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## Interview: Dr. H.S.H. Seifert

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# Sub-tropical animal disease control: 'World Bank has wrong approach'

*Dr. H.S.H. Seifert, head of the Animal Hygiene Department of the Institute for Crop Science and Animal Hygiene of the University of Göttingen, West Germany, is one of the world's leading authorities on the special problems of animal disease control and eradication in the developing sector. He consults for numerous agencies throughout Africa, Asia, and Ibero-America. The interview was conducted on April 30 in Göttingen for EIR by William Engdahl.*

**EIR:** Dr. Seifert, you mention your experience throughout the developing sector over the past 30 years combatting problems of disease in livestock agriculture. What are the principal problems today?

**Seifert:** The major problem today, and this has become vastly greater in the period since decolonialization over the past 15-20 years in, especially, Africa, is the fact that governments have no money, no rural veterinary medicine infrastructure to control diseases such as Nagana [sleeping sickness or Trypanosomiasis], Rinderpest in cattle, foot and mouth disease. There is inadequate refrigeration for vaccines in rural areas, lack of knowledge in rural farmer populations as to basic measures. The old colonial system, until they left Africa approximately 20 years ago, especially in French colonies, had a system of stationing veterinary persons in even the smallest remote village. When the colonists left, these personnel left with them. The infrastructure began to collapse, as they left little behind.

Independence for most of these cattle-producing countries of the Third World usually not only resulted in a reduction of the effectiveness of the internal structure of the old colonial veterinary system, but also brought difficulties for the production of prophylactic vaccines against epidemics, which had previously received financial, technical, and personnel support from the former colonial powers, for example, in Africa.

**EIR:** What are the problems of the present international aid agencies today in dealing with these problems?

**Seifert:** The World Bank, national governmental development agencies, the European Community, although they all have well-intentioned people on their staffs, all suffer from a wrong approach. I cannot explain why, but it is crazy how little of their resources go for staff with technical expertise, but rather to build up big bureaucratic machines which have no direct understanding of the real problems of disease control in sub-tropical countries. I have been sent into countries with a pre-written report outlining in advance precisely what I must do, even before I have set foot in the region to examine what the real problems might be. There never will be any lasting result if all we continue to do is to send in some few jeeps, some quantities of vaccines, and assume we have done something.

Take the case of Madagascar. This country has an immense potential for breeding cattle. They have excellent herdsmen. Here we are working with the government to establish a private distribution system for vaccines, along lines of organization used by pre-colonial village groups. Initially, the government asked us to vaccinate all cattle in the country. We pointed out that the disease which was killing the cattle came from soil-borne pathogens which are endemic only in specific soil regions of the country. It would be prohibitively costly and complex to identify those specific regions directly. What we proposed is to establish a system which would distribute the vaccines to the farmers whose cattle are dying from the disease, instead of vaccinating all 10 or 20 million.

Presently, the farmers in the country are buying vaccines from German government labs. But this program expires in 1988. Then what? They have no money in their budget to replace this program. The Madagascar government must take over sale of vaccines, but rural farmers have severe distrust of the central government. Following independence, local governments often distributed vaccines to farmers and used this same occasion for tax collection of a head-tax on the cattle. This created distrust of the presence of the central government regarding distribution of vaccines.

**EIR:** Are the large European and U.S. chemical companies producing the proper vaccines today?

**Seifert:** Each different country and region has specific pathogens. In most cases today, developing countries are using vaccines which were developed 50 or so years ago, to combat disease problems specific to European livestock. These, in many cases, if applied to cattle populations in sub-tropical regions, can cause allergic reactions and often sudden death. The problem is that none of the major drug companies is today conducting research to develop vaccines for the new strains we find in tropical countries of the Third World.

It would cost a major European company, say Hoechst, some \$25 million in research costs to develop appropriate new vaccines specific to a country or region of Africa, or Latin America. These countries have no money to pay to subsidize this cost. The drug companies are so large that to develop a specific vaccine for, for example, 20 million cattle in Mexico, simply would not be feasible in terms of economics. The market would be far too small for them.

Unfortunately, within the past 10 years, industrial countries, especially the United States Department of Agriculture, have been concerned only with the control of epidemic complexes which were specially regarded as threats to their own domestic livestock, rather than toward the diagnosis of local epidemics and production of local vaccines in developing countries. Typically, in both Africa and Latin America, very little research is being done on the specificity of the applied antigens.

**EIR:** What ideas have you developed to overcome this problem?

**Seifert:** We cannot develop Africa through development programs paid by international or national organizations. We must introduce some form of private initiative to overcome inherent problems. We have developed a simple, small laboratory apparatus, which we have set up in Madagascar. It fits into a small room. The complete cost, including the chromatographic equipment to analyze the specific field sample pathogens from affected animals, is less than \$75,000. We developed a fermenter system in cooperation with a firm in Göttingen which is adapted for work in tropical locations. It is composed of individual, easily assembled components, which are relatively inexpensive and which are hardly subject to malfunctions under the conditions of tropical field laboratories. The complete cost of this system, which is the most advanced of its kind in the world, is less than \$75,000. From this, we will be able to develop in Madagascar serum sufficient for 20 million doses within three months of operation. This will be specific to the strain of the region.

Africans are very good businessmen. We must use this to develop the distribution infrastructure of this vaccine. As it is now, local farmers keep their cattle because they do not trust a government which pays them in a currency which becomes successively devalued and worthless. We must therefore develop our vaccination schemes in parallel to de-

velopment of the rest of the economy—market measures to ensure the farmer has incentives to develop his livestock. Some years ago, so long as the government of Madagascar controlled the production and marketing of rice, there was no surplus rice available, a costly black market existed because farmers produced only enough for local needs. The government now has shifted policy to permit the private sector to regulate production and marketing of rice. Rice is plentiful, the black market eliminated, and the cost is lower than old black-market prices.

I first worked as a young veterinarian in Germany following the war. Conditions were very poor then and we had an enormous problem with tuberculosis coming from the dairy cattle. I recall countless nights I spent sitting down with local farmers to ask them how best to control the disease. We developed a simple system where farmers were rewarded for slaughtering affected cattle. Conditions were very poor and we had no money for vaccination programs. There were a few mistakes, but within five years, through this system of relying on the local farmer with a combination of incentives for him, we completely eliminated the tuberculosis problem in West Germany. To this day, because of their central state-run approach, East Germany still has massive problems with tuberculosis and animal disease, as does Russia.

**EIR:** What role should university institutes in the industrial sector such as yours here, play in tackling the problems of animal hygiene in the developing sector?

**Seifert:** I spend considerable time in my lectures here describing to my students the fundamentals germane to the special problems of tropical climates. There is a problem today in Germany where doctors and veterinary medicine researchers work in a completely empirical manner. This is not sufficient for the problems of tropical medicine. Development of the wrong kind of antibiotics from laboratory empirics of this sort can often result in substances which kill latent infections that otherwise function as protective immunization for the cattle. In Senegal, a German-developed drug was given to farmers to protect cattle against sleeping sickness. The drug killed the organism which protected the animal and as a result, many died from new field infections.

There should be a kind of division of labor between the resources available in industrial countries and the developing countries in animal parasitology. We have qualified scientists and researchers in Germany, for example, who have no jobs. They should be involved in basic research directed at problems of agricultural hygiene for tropical countries. The developing countries, for their part, at least for the near future, should then develop the specific applications to develop local vaccines and such. We have developed such a system here in Göttingen which we can now take into developing countries as we have in Madagascar. There is a problem with scientific “purists” who are involved in pure research but with no tie to the real problem-solving of the applications to the problems of animal hygiene in developing countries.