

but the areas treated were too small to result in control.

Financing a mosquito control program is always a problem. I will not leave the subject of temporary control without bringing to your attention the way in which one community met this problem. Even with the State paying fifty percent of the cost many of the smaller communities find it difficult to raise their share of a very limited budget. St. George's Island is such a community. It is a low, marshy island about three quarters of a mile wide at its widest and about two and a half miles long. It has a population of about 200 people who make their living mainly by fishing, crabbing, and dredging oysters.

When the people of St. George's Island learned that aid was available they organized a group known as the St. George's Island Improvement Association. A few of the more affluent citizens loaned the group enough money to buy a fog machine and the members rotated the detail of fogging the island among themselves. They paid the debt on their equipment by giving crab feasts and oyster dinners. St. George's Island is a splendid example of what a community can do with little money but a lot of determination to do something about mosquito control.

One of the highlights of the year was the increase in permanent work projects. To take care of this increase in permanent work we added another tractor to our equipment specially equipped with scavel and backhoe for marsh work. Late in the year we acquired a special ditcher. Mr. Elwood Lynch, our engineer, will report on this in more detail. The permanent work consisted mainly of ditching marshlands near populated areas to establish circulation of water so that top minnows can enter and devour the mosquito larvae. In one county, main ditches were established by blasting because of poor footing for machinery. In the City of Oxford a number of tide gates were constructed to prevent tidal water from entering the city storm sewers. Most spectacular of the projects was the Coty Cox Branch clean up

in the City of Salisbury. Here a meandering creek that supplied ample breeding near the heart of the city was brushed, ditched, filled and graded to eliminate the breeding of *Culex* mosquitoes.

This season we continued to depend on BHC as our principal insecticide. In some communities the odor of BHC was very objectionable to the residents. In these communities DDT was substituted. Later in the summer when the heavy populations of mosquitoes emerged following the rains, the insecticide malathion was substituted in a few communities. We have no evidence of resistance to any of our insecticides to date, and all complaints have been traced to improper application. —JAMES R. FOSTER, Asst. Entomologist, Maryland State Board of Agriculture.

VIRGINIA

Waterfront property in Virginia is at a premium. Our population is growing and will continue to do so, but, our land area will remain substantially the same. This means that in the future we will have more people interested in property and because of the limited amount of waterfront property, it will become more and more valuable. Also, more and more families want and own small boats.

Along the coast there are many acres of salt marsh. These marshes are located between the highland and open water and, therefore, cut off access to the water from the adjoining property. They are unsightly and undesirable from many angles, principally because they produce enormous broods of salt marsh mosquitoes.

Now—before a voice is raised concerning wildlife, we are not speaking of the isolated marshland. This perhaps should be left for wildlife use. We are talking about the marshland in the cities and in areas of dense population. For example, there remain 1,000 acres of marsh within the boundaries of Norfolk City.

Potentially, this marshland is the most valuable land because of its proximity to

water. In its present state, it is a menace and a hazard performing no good, and producing no tax revenue. Bring the two thoughts together, and what do we get? Excavate a portion of the marsh so as to provide open water. Use the material thus excavated to build high land. You will end up with waterfront property and additional usable property and this alone is financial justification for doing it. By so doing, and as a by-product, the marsh with all its undesirable characteristics is permanently eliminated and additional tax assessments can be levied by the local government.

An example might explain better what we are trying to say: A real estate developer purchases good, high land at, let's say, \$1,000 an acre. He divides it into lots, puts in streets, sewers, et cetera; and sells the lots at let's say \$3,000. This may mean that he makes a gross profit of approximately \$6,000 per acre. . . . Suppose that he purchases marshland at \$50.00 per acre. He excavates one-half the marsh to make open water and uses the spoil to fill the remaining marsh. This means that the finished land will stand him \$100 per acre plus cost of dredging. Let us say that this costs \$900 per acre. You can see that he has no more invested but he can get two or three times the price for lots, so his potential gross profit jumps to \$15,000—plus or minus—per acre. Of course, these figures are hypothetical, but they do seem to demonstrate the tremendous potential of the marshland.

There is a developer in Virginia who is doing this very thing. He has purchased a hydraulic dredge and is expending approximately \$1,000 an acre restoring marshland. He plans to subdivide it into one-half acre sites at a sale price of \$10,000 per site. There is little doubt but that venture will be financially successful. Approximately 40 acres of marsh will be eliminated with a saving to the Mosquito Control Commission and thousands of dollars of assessed valuation will be added.

In a smaller way and in a different manner but nevertheless just as impressive,

the same general idea was promoted during the past year at Virginia Beach. There was a cove, consisting entirely of marsh, located in the center of the city. Bordering on the marsh were fine homes built on what really should have been waterfront property, if they just had access to the water. The mosquito commission maintained ditches in the marsh and had to larvicide each week during the summer. In addition fogging from time to time was necessary.

The Virginia Beach-Princess Anne Mosquito Control Commission acted as a third party in bringing together the property owners and a contractor who would do the work. Twelve property owners were involved. A dragline crane was used to excavate from the middle of the cove and pile the spoil along the edge of the upland thereby making deep water, a sharp shore line and additional high land. The cost averaged approximately \$1.00 per running foot. So a man with 200 feet frontage paid approximately \$200.00. Some 15 acres of prolific mosquito breeding area have been permanently eliminated without the expenditure of public funds. The land owners who paid the bill are well pleased; in fact, they are singing the praises of the Mosquito Commission for its help because their property is greatly increased in value, beauty and usefulness.

Many thousands of dollars of public funds have been spent on salt marshes for ditching, spraying and fogging to reduce mosquito breeding; and, no doubt, these funds have been wisely spent. These expenses must continue as long as the marshes remain in their present state, for such control measures are only temporary. Of course, dredging and filling the marshes is not practical, or desirable in all conditions. However, when the plan can work it is ideal and mosquito control agencies can rightfully promote such activities. When you get someone else to do the job, because it is profitable to them to do so and, by so doing, you eliminate your problem—BROTHER! that is a good deal. —R. E. DORER.