

News

Sustainable Living: Eating lower on the food ladder

Picture in your mind the food ladder. Starting at the bottom rung, we have the most abundant and free source of energy on the planet; solar, which is consumed by plants (next rung) to make plant energy, which is consumed by animals (next rung) to make protein, which is consumed by man. Except in a few rare cases — involving bears, lions, sharks, wild dingoes or cannibals — the food ladder ends with us humans.

Each rung on the ladder represents about a 90 percent loss of resources; in other words, it takes 9 calories of resources to produce 1 calorie of food (according to Michael Pollan in "The Omnivore's Dilemma"). Plants waste 90 percent of the sun growing things the animals won't eat, like stalks or roots. The animals waste 90 percent of the plant energy by growing things like feathers, fur and bones that we won't eat. You get the picture.

When we eat lower on the food ladder, we save more resources, as well as that animal. Let's look at this in terms of dinner. To produce a pound of wheat, it takes about 25 gallons of water, a lot of sun and less than an acre of land. Yet it takes 16 pounds of wheat and soy, along with 2,500 gallons of water, to make one tiny pound of beef. More than half our farmland and half our water consumption is currently tied up by the meat industry.

A 10-acre farm could feed 60 people eating soybeans, or 24 people eating wheat, or 10 people eating corn, but only two beef eaters, according to the British group Vegfam. Americans eat most of our grain in the form of meat; 90 percent, actually, which translates into 2,000 pounds of grain a year. "Imagine sitting down to an eight-ounce steak dinner," author Frances Moore Lappé writes in "Diet for a Small Planet," and "then imagine the room filled with 45 to 50 people with empty bowls in front of them. For the 'feed cost' of your steak, each of their bowls could be filled with a full cup of cooked cereal grains."

We Americans don't often encounter the unappetizing effects of eating 260 pounds of meat per person, per year, according to USDA estimates. We waste 90 percent of the carbs, fiber and plant protein by cycling grain through animals for meat. Harvard nutritionist Jean Mayer estimates that reducing meat consumption by just 10 percent in the United States would free enough grain to feed 60 million people. It's difficult to make that connection when you are standing by the grill waiting for your hamburger. But consider this: Replacing meat for two or three main meals a week also will greatly reduce your risk of heart disease, high blood pressure and cancer.

I like a good hamburger now and then, but only if it comes from a local, pasture-raised cow. Our American palates have grown accustomed to the fatty and bland "marbled" beef that comes from feeding a confined cow an unnatural diet based on corn and antibiotics.

Cows are ruminants, naturally designed to nibble grasses in open pastures. Meat from pasture-raised cows is lower in fat, calories and cholesterol than its confined counterpart. That is why hunting cultures whose diets are primarily meat-based suffer less heart disease, obesity and hypertension than we do, even though we eat the same amounts of meat.

Raising livestock as nature intended is far more labor-intensive and currently unsubsidized in our culture. Therefore, when we buy pasture-raised meat, we are paying the whole cost of the meat, including the environmental costs. Because the meat is more expensive, we tend to eat less and waste less. To me, it is a small price to pay in exchange for the knowledge that our environment wasn't polluted just for my hamburger.

Shawn Dell Joyce is a sustainable artist and founder of the Wallkill River School. The WRS is working with Orange County Tourism and the Orange County Agriculture and Farmland Protection Board to create "Orange County Bounty" cookbook. Post your favorite local foods at www.recordonline.com/earth or visit www.wallkillriverschool.com.

ENVIRONMENTAL COSTS OF EATING MEAT

- "Ranching-induced deforestation is one of the main causes of loss of some unique plant and animal species in the tropical rainforests of Central and South America as well as (25 percent) carbon release in the atmosphere," according to the United Nations.
- Because of deforestation to create grazing land, each vegetarian saves an acre of trees per year.
- The global livestock population has increased 60 percent since 1961, according to Worldwatch Institute.
- There are four times as many fowl and three times as many cows and pigs as people on the planet.
- The Environmental Protection Agency reports that U.S. factory farms generated 1.4 billion tons of animal waste in 1996, which pollutes American waterways more than all other industrial sources combined.
- More than a third of all raw materials and fossil fuels consumed in the United States are used in animal production.
- It takes 78 calories of fossil fuels to produce 1 calorie of beef protein, compared with 2 calories of fossil fuels to produce 1 calorie of soy protein.
- Beef production alone uses more water than is consumed in growing the nation's entire fruit and vegetable crop.
- Producing a single hamburger patty uses enough fuel to drive 20 miles and causes the loss of five times its weight in topsoil.
- "You'd save more water by not eating a pound of California beef than you would by not showering for an entire year," according to "Diet for a New America" author John Robbins.
- It takes more water to feed a meat eater for one month than a vegetarian for one year.

Facts from "Ecological Cooking" by Joanne Stepaniak and Kathy Hecker unless otherwise noted.