# A PERFECT PAIR

# Plant and Animal Foods in Sustainable Healthy Diets

Comerford KB, Miller GD, Reinhardt Kapsak W, Brown KA. The Complementary Roles for Plant-Source and Animal-Source Foods in Sustainable Healthy Diets. *Nutrients*. 2021; 13(10):3469.



Despite originating from two separate biological kingdoms, animal- and plant-source foods offer an overlapping supply of essential nutrients that can support our health and contribute to more secure and resilient food systems.<sup>1</sup>

#### BACKGROUND AND SUMMARY



### **Evolving dietary guidance**

Over the last 30 years, dietary guidelines around the world have shifted from a nutrient-based approach to a food-based approach.<sup>2</sup> While each country's guidance is unique, most recommend a variety of nutrient-rich foods from both plant and animal sources; particularly fruits, vegetables and dairy foods.<sup>1,2</sup> More recently, many countries have recognized the need to shift to more sustainable food systems and have implemented sustainability principles into their dietary guidance.<sup>1,2</sup>



# Synergy between plant and animal foods

Plant and animal agriculture play a complementary role in supporting healthy diets and sustainable food systems. When combined, both sources of food provide an overlapping array of micronutrients, fiber and bioactive compounds that benefit human health. Furthermore, both dietary diversity and redundancy support the sustainability of ecological systems.

#### KEY TAKEAWAYS

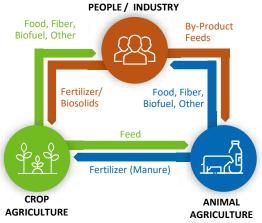


## Beyond nutrients: bioactive compounds and the food matrix

- Plant foods offer phytosterols and polyphenols that can have antiinflammatory and antioxidant properties.
- Certain dairy foods can offer immunoglobulins (antibodies), probiotics, and unique fatty acids that can have anti-inflammatory and immune-supporting effects.
- The food matrix, or structural web of food compounds, influences how we digest and absorb nutrients. Combining different food groups, like plant and animal foods, can help optimize these benefits.



Symbiotic agriculture: supporting sustainable food systems





Beyond nutrition: a varied diet supports multiple sustainability domains<sup>3-5</sup>



#### **Human health:**

promoting the wellbeing of communities and societies



**Environment**: preserving our natural resources



**Social**: protecting cultural traditions and food justice



**Economic**: supporting jobs, local markets, and innovation



# **Plant and Animal foods Complement Each Other**



Animal sourced foods tend to be higher in protein, branch chain amino acids, iodine, iron, zinc, vitamin B12 and choline.



Plant sourced foods tend to be higher in carbohydrates, fiber, vitamin A, vitamin C and other antioxidants.



Dairy foods can enhance plant-packed plates by adding nutrients, as well as satisfying flavor and texture.



No single food group can contribute adequate amounts or ideal ratios of the nutrients essential to human health, so pair plants with dairy foods for a superfood power couple.



Together, plant and animal-sourced foods contain the macronutrients (protein, carbohydrates and fats) and micronutrients (vitamins and minerals) we need. They're the true power couple.



Optional: Berries of choice, cinnamon, seeds or nuts

# **Kefir Overnight Oats** with nuts and berries

Reset yourself and show your gut some love when you start your day with this satisfying kefir dish

**POWER COUPLE** 



#### **Complementary nutrients:**

**Kefir**: protein, calcium, probiotics Oats: fiber, B vitamins, prebiotics



### **Optional:** Roasted tomatoes, peppers, onions, zucchini

# **Grilled Halloumi Cheese Skewers with Veggies** A natural source of protein,

these flavorful skewers will energize your day

**POWER COUPLE** 





#### **Complementary nutrients:**

Halloumi: calcium, protein Veggies: vitamin C, antioxidants



**Optional:** Olive oil, olives, spices, cucumbers

# Labneh and Whole Grain Pita with cucumbers, tomatoes and radishes

A tangy and creamy Middle Eastern appetizer

**POWER COUPLE** 



#### **Complementary nutrients:**

Labneh: protein, calcium, probiotics Whole grain pita: fiber, B vitamins



**Optional**: cocoa powder, ice

#### Latte made with Milk

A classic foamy drink to unwind or revive

**POWER COUPLE** 





Milk: B12, iodine, calcium, protein, vitamin D

Coffee: antioxidants

- 1. Comerford KB, Miller GD, Reinhardt Kapsak W, Brown KA. The Complementary Roles for Plant-Source and Animal-Source Foods in Sustainable Healthy Diets. Nutrients. 2021; 13(10):3469. https://doi.org/10.3390/nu13103469
- 2. Comerford KB, Miller GD, Boileau AC, Masiello Schuette SN, Giddens JC, Brown KA. Global Review of Dairy Recommendations in Food-Based Dietary Guidelines. Front Nutr. 2021; 8:671999. https://doi.org/10.3389/fnut.2021.671999
- 3. Food and Agriculture Organization of the United Nations and World Health Organization. Sustainable Healthy Diets: Guiding Principles. Rome, Italy. 2019. Available online: https://www.fao.org/3/ca6640en/ca6640en.pdf
- Comerford, Kevin; Arndt, Channing; Drewnowski, Adam; Ericksen, Polly; Griffin, Timothy; Hendrickson, Mary; Ingram, John; and Nicholls, Jill. Proceedings of a workshop on characterizing and defining the social and economic domains of sustainable diets. Sustainability. 2020; 12(10): 4163.
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