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ABSTRACTS



THE STATUS OF THE SODIUM FLUORIDE TREATMENT FOR REMOVAL OF LARGE ROUNDWORMS FROM SWINE. Five hundred ninety eight pigs were used in trials with sodium fluoride, of which 572 were given the chemical in therapeutic, toxicologic, or clinical trials, while 26 remained as untreated controls. In therapeutic trials, concentrations in feed from 0.3 to 2 percent for periods from one to three days were tested. In toxicity trials, dose rates up to 5 percent in feed and 1 Gm. per pound of body weight were tested.

In determinations of the efficacy of the drug as slightly effective or entirely ineffective against nodular worms, whipworms, and thorn-headed worms. Sodium fluoride removed immature, as well as mature, roundworms. The chemical, when administered at the currently accepted rate of 1 percent in feed for one day, showed an ascaricidal efficacy of 93 percent.

A ration containing 5 percent of the chemical is extremely toxic. No deaths resulted, with one possible exception, from fluoride poisoning when the chemical was given in feed at a level of 2 percent or less (0.25 Gm. or less per pound of body weight). The mortality rate at all therapeutic levels approximated 1.6 per 1,000. The authors, therefore, point out the mortality should be lower when optimum dosages are employed.

Vomition, soft feces, and sometimes diarrhea were temporary symptoms of a mild intoxication in 6 to 10 percent of the treated animals.

Compared to either oil of chenopodium

or phenothiazine, sodium fluoride is a safer and more efficient medication. Administration of sodium fluoride is contra indicated in any inflammatory condition of the alimentary tract. The authors also suggest withholding the medication from pregnant sows.

Data is presented on administration of the chemical in capsules, by stomach tube, and in the feed. The investigators conclude that the administration of sodium fluoride in dry, ground feed at a level of 1 percent for one day is safe, effective, simple and an economical method of treatment of roundworms.

[Foster, A. O., Enzie, F. D., Habermann, R. T., and Allen, R. W. The Status of the Sodium Fluoride Treatment for Removal of Large Roundworms From Swine. *Amer. Jour. Vet. Res.* 9:379-385 (Oct.) 1948].

ARTIFICIAL INSEMINATION AT HOME AND ABROAD. Practically every country that enjoys a high standard of living has recognized this method of cattle breeding as being a most effective way of bringing about rapid improvement in the type and production of dairy herds.

Two types of programs predominate in the United States. In New York one central bull stud is located at Cornell University and provides semen for local units organized in various parts of the state. The service fee is \$5.00 and entitles the members to three services per cow if necessary. Technicians are laymen trained at Cornell and paid at a basic rate of \$2.50 per cow. Since these men do not possess qualifications to deal with sterility problems no treatment is at-

tempted by them. The Wisconsin plan is decentralized in that there are seven bull studs. These centers pay strict attention to type as well as production in the selection of bulls. A few years ago all technicians in Wisconsin were veterinarians, but as the program developed it became necessary to have a veterinarian in charge with laymen doing the less technical work.

In Denmark artificial insemination is the accepted method of livestock improvement. Over 400,000 cows were bred artificially in 1946. Fees ranged from \$3.35 to \$7.85. Technicians receive intensive training in insemination, pregnancy diagnosis, and sterility treatment.

Great Britain has legislation controlling artificial insemination. Technicians' licenses may be cancelled or suspended by the Ministry of Agriculture for inefficiency. Most of the bulls maintained are milking Shorthorns and British Friesian breeds.

Canadian units have veterinarians in charge. Most of the first inseminations are handled by laymen. Fees are at the rate of \$5.00 per cow. This arrangement works out very satisfactorily since laymen are paid a lower rate than veterinarians and this reduces the operating costs. The services of the veterinarians have proved invaluable in restoring breeding usefulness of many cows which would otherwise be discarded.

[Watson, W. P., Artificial Insemination at Home and Abroad. Canadian Jour. of Comp. Med. 12:4-7 (January) 1948.]

ALLERGY OBSERVATIONS AND TREATMENT IN ANIMALS. Much attention has been drawn recently to the important role that allergy, anaphylaxis, or protein sensitization plays in the field of veterinary medicine. In the majority of cases of so-called summer itch, serum sickness, Boston Terrier asthma, dry eczema, food reactions, drug allergies, hives, localized edema, and fever due to allergy and urticaria, the etiological factor is either absent or not clearly understood.

New antihistaminic agents have sup-

plemented the old accepted treatments of epinephrine hydrochloride, topical applications of sulphur and wet packs in cases of edema.

Allergy is a condition of unusual or exaggerated specific susceptibility to a substance which is harmless in similar amounts to the majority of the same species. Allergies can be divided into bronchial allergy or asthma, contact allergy with hypersensitiveness and mental allergy.

Many cases of summer itch, the author believes, are directly due to a dietary deficiency of essential fatty acids, the skin irritation being secondary to the internal cause. Through close examination of the diet, many causes of allergic reactions can be found. In one case, soy beans were found to be the sole cause of hives.

Dermatitis and eczema due to allergies are explained as being conditions of angio-neuroses which affect the blood vessels primarily.

In seven cases of allergic and anaphylactic reactions, described by the author, excellent results were obtained with anti-histaminic drugs plus careful examination of the diet. In several cases the allergic reaction manifested itself as a severe eczema. Anti-histaminic drugs now in use include; benadryl, thenylene, diatrin, neo-antergan, histidyl, decapryn, pyribenzamine, neohetramine, tagathen, and hydril-lin. It has been found that if an animal can't tolerate or doesn't respond to one drug, it will quite often respond to another drug due to the differences in structural formulae.

In non-specific treatment of allergy, the author believes that anti-histaminic preparations are much to be preferred to the old method of epinephrine injections. However, giving the antihistaminics must be continued while the cause persists. Only by further examination of the diet and surroundings, dismissal of the etiological agents, and careful study of the history and discovery and elimination of the source of the allergy, can recurrence of the condition be prevented.

[Kaplan, Alvin D. Allergy Observations and Treatments in Animals Vet. Med. 44:82-84 (Feb.) 1949].