

Dear Stakeholders,

On February 15, 2001, the first case of infectious salmon anemia (ISA) was confirmed in the United States. Shortly thereafter, the Maine Department of Marine Resources (DMR), the Maine Aquaculture Association, and the Maine State veterinarian requested assistance from the U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) with indemnification, epidemiology, and surveillance.

In response to the outbreaks of ISA and the State of Maine requests, APHIS sought a Declaration of Emergency because of ISA in order to provide assistance to the State of Maine and the Maine salmon aquaculture industry. ISA poses serious consequences to animal health and to the U.S. economy.

On December 20, 2001, USDA announced that approximately \$8.3 million had been authorized to implement an ISA control and indemnity program for farm-raised fish in the United States.

Of the \$8.3 million, approximately \$7.2 million will be used to indemnify producers for their losses. The indemnity portion of the funding transfer will be used by APHIS to pay 60 percent of the losses; the State and industry will contribute 40 percent.

In addition, \$1.1 million of these funds will be used to assist the State of Maine with program activities such as depopulation and disposal, cleanup and disinfection, establishment of surveillance programs, epidemiology and diagnostic support, and training for producers and veterinarians.

APHIS' goal is to control and contain the disease through rapid detection and depopulation of salmon that have been infected with, or exposed to, ISA.

In addition to disease eradication, APHIS maintains its commitment to the aquaculture industry through wildlife damage management programs including the development of new strategies and bird dispersal methodology such as low power laser devices, continued work on the Joint Subcommittee on Aquaculture, and public meetings designed to gather public input on aquaculture needs. APHIS strives to ensure the continued development and success of this important aspect of America's agricultural industries.

Sincerely,
Bobby R. Acord
APHIS Administrator

National Aquaculture Program Update

APHIS' National Aquaculture Program is administered by APHIS' Veterinary Services (VS) and APHIS' Wildlife Services (WS). VS provides Federal leadership in aquatic animal health monitoring and disease eradication while WS provides solutions to wildlife damage and other wildlife conflicts with aquaculture.

Veterinary Services (VS)

ISA Update

Infectious salmon anemia is a foreign disease of Atlantic salmon caused by an orthomyxovirus. This virus appears to cause disease only in Atlantic salmon, both wild and farmed (*Salmo salar*); however, other wild fish are also susceptible to infection, including sea run brown trout (*Salmo trutta*), rainbow trout (*Oncorhynchus mykiss*), and herring. ISA was first isolated in Norway in 1984. Since its initial discovery ISA has also been found in New Brunswick, Canada, in 1996, Nova Scotia in 1998, Scotland in 1998, Chile in 1999, Faroe Island in 2000, and the United States in 2001.

The first case of ISA in the United States was confirmed on February 15, 2001. On April 24, 2001, the Maine Department of Marine Resources (DMR), the Maine Aquaculture Association, and the Maine State veterinarian requested APHIS assistance with indemnification, epidemiology, and surveillance. To date, the State of Maine has reported 14 marine net pen sites positive and the Maine salmon industry has voluntarily depopulated approximately 900,000 fish for an estimated loss of \$12 million. Maine has implemented the plan to enable effective control of ISA.

Clinical signs of ISA generally appear within 2 to 4 weeks after infection and can include these symptoms: lethargy, swelling and hemorrhaging of the kidneys and other organs, and death in a range from 3 to over 50 percent over one production cycle.

Control of ISA requires depopulation of all pens holding infected fish. Indemnification is necessary to provide an incentive for farmers to report diseased fish and to continue testing. Experts believe the virus can be controlled within high-risk zones through surveillance, vaccination, and best management practices.

Joint Subcommittee on Aquaculture (JSA), Aquatic Animal Health Task Force on Aquaculture

A new task force on Aquatic Animal Health was recently activated by the JSA. An APHIS representative chairs the meeting along with vice-chairs representing the U.S. Fish and Wildlife Service (FWS) and the Department of Commerce's National Marine Fisheries Service. The task force has developed a draft mission statement (listed below) with expected outputs, outcomes, responsibilities, and recognition of agency roles.

The mission of the task force is to develop and implement a National Aquatic Animal Health Plan for aquaculture in partnership and cooperation with industry, regional organizations, State, local, and tribal governments and other stakeholders, to:

- Facilitate the legal movement of all aquatic animals, their eggs, and products in interstate and international commerce for the purpose of protecting the health of cultured aquatic animals.
- Protect the health and, thereby, improve the quality and productivity of cultured aquatic animals.
- Ensure availability of diagnostic, inspection, and certification services.
- Minimize the impact of diseases as a result of interactions between cultured and wild aquatic resources.

Veterinary Services Reporting Systems

The National Animal Health Reporting System (NAHRS) and the National Aquatic Animal Health Certification and Inspection Program (NAAHCIP). NAHRS, which is an indicator of our Nation's animal health status, is a State and Federal veterinary reporting system that provides routine animal disease monitoring for OIE-listed diseases and may include active surveillance for some diseases. It is a passive system for reporting information on recognized presence or absence of diseases within each State utilizing a variety of information sources. Each month, State veterinarians report their State status to APHIS, which in turn reports to OIE.

NAAHCIP has an aquatic animal health certification and farm inspection component and an established procedure for approving laboratories for international export. Aquatic animal health certificates are endorsed by the APHIS Area veterinarian-in-charge for that State if samples are taken by a USDA-accredited veterinarian and the testing is conducted by an APHIS-approved laboratory.

VS can certify, under certain conditions, that an area is free of all viral OIE "Notifiable Diseases of Fish," including epizootic hematopoietic necrosis, oncorhynchus masou virus disease, viral hemorrhagic septicemia, spring viremia of carp, and infectious hematopoietic necrosis. APHIS can also certify, under certain conditions, that an area is free of OIE "Other

Significant Diseases," such as ISA and infectious pancreatic necrosis. APHIS can test for other diseases and provide appropriate safeguarding assurances.

VS works with aquaculture industries and other stakeholders to protect the health of aquatic animals, to identify and respond to aquatic animal health emergencies, and to facilitate both interstate and international movement of aquatic animals and animal products. VS currently provides the services itemized below to the aquaculture industries. These services are comparable to existing APHIS services for traditional agricultural animal species.

VS currently provides the following services to the aquaculture industries:

- Certifies the health status of animals or animal products intended for export.
- Approves laboratories to perform specified diagnostic tests for aquatic animals and their products intended for export.
- Negotiates with foreign countries to ensure that zoo sanitary regulations for aquatic animals and animal products are based on science and risk assessments.
- Regulates the production and sale of vaccines and biologic reagents for use in all species of aquatic animals.

Aquaculture Import/Export News

On November 16, 2001, the Fisheries National Service of Chile, under Resolution No. 1444, recognized APHIS as an official authority to certify sanitary condition of Salmonid eggs from the State of Washington. This will allow APHIS to pre-certify salmonid eggs prior to shipment to Chile.

Currently Available Biologics for Fish

For a list of establishments licensed to sell biologics and their products visit the aquaculture Web site at www.aphis.usda.gov/vs/aqua/aquaphis.html.

Wildlife Services (WS)

Cormorant Roost Dispersal in the Mississippi Delta

From November 2000 through March 2001, WS coordinated the Delta-wide double-crested cormorant roost dispersal program in Mississippi. Seventy-nine private and government cooperators, including FWS and the Mississippi Department of Wildlife, Fisheries and Parks assisted WS in dispersing over 25,000 cormorants from 57 night roosts in catfish-producing areas. This nonlethal wildlife damage management program has proven successful in relocating deprecating cormorants away from catfish production areas and is very popular among commercial catfish producers.

Cormorant Environmental Impact Statement

WS has been cooperating with FWS in the development of an environmental impact statement (EIS) regarding bird depredation to aquaculture resources. The EIS will lead to development of various alternatives for managing the bird damage. Public hearings are currently being held across the country with meetings scheduled for Jackson, MS, on February 5 and Little Rock, AR, on February 6 to receive public input on the draft EIS.

Cormorant and White Pelican Surveys and Census

WS conducted 13 aerial surveys of cormorant roosting areas and white pelican loafing areas in the Mississippi Delta during the winter of 1999-2000. This information is invaluable as population and activity indicators to aquaculture producers throughout the region. On February 7 and 8, 2001, WS personnel conducted an annual mid-winter cormorant census in the same area in cooperation with FWS, U.S. Army Corp of Engineers, and the Mississippi Department of Wildlife Fisheries and Parks. The mid-winter census is conducted to inventory the peak winter cormorant migration. A total of 64,715 cormorants in 82 night roosts were counted in the census.

Cormorant Rookery Dispersal in Arkansas

In 1999, over 100 double-crested cormorant nests appeared at Millwood Lake in southwestern Arkansas. The last large cormorant rookery in Arkansas occurred in 1910. To help control cormorant depredation to the sport fish and forage fish base in Millwood Lake, WS conducted suppression efforts in 1999 and 2000 to discourage the establishment of another large rookery. A census conducted in July 2001 revealing only 48 cormorant nests at Millwood Lake shows the success of these efforts.

WS Research

WS research scientists have developed the use of low power, low wavelength laser devices for dispersing problem bird species under low light conditions. The lower power levels, directional capabilities, accuracy over distance, and silence of the devices make them safe and effective species-specific alternatives to pyrotechnics, shotguns, and other traditional avian dispersal tools.

In addition, WS research scientists conducted radio telemetry studies on fish-eating birds which will help in the development of more effective control.

Aquaculture Public Meetings

APHIS has completed a series of public meetings in eight key aquaculture States designed to determine how and to what extent APHIS should regulate aquatic species and to discuss any other issues concerning

possible regulation of aquaculture by the Agency. This action, along with an extended comment period until February 1, 2002, are the next steps toward proposed and final rulemaking. In 2001, meetings were held on these dates and at these locations:

January 25, 2001: Florida
February 16, 2001: Kentucky
April 5, 2001: Maine
June 8, 2001: Idaho
September 19, 2001: Washington
October 4, 2001: Arkansas
October 9, 2001: Pennsylvania
October 10, 2001: Mississippi

Upcoming Activities

- The Aquaculture Partnership (TAP) will be meeting at Aquaculture America 2002 in San Diego, CA. TAP's mission is to coordinate, protect, and improve the health, quantity, quality, and marketability of aquaculture products and industries.
- VS will establish a full-time aquaculture epidemiologist (GS-13) position in Florida. This position is warranted in Florida to address the aquaculture industry's need to protect the health and quality of agriculture there. This position will allow APHIS to meet goals set forth in the VS Aquaculture Strategic Plan. This individual would be located in the Tampa, FL, area and provide assistance to the Tropical Aquaculture Laboratory in Ruskin, FL.
- The September 17-20, 2001, OIE Fish Disease Commission Report was sent out for comments. Feedback was requested on the following:
 - A new draft chapter to the next edition of the International Aquatic Animal Health Code on following;
 - Requesting member countries to provide information on trade in amphibians and their products as to their ability to spread infectious diseases internationally; and
 - Adding sheatfish and catfish to the next edition of the Code as susceptible species to epizootic hematopoietic necrosis.
- The next OIE Fish Disease Commission Meeting is scheduled for January 14-17, 2002, at the OIE Headquarters in Paris.

Additional Information

For more information about this APHIS industry report contact Otis Miller, the national aquaculture coordinator, at 301-734-8069.

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