History of the Water Pasteurization Indicator (WAPI)

History of the WAPI

How can one determine if heated water has reached 154°F? In 1988, **Dr. Fred Barrett** (USDA, deceased) developed the prototype for the Water Pasteurization Indicator (WAPI). In 1992, **Dale Andreatta**, a mechanical engineer from Ohio State University and a Ph.D. from University of California joined forces with *Solar Cookers International* and finished the design of the original WAPI. He now travels to colleges where he teaches water sanitation procedures and how to take that knowledge to under-developed countries.



Dr. Fred Barrett



Dr. Dale Andreatta

Dr. Robert Metcalf, one of the original founders of *Solar Cookers International* (SCI), is a retired professor of Microbiology at California State University. Robert has traveled extensively on projects for SCI and is well known for his work on water pasteurization and solar cookers in many countries. He has confirmed that contaminated water need only be heated to 149°F / 65°C to make it safe to drink, whereas it is commonly thought that water must be boiled at 212°F / 100°C for 20 minutes to render safe.

In 2010, **Robert (Bob) Tait** came on the scene gathering research and ideas to enhance the WAPI. Currently he has donated over 55,000+ WAPI units around the world to those in need of safe water. Dale Andreatta and Dr. Robert Metcalf, both Ph.D.'s, were involved in creating the WAPI. They shared their ideas with Bob Tait who improved, intensified, and perfected the device to where the co-creators agreed and requested Bob to make WAPIs for them. They were impressed and pleased that "WAPIs for the World" has dedicated volunteers who donate their time by assembling, by-hand, the small (2 3/4 inches in length) WAPI made to the highest standard.



Dr. Robert Metcalf

The WAPI is extremely useful for people who currently boil water to make it safe for drinking which is at 149°F. Our unit melts at 154°F which makes any particulate floating in the water decontaminated. The WAPI clearly indicates when a safe pasteurization temperature has been reached, and will save much fuel which is being wasted by excessive heating, deforestation and urban air pollution. Protect yourself by carrying a WAPI in an emergency pack when camping, hunting, bicycling or hiking on the back roads.

Note: We can create a special WAPI for goat or cow milk pasteurization.