COMMUNITY MOSQUITO CONTROL PROBLEMS IN NEBRASKA

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In this paper I propose to describe some of the problems which confront entomologists and mosquito control workers in typical rural communities in Nebraska. We will accept the fact that they have a mosquito problem and that the citizens cannot enjoy their backyards. However, do we really know what the problem is? Can a municipal government which is composed of local businessmen define and understand the mosquito problem solely on the basis of complaints by the taxpayers? You know the answer as well as I do, but how are we going to handle the situation? Many persons say that the only approach to the problem is to form a mosquito abatement district. In some instances this is the proper approach but under many circumstances the formation of a mosquito abatement district is not practical. Take for example a community of 450 persons in the Nebraska sandhill region. The evaluation of the community for tax purposes is approximately $400,000, and under the Nebraska Mosquito Abatement Law only one mill may be levied. Therefore, all this community could spend on mosquito abatement would be $400. On the other hand if monies were taken from the general fund, enough money could be appropriated to have a good control program.

We believe that when a community feels that it has a mosquito problem, it should consult with our office (the State Health Department) and ask for advice as to: (1) defining the problem and (2) how best to handle the problem. It has been our experience in Nebraska that little or no mosquito breeding takes place *within* the average community. Where mosquito breeding is found within a community, we have shown that with a very small expense permanent control through draining or filling can be done. One of the firs things a community needs to do is to deter mine whether they are dealing with ten porary or permanent water breeders. Ther have been several instances where commu nities have rushed out to purchase exper sive equipment to control flood water mos quitoes in areas where the frequency c floods is once every ten years. In anothe case large numbers of complaints were re ceived because it was impossible to us the city park during the evening hours. study of the situation revealed that th principal biter was a tree hole species. I still other areas of the state the communit mosquito problem is the result of poo irrigation practices in the agricultural lanc surrounding the community. For exam ple in the North Platte Valley Region mo of the communities complain of a seriou mosquito problem. A study of the prol lem by the U. S. Public Health Service re vealed that the principal breeding area were the irrigated pastures surroundin the communities. It is a well accepte fact that adulticiding in the face of un limited breeding has little or no value.

A problem facing the average sma community is when to spray or fog an how often. Unfortunately, few small com munities make any attempt to do surve lance of mosquitoes. This goes along wi the lack of planning on the part of th municipal government. In Nebraska th State Health Department has for a numb of years carried out training programs f municipal employees, but unfortunatel for the most part, these programs ha fallen short of their goal, principally b cause the municipality has failed to sen the proper personnel to these meetings. the vast majority of communities there little preseason planning for mosquito co trol: In fact we have often heard the stat

nent made that "we do not plan to do any nosquito control this summer unless the nosquitoes get bad!" Yet, most of those ommunities, year after year have a mos-uito problem. In most cases nothing is lone until the Mayor receives a number f complaints from the "right" people, and hen a rush, rush emergency program is laced into operation.

It has long been the opinion of our De-artment that money spent on surveillance money well spent. With a little training man can dip for larvae and determine hen adults will be on the wing. It has een our experience that one of the biggest eaknesses in the average small commu-ity mosquito control program is the ersonnel problem. Very few munici-alities hire personnel solely to work on eir mosquito control program. In most ses the work is turned over to some city employee, usually the street commissioner or one of his men, often to a different employee every week.

In outlining some of the problems which one encounters in the small community mosquito control programs, I do not wish to imply that small community mosquito control programs should be dropped. We believe that mosquitoes are a definite public health hazard, and that it is the duty of the municipal government to protect the health of its citizens. However, we feel that more emphasis should be placed on small community mosquito control programs and that better educational programs should be initiated. Possibly a program of definite cooperation between equipment dealers, insecticide dealers and the State Health Departments could be arranged, which would help all the parties concerned.

A COOPERATIVE RESEARCH PROJECT ON THE EYE GNAT (*HIPPELATES*) PROBLEM

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The Coachella Valley is surrounded on ree sides by mountain ranges and is ap-oximately twelve miles wide and fifty iles long, ranging in altitude from ap-oximately —240′ to 500′. It is 130 miles st of Los Angeles and is part of the eat Colorado Desert.

The soil varies from gravel and coarse d fine sand to clay or adobe, with ap-oximately 70,000 acres under intensive ltivation. Crops consist of dates, citrus, apes, cotton, alfalfa, grains and winter getables. The Valley is known also as golf capital of the world, with some teen golf courses located around Palm rings, Palm Desert, La Quinta and dio. The temperature range is 126° to °, with a mean temperature of 73.5.

The *Hippelates* eye gnat was first noticed in the lower end of the Valley around 1904 in a large Indian encampment which had a large flowing spring or well. As cultivated areas increased, the gnat problem likewise increased and in 1928 it was necessary to close several schools because of the prevalence of conjunctivitis. The people demanded that something be done and the District, embracing 2,080 square miles, was formed with the help of Professor W. B. Herms of the University of California.

The United States Department of Agriculture was induced to study the problem for a short time. The California State Department of Health also worked on the problem, but as there was little or