

DRPA Grant

The Delaware River Port Authority recently awarded a grant of \$450,000 to the School to study the feasibility of establishing a state-of-the-art aquaculture facility and fish processing plant at the Philadelphia Navy Yard to bring many jobs to the area and utilize the existing buildings there.

"The Navy Yard, located in the center of the East Coast market, has transportation links, buildings, space and access to a labor force," said Dr. Leon Weiss, Lambert Professor of Cell Biology at the School, and leader of the study. "It is well-suited for a major aquaculture facility."

This would include not only facilities to raise fish to market size in closed, recirculating systems but also other facilities such as hatcheries to provide stock for the tanks and the ponds on farms in Pennsylvania and New Jersey. Also included would be a processing plant to fillet, pack and freeze the product and a feed mill to produce fish food.

The feasibility study is an interdisciplinary, multi-school effort led by the School of Veterinary Medicine. The Wharton School will analyze the financial side of the venture and provide business and marketing expertise to assess the commercial prospects of aquaculture industry at the Navy Yard, Penn's School of Engineering will study the model of a closed, recirculating system to be set up at the Philadelphia campus and refine and improve it to make such a system commercially viable. At New Bolton Center the farm pond will be improved and stocked with fish to provide all-year, summer and winter fish crops. It will be a "living laboratory" to develop protocols so that farmers in Pennsylvania and New Jersey can utilize their existing ponds for raising another cash crop. Plans are also being made to have additional aquaculture research conducted at New Bolton Center, including closed, recirculating systems.

Fish, always thought of as an abundant food resource, are not as plentiful now due to many factors, among them pollution and overfishing. New technologies have made possible large scale, intensive fishing. Fleets, with the help of sophisticated instruments, accurately lo-

cate schools of fish and gigantic, light-weight nets haul aboard whatever is in their paths. In recent years vast quantities of fish have been removed from the oceans, leaving many species in a very precarious position. Already, large ocean areas are off-limit to commercial fishing so that fish populations there may regenerate and become plentiful again. Meanwhile, people's appetite for fish is growing.

Commercial aquaculture is trying to fill the void. Salmon are

raised in giant pens, catfish and trout are raised in ponds.

Other fish



are raised in tanks inside buildings, though this has not yet become profitable. Aquaculture is a developing industry and the School, through its *Aquavet*® program, has trained veterinarians in aquatic veterinary medicine for 20 years during intensive summer programs at Woods Hole, MA.

"We are positioned to lead this effort," said Dr. Weiss. "Not only do we have extensive experience in aquatic veterinary medicine, but the other schools in the University are a great resource for this study. The Wharton School will provide the business and marketing expertise. The School of Engineering will assess existing closed, recirculating systems and together with veterinarians will develop a commercially feasible prototype that could be used in the Navy Yard."

A closed, recirculating tank system will be set up this spring in the old barn space at the School's Philadelphia campus. "We want to show that these tanks can work in any building," said Dr. Weiss. Harnwell Pond at New Bolton has been drained and is being prepared to re-

ceive fish. Dr. David Nunamaker, chair of the Department of Clinical Studies-New Bolton Center, heads the working group on pond farming. Dr. David Galligan from the School's Center for Animal Health and Productivity is a member of the group as are representatives from the Stroud Water Research Center and the Maryland Farm Extension Service of the University of Maryland.

The School's Department of Pathobiology will provide expertise in pathology and the group at Woods Hole, headed by Dr. Donald Abt, will also be involved in the project. Veterinary students too will play a role in the study. They will be able to gain hands-on experience in pond fish farming and in the tank system.

The first phase of the study, the economic feasibility study, is underway at the Wharton School. "This project could be very beneficial to Philadelphia and the region," said Dr. Weiss. "If we find that an aquaculture facility at the Navy Yard is economically feasible, then private industry would take over and utilize the concepts and technologies developed and refined in this study. There is potential for the production of 10 to 20 million pounds of seafood. Such a venture would stimulate economic development and create new jobs in the region." ▀

Animal ER

Clinicians, students, clients and their pets were the stars of *Animal ER*, a 45-minute documentary, aired on the TBS Superstation on November 17, 1996. The entire piece was filmed at VHUP and at New Bolton Center. To celebrate the occasion, the School hosted a "premiere" on November 15 and entertained about 100 guests. This benefit raised over \$6,000 for student scholarships. *Animal ER* will be re-broadcast on Sunday, March 23 at 10 PM on the TBS Superstation. You can also get some particulars and pictures from the piece by accessing the following on the Internet: <http://www.turner.com/destination/animaler/animaler.html>