



## Malaria Elimination in Developing Countries

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### Opinion

The emphasis of the NGO community for the elimination of malaria in addition to a host of other mosquito vectored pathogens employs the use of bed nets in combination with indoor residual spraying of insecticide. On a personal note, I got malaria 50 years ago sleeping under a bed net while in Vietnam. Please do not ask me to endorse bed nets. The only effective way to eliminate transmission of the pathogen is by eliminating the vector, especially in endemic areas of the world. This is why these Countries still have malaria. The emphasis is on treating the symptoms of this disease and ignoring the cause, which is the vector.

My weapon of choice for dealing with this problem would be an aircraft equipped with a pair of insecticide aerosol generators. With this method one aircraft is capable of covering several thousand square miles in one night. I hold several patents on this technology and have covered 21 million acres with it. The control of mosquitoes is what I do here in Florida. Over the past 31 years my Company has covered 45 million acres with aircraft, for the purpose of controlling mosquitoes. The last 21 million acres used my patented aerosol generators. This technology has a demonstrated 10-fold increase in aircraft production with a corresponding 10-fold decrease in insecticide usage. In total, this system has saved Palm Beach County 20 million dollars in reduction of insecticide used.

Developing Countries have one thing in common, no airports. This presents a problem, because you need a staging area to conduct wide area mosquito control with aircraft. The solution is a helicopter. This amazing machine needs no airport. As a consequence, you can establish a spray base anywhere you want to. This method enables maximum productive use of the aircraft by minimizing the necessity of a long dead head ferry back to the spray base, for fuel and insecticide.

Of recent, mosquitoes are developing resistance at an alarming rate to most, if not all, the insecticides currently used in the elimination or control of malaria in malaria-endemic regions of the world. At the same time, there are no viable replacements in the supply chain. What is the solution? I would recommend the use of natural plant-based extracts, for example from the Neem and Pongamia trees. In addition I am sure there are numerous other plant-based compounds with insecticidal properties waiting to be discovered.

The NGO community's failure to eliminate malaria in addition to a host of other mosquito-borne pathogens is not linked to lack of resources. It has to do with lack of imagination and leadership.

My objective at this time is to establish an academy for the purpose of training mosquito control pilots, entomologists and managers of public mosquito control departments, in the art and science of wide area aerial mosquito vector suppression, not only in developing countries as well as other nations. This effort will be the first service of its kind in the world. And all I have to say about this is, it's about time!

As previously mentioned I have been able to advance the efficiency of process some 10-fold. At this time I would like to announce an attempt at doing this again. I am building a new system, based on another operating principle that has the potential to dramatically exceed the efficiency of my existing high pressure aerosol generators. None of this is rocket science. The system I am using today is based on science that goes back to 1944. I was the first one to implement this science in an operational way. My new project has to do with a hypothesis that was promulgated 15 years ago in a talk given by Dr. Jim Dukes to the mosquito control association just prior to his retirement. I will not say any more until I complete my new system and field test it.