1954

Veterinary Medical Extension

C. D. Lee
Iowa State College
Agricultural Extension work was established in 1862 as a portion of the so-called Land Grant College Act. This act reads as follows: "In order to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage the same, there may be continued or inaugurated, in connection with the college, agricultural extension work which shall be carried on in cooperation with the United States Department of Agriculture. "Cooperative agricultural extension work shall consist of the giving of instruction and practical demonstrations, in agriculture and home economics, and subjects related thereto to persons not attending or resident in said colleges in the several communities, and importing information on said subjects through demonstrations, publications and for the printing and distribution of information in connection with the foregoing. This work shall be carried on in such manner as may be mutually agreed upon by the Secretary of Agriculture and the State Agricultural College."

The early history of extension work in veterinary medicine at Iowa State College is difficult to trace definitely. We know that after the establishment of the course in Veterinary Medicine in 1879 the veterinarian was frequently called upon to address groups of farmers at institutes, short courses, breeders meetings and similar assemblages on livestock management problems. Through these years there was of course much correspondence with livestock owners or regulatory forces dealing with the suppression of livestock losses of one kind or another which may be correctly considered as veterinary extension work. From time to time, a few circulars and bulletins designed to give information to livestock owners on disease problems were issued, but there was no person especially appointed to give part or full time to either caring for this correspondence, making addresses or specifically charged to set-up and carry out a definite project of an extension character on livestock loss prevention off the campus of Iowa State College until 1912. Probably because heavy losses to the swine industry were occurring, due mostly to the disease hog cholera, Dr. J. D. Cline, a recent graduate of the Veterinary Division of Iowa State College was appointed that year to begin extension teaching in veterinary medicine, with special emphasis on hog cholera and its control.

At this time funds, specifically appropriated for extension work of all kinds, were increased through the passage of the Smith-Lever Act by the Federal Congress and the acceptance of its provisions by the State of Iowa. This broadened and
increased the scope of all extension work including veterinary extension teaching. Just previous to this the research of Dor- set, McBride and Niles had perfected a means of immunizing hogs against hog cholera. Farmers and all persons close to the swine industry were anxious to avail themselves of its protection. As a result many attempts were made to use the product by inexperienced persons. Sometimes they were successful, but often they failed to get protection against hog cholera and sometimes even destroyed what had been healthy herds of swine in an effort to protect them. Many graduate veterinarians of that day, having had little training in swine practice and less in the production and use of biological products in disease prevention or treatment, failed to comprehend either how to obtain potent products or failed to understand the proper methods of using them in the field. All this resulted in considerable confusion and genuine doubt in the minds of many well informed people of the possibility of producing immunity to hog cholera artificially. Iowa hog raisers were entitled to know the facts about this recent discovery and to get the protection it would afford for their swine, for an epidemic of this disease prevailed all over the corn belt in 1912 and 1913. How to proceed became an educational problem, not one of research or regulation.

Early in 1913, Dr. Cline resigned his position and in July of that year Dr. K. W. Stouder, a graduate of Iowa State College, at that time engaged in production and the demonstration of the use of hog cholera anti-serum and virus by the Kansas State Agricultural College in the Livestock Sanitary Board of that state, was asked to lead the campaign in Iowa, to teach farmers and veterinarians the best methods to adopt under the various field conditions and thus bring hog cholera under better control. Because of the excessive demands for information on this subject, Dr. W. E. Simonsen, trained at the Kansas Station and with some experience in North Carolina, and Dr. C. D. Rice, a graduate of Iowa State College, with some experience in the State of Kentucky, were appointed as assistants in this campaign. From 1913 to 1915, a vigorous campaign carried the discussions and demonstrations on hog cholera control by the Extension Service into almost every township in Iowa. At that time it was necessary to make contact with local bankers or other public spirited citizens to set up meeting places because we had but two counties organized and supporting local agricultural agents.

When this emergency was met the public became informed and convinced that hog cholera serum and virus, correctly used, would control hog cholera. The force of extension veterinarians was reduced when Dr. Simonsen and Dr. Rice entered the teaching field.

Swine Sanitation Program

At this time we were under the influence of World War I and the high prices prevailing for livestock increased our livestock population, particularly the swine. Other diseases such as enteritis, pig typhoid and parasites, including mange and several varieties of internal parasites, now seemed to take a heavy toll of young pigs. Campaigns were started to teach the importance of sanitation in practical methods of swine husbandry which would reduce the losses from these conditions.

Two experienced field veterinarians were now assigned to the Extension Service of this state by the U. S. Department of Agriculture, Bureau of Animal Industry. These men were to assist in swine sanitation work and the early detection and suppression of hog cholera outbreaks in order to increase our food supply for the war.

Tuberculosis Campaign

In 1917, because it had long been realized the livestock industry was suffering heavy losses from tuberculosis, a campaign of education was started among stockmen and other interests close to the industry to eradicate this disease. The methods of why and how this work should be done was carried on by organizing county units, and almost every township in the state was contacted. For several years signed petitions were necessary to
get the work started in a county and special appropriations by county boards of supervisors had to be made.

The great amount of educational work necessary to carry on the tuberculosis eradication program was done by Dr. K. W. Stouder, extension veterinarian.

Dr. Stouder continued with a vigorous educational program in bot eradication in horses, parasite eradication in sheep, swine sanitation and brucellosis in cattle. Throughout all these years, Dr. Stouder had the responsibility of an educational program in Iowa in all phases of veterinary extension and diseases of all species. The growth of the livestock industry and the many new problems that developed with this growth made it impossible for one man to adequately carry on this work.

Dr. C. D. Lee transferred to the extension staff July 1, 1946, to develop and execute an extension program on poultry disease control. Dr. Arylie McDermid, a 1939 graduate of Iowa State College, was added to the staff Oct. 1, 1949. Dr. McDermid was to work in the field of swine sanitation, but returned to practice in Wisconsin after one month's service. Dr. John Herrick joined the staff in Dairy Husbandry in 1948 to do work in artificial insemination and cattle diseases. Dr. Herrick joined the extension staff full time Jan. 1, 1950, and the area of his work is control of cattle diseases. Dr. Donald Radloff joined the staff Jan. 1, 1950, to assist with the swine disease and parasite educational program. The appointment of Dr. Radloff completed the full quota of four extension veterinarians, each in a special field of livestock disease control, and specific plans were made for an intensive educational program.

Dr. Stouder passed away in April, 1950, after having served as extension veterinarian for 37 years. Dr. Radloff resigned in 1951, and was replaced by Dr. Maynard Spear Sept. 1, 1951.

The present staff in Veterinary Medical Extension consists of three veterinarians, Dr. John Herrick, Dr. Maynard Spear and Dr. C. D. Lee, each working in a specialized field with some overlapping.

In projecting a year's work in Veterinary Medicine Extension, as well as in other subjects in extension, a general plan of work is submitted for each year in advance. This year runs from Oct. 1, to Sept. 30. This plan of work is approved before it is started by the Dean of the Division of Veterinary Medicine and the Dean of Agriculture. It includes: (1) line of work; (2) phases of work and personnel (this gives a list of major projects to be covered and the percentage of time devoted to each project); (3) administrative approval; (4) reasons for undertaking the work; (5) major problems encountered; (6) previous work on project and the present outlook; (7) procedures and methods; (8) publications, visual aides, etc.

The following projects are in general the plan of work for the year Oct. 1, 1953, to Sept. 30, 1954.

I. CATTLE DISEASES AND ARTIFICIAL INSEMINATION

A. Livestock Sanitation and Disease Control.
   1. Cattle—beef.
   2. Cattle—dairy.

B. Brucellosis Control.
   1. State committee or county committee.
   2. Educational meeting.
   3. Ring testing.

C. Mastitis Control.
   1. General information.
   2. No county program.

D. Artificial Insemination Meeting.
   1. County annual meeting.
   2. Technician training.

E. Sterility Meeting and Clinics.
   1. Sterility clinics for veterinarians. (Two to be held in September at Ottumwa and Cedar Rapids.)
   2. Preparation of visual aids.

F. Veterinary Meeting and Veterinary Short Courses.
   1. State and district veterinary associations.
   2. Short courses for veterinarians held on different subjects.
3. Schools held in various districts on cattle, swine and poultry.

1. County veterinary personnel and extension veterinarians participate in general animal health clinic.

H. Miscellaneous.
1. Newspaper publicity.
2. Radio and television.
3. Educational material (bulletins, pamphlets).
4. Extension committees.

II. SWINE DISEASES AND CONTROL

A. Livestock Sanitation and Disease Control.
1. Investigation of swine diseases with veterinarians as time and distances will permit.

Most essential part in swine disease control should be to help local veterinarians and county extension director set up a year-round program. Swine diseases are for a large part seasonal in nature. Greatest advantage, by swine producers, will be had by open discussion of current problems. Consideration should be given to location of meetings so as to reach most people. Divide the county into at least four areas with the same problems being discussed within the same given time.

B. Brucellosis Control.
1. Aid in educational meetings.
2. Establish programs as time permits.

C. Short Courses for Veterinarians.
1. In cooperation with the veterinary college, the extension will assist in conducting short courses for veterinarians on swine problems.

D. Veterinary Meeting.
1. Aid with meeting as requested.

1. Co-operate with county extension director, local, state and federal veterinarians in conducting health clinics as requested.

III. POULTRY DISEASE CONTROL

A. Poultry Disease Clinic and Meetings.
1. Demonstration type meeting. Offered on county-wide or local basis in the fall, winter and spring.

a. Discussion of disease.
b. Perform necropsy on sick birds.
2. Arrange afternoon and evening sessions.
3. Conduct series of meetings within a county.
4. Engage assistance of local veterinarians and poultry industry personnel in setting up the meetings.

B. Tuberculosis Project (Avian-Swine Relationship).
1. Schedule educational meetings in proposed area.
a. Afternoon or evening sessions.
b. Farmer's night school program.

C. Hatchery-Flock Owner Meetings.
1. Extension veterinarian participating in meetings sponsored by hatcherymen and arranged by county extension director.
a. Sanitation.
b. Disease control.
c. Management.

D. Investigation of Poultry Outbreaks.
1. Consultation with local veterinarian and/or county extension director on unusual losses in chicken and turkey flocks.

E. Commercial or Industry Meetings.
1. Advise and assist poultry organizations or feed companies in developing a disease control program. (This can be effective only when the organizations work through the local veterinarian.)

F. Poultry Short Course.
1. In conjunction with Poultry Husbandry Extension, conduct a short course (series of eight weekly meetings) as outlined under the plan of work.
2. Obtain assistance of local veterinarians.

G. Animal Health Clinic.
1. Arrange discussion panel of extension, local, state and federal veterinarians.
2. Discuss livestock and poultry diseases.
3. Conduct afternoon and/or evening meetings. (In 1954 these meetings will be available to a limited number of counties.)
H. Veterinary Refresher Courses on Poultry Diseases.

1. Designed to train veterinarians who will hold meetings in a local area. (Two such meetings will be held in 1954-55. One hundred twelve veterinarians attended the four meetings held in 1953-54.)

An annual report is prepared on work done each year. This report includes progress reports on the various projects as contained in the plan of work. Copies of the annual report go to Washington, D.C., the Dean of Agriculture and Dean of the Division of Veterinary Medicine.

Veterinary extension work at Iowa State College is a far cry from veterinary extension of the past in Iowa and at the present in many other states. We attempt each year to work more and more with local veterinarians in an honest endeavor to control needless livestock losses. It is encouraging that each year we are called upon more and more for assistance by local veterinarians.

Veterinary Extension in the Division of Agriculture is, more or less, like an unwanted step-child. All other departments of extension, except Veterinary Medicine Extension, are housed with their subject matter departments; we are established with the Animal Husbandry and Poultry Husbandry Departments with very agreeable relationships, but still not in our subject matter department.

It would appear that the most effective use of extension veterinarians would be as liaison between research in veterinary medicine, the practicing veterinarian, and the Iowa Veterinary Diagnostic Laboratory. Effective extension can be best carried out through local veterinarians.

We appreciate the courtesies and help we have received from the staff in the Division of Veterinary Medicine, particularly those given by the Research Institute and the Iowa Diagnostic Laboratory.

Veterinary Students

To you who will enter Vet school next fall.

Shop with us for your Books and Supplies
We will have the Complete List of Books

YOU WILL LIKE OUR SERVICE

Make Our Store Your Shopping Center

Student Supply Store
South of Campus - Open Evenings
Dr. M. L. Spear

Dr. Maynard L. Spear was born on a farm in Washington county, Iowa, in 1908. He completed his early education at Wellman, Iowa, and then moved to Toledo, Iowa. There he lived with Dr. C. G. Moore and family while completing his high school and college education. While in high school, Dr. Spear was active in 4-H work with purebred swine and dairy cattle, and demonstrated the McLean county system of swine sanitation at the state and county fairs.

In 1927 Dr. Spear entered Iowa State College; played football for three years; was appointed captain of the football team in 1930; and in 1931 was awarded the degree of Doctor of Veterinary Medicine. Following graduation and until 1943, he conducted a general practice at Oelwein, Iowa. Then he moved to Hampton, Iowa, where he conducted a general practice until September 1951 when he joined the Veterinary Extension Staff at Iowa State College with major emphasis in swine diseases and parasite problems.

In 1931, Dr. Spear married Mary Madsen. They now have four children: Kathryn, 8; Michael, 11; Barbara, 20, enrolled in nurses training at the State University of Iowa; and Virginia, 22, married and living in Hampton, Iowa.

Dr. J. B. Herrick

Dr. John B. Herrick, associate professor in Veterinary Extension, after graduating from high school at Independence, Iowa, enrolled at Iowa State College where he received a Bachelor of Science degree in Agriculture in 1941. He taught vocational agriculture for two years. In 1943 he returned to Iowa State College, and was awarded the degree of Doctor of Veterinary Medicine in 1946. He then accepted a position with a commercial hog company for two years. He returned to the staff at Iowa State College in 1948 and took charge of the artificial breeding program.

In 1950 Dr. Herrick received a Master of Science degree in Obstetrics and then applied his full time to Veterinary Medicine Extension, working primarily with practicing veterinarians on the state brucellosis control program and on problems of infertility and artificial insemination. Dr. Herrick is married and has five children: Joyce, 11; John Jr., 7; Joan, 5; Jim, 2; and Jeff, 1.
Dr. C. D. Lee

Dr. C. D. Lee was born in Salt Lick, Ky., moved to Iowa, and attended high school at Sioux City, and Merrill, Iowa. He received a B.A. degree at Morning­side College, Sioux City, and then attended Iowa State College where he was awarded the degree of Doctor of Veterinary Medicine in 1927, and Master of Science degree in Pathology in 1932.

After practicing for a short time following graduation, Dr. Lee returned to Iowa State College as an instructor in Veterinary Surgery and Ambulatory Clinic. He was an instructor in Veterinary Pathology at Iowa State College from 1928 to 1929. From 1929 to 1934, Dr. Lee was in charge of veterinary pathology at the Iowa Veterinary Diagnostic Laboratory. In 1934 he became assistant professor, Veterinary Research Institute, working on poultry disease research with emphasis on fowl leukosis.

Dr. Lee was an associate professor, Veterinary Research Institute, from 1937 to 1946. He is the first extension veterinarian to work as a poultry pathologist, first as an associate professor in 1946, and later as professor from 1949 to the present time.

Dr. Lee is a member of Sigma Xi, Phi Zeta, and Gamma Sigma Delta honorary societies. In 1951 he was president of the Iowa Veterinary Medical Association. At present he is a member of the A.V.M.A. Executive Committee; member of the A.V.M.A. House of Delegates; Chairman of the A.V.M.A. Committee on poultry diseases; veterinary member of the Iowa Medical Advisory Committee to Selective Service; and a Colonel in the Infantry Reserve.

Drs. E. A. Hewitt, R. Allen Packer, L. D. Jones, Melvin S. Hofstad, Frank K. Ramsey and C. D. Lee participated in a poultry short course at Estherville and Storm Lake, March 23 and 24 respectively. Dr. Lee, extension veterinarian was in charge of the short course.

THE USE OF SULFAMETHAZINE IN EXPERIMENTAL COCCIDIOSIS OF DAIRY CALVES. Horton-Smith and Taylor first showed that sulfamethazine was effective in giving almost complete protection against the development of coccidiosis in chickens which had received lethal doses of oocysts up to 72–96 hours previously. Other workers found that sulfamethazine remained at a very high blood level over long periods of time when given to cattle. Davis and Bowman found that sulfamethazine gave more protection than sulfaquinoxaline against artificially induced coccidiosis.

In two experiments involving 28 young dairy calves, half were given large numbers of oocysts of mixed species of coccidia or of *Eimeria zurni* only. The treated calves gained slightly more weight than the controls and showed less response to the inoculations of oocysts. In previously treated and control calves there was little difference in response to challenge inoculations. When administered according to body weight, the drug was present in the blood at higher levels in small calves than in large ones.