

# Sustainable Nutrition 101

## The Canadian Context For Dietitians

Interest in sustainable, or planet-friendly, eating is increasing. Regardless of your level of expertise, using an evidence-based approach and your specialized food and nutrition knowledge and skills, you can provide healthy living advice that incorporates sustainability concepts for your clients and communities.

### FIVE THINGS WE KNOW

#### 1. NUTRITION IS A KEY FACTOR IN SUSTAINABLE, HEALTHY DIETS.

The Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) define sustainable diets as those that promote health and well-being, and prevent all forms of malnutrition, including micronutrient deficiency, while considering the environmental impact, cultural acceptability, accessibility, and affordability.<sup>1</sup>

According to the FAO and WHO, “Sustainable, healthy diets must combine all the dimensions of sustainability to avoid unintended consequences.”<sup>1</sup> To learn more about the FAO and WHO holistic approach to sustainable diets, read [Sustainable Healthy Diets: Guiding Principles](#).

You know, as a dietitian, that healthy, sustainable diets include a variety of nutritious foods. A recent Canadian study demonstrated that balancing plant- with animal-based protein foods leads to healthier dietary patterns compared to a diet based mostly on either protein.<sup>2</sup> The benefits of plant-based foods in a healthy diet are well-recognized, but animal-based foods also provide important nutrients. According to the FAO, animal-source foods provide high-quality protein and other nutrients, making vital contributions toward meeting nutrient intakes and improving health outcomes across life stages and around the world.<sup>3</sup>

#### 2. FOOD WASTE IMPACTS THE ENVIRONMENT.

Minimizing household food waste is one of the most important ways we can reduce food-related environmental impacts; unused food wastes resources used to grow, process, and distribute food.<sup>4,5</sup> In addition, food waste in landfills is a key source of methane, a greenhouse gas linked to climate change.<sup>6</sup>

Each year in Canada, we waste 2.2 million tonnes of edible food. The top wasted foods by weight are vegetables at 30%, followed by fruit at 15% and leftovers at 13%.<sup>5</sup>

#### 3. THE LOCAL CONTEXT CAN MATTER.

The Canadian context is important; what we grow, produce, transport, and consume, and how our choices and food systems impact our environment, may be different than elsewhere. Prioritizing Canadian-grown and Canadian-produced wholesome foods, as well as locally produced and in-season foods, when possible, can be an important practice in sustainability.<sup>7</sup>

Some Canadian perspective:

- Canada’s total agricultural greenhouse gas (GHG) emissions (not factoring in carbon sequestration, or removal, by agricultural soils) accounts for 10% of our total GHG emissions. Nitrous oxide, from nitrogen added to the soil as fertilizers and other inputs, accounts for half the warming effect from agricultural emissions.<sup>8</sup>

- Canadian dairy farming accounts for around 1% of our country’s total GHG emissions resulting in one of the lowest carbon footprints per litre of milk produced in the world.<sup>9</sup> Canadian milk found in retail stores of major cities across the country typically comes from farms within 200 km, resulting in minimal environmental impact from transportation.

- In Canada, about 30% of our food commodities are imported, half of which are transported by trucks, often over great distances. As a vast country, transporting food within Canada can also involve significant energy inputs and related greenhouse gas emissions.<sup>10</sup> Depending on factors such as the type of food, the distance travelled, and the mode of transportation chosen, food miles related emissions can be a relatively small or a very significant part of a food’s carbon footprint.<sup>10</sup> In particular, imported fruits and vegetables make up about 25% of Canada’s food mile emissions.<sup>10</sup> And based on global world estimates, their food mile emissions can be almost twice the amount of greenhouse gases released during their production.<sup>11</sup>

Food mile emissions account for 19% of total world food-systems emissions and are 3.5-7.5 times higher than previously estimated.<sup>11</sup> A better understanding of the impacts of food miles is needed to inform environmental policy as “analysis of food miles highlights a part of any nation’s carbon footprint that is generally not taken into account in current formal GHG accounting frameworks.”<sup>10</sup>



“I’m committed to client-centred care that helps improve the well-being of my clients and the health of our planet. For example, I share ways to alleviate stress in the kitchen through careful meal planning and repurposing leftovers. Not only does this lighten the mental and financial burden for my clients, but it also reduces food waste to help lessen their environmental impact.”

- Miranda Galati, HHSc, Registered Dietitian

“Helping my clients and communities develop nourishing eating habits that are also sustainable is an important aspect of my work. I enjoy sharing ways that they can support their environments too, like shopping (and eating) intentionally, and purchasing local, Canadian-produced food.”

- Hannah Magee, Registered Dietitian



## IN YOUR PRACTICE

Sustainability is complex, but your advice doesn't have to be. Here are some simple strategies you can use to help clients adopt sustainable nutrition practices.

### CHOOSE WORDS WISELY.

Words matter! When you talk about sustainable eating, ask your clients what they understand this to mean. For example, as dietitians, we may use the term “plant-based” when we talk about enjoying plant foods such as vegetables, whole grains or legumes more often; but, according to recent consumer research, when Canadians hear the term “plant-based diet,” nearly 50% believe that means eating only plant foods (i.e., vegan).<sup>16</sup>

### FOCUS ON FOOD WASTE.

Offer practical ways to avoid food waste: plan meals and shop at home first, buy just what you need, store food properly and freeze extras. With budget being top of mind for many Canadians, make your tips even more relevant by linking reduced food waste to money saved. The average Canadian household wastes about 140 kg of food per year, which adds up to over \$1,300 per year!<sup>15</sup>

### TAKE A POSITIVE APPROACH.

Encourage clients to add in nutrient-rich foods rather than focusing on cutting out food choices. Share easy, economical, and culturally inclusive meal and snack ideas that include nutrient-rich, minimally processed ingredients. Provide personalized advice that considers mindful eating habits and foods in portions that satisfy both hunger and nutrient needs.

### CONSIDER LOCAL FOODS.

Share recipes and shopping tips that include, as much as possible, foods grown and produced in Canada. Provide suggestions for choosing sustainable alternatives when local or in-season options aren't available, such as locally grown canned or frozen vegetables.

## 4. REDUCING HIGHLY PROCESSED NUTRIENT-POOR FOODS IS GOOD FOR HEALTH AND GOOD FOR THE PLANET.

Limiting consumption of highly processed foods can reduce environmental footprints thanks to fewer inputs required for processing.<sup>12</sup> Eating more nutrient-rich foods and relying less on highly processed, nutrient-poor foods can improve overall diet quality.<sup>13</sup>

Based on Health Canada's latest Canadian Community Health Survey (CCHS 2015) data, Canadians have inadequate intakes of several micronutrients, including vitamin A, vitamin D, vitamin C, zinc, iron, potassium, magnesium, and calcium.<sup>14</sup> The prevalence of an inadequate intake was higher for several nutrients compared to 2004 CCHS data, including vitamin C (29% in 2015 compared to 10% in 2004) and calcium (68% in 2015 compared to 58% in 2004).<sup>14,15</sup>

## 5. ADEQUATE – NOT EXCESS – INTAKE IS SUSTAINABLE.

One of the guiding principles of sustainable healthy diets stated by the FAO and WHO is that adequate, but not excess, energy and nutrients are needed to support health across life stages.<sup>1</sup> Mindful food purchasing and eating to satisfy hunger and health promote nutritious eating patterns while using fewer agricultural resources, such as land and water.<sup>1</sup>

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