#34

"The Tomato Effect"

Once thought to be poison, Americans now consume more than 70 pounds per person of processed tomatoes annually.

I have always been successful at growing cherry and grape tomato plants on my modest, urban back porch. This year I branched out and planted red leaf lettuce, chives, parsley, basil and rosemary. Picking and eating such produce rekindled my gardening muse. With my joy further rooted, I was prompted to grow even more edibles instead of my usual array of annual flowers.

While reading up on planting and harvesting I came across the term "**The Tomato Effect**." Not being familiar with this phrase I was quite surprised to discover what it meant. It was coined in medicine to mean the rejection of effective medical treatments because they conflict with currently accepted medical theories.

The phrase comes from a time when lots of people had been taught to fear tomatoes as poisonous. Though Europeans had been eating tomatoes for centuries, most Americans avoided consuming the easy-to-grow staple of the home garden until about 1820. People who spread the killer-tomato myth probably thought they were doing their best to ensure the safety of their families. In the end, truth won out.

Now, far from poison, Americans see tomatoes as a health food, loaded with Vitamin-C and such essentials as lycopene, an entouraging phyto-chemical used by every organ in the human body. Let's see how the tomato rose from being vilified to the one vegetable that most parents are relieved to know their kids will always eat (as long as it's crushed and spread on pizza dough).

The plant's genetic evidence says it hails from South America and the highlands of Peru. In Europe, one of the earliest English cultivators was John Gerard, a barbersurgeon, who published *Gerard's Herbal* in 1597. Gerard knew that the tomato was eaten in both Spain and Italy, but he still thought it poisonous. His views were influential in Britain and its North American colonies, where most considered the tomato unfit for eating. Many also thought the tomato was an aphrodisiac, thus making it a danger both to physical and spiritual health. The tomatoes acceptance as food was very slow and lasted more than a hundred years. By the mid-1700s though, tomatoes were becoming common in Britain.

The earliest reference to tomatoes being grown in British North America is from 1710, when herbalist William Salmon reported seeing them in today's South Carolina. By the mid-18th century, they were cultivated on some Carolina plantations and probably in other parts of the South as well. In general, they were grown more as ornamental plants

than as food. People like Thomas Jefferson, who ate tomatoes in Paris and sent some seeds home, knew the tomato was edible: most Americans thought otherwise.

The most famous legend regarding *The Tomato Effect* concerns a Colonel Robert G. Johnson. At noon on September 26, 1820, Johnson proclaimed he would put to rest any doubt regarding the tomatoes safety by eating a basket of them in front of the Salem Courthouse in New Jersey. A crowd of more than 2,000 gathered to watch the Colonel die after eating the poisonous fruit: the crowd was shocked when he lived. By 1900, tomato consumption in the United States was slowly increasing despite the killer-tomato myth living on in Britain and America, keeping the old stigma in place.

So what do *The Tomato Effect* and *The Cannabis Effect* have in common? The cannabis plant, prior to its federal prohibition, played an important role in many cultural aspects, to include agriculture, industry, military and medicine. Seven decades of research have proven that cannabinoids are biological and that the CS is fundamental to life. That makes the war on cannabinoids seem ridiculous – so much so that the story of cannabis can no longer be told without discussing *The Cannabis Effect*. All we need now is our Colonel Johnson moment ... any volunteers?

For those of you who have taken a bite or smoke of the evil weed and lived, I want to remind you of the importance of living in a free society – a society where use does not mean abuse. When a critical mass is achieved, step-by-step, book-by-book, and conversation-by-conversation, truth takes on a life of its own. The new truth begins to look like something others can live with. Change begins to look appealing, and perhaps even better. We are at that point. Let the science lead, as international and domestic cannabinoid research is finally catching up with what many have known for decades. A war against the CS is a war against being healthy.

Perhaps more than any other medicine found in nature, the cannabis plant has helped humans become human. Now that Americans in many states are growing legal cannabis alongside tomatoes warms my heart. Like many other gardeners, I and my muse look forward to the harvest – especially the homegrown and healthy kind.

Publius

(2011)

Search terms

The Tomato Effect; lycopene and carotenoid activity; fruit vs. vegetable, US Supreme Court, Nix vs. Hedden (1893).

Research and selected readings

2010: D Mostofsky, *Social science, behavioural medicine, and the tomato effect,* Evaluation in Clinical Practice, 25 October 2010 [Epub].

2010: J Gertsch, et al, *Phytocannabinoids beyond the Cannabis plant – do they exist?* British Journal of Pharmacology, June 2010:160(3):523-9.

2010: E Scotter, et al, *The endocannabinoid system as a target for the treatment of neurodegenerative disease*, British Journal of Pharmacology, June 2010:160(3):480-98.

2010: L De Petrocellis and V Di Marzo, Non-CB1, non-CB2 receptors for endocannabinoids, plant cannabinoids, and synthetic cannabinimetics: focus on G-

protein-coupled receptors and transient receptor potential channels, Neuroimmune Pharmacology, March 2010:5(1):103-21.

2010: N Jones, et al, *Cannabidiol displays antiepileptiform and antiseizure properties in vitro and in vivo*, Pharmacology and Experimental Therapeutics, February 2010:332(2):569-77.

1990: A Smith, *The making of the legend of Robert Gibbon Johnson and the tomato*, New Jersey Historical Society, Winter 1990:108:59-74.

1984: R Podell, *The 'tomato effect' in clinical nutrition: new treatments languishing on the vine?* Postgraduate Medicine, December 1984:76(8): 49-52, 61-3, 65.

1984: JS Goodwin and JM Goodwin, *The tomato effect. Rejection of highly efficacious therapies*, American Medical Association, May 1984:251(18):2387-90.

1965: A Crosby, America, Russia, hemp and Napoleon: American trade with Russia and the Baltic 1783-1812, Ohio State University Press, Columbus OH.