



Culinary Institute
of America

Plant-Forward Cooking



Day One Lecture: Plant-Forward Cooking

- What is Plant-Forward Cooking?
- Why Plant-Forward?
- Principles of Healthy, Sustainable Cooking
- Kitchen Production
- Lunch/Menu Critique/Review



PLANT-FORWARD COOKING

-  A style of cooking and eating that emphasizes and celebrates, but is not limited to, plant-based foods—including fruits and vegetables (produce); whole grains; beans, other legumes (pulses) and soy foods; nuts and seeds; plant oils; and herbs and spices—and that reflects evidence-based principles of health and sustainability.



Plant-forward cooking and eating does not exclude animal products like meat, eggs, or milk, but rather it utilizes them in a more thoughtful manner.



Healthy, sustainable, plant-forward food choices are those that:

1. Feature minimally processed, slow-metabolizing plant-based foods.

- Fruits and vegetables
- Whole grains
- Nuts
- Beans and legumes

Slow-metabolizing foods make you feel satiated longer.

2. Place animal-based foods in a reduced or optional role.

- Decrease purchasing of red meat.
- Minimize foods sourced from animals raised with routine antibiotics.

Healthy, sustainable, plant-forward food choices are those that:

3. Might include vegetarian and vegan choices.

- All vegetarian and vegan diets are plant-based.
- Not all plant-based diets are vegetarian or vegan.

4. Highlight the value of fresh, seasonal, locally produced foods.

5. Emphasize healthy dietary patterns.

Avoid excess quantities of calories but first ensure **calorie quality**.

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- Sugary beverages
 - Added sugars and sweeteners
 - Sodium
 - Unhealthy additives

Healthy, sustainable, plant-forward food choices are those that:

- 6. Celebrate cultural diversity, personal preferences, and deliciousness.**
- 7. Begin with transparent ingredient sourcing that supports sustainable farms and fisheries.**

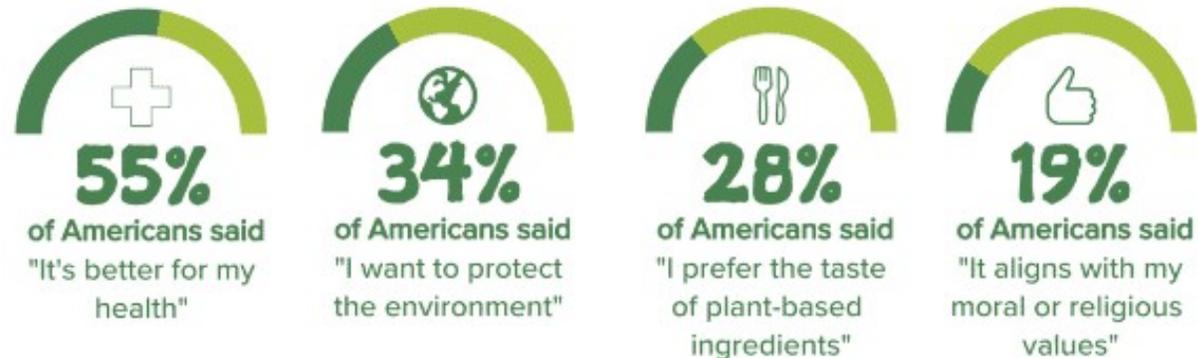
Know and trust your supplier. You can be confident the product you purchase meets your sustainability requirements.



Top Ten Trends for 2023... and Beyond

Demand for plant-based proteins up 36% since 2017

What motivates Americans to eat plant-based foods?



56%

of Americans want shortcuts to plant-based meals



Complementary Proteins

Foods, that , when combined, provide all 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.



PROTEIN

- Protein plays a critical role in our biological functions.
- The average adult male consumes 75% more protein than is recommended (women: 50% more).
 - RDA is 0.8 grams per kg of body weight
- Plant-based foods are important sources of protein.

PROTEIN



Instead of using the word **protein** as a synonym for *meat*, consider alternate sources of protein, like:

Beans – Peas – Legumes – Whole Grains – Vegetables – Fruits



WE LARGELY MISS OUT ON A WHOLE WORLD OF PLANT PROTEINS



- ❑ Though plant-forward cooking strives to move nuts and legumes to the center of the plate, there is a place for animal-protein.
- ❑ Red meat— beef, pork, and lamb—can be enjoyed occasionally and in small amounts.
- ❑ Current guidance from nutrition research recommends consuming a maximum of two 3-ounce servings of red meat per week.





- Antibiotic-free chicken and other poultry in moderation is a good choice for healthier protein with a far lower environmental footprint than red meat.
- Eggs in moderation—an average of one per day—can be part of a healthy diet for most people.

SEAFOOD

- ❑ Seafood is a nutritious and environmentally efficient protein.
- ❑ Current dietary recommendations are that we should eat two 4-ounce servings of seafood per week.
- ❑ One of the greatest nutritional benefits of eating seafood is the high levels of long-chain omega-3 fatty acids-- nutrients that are healthy for both the heart and the brain.
- ❑ There are many nutritious plants (seaweeds and algae) and filter feeders (oysters, mussels, and clams) that rank high from a sustainability standpoint.

PORTIONS AND PLATING

- For many Americans, the animal-based protein is the center of the plate, with smaller portions of vegetable- or starch-based side dishes.
- Make vegetables, beans, and legumes the focus of your plate, with any animal-based protein as a small portion or garnish.
- A good basic guideline is to divide a plate in half. One half should be composed of fruits and vegetables. The other half should be composed of a portion of lean protein and a healthy starch, such as whole grains.

PORTIONS AND PLATING



Typical restaurant portion: steak with mushroom sauce, baked potato with sour cream and chives, and broccoli rabe.



USDA recommended portion: steak with mushroom sauce, baked potato with sour cream and chives, and broccoli rabe.



Portion with healthy alterations made: filet mignon steaks with black trumpet mushroom coulis, grilled sweet potatoes, and broccoli rabe.

PORTIONS AND PLATING



Typical restaurant portion: poached salmon with hollandaise, rice, and squash noodles.



USDA recommended portion: poached salmon with hollandaise, rice, and squash noodles.



Portion with healthy alterations made: poached salmon with yellow pepper coulis, brown rice, and squash noodles.

TRANSFORMING COMFORT FOODS

- Plant-forward food choices celebrate the unapologetic elevation of deliciousness, including room in our diets for foods of special occasions.
- Any recipe can be transformed to meet the tenets of plant-forward cooking.



Foodnetwork.ca

Cooking Plants- "Root to Stem"

We can eat all parts of the plant

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



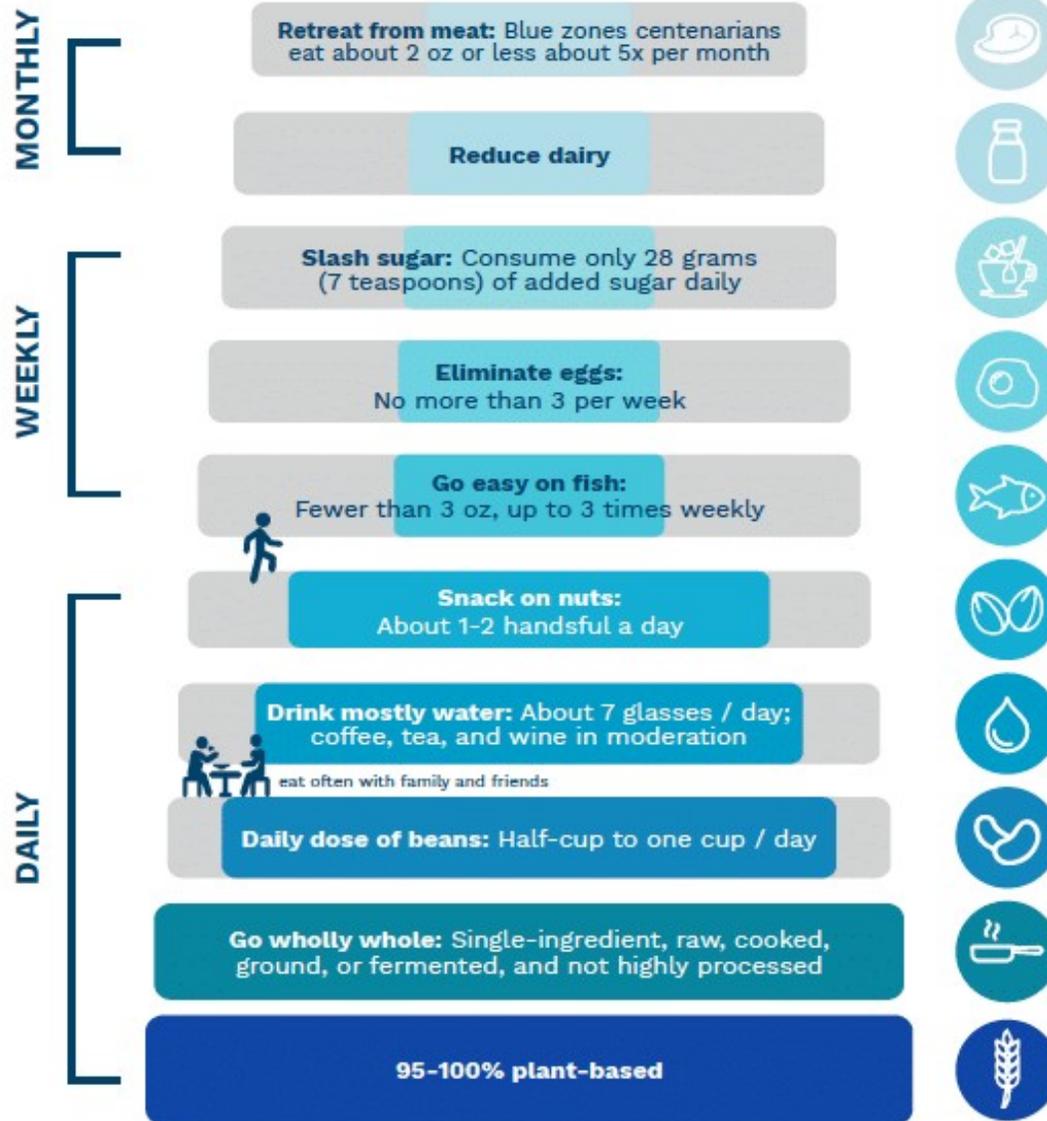
Techniques to Create Plant-Based Appeal

Cooking Methods

- ❑ Charring
- ❑ Fermenting
- ❑ Smoking
- ❑ Pickling
- ❑ Dehydrating



FOOD GUIDELINES

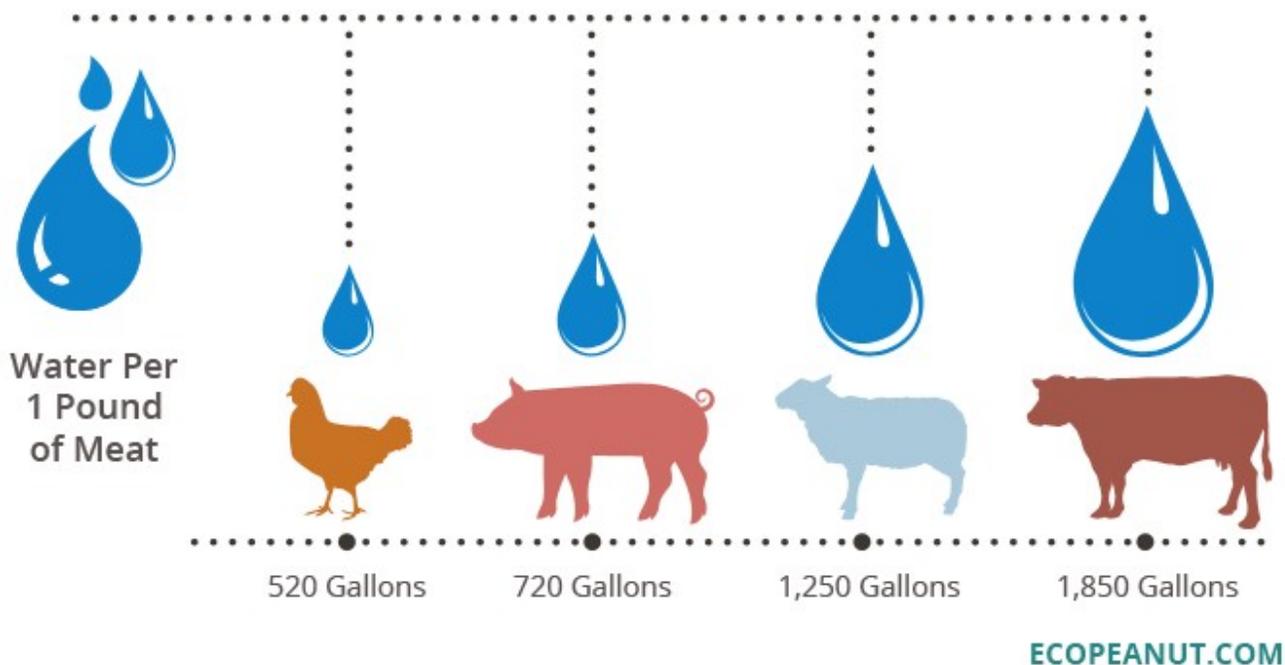


Blue Zone Diet

- 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!

Water Footprint of Animal Protein

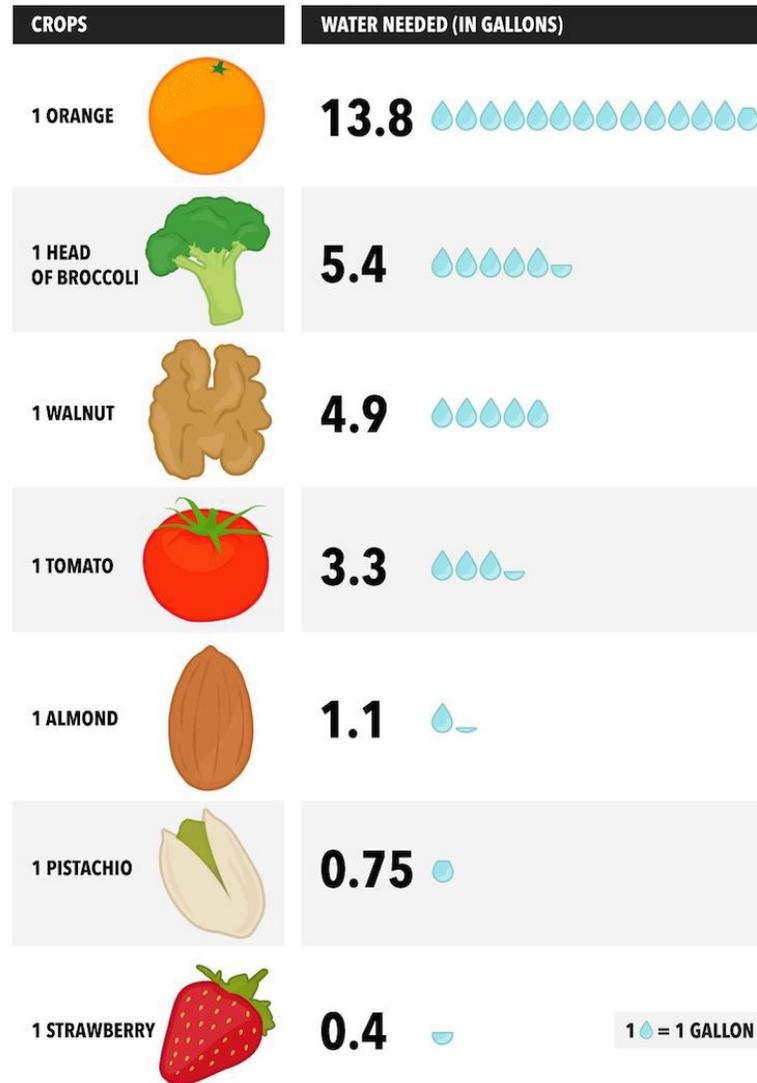
WATER FOOTPRINT FOR LIVESTOCK ANIMALS



- 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.

THE AMOUNT OF WATER NEEDED TO GROW THESE CROPS

As California heads into its fourth year in drought, many of the crops grown in its rich Central Valley – and eaten all over the US – are at risk of drying up. Some crops need far more water than others.



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.....

Current Trends in Plant Forward

- Alternate Proteins, Garden Burgers by Morningstar Farms, Impossible Burgers, New School Foods makes plant-based Salmon Beyond Burger and many others out there now.
- Morningstar Farms was one of the originals and was developed for SDA followers. Loma Linda has for many years promoted the consumption of nuts as a part of the American diet.
- Large-format vegetables or whole vegetables, such as whole roast cauliflower, Whole Celery Root, and Whole Pumpkins, Watermelons, etc. Cooked and carved at the table.
- More menus blend in ethnic and other types of food items and create a “fusion” of flavors to enhance vegetable dishes.



Analogue vs Whole Foods

- Analogue – A food product made by combining a less expensive food, such as mushrooms, soybeans or a white fish, with additives to give the appearance of a more expensive food. For example, Imitation Crab is made from Pollock, Impossible meats with pea protein as the myoglobin or blood component. These are ultra-processed foods!
- Categories of Processed Foods
 - Unprocessed or minimally processed foods, A Banana or a whole head of lettuce
 - Processed culinary ingredients, Olive Oil, Butter...
 - Processed foods, Frozen meatballs..."Refined" flours, bran removed with vitamins added back to the ingredient
 - Ultra Ultra-processed foods, significantly changed from the original item. Seed oils, Hot Dogs, Pringles!
 - What are some others that would be in these categories?

Economics of Plant Forward

- Using vegetables and meat alternatives isn't necessarily cheaper than using animal proteins. They can cost as much as some animal proteins. Impossible meats are approximately the same base cost as beef, and some mushrooms are the same price per pound as some steak cuts.
- Organic vegetables tend to be more costly than non-organic but the difference is that they are more nutritive in most cases and thus you don't need to consume as much which balances the cost.
- The overall cost of not consuming animal protein is a savings in the collateral costs when you consider the water usage and the time it takes to grow animal proteins versus alternatives.



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Any Questions?

More to come after the Market Basket

Please share your feedback!

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