

THE WORLD PEACE DIET Mastery Training Program



“Imagine the world we can create...”

with DR. WILL TUTTLE,
author, The World Peace Diet



Supplemental Readings

Module 3 – Awakening Our Capacities to Know and to Serve

Water for Beef

Pacific Institute's Peter Gleick has been blogging on water use at <http://www.sfgate.com/cgi-bin/blogs/gleick/index>

On May 5, 2009, he posted the following on The Water to Grow Beef:

In the water world there is growing interest in measuring and reporting how much water is needed to produce "things" -- goods and services that humans desire. See the table "The Water Content of Things" from the new volume of *The World's Water 2008-2009* (Peter Gleick, editor, Island Press, Washington D.C.). Several different tools and approaches have been developed and described, including "virtual water" (most people, including me, credit this concept to Professor Tony Allen of the School of Oriental and African Studies, University of London); the "water footprint"; and "embedded water."

All of these are based on the same idea: it takes water to do things. One of the most remarkable, and most remarked on, numbers to come out of these efforts is the water to produce beef, and so that is my "water number" for today's post: Water Number: It takes around 16,000 liters (or kilograms) of water (and sometimes up to 70,000 kilograms) to make a single kilogram of beef.

For those of you who have no basis for comparison, this is a VERY BIG NUMBER. It takes only around 1000 kilograms of water to make a kilogram of grain, which partly explains why it is so big for beef -- it takes a lot of grain, forage, and roughage to feed a cow, as well as water to drink and service the cow. When all of this is added up, it comes to around 16,000 kg water/kg meat produced. In comparison, other meats like chicken, lamb, and goat also require substantial amounts of water, but typically far less than beef.

There is no doubt that the consumption of beef (and meat generally) worldwide has a very serious water cost, as well as other environment costs in terms of land use, water contamination, and more. Moreover, global consumption of meat is growing, and this is placing more and more

pressure on the global production of food. In the richer countries of the world like the U.S., Japan, and Europe, we get about 30 to 35% of our calories from meat (and we eat a lot of calories compared to the poorer countries); developing countries have typically only gotten about 20% of food calories from meat.

As this changes -- and it is changing rapidly in places like China, where meat consumption is growing very rapidly -- it will place more and more pressure on grain production and trade.

I'm not a vegetarian, and I'm certainly not in a position to ask you to be. But in coming years, there must be a better, more open debate and discussion about water for food and about how we are going to meet the food needs of our growing populations. There is no single answer to this: we must boost crop yields, we must reduce waste post harvest and in our kitchens and dining rooms (as much as 30% of the food Americans buy gets thrown out), and, yes, we must seriously consider rethinking our diets. Maybe I'll have a vegetarian burrito today instead.

Posted By: Peter Gleick (Email) | May 05 at 02:04 PM