

Through inspection of imported animals, poultry, and all animal by-products, veterinarians prevent entry of foreign diseases into the United States. Of the 981,860 animals and 2,950,829 birds presented for import during 1967, 43,961 animals and 9,365 birds were refused entry because they were carrying diseases contagious to man and animals. During the same fiscal year, veterinarians inspected and certified over 69,000 animals for export to foreign countries.

More than 15.6 million pounds of meat and meat food products from foreign countries were condemned or refused entry in 1967.

Veterinarians in research

Three quarters of all veterinary medical prescriptions written today are for drugs that were non-existent twenty-five years ago. Contributions to knowledge in comparative medical sciences since World War II are greater than those made in all previous years of history.

The activities of veterinarians holding research or service positions in government and industry are not as well known to the public as those services rendered by the veterinarians engaged in farm practice or operation of small animal hospitals. Yet one-third of the veterinary profession is engaged in the former category of activity.

In 1965, it was estimated that veterinarians in the animal health industry (pharmaceutical and biological) alone controlled a segment of industry valued at \$600 million annually. Veterinarians hold positions of leadership in approximately 310 different companies operating in the chemical and pharmaceutical industries of the United States.

Although many of these individuals serve the areas of animal health, veterinarians play a vital role in industrial research and development of drugs and other chemicals consumed by man. The greatest recruiting fervor is in the field of toxicology. Veterinary toxicologists are primarily concerned with developing knowledge of the toxic potential of chemical substances, and their fate in the environment, in order to prevent poisoning. Veterinarians serve as directors of toxicology research for many of the pharmaceutical companies developing drugs for human use. These include companies such as Eli Lilly, Upjohn, Hoffman LaRoche, CIBA, Warren-Teed, Pitman-Moore, Wm. S. Merrell, Sandoz and Syntex.

Veterinarians have pioneered in toxicologic research concerning space; environmental hazards; pesticides; toxicants in food, air and water pollution; and chemical warfare agents.

Veterinarians' activities include research in the discovery and development of drugs and other chemicals to be used as food additives in the treatment of human and animal diseases. After a new chemical is synthesized, the veterinarian is responsible for determining the potential value of the chemical in treatment of disease. Before the chemical can be released for human trial, he must determine, through a long series of testing in many species of animals whether or not the chemical is toxic.

Veterinarians in the biologics industry are engaged in discovery and development of new vaccines, serums, and other biological products of animal origins. Veterinarians have the responsibility not only for determining the value of potential products, but also for assuring both the safety and potency of the products. Federal veterinarians supervise activities in more than seventy companies licensed to produce biologics for disease prevention and as treatment.

Study of spontaneous disorders in lower animals provides information more relevant to human disease than does the study of artificially-produced diseases in laboratory animals. A number of spontaneous models for human diseases have been delineated by veterinarians, viz, systemic lupus erythematosus in dogs and mice, porphyria, in cows and pigs, atopic diseases in dogs, and balding in primates other than man. Veterinarians are studying animals with naturally occurring diseases (such as diabetes, heart disease, cancer, and blindness) which are identical to their counterparts in man.

In December 1966, a faculty group in the College of Veterinary Medicine at the Ohio State University made an important breakthrough in cancer research. They discovered that leukemia is transmitted through the air and that animals inhaling the virus develop leukemia.

Veterinarians in the Army and Air Force

Veterinary medical officers of the Armed Forces play a major role in preventive medicine and environmental health by protecting the health of servicemen stationed throughout the world. The functions of a military veterinarian