

Fish Tales Newsletter

West Virginia's Aquaculture Newsletter is produced to help inform, educate, and update those interested in producing quality aquatic products, in a sustainable manner, for the recreational and food fish markets.

West Virginia Aqua, LLC – An Update

Jonathon Browning, general manager at West Virginia Aqua, LLC, sent us an update for this issue of *Fish Tales Newsletter*. He says that sales of their product are mostly in the form of Head-on-Gutted (HOG). With a weekly harvest of 5,000 pounds, WV Aqua is maximizing production at the hatchery and the grow-out farm. Here is the latest.

Hatchery:

There are 260,000 fingerlings at the hatchery, averaging about 7 grams. The next batch of eggs will arrive from Icy Waters in Canada, in the fall, and the number of eggs will increase to 500,000. For security, they are installing backup incubator pumps, filters, ultraviolet light, and a chilling unit. The number of incubators will double from four to eight. With eight incubation units, the capacity at the hatchery will exceed 600,000 eggs.

Growout Farm:

The growout facility is called Rockhouse, and there are nearly 110,000 char, averaging 800 grams (1.75 pounds), happily swimming and growing in the tanks. A second preharvest tank has been installed with its own recirculating life support system, including pumps, solids filter, a zeolite filter to remove ammonia, and a chiller. To keep the temperatures from going too high during the summer months, three 80-ton chillers will be used. Currently, the water temperature is 13 °C (56 °F), although the optimum feeding temperature during growout is still “a work in progress.”

Processing Plant:

Construction began on the processing plant in March. It should be fully operational by the end of summer. Initially, processing will occur only two days per week, but by the end of the year it is expected to be four days per week. The majority of the processed product will be Head-on-Gutted (HOG), with fillets increasing as the market increases. “By next year we hope to have production up to 7500 – 8000 pounds per week” says Jonathon.



Arctic char at WV Aqua's Growout Farm near Man, W. Va.

Changes at Lillybrook

As this issue goes to press, some changes are occurring with the production of trout at the Lillybrook farm, the largest trout-producing farm in the state. Located in Raleigh County, the Lillybrook trout farm produces nearly 150,000 pounds of rainbows exclusively for processing at the processing plant in Sophia, W. Va.

High Appalachian LLC has been leasing the processing plant as well as two production farms, Lillybrook and McAlpin, from West Virginia Jobs Investment Trust. **Peter Corteville**, a senior partner for High Appalachian, has decided to finish growing all of the fish on the farms to market size. No more fertilized eggs will be brought to the hatchery at Lillybrook. The reason for this decision is that it is simply too expensive to produce trout at the two farms.

Processing will continue to supply the markets (*see Lillybrook page 3*)

Did YOU KNOW?

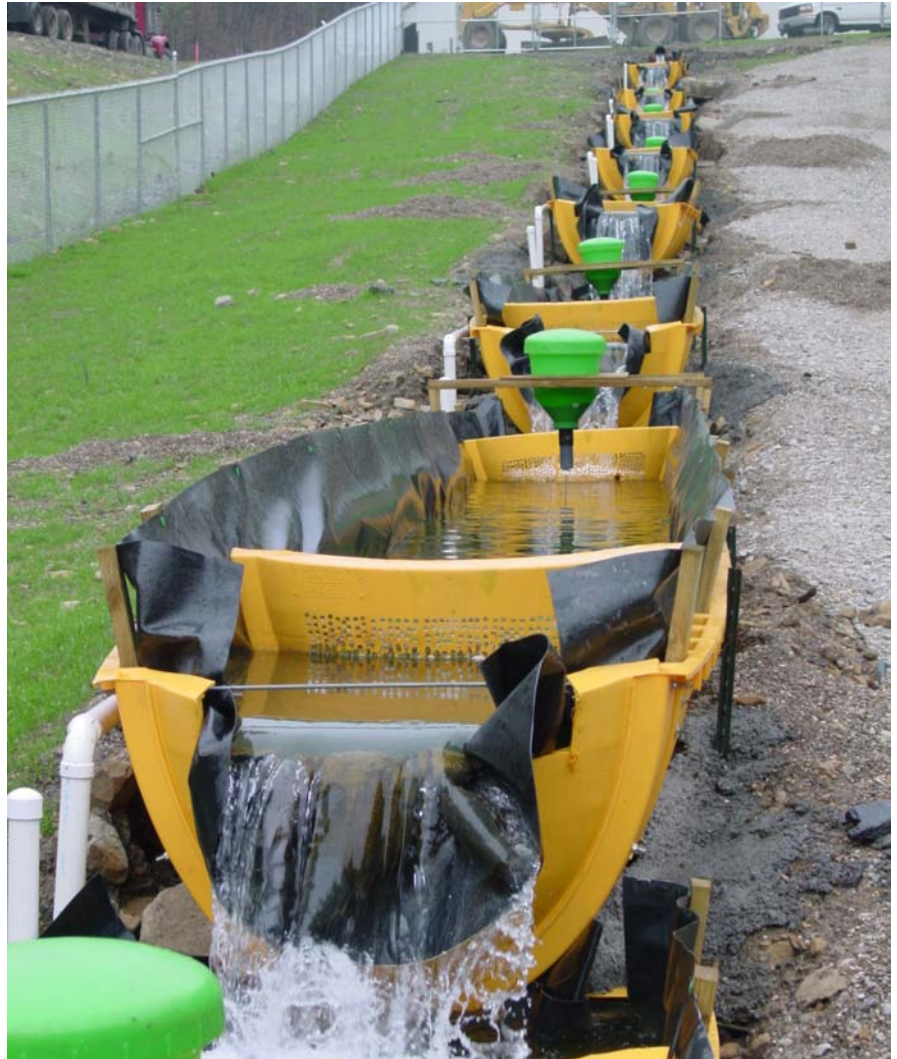
Non-iodized salt is a fish farmers' best chemical treatment. It is legal, cheap, and easy to buy, use, and store. It should be used during any handling of fish (2-3 ppt or 1 kilo/100 gallons) to reduce the loss of fluids from fish and lower stress. It can even cure some diseases, as a bath, at higher concentrations.

When transporting fish you can reduce the stress on them by using these methods:

Do not feed them one to two days before transport. Use salt in the transport tank at a rate of 2 pounds per 100 gallons. Reduce temperatures to lower metabolism during transport. Try not to exceed 2 lbs. of fish per gallon of water. Add oxygen to the water during transport.

These are inexpensive and simple ways to reduce stress during transport, and less stress means reduced mortalities and happier customers. As Martha Stewart would say, "It's a good thing."

Salt also can be used to reduce the toxicity of nitrite in the water. This is more common in the catfish industry down South. Water with high concentrations of nitrite causes the gills and the blood to turn brown. It is also known as "brown blood disease" and can be treated with salt to reduce the toxicity of nitrite to the fish. It does nothing to reduce nitrite levels in the water.



Polypropylene Raceways

A new material is being used by Eastern Associated Coal Co. to raise trout in a remote closed mine site. The polypropylene tanks, seen in the above photo, were stocked with fingerlings in March. They are growing well and are expected to be harvested sometime in October. **Dave Hettinger**, environmental engineer for the site, says the fish look great. That was confirmed in June when the growth samples were taken by WVU's Extension representative, who helped Eastern with site development.

The fins of trout are typically eroded in concrete raceways. This increases the stress on the fish and reduces the value, especially if the market is for recreational fishing. These fish will have added value in the recreational market. Why was polypropylene chosen as a material? Installation was easy and the cost of the tanks was only 20% of the cost for concrete tanks. Keep reading this newsletter for updates on the performance of these inexpensive alternatives to concrete.

(Lillybrook from page 1)

that Pete has developed for the company, it is just that the fish will come from other producers. In some ways, this decision has been a long time coming. In 1994 when Anker Energy built the farm, a long-term flow study was not conducted from the mine discharge. This led to false assumptions about the amount of water available for production. A consultant designed the farm, and a second knowledgeable opinion was never obtained. As a result, an unconventional design was implemented, and it has restricted the production of the farm. The limited production and tank design have had a negative impact on the cost of production at Lillybrook ever since.

Don Zimmerman, production manager at the Lillybrook and McAlpin farms, knows all too well the frustrations of dealing with the 10' deep, 22' diameter round tanks, which are difficult to harvest and have occasionally burst open to lose their entire contents. He has struggled with the limited water during droughts, while at other times, excess water flows by the farm without being captured. The Lillybrook farm has been operated by **Peter Corteville** and **Tom Bandemer** of Geneva Foods, whose corporate office is in Florida. Pete has said he will try to keep providing product for the processing plant by purchasing trout from outside sources. That production most likely will come from out of state, as local producers are not large enough and have been primarily focused on the recreational market, which pays a higher price than the processing plant, and does not require a strict grading process to minimize size variations in the trout sold. West Virginia Jobs Investment Trust, the owners of the properties, will be looking for another tenant to lease or purchase the farms and the rights to the good water sources on each farm.

Photo of Trout Lodge's production manager, Scott Ryan, looking at the water source that supplies the Lillybrook trout farm.




Ken's Corner

The Aquaculture Forum is the primary statewide aquaculture meeting held each year. Next year's Aquaculture Forum will focus on growing fish for personal consumption rather than for resale. We are developing a program that will discuss what can be grown and how to do it. If you are a producer and would like to feature your products, you are welcome to set up a display booth, distribute literature, or possibly make a presentation. Some of the presentations we envision are:

- Tips for production of different fish species.
- Tips on purchasing live fish.
- Tips on transporting fish.
- Production systems.
- Pond design.
- Resources – Where to get fish, feed, supplies, etc.
- Health aspects of eating fish.
- Preparing farm-raised fish for the table.

We are planning for the event to be held at Jackson's Mill again next year in the middle of January 2005. The WVU Extension Service, the West Virginia Department of Agriculture, and the West Virginia Aquaculture Association are working to put this meeting together. We encourage others to participate as well. If you are interested in participating in some way, or have comments and suggestions, please contact us at 304-293-6131, ext. 4211.

 Extension Service
West Virginia University
P.O. Box 6108
Morgantown, WV 26506-6108

Presort Standard
U.S. Postage
Morgantown, WV
Permit No. 34

We are encouraging contributions to Fish Tales newsletter by W.Va. residents. If interested in contributing please contact Dan Miller at 304-293-4832, ext. 4465. The deadline for the next issue of Fishtales is Sept. 30.

This publication is available in a printable format, on the Web at:

www.wvu.edu/~agexten/aquaculture/newsletter.htm

Programs and activities offered by West Virginia University Extension Service are available to all persons without regard to race, color, sex, disability, religion, age, veteran status, political beliefs, sexual orientation, national origin, and marital or family status. Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Dept. of Agriculture. Director, Cooperative Extension Service, West Virginia University.