Agriculture in the Tropics: Seeking To Be Self-Sufficient

by Mohd Peter Davis

Mohd Peter Davis is an agricultural scientist from the Institute of Advanced Technology, Universiti Putra Malaysia, and a collaborator of the LaRouche movement. This article was published in the Malaysia Star *on June 1. It presents the dramatic animal production breakthroughs developed in Malaysia, in the context of Helga Zepp-LaRouche's Emergency Call to Action to double world food production and eliminate the World Trade Organization. With this system, known as "Deep Tropical," the whole of Borneo (Malaysian Sarawak, Malaysian Sabah, Brunei, and Indonesian Kalimantan) has the potential, with the backing of their governments, to be turned into a major world supplier of milk, prime beef, and lamb. The Deep Tropical animal production system can also be rapidly adopted by other rainforest countries in West Africa and the Amazon.*

For an earlier piece by Davis on the Deep Tropical system, see EIR*, April 25, 2008.*

Courtesy of the author
Mohd Peter Davis

Courtesy of the author
N. Yogendran

In light of the global food crisis, the FAO [UN Food and Agriculture Organization] is being urged to restructure world agriculture and food production. A Made-in-Malaysia system may be just the answer in the area of livestock farming.

The world food crisis is threatening billions with hunger and starvation. An international call has been made for the FAO emergency conference in Rome 3-5 June to completely restructure world agriculture and double world food production. Malaysia is beginning to answer this call with a Deep Tropical animal production system described by Mohd Peter Davis, (mohd_peter@hotmail.com) an agricultural scientist from Institute of Advanced Technology, Universiti Putra Malaysia and its inventor, livestock entrepreneur N.Yogendran. The system is based on the tremendous all-year-round biomass production from grass farms in rainforest climates which can help make Malaysia self sufficient in milk, beef, goat, and lamb meat and turn the whole of Borneo and the peninsula into a major world supplier.

Protein Requirement

Human beings have a biological requirement for carbohydrates (usually supplied by rice, bread, and potatoes), fruits and vegetables (for fibre and vitamins), and protein (best supplied by fish, milk, eggs, and meat). The protein requirement is the most difficult and expensive to supply. To enjoy a good productive life, every person needs one gram of protein per kg body weight per day. A 60-kg person therefore needs 60 g of protein per day, which can be supplied for example with 300 g meat (chicken, beef, or lamb) or two litres of milk. For a world population of 6.6 billion, that is a tall daily order.

Our Deep Tropical animal production system, which took 20 years to develop from basic research, right up to successful commercial farms, is designed to help meet this challenge and supplement the milk and meat now produced mainly in temperate climates by grazing animals on pastures. European-type grazing of animals in the humid tropics has a sorry history due to four basic biological problems that have proved extremely difficult to overcome by conventional farming:

1. Poor productivity of temperate animals and crosses with tropical animals in the humid tropics;
2. Heat stress;
3. High tropical disease and parasite burden; and
4. Poor nutrition from native grasses and high maintenance of improved pastures to keep out the jungle plant species.

These problems have prevented Malaysia from becoming self-sufficient in milk, beef, and mutton. Despite the country's historically tiny population, now only 27 million, Malaysia has never been more than 50% self-sufficient in food.

The Deep Tropical System

The Deep Tropical system simultaneously solves all these biological limitations, by housing productive temperate breeds in cool-climate barns and hand feeding with young cut grass from grass farms. This stunningly simple solution improves the health, nutrition, and welfare of what we term happy domestic animals. Successful models of small-scale commercial Malaysian sheep and goat farms already exist

around Malaysia. The intensive farming system is now going large-scale.

A RM 50 million [$15.4 million] dairy farm in Pahang has just been established with pregnant Jersey cows air freighted from Australia and housed in cool, hygienic climate barns. These are being fed highly nutritious 35-day-old, fresh-cut grass from a nearby grass farm. Grass greatly reduces feed costs, is the natural food of ruminant animals, and is useless as human food, or for anything else. Malaysia's all-year-round perfect rainforest climate supports the highest rate of biomass production in the world, and with our management techniques, grass grows 91 cm in 35 days, and can be harvested ten times per year for up to three years before ploughing and re-seeding.

The first calves and marketable milk from the new dairy farm are scheduled in June. Scaling up, a RM 1 billion [$300 million] investment with farms totalling 60,000 cows would lift Malaysian self-sufficiency in milk from the present 5% to 25%. The same dairy farms will produce cattle for the prime beef market and replace 75% of live cattle presently imported for fattening in Malaysia.

Pilot studies on smaller commercial farms demonstrate that the Deep Tropical farming system can produce three times more milk and beef per hectare of land compared to the best New Zealand grazing farms. Sheep farming based on the same system is even easier and can be established more rapidly than dairy farms, and with less investment to meet the urgent food demand. The minimum commercial scale is a 100-sheep farm.

Call for Emergency Action!

Looking to the future, Malaysia can become self-sufficient in milk and ruminant meat in a remarkably short time with the Deep Tropical system. The future also looks bright for Malaysian and Indonesian Borneo, with vast lands for Deep Tropical farming to supply top quality milk and *halal* meat for world markets.

In the face of food riots in 40 countries, and mass starvation threatening developing countries on a scale never before seen in history, an urgent call to double world food production is receiving tremendous support from governments and institutions around the world. Leading the call for the FAO Rome Conference is Helga Zepp-LaRouche, founder of the Schiller Institute and chairperson of the Civil Rights Solidarity Movement (BüSo) in Germany. "Food is something you eat; food is what you offer your neighbour. Don't speculate: double food production, eliminate both the World Trade Organisation and the diversion of food to biofuels!"

At the request of 82 countries, the United Nations Human Rights Council held a Special Session in Geneva on May 22 to discuss the world food crisis. The initiating countries come from the Non-Aligned Movement, the African Group, the Organisation of the Islamic Conference, and the Group of Arab States, and at least 15 other countries, including China and Italy. Their pre-meeting statement is inspiring: "The world can produce enough food to feed twice the entire global population. Therefore, in a world overflowing with riches, hunger is not inevitable. It is a violation of human rights."

In an unusually bold statement on April 25, Nina Fedoroff, editor of the prestigious journal *Science*, wrote: "There is an acute need for another jump in global agricultural productivity, a second Green Revolution. Can it happen? Will it happen?"

However, these growing humanitarian calls to defend the welfare of the world's population are not universally shared. Ever since the false theory of Thomas Malthus 200 years ago—that the Earth is overpopulated and [population] must be reduced to protect the food supply—evil people have used this flimsy excuse to hold back development and decrease population in poor countries.

Throughout history, mankind's creative discoveries and inventions have enabled the human population to expand by leaps and bounds above the population of wild animals. The graph of world population since the invention of agriculture 10,000 years ago is really the chart of wave upon wave of scientific, technological, and social breakthroughs to the present day. With only a few million people on Earth before agriculture, the world population grew to 300 million by the time of Jesus and leapt magnificently following the European Renaissance and the rise of modern science and technology to the 6.6 billion people we have today. It's predicted to rise to 9 billion by 2050. In the post-World War II recovery, world food production doubled in 17 years up to 1970. The Green Revolution in the 1960s and 1970s involving hybrid super seeds, enabled China and India to become self-sufficient and major exporters of rice.

Scientific Food Production

The developing green agricultural revolution, with genetically improved crops and domestic animals, combined with the rapid development of nuclear power with its cheap and abundant electricity and desalinated water, was well on target to eliminate world hunger. But then everything began to grind to a halt! Scientific progress from the 1970s was systematically sabotaged by the internationally coordinated anti-nuclear, anti-pesticide, anti-technology campaign of the green environment movement. This was followed in 1995 by the World Trade Organisation's insistence, against all humanitarian arguments, that free trade is more important than food.

Now, with our agriculture shattered and biofuels destroying anywhere between 10% and 20% of world food, we have ended up with today's completely unnecessary man-made humanitarian catastrophe, with millions facing hunger and starvation. Malaysia only produces half of its food and is also directly threatened with starvation, as during the Japanese Occupation when the food ships were stopped by war-time naval blockade. History must not be allowed to repeat itself.