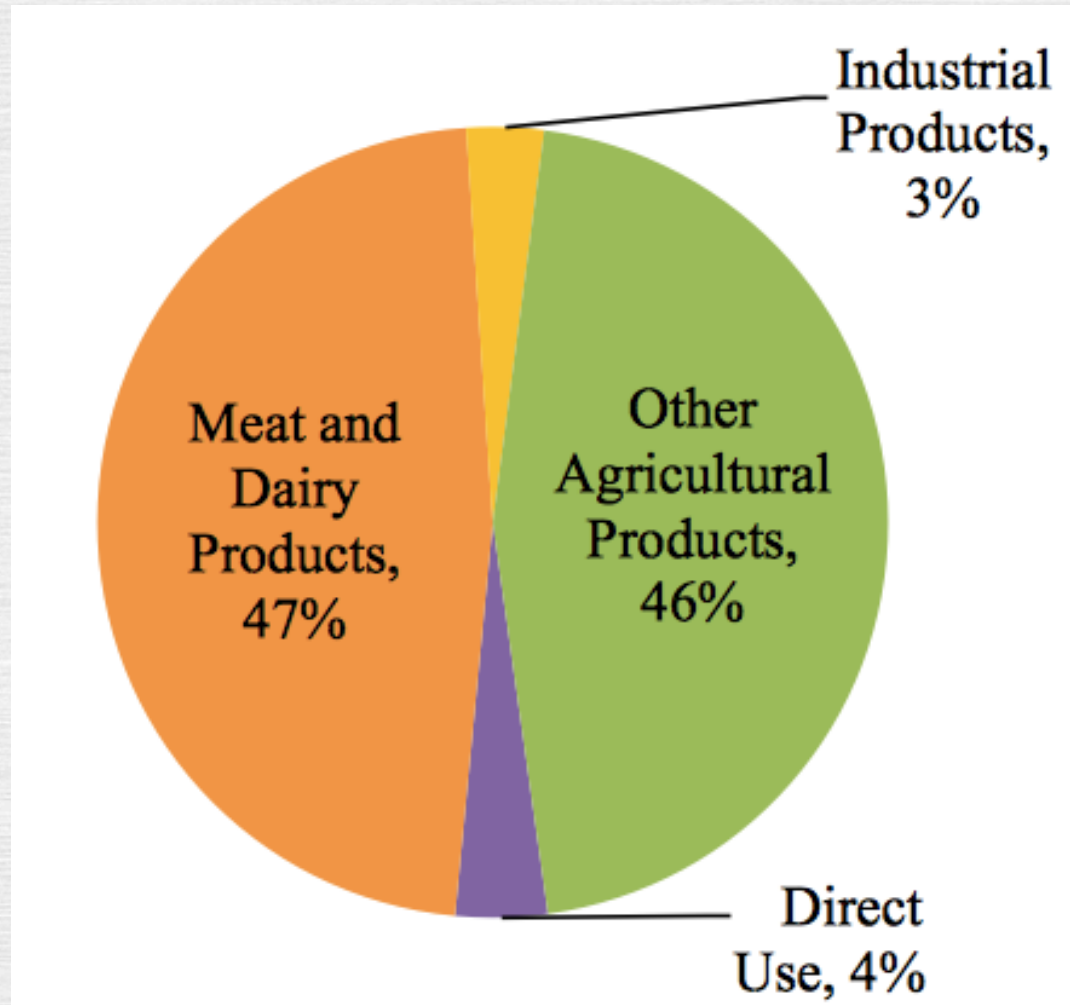
Limit your showers to  
two minutes

MEAT  
INTAKE

ounces a day



# California's Water Footprint



Source: Pacific Institute, California's Water Footprint, December 2012

# Food's Water Footprint



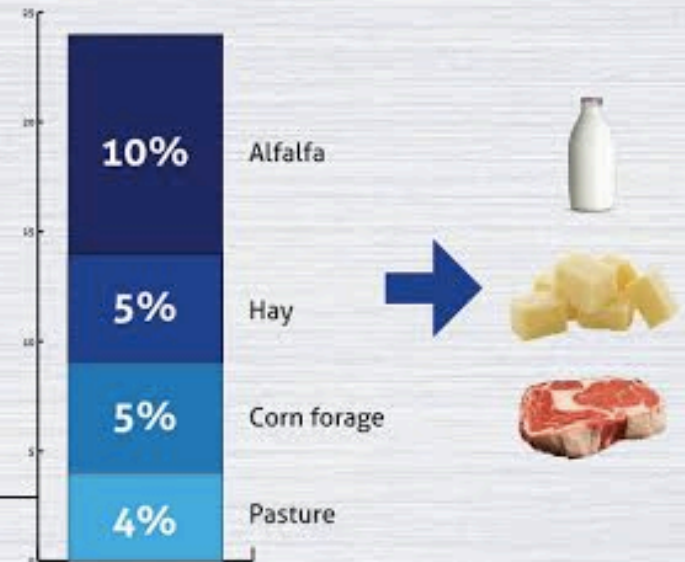
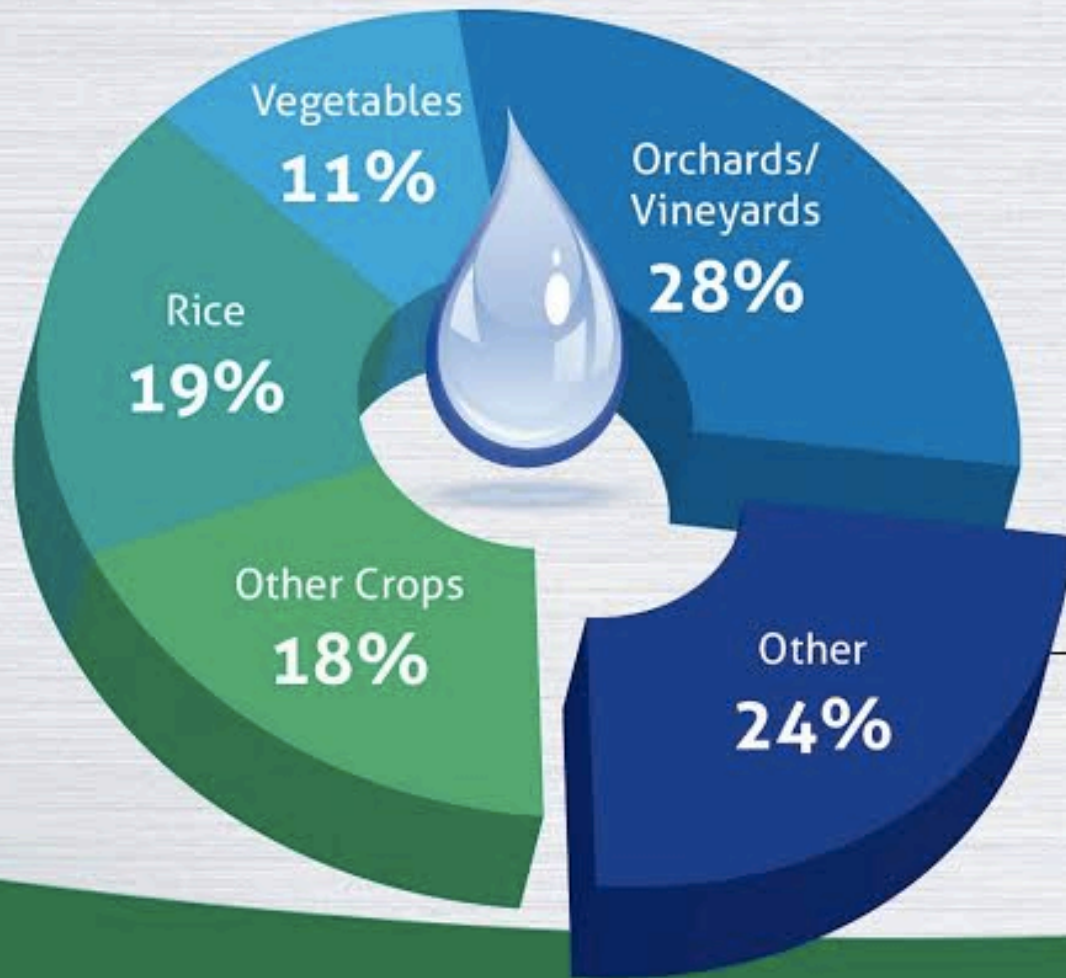
1/4 of global fresh water is used for animal feed production

# 80% of CA water goes to Ag

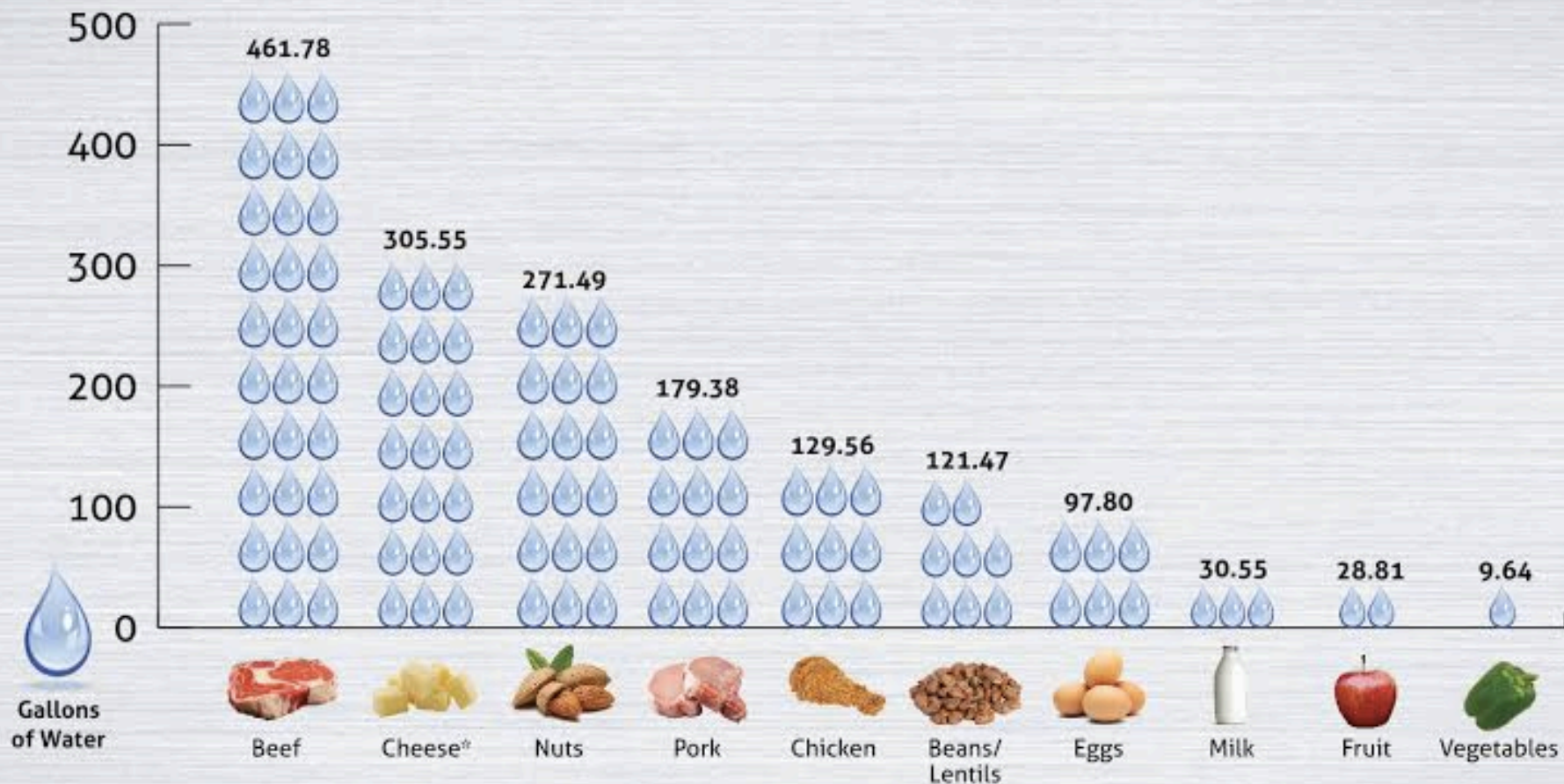




# Animal Feed Crops Used One Quarter of California's Irrigated Water in 2013



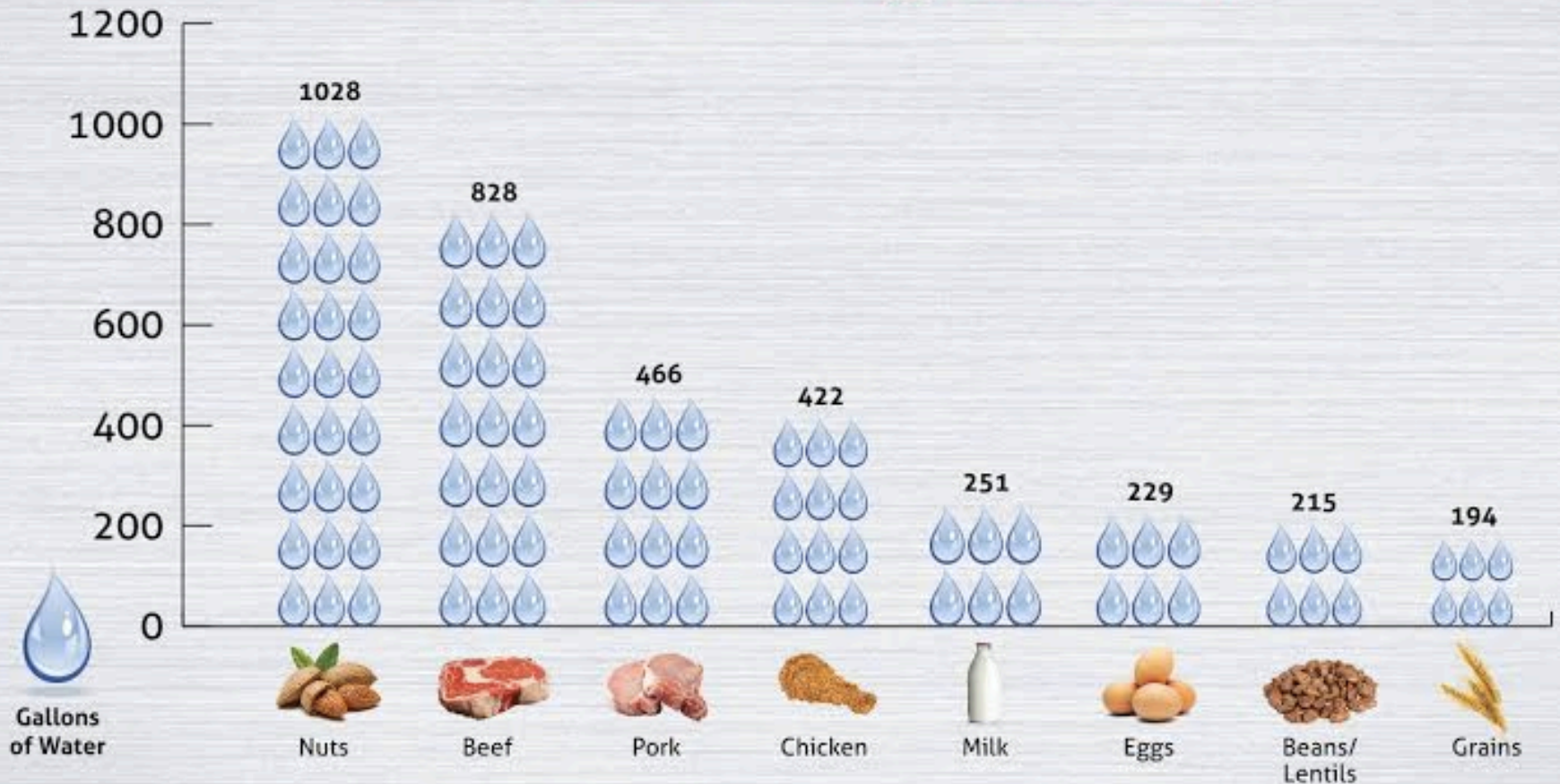
# Gallons of Water Per 4oz Serving



Source for all water figures: Mekonnen, M.M. and Hoekstra, A.Y. (2010) The green, blue and grey water footprint of crops and derived crop products, Value of Water Research Report Series No. 47, UNESCO-IHE, Delft, the Netherlands

\*assuming 10lbs milk makes 1lb cheese: [www.eatwisconsincheese.com/dairy/milk/milk-facts](http://www.eatwisconsincheese.com/dairy/milk/milk-facts)

# Gallons of Water Per 28 Grams of Protein (no fruits or vegetables)



Source for all water figures: Mekonnen, M.M. and Hoekstra, A.Y. (2010) The green, blue and grey water footprint of crops and derived crop products, Value of Water Research Report Series No. 47, UNESCO-IHE, Delft, the Netherlands

# More Plants, Less Meat = Better Health, Better Environment

- Reduce GHG emissions and save billions of gallons of water
- Less dependence on fossil fuels
- Less pressure on land conversion, more habitat for pollinators
- Fewer pesticides and nitrates in the water
- Keep toxic chemicals and antibiotics out of food supply
- Reduce health risks for cancer, heart disease and diabetes
- Reduce food bill and save billions \$\$\$ in health care costs



We eat more meat (and protein) than we need: 20-90% more meat per week than is recommended by USDA

If everyone in the U.S. reduced meat consumption by 15%, replacing it with vegetable proteins, it would be like not driving **91 billion miles** – or taking **7.6 million cars off the road**.

# Food Waste and Water

Over 25% of all U.S. freshwater is wasted



Source:  
<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0007940>

**When you eat less,  
you can afford better  
meat, eggs and dairy  
that don't come from  
animal factories.**



**A GUIDE TO  
AVOIDING FACTORY-FARMED  
MEAT & DAIRY**



Certified organic, humane, and/or pastured animal products are better for your health, the environment, animals, workers, and independent farmers and ranchers.

**To download a copy of the guide, go  
to [www.goodfoodcampaign.org](http://www.goodfoodcampaign.org)**



# Climate and Environmental Benefits of Organic and Sustainable Food Production

Cover cropping, crop rotation, composting, pastured animals, integrated pest management,



- Build Soil Organic matter
- Conserve Water
- Sequester Carbon
- Reduce toxic chemical use
- Reduce nitrogen pollution
- Increase Biodiversity & Pollinator Habitat



More resiliency  
in face of climate  
change

# Recommendations

- Promote Good Food Procurement Policy
- Promote plant-based protein foods w/low water footprint
- Make meat the accent, rather than the main ingredient
- Support grass-fed, organic, antibiotic free meat options
- Encourage Meatless Mondays
- Reduce food waste



# Good Food Purchasing Policy



## 1. Local Economies (Local Food)

- support small and medium sized farms, local jobs

## 2. Environmental Sustainability

- Choose food from farms with organic practices, high biodiversity, reduced pesticide use, soil and water conservation practices
- avoid GMOs, routine antibiotics in food
- **minimize foods of animal origin**

## 3. Valued Workforce (Fair Food)

- fair compensation and conditions for workers and farmers

## 4. Animal Welfare (Humane Food)

- higher, verifiable welfare standards

## 5. Nutrition (Healthy Food)

- -generous portions of fruits and vegetables, whole grains
- -reducing salt, added sugar, fat, oils **and meat consumption**

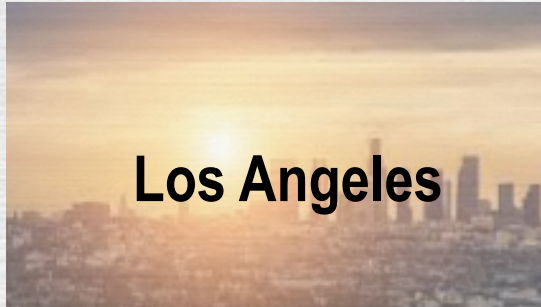


# Plant Based Proteins with Low Water Footprint

Food	Amount	Protein
Tempeh	1 cup	31
Soybeans, cooked	1 cup	29
<u>Seitan</u>	3 <u>oz</u>	21
Lentils, cooked	1 cup	18
Beans, cooked	1 cup	15
Veggie burger	1 patty	13
Tofu, firm	4 <u>oz</u>	11
Quinoa, cooked	1 cup	8
<i>Peas, cooked</i>	1 cup	8
Text. Veg Protein (TVP)	1/2 cup	8
Peanut butter	2 <u>Tbsp</u>	8
Veggie dog	1 link	8
Spaghetti, cooked	1 cup	8
Soy milk, plain	1 cup	7
Whole wheat bread	2 slices	7
Soy yogurt, plain	8 <u>oz</u>	6
Bulgur, cooked	1 cup	6
Sunflower seeds	1/4 cup	6
Spinach, cooked	1 cup	5
Broccoli, cooked	1 cup	4



# Meatless Monday Resolutions



**Los Angeles**



**Oakland**



**Philadelphia**



**Aspen**



**South Miami**



**San Francisco**



**New York**



**Portland**



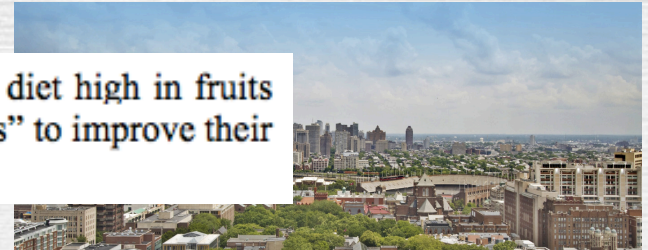
**San Jose**

# Meatless Monday Resolutions



NOW, THEREFORE, BE IT RESOLVED, that the Council of the City of Los Angeles hereby declares all Mondays as “Meatless Mondays” in support of comprehensive sustainability efforts as well as to further encourage residents to eat a more varied plant-based diet to protect their health, protect animals and protect the environment.

Proclaiming that the City of Philadelphia recognizes the benefits of a diet high in fruits and vegetables, and urges residents to participate in “Meatless Mondays” to improve their health and decrease their carbon footprint.



**Resolved,** The San Francisco Board of Supervisors hereby recognizes March 20, 2011 as “Great American Meat Out Day,” as a means of encouraging its citizens to eliminate meat for that day and to continue to observe Mondays as Veg Day, exploring a plant-based diet.

*Handwritten signatures and dates, including "MAY 20 2011".*

Resolved, That the Council of the City of New York recognizes "Meatless Monday" in New York City.



# Portland “Meatout Day” Resolution

March 20, 2015

CITY OF  
PORTLAND

## Whereas

*Whereas*, a wholesome plant-based diet promotes health and reduces the risk of heart disease, stroke, cancer, diabetes, and other chronic diseases that debilitate and kill more than 17,000 Oregonians annually; and

*Whereas*, such a diet protects our forests, grasslands and other wildlife habitats, and substantially reduces methane, nitrous oxide, and carbon dioxide emissions that produce global warming; and

*Whereas*, such a diet conserves water and reduces pollution of our waterways and oceans by crop debris, fertilizers and pesticides; and

*Whereas*, such a diet eliminates the inefficiency of converting plant-based foods into animal-based foods and helps preserve cultivable land, topsoil, water, energy, and other essential food production resources; and

*Whereas*, such a diet prevents the suffering and death of ten billion sentient animals each year in the US; and

*Whereas*, each year, dedicated Oregon Meatout volunteers encourage their neighbors to explore such a diet;

*Now, Therefore*, I, Charlie Hales, Mayor of the City of Portland, Oregon, the “City of Roses,” do hereby proclaim March 20, 2015 to be

*Meatout Day*

in Portland, and encourage all citizens to observe this day.

*Charlie Hales*



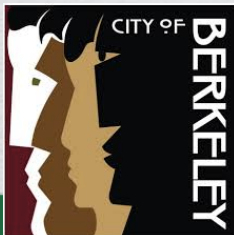
# Climate Action Plans Encouraging Reduced Meat Consumption



“Reducing meat consumption is critical for those who want to minimize their impact on the planet’s resources.”



“Reduce your impact by going meat free one day a week.”



“Through the City’s website and publications, make information available to the public to facilitate consideration of a less carbon-intensive diet, such as eating less meat and choosing vegetarian or vegan options instead.”

# Climate Action Plans Encouraging Reduced Meat Consumption



# Questions? Comments? Ideas?

## Resources:

Friends of the Earth: [www.goodfoodcampaign.org](http://www.goodfoodcampaign.org)

Meatless Mondays: [www.meatlessmonday.com](http://www.meatlessmonday.com)

Menus of Change: [www.menusofchange.org](http://www.menusofchange.org)

Friends of the Earth UK, [Eating Smart Action Pack](#):

## Eat Smart action pack

Tools and ideas for promoting  
healthy, greener diets

Contact info: [khamerschlag@foe.org](mailto:khamerschlag@foe.org)