



Harrietta Hills

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Dr. Jill B. Rolland
United States Department of Agriculture
Animal and Plant Health Inspection Service
4700 River Road, Unit 46
Riverdale, MD 20737

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Dear Drs. Rolland and Egrie,

We are appreciative of the opportunity to comment concerning the development of the APHIS Interim Rule for VHSV.

Financial Losses from Emergency Rule

While it is important to protect the aquaculture industry of the United States from the introduction of new and dangerous pathogens, it is equally important to protect those portions of the industry that happen to be in the path of a pathogen like VHSV. APHIS needs to keep in mind that the portions of the industry that are currently facing critical impacts from VHSV are those portions of the industry that are facing shipping restrictions, not facilities that are actually VHSV positive. Currently the medicine is far worse for the industry than the disease has been.

Indemnification under Interim Rule

Those portions of the industry that have lost market opportunity have not been compensated for their losses, despite the fact that a Federal Order has caused them direct financial damage. If further and continued regulatory restrictions cause losses in one section of the industry to benefit another part of the industry, then the government of the People of the United States should compensate those who are damaged. Keep in mind that businesses like ours are not at fault for this virus introduction and have continuously tested free of this virus for several years already. Indemnification for losses associated with this Interim Rule must be included in any regulatory strategy for VHSV or similar disease.

Program Effectiveness

In order for a program under the interim rule to be effective in controlling VHSV, it must be realistic and also deal with ALL of the likely vectors of disease spread, not just the easy ones. It

is irrational to inflict restrictive measures that damage one geographic region of an industry for the benefit of others, if there can be no reasonable expectation of success for the program. Therefore, the objectives of the program should be made clear from the start. The following is my analysis of the possible objectives:

Eradication

We believe that this is an impossible task at this juncture. The virus currently inhabits large populations of wild and feral fish within the lower Great Lakes. This system is simply too large to sustain any hope of eradication through human directed efforts.

Containment

We believe that this objective is unlikely with a virus that is loose in a wild population as vast as the Great Lakes Basin with the multitude of possible vectors of disease transfer that are represented: shipping and ballast water, recreational watercraft, direct waterway connections to other major drainages (Chicago Sanitary and Ship Canal, Erie Canal), likely illegal activity (movement of live sport fish by fishermen, use of live bait from infected waters), etc. Efforts have been made with other exotic introductions, such as the zebra mussel, to contain the invader, but have failed. The actions taken were ineffective at containment, and we believe that the VHSV virus will likely follow a similar pattern of escape from any effort to contain.

Delay

We believe that delay is the only realistic expectation for VHSV policy in the U.S. Through vigilance, good bio-security practices, and reasonable regulatory strategies we have the opportunity to delay the advance of this virus to allow development of vaccines, allow adoption of tighter on-farm bio-security by the aquaculture industry, and to develop a better body of knowledge about the nature of the virus and its probable impacts on fish populations in the wild and in culture. Realistically, this virus will probably follow a pattern that has been repeated over and over historically with the introduction of pathogens in a wild population.

Recommendations

As Delay is the only reasonable program objective, we suggest the following measures to make this program as successful as possible, without causing unnecessary financial damage to the portion of the industry that finds itself in the path of VHSV from time to time as it continues to spread geographically.

Ballast Water

Most experts indicate that ballast water is a likely vector for the initial introduction of VHSV and also for its accelerated spread. With meaningful ballast water controls, it is likely that the spread of VHSV will be very slow through the Great Lakes, probably taking several years to infect Lakes Michigan and Superior. This in turn will significantly delay the introduction of VHSV into the Mississippi River watershed by delaying the inevitable passage of VHSV through the Chicago Sanitary and Ship Canal and by maintaining isolation distance from the headwaters close to Lake Superior. Without meaningful ballast water control, experts indicate that both lakes will be rapidly infected and we can expect the Chicago connection to transfer the virus to the Mississippi in short order. It is doubtful that the electronic weir in the canal will be effective in stopping virus.

Recreational Watercraft, Recreational Fishing

It is probable that recreational watercraft will play an important role as vectors for this virus to transfer to inland waterways. Watercraft used in affected waters should be required to "sanitize" prior to transferring to other waterways. The transfer of fish from affected waters to other waterways should also be prohibited. In addition to the prohibition, public education will be of paramount importance to make this successful with the public.

Zoning

Until more is known about the range and extent of VHSv, there should be two zones in the United States: "Affected" and "Surveillance". These zones should be based on watersheds, not on political boundaries. Excellent mapping currently exists and our state of technology allows for the accurate definition of watersheds.

Since many areas of the U.S. have not been routinely testing for VHSv, it would be irresponsible to establish "Free" zones at this time. Additionally, it is probable that this virus will spread, despite our best efforts to delay it; therefore only through good surveillance will we prevent major geographic "jumps" in the affected zone due to ignorance. Regions should not be assumed to be "free of VHSv" simply because they have not tested for it. "Free" status should only result from strenuous testing to demonstrate the status, not ignorance.

As the origin of the Great Lakes strain of VHSv is still highly debatable and seems to perhaps be a mutation of a saltwater strain of the virus, all strains of VHSv in the United States should have equal consideration in our "surveillance and affected zoning" until further information could eliminate them from concern.

Shipment of Live Fish

All shipments of live fish originating from either zone, both aquacultured and wild caught, should be required to meet a certification standard for being free of VHSv.

For aquacultured fish, either the AFS Bluebook or OIE standard for certification should apply depending on appropriateness of the standard to the facility as determined by the competent state authority in which the facility is located. Testing should be conducted annually or twice annually by an approved laboratory. More frequent testing (i.e. Quarterly) or testing on a pre-shipment basis would be cost prohibitive and would completely overwhelm the existing laboratory infrastructure, resulting in untimely delays that will damage our ability to do business.

Certification standards must be implemented in an achievable fashion. Two-year testing histories cannot magically appear; therefore some sort of graduated implementation will obviously be necessary. Further unnecessary penalization of aquaculture businesses in the Great Lakes region because of circumstances that are beyond their control is unacceptable. Certification standards must allow responsible businesses that test negative to commence shipping immediately.

Wild caught fish should be held to a similar testing standard that recognizes the difficulty of holding these fish for long periods of time while waiting for test results. Every effort should be made to develop a standard that reasonably manages the risk of moving VHSv without being prohibitive to operations. It is not reasonable to ignore this type of fish movement and exempt it from standards.

It is imperative that serious educational efforts be made by APHIS to engage and educate the competent state authorities as to their roles and responsibilities under the program. A lack of this type of education and planning are currently costing businesses money and effort as we try to begin shipping under the Modified Emergency Order.

Management of Positive Facilities

Inevitably, some aquaculture facilities will become infected with VHSV. We need to establish meaningful protocols to deal with the virus on those facilities without destroying the business itself. This means having a sound plan in place that addresses assessment, depopulation, indemnification, and recovery. This is especially important during the early years of this outbreak. It would be unjust to destroy businesses in the Great Lakes region because of this virus now, and then adapt more helpful policies once VHSV makes it out of the basin and into other areas of the nation.

Trace Outs

Full scale trace outs should be conducted for any shipments of fish found to have occurred from positive facilities and sources prior to the Emergency Order. We cannot have any confidence in our knowledge of the range of VHSV without this critical step. This process will probably reveal other affected areas of the United States that were thought to be unaffected due to a lack of local testing.

Conclusion

An Interim Rule for VHSV should be realistic in its objectives and deal with all of the likely vectors, not just the ones that are easiest to regulate. Inflicting further financial harm on the Great Lakes aquaculture industry without offering indemnification for losses is irresponsible and presents a dangerous precedent for dealing with fish disease in the future. Development of a comprehensive VHSV management program is essential to delaying the spread of this virus and protecting the United States aquaculture industry.

We must understand that attempts to eradicate or contain VHSV are likely to fail, and the program should be designed to delay spread and develop the cooperation of the industry in establishing good bio-security and surveillance programs. We will not achieve cooperation from industry in surveillance if a positive test equals the destruction of the business. This type of regime will only drive many operators "under ground", resulting in a counter-productive black market for fisheries products. Cooperation will require a comprehensive plan and funding that includes surveillance, assessment, depopulation, indemnification, and recovery, not just "surveillance, positive, out-of-business."

Sincerely,

Daniel J. Vogler
LLC Member