THE PLANT BASED DIET

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The Plant Based Diet is An Eating Plan

Emphasizes plant sources for obtaining essential nutrients including fruits, vegetables, legumes, grains, seeds and nuts.

Plant Based Diet

- Rejecting the consumption of meats or other animal foods
- Generally prefers organically grown foods
- Diet can be high in carbohydrates and fiber
- Usually consume less fat

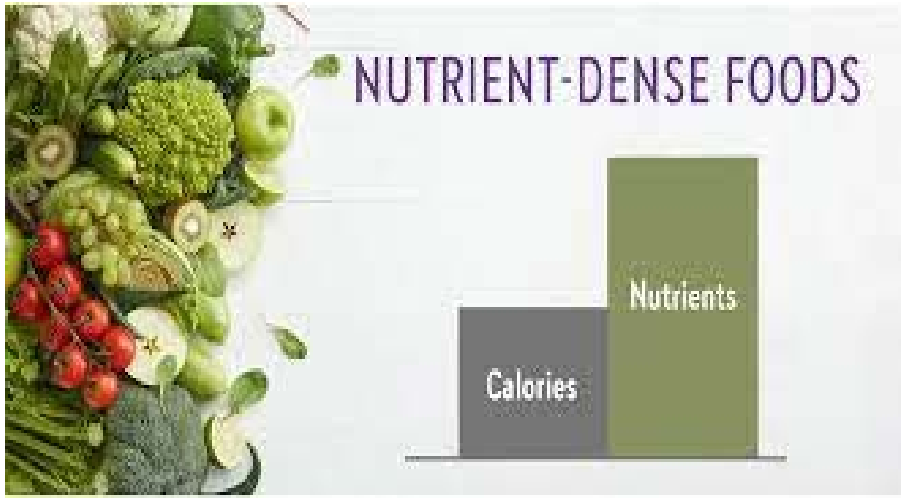
Vegan

- The Vegan Diet is also a way of life that rejects
  - Honey
  - Leather
  - Any bi-product of animals whatsoever

Dietary Change is a Potent Tool

- Greater emphasis on more Nutrient Dense foods

- Promotes sustainability
  - Seasonal growing patterns
  - Rotating crops
  - Carbon Sequestration



- Reduces some of the pressure on the land
  - Growing Plants vs. Animals
- Promotes consuming more locally sourced food
  - Good for Community
  - Less environmental impact

Top Ten Trends for 2023… and Beyond

- Demand for plant-based proteins up 36% since 2017

Plant Based Infiltration of Foodservice is primarily about Alternatives

Alternative Meat/ Meat Analogues

People don't love meat BECAUSE it comes from animals

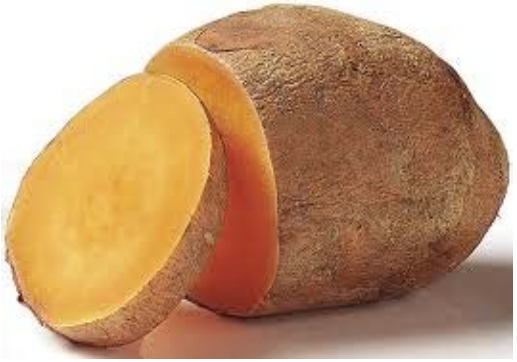
- They love it DESPITE the fact that it comes from animals
- But remember the first time you heard of the IMPOSSIBLE?
- What did you think?
- Does it SATIATE the same way that real meat does?
- How have Plant Based Meats infiltrated your operations?

Cost of Plant Based "Meats"

- Pea Protein Industry has exploded
  - Growing peas vs. traditional commodities such as soy and corn has less of an impact on the environment
    - Deforestation, Climate Change
  - But peas create an "off-taste" in Meat Analogues
    - Breeding peas to have less flavor but the same nutrition
      - Why not just grow peas to eat peas?

Plants

- Way more BIO-DIVERSE than the animal kingdom



Eating Seasonally/Locally Requires a Mindset Shift

Most Modern Americans weren't raised doing it

Seasonal

- Pertaining to or characteristic of certain times of the year
- Maintains more nutrients
- Encourages a more bio diverse diet because only what is available is what is eaten

Local

- Pertaining to a particular place within a radius of a few miles
- Assuming superior freshness, varieties, and care
- The value of local food is that it contributes to a sense of place

The Challenge of Complete Nutrition

Protein

- At least 9 essential Amino Acids are necessary for optimum health.
- There are 20 amino acids that plants can have in varying proportions
- Most Plants lack all 9 essential amino acids in the quantities needed

Vitamins and Minerals

- Iron
- Zinc
- Calcium
- B-12

Lower quantities than in animal Proteins

- Has the potential for nutritional deficiencies

Types of Protein

Incomplete Proteins: Lacking one or more of the essential amino acids needed by the body- Most Plant Sources

higher protein Plants/Fungi:

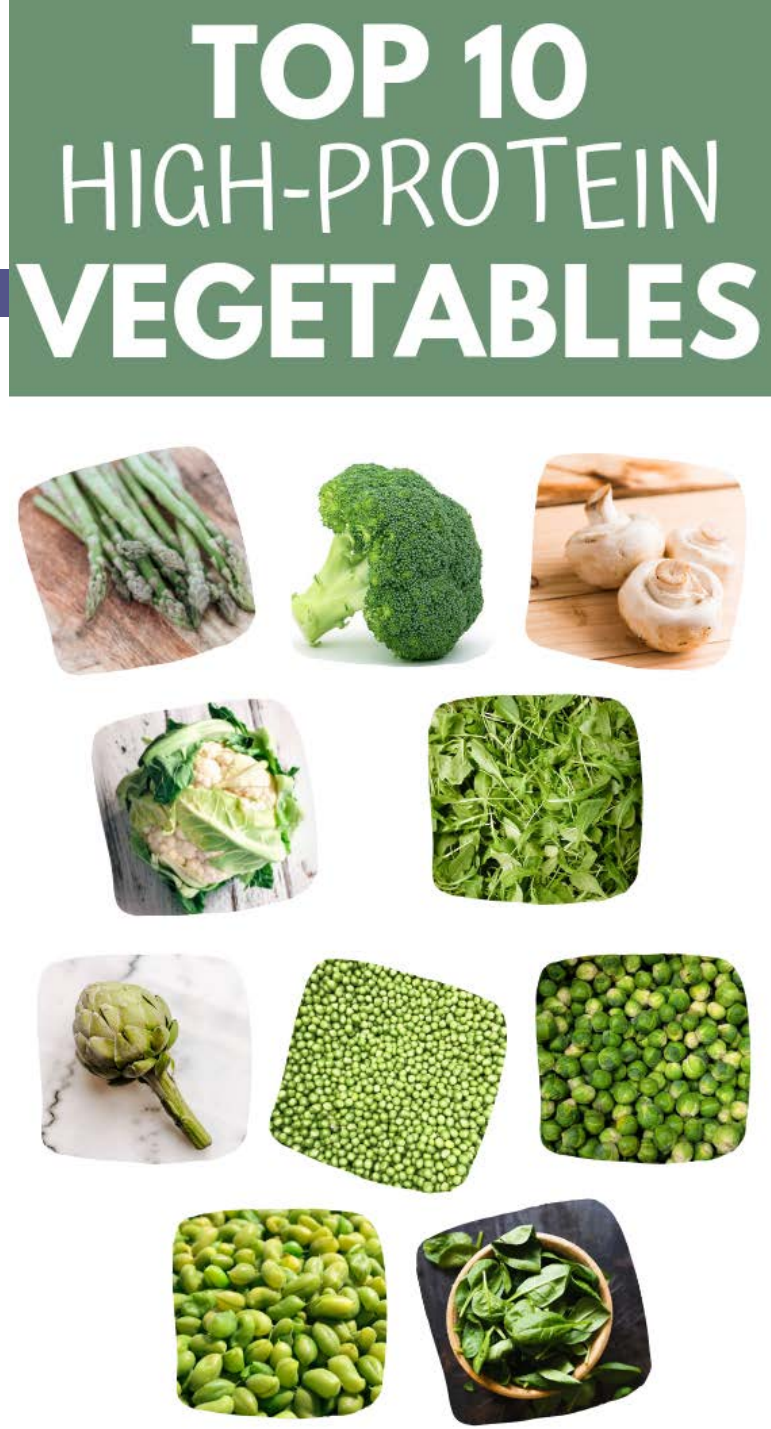
broccoli, spinach,
asparagus, artichokes, potatoes,
sweet potatoes, peas
Brussels sprouts, mushrooms

Complete Proteins: Contain the minimal (9)of the essential amino acids in the amounts needed by the body.

All Animal sources

Some Plant:

Quinoa, Soy, Amaranth



Complementary Proteins

Foods, that , when combined, provide all of the 9 essential amino acids, if not more

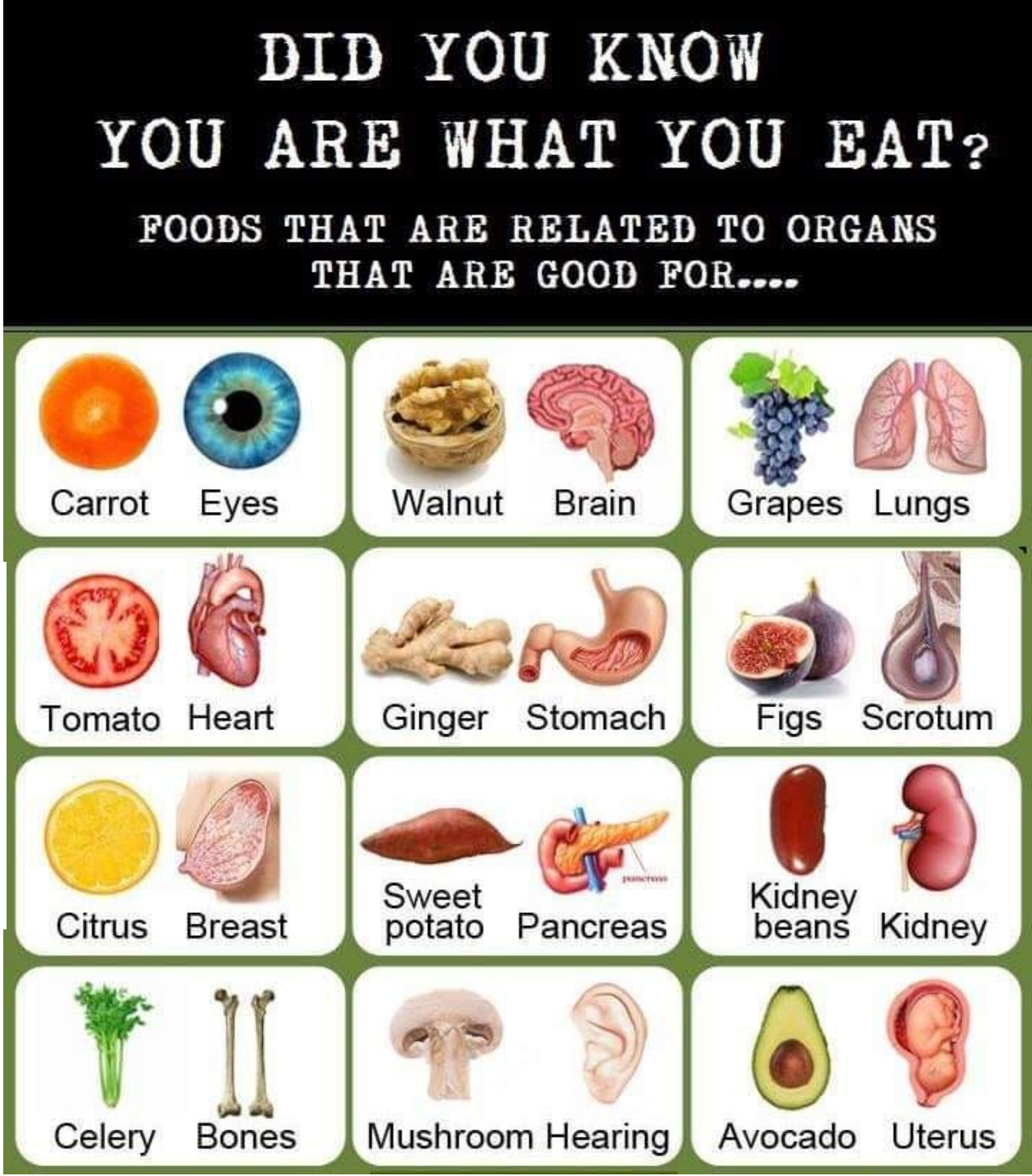
- Examples:
  - legumes and grains
    - Preferably WHOLE GRAIN
  - legumes and seeds
  - legumes and nuts

- They should be eaten within a 24 hour period but not necessarily at the same meal.

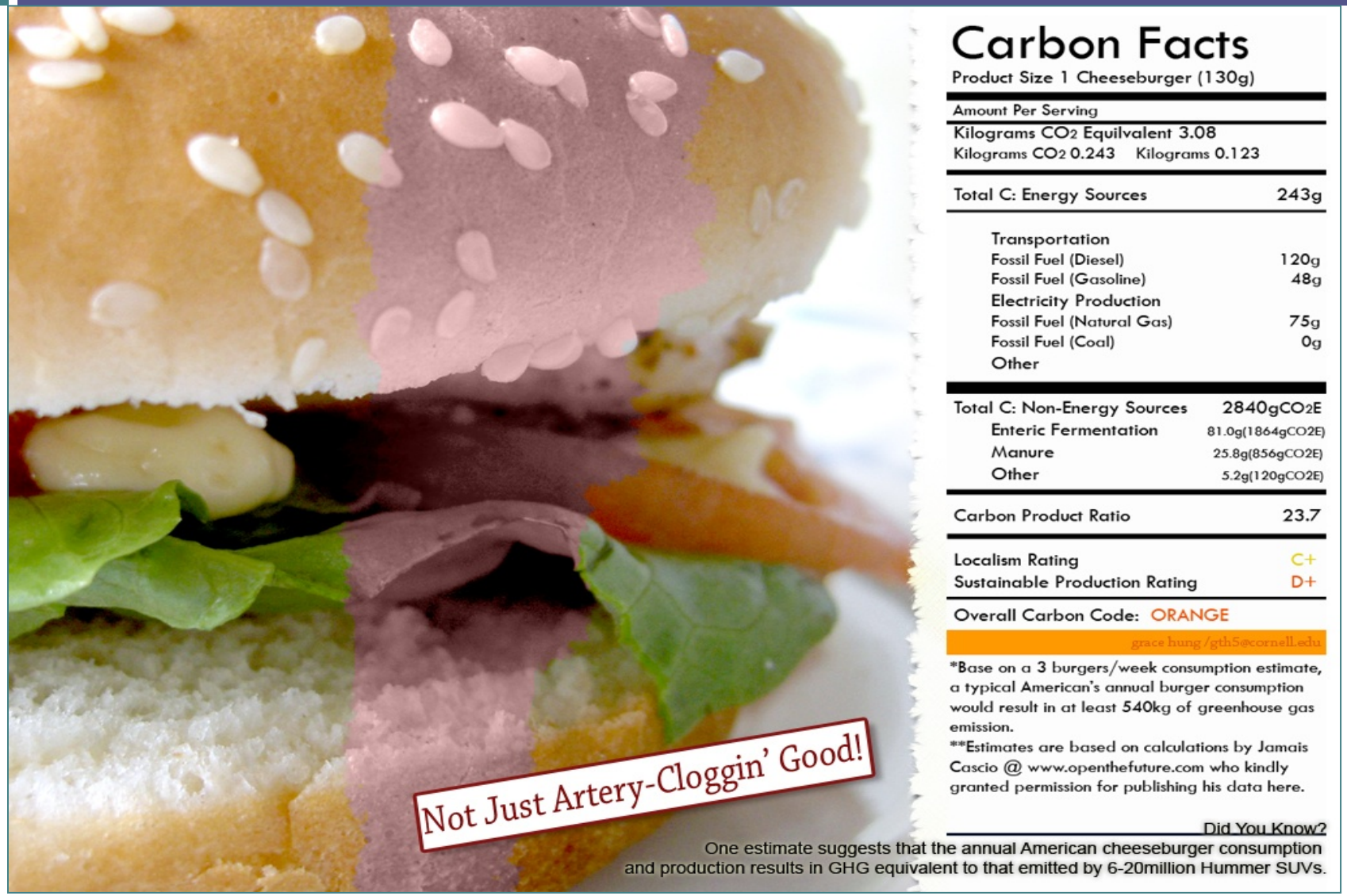
Blue Zone Diet

- Eat a diverse variety of garden vegetables when they are in season
- Pickle or dry the surplus to enjoy during the off-season
- The best-of-the-best longevity foods are leafy greens
- Whole grains and beans combined with Fruits and vegetables all year long
- 95-100% PLANT BASED!

The Doctrine of Signatures



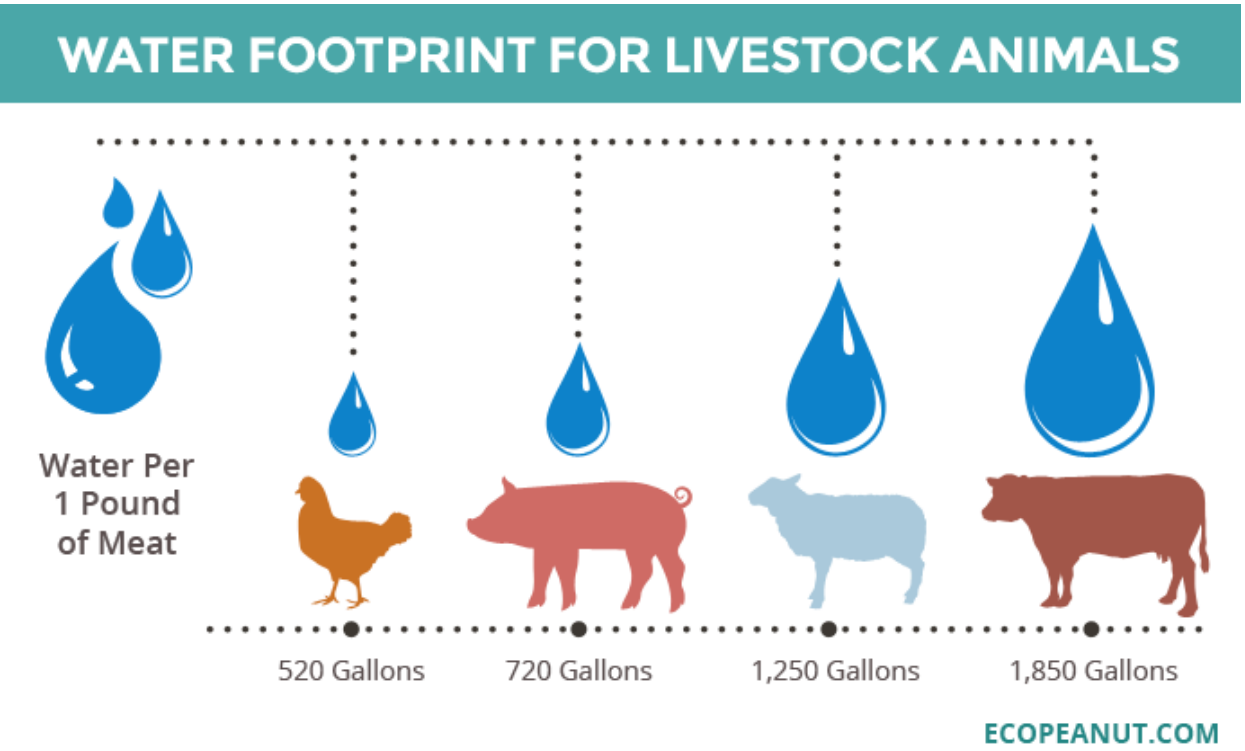
Carbon Footprint of a Cheeseburger



Food Production and it's Relationship to Fossil Fuel Use- FOOD MILES

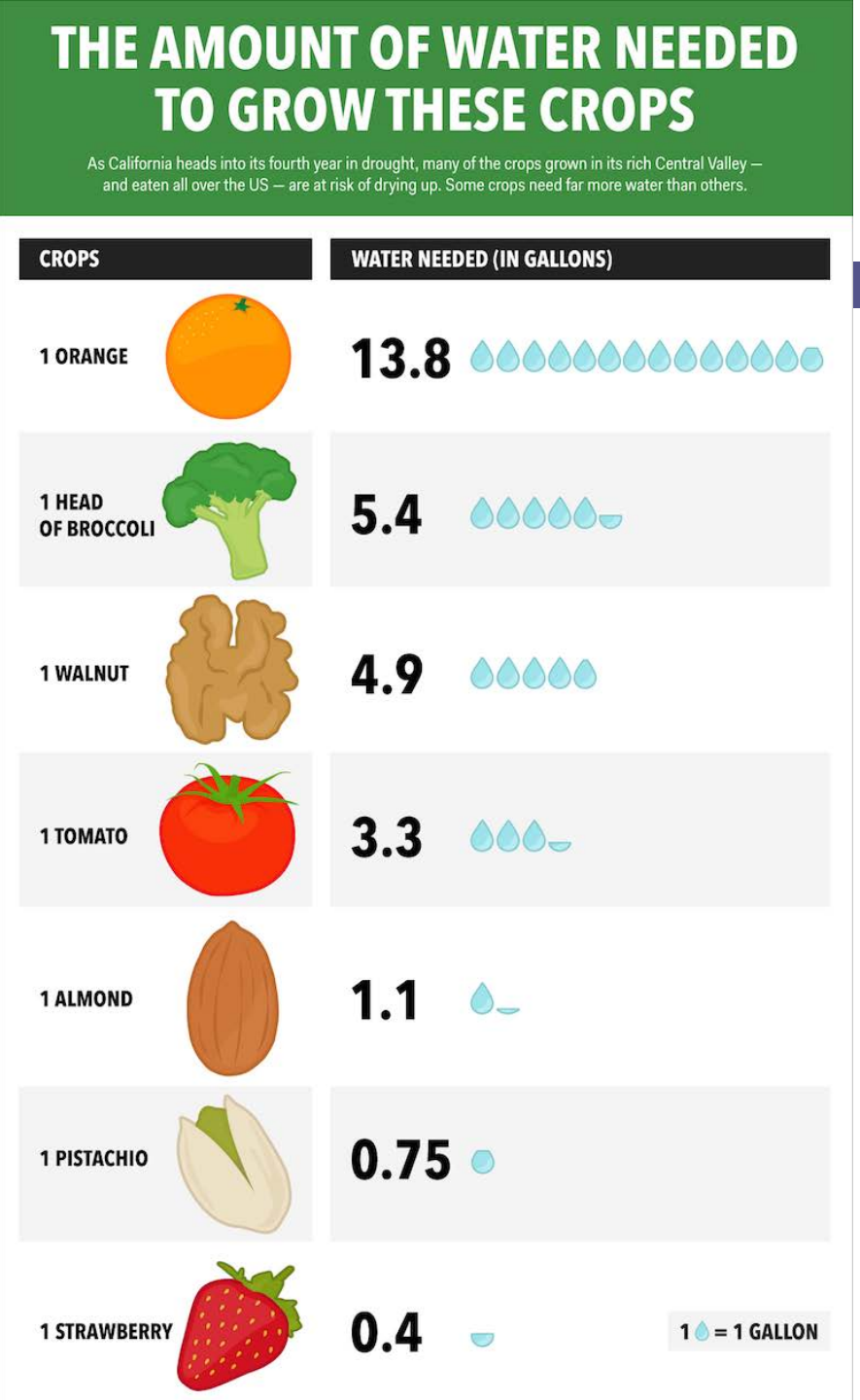
- Current cost for a gallon of unleaded gasoline is $5.00
- Average bite of American food travels approximately 1500 miles
- Bringing one cow to slaughter encompasses the use of approximately 75 gallons oil.
- It takes 10 calories of fossil fuel energy to produce 1 calorie of food
- We now produce ethanol from corn. The fertilizers and pesticides used on that corn are produced from natural gas. The tractors that work the fields utilize gas and oil.
- Trucks are used to transport the product to market run on oil and gas.
  - That is only 4% percent of food production's overall environmental impact
  - 83% of carbon emissions attributed to the production phase

Water Footprint of Animal Protein



- On average it takes about 108 gallons of water to produce one pound of corn.
- If that corn is then used as cattle feed, additional water is required for cleaning and processing.

Water Footprint of a Plant-Based Diet



- Plant based diet uses 50% less water than Animal Proteins
- Vegetables and fruits use between 35-120 gallons per pound of plant food produced
- More easily compostable
- Faster Farm to Table timeline
- Feeling Better physically, emotionally, and morally

- But some vegetables that "seem" healthy for us are not healthy for the earth necessarily
  - Water usage, Monocropping, Pesticides, Labor……

Hydroponics and Vertical Farms

A solution to decreased land availability

- No Weeds means <u>no pesticides</u>
- Brings harvest to market faster
- Water conservation
  - reusing it multiple times
- Precision in
  - Appearance, Texture, Growing cycle

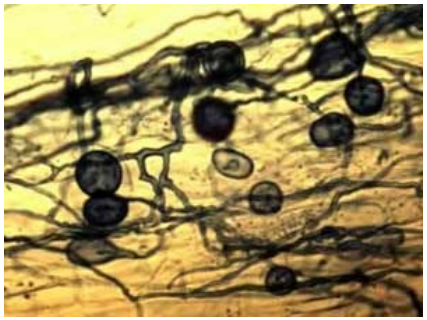
This means you can have produce YEAR ROUND
But do you want strawberries in winter?

But without soil and actual sunlight many do not prefer the taste!

Farm Raised Fish

- In the next decade, the majority of fish eaten will be farm-raised.

Mushrooms and Mycelium



- Mushrooms are the fruit body of Mycelium
- Mushrooms are Medicine, Food, and Ecological Warriors
- Higher in Protein than many plants and good source of UMAMI

Michael Pollan's 'Food Rules"

- It is not just what you eat but how you eat. "Always leave the table a little hungry".
- Enjoy meals with the people you love.
- Don't buy food where you buy your gasoline. In the U.S., 20% of food is eaten in the car. Don't eat anything your great grandmother wouldn't recognize as food
- Don't eat anything with more than five ingredients, or ingredients you can't pronounce.
- Stay out of the middle of the supermarket; shop on the perimeter of the store.
- Don't eat anything that won't eventually rot.

Slow Food

Promotes Foods that are:

Good
Clean
Fair
Sustainable

Cooking Plants- “Root to Stem”

We can eat all parts of the plant

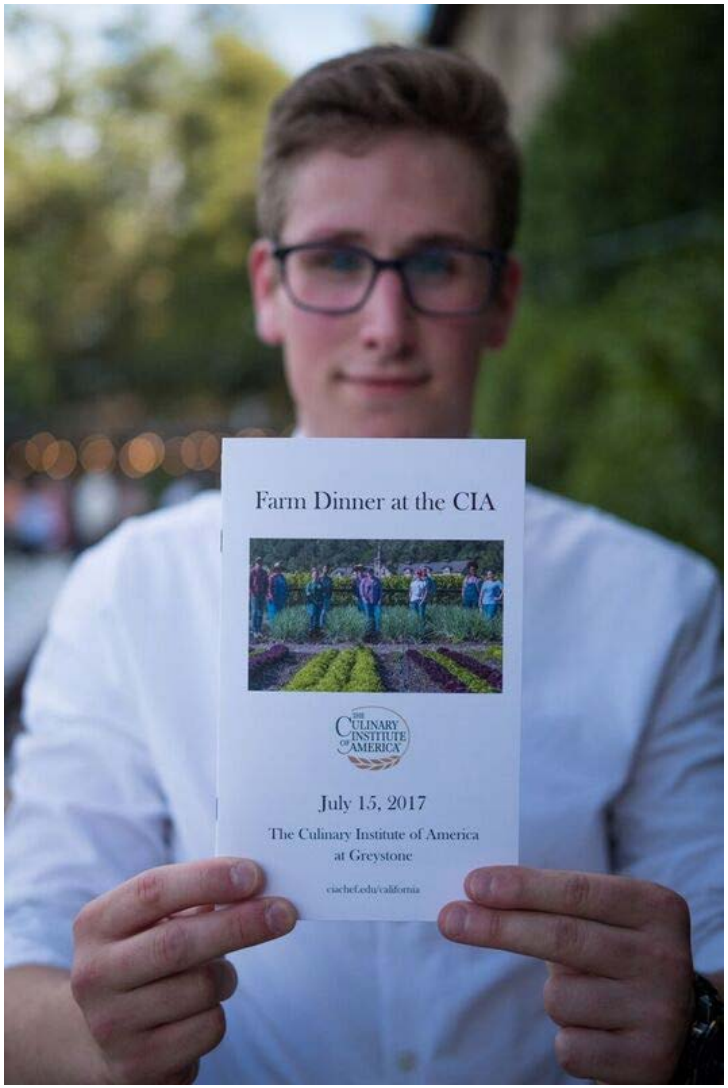
- Roots
- Stems
- Leaves
- Flowers
- Seeds
- Fruits

Techniques to Create Plant Based Appeal

Cooking Methods

- Charring
- Fermenting
- Smoking
- Pickling
- Dehydrating

Know Your Food
Support Your Community



THANK YOU