

Aquatic Animal Health Program of NACA

Health Media Monitoring (February 2004)

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1. KOI HERPESVIRUS - JAPAN Carp farmers feel bite of bleak New Year

A herpesvirus has wiped out thousands of tons of koi, threatening to destroy the industry. Ibaraki prefecture Koi farmers, around Lake Kasumigaura -- the epicenter of a fast-spreading outbreak of a deadly herpes virus peculiar to carp, are reeling. The virus has so far killed thousands of tons of fish and spread to 23 prefectures. And it couldn't have come at a worse time: the farmers were just gearing up to meet the New Year's rush. Now they face a "fish-or-cut-bait" proposition: Cut their losses and quit the business, or go on.

A gubernatorial order to destroy all farmed koi in Kasumigaura comes into effect in mid-January 2004, and no one at the nation's major carp farming hub is happy. "It feels like I'm living a nightmare," said one farmer in his 60s. "How can I quit just like that? I've been in the carp business for 40 years." He hasn't been able to send a single shipment since the virus was detected in Kasumigaura-bred carp in November 2003. "My son is trying to come up with a way to continue," he adds. "Neither of us wants to snuff out the flame. We want traditional Kasumigaura koi farming to go on."

However, another 61-year-old farmer is not so sure: "Maybe it's time to quit. I can't imagine taking out another 10-million-yen loan, and struggling on again." In fact, it will take 2 years to get new carp to market once all the existing carp are destroyed. What's more, there's no guarantee they will stay virus-free. The virus has been detected in carp caught in their natural habitat in the Kasumigaura region.

Koi product manufacturers nationwide, who depend upon these carp, are also knitting their brows in worry. "If Kasumigaura goes, we all go," says one business operator. Koi no Miyasaka (Say carp, say Miyasaka), a restaurant in Yonezawa,

Yamagata Prefecture, has been producing carp stew and sweet-boiled carp for 156 years.

Some manufacturers feel there are just not enough carp on the market. One operator warns, "It's almost like beef and the BSE scare. The whole industry is on the brink of being wiped out if this goes on."

Saku, in Nagano Prefecture, is another well-known carp growing area. The koi from this region are called sakugoi.

Though carp in Nagano Prefecture were declared virus-free, the scare affected demand. Orders for New Year's were a modest 70 percent compared to the previous year. Many farmers complain they can't move their carp, and that sales are about 20 percent what they were last year.

A carp farmer in Saku, said: "The lesson here is to restructure the system so that we don't have to rely on out-of-the-prefecture imports. We must grit our teeth and hold on until we can rear pure 'saku-breds,' which will take a few more years. That's the only way we can survive as a carp-producing region."

Authorities say there is no harm in eating carp infected with the virus, as long as it has been cooked. 3 other prefectures besides Ibaraki -- Okayama, Shiga and Fukuoka have ordered farmed carp to be destroyed.

Source: A ProMED-mail post

<<http://www.promedmail.org>>

Date: Fri, 9 Jan 2004

From: Laura Naylor <laura@ornamentalfish.org>

Source: The Asahi Shimbun, 8 Jan 2004 [edited]

<<http://www.asahi.com/english/nation/TKY200401080154.html>>

2. KOI HERPESVIRUS - UNITED KINGDOM

Killer disease threatens angling industry; evidence of herpes virus found in wild carp

A deadly fish disease is thought to have been found in the wild for the first time, threatening Britain's angling industry with disaster. Government officials fear that koi herpes virus, or KHV, an incurable condition which has wreaked havoc in the global ornamental fish trade, has invaded angling lakes and could pose problems for the carp business. Anglers feared for the fish that has become the mainstay of the GBP 3.5 billion per year angling industry. There are about 100 000 carp anglers in the UK. Their leaders are planning to lobby ministers and members of parliament for parliamentary time to pass rules which would allow agencies

to control the virus.

Scientists investigating the deaths of thousands of fish at 6 angling lakes in the last year found evidence of antibodies to KHV. But they are not allowed to identify the lakes or launch detailed checks on how they were stocked, because it is not an officially notifiable disease. Increased monitoring is expected this year but there is no test for live fish. Pressure will also mount on the European commission to take action, since carp are a common food source in Europe, especially in countries preparing to join the EU [such as Poland and the Czech Republic. - Mod.AS]. Carp were once a common food source in the UK -- imported fish stocked monastery ponds -- and they are now popular with anglers who "catch and return" millions of the fish.

Tim Marks, vice-president of the Specialist Anglers' Alliance, said: "If there is serious fish kill [from KHV], we have a major problem on our hands. Carp are hardy, grow fast, and pull your string when you stick a hook in them. "If there are fish in the wild already with the disease, you are shutting the door after the horse has bolted."

Ian Chillcott, founder of the English Carp Heritage Organisation, said: "This is probably the biggest carp killer we have seen. It has been mooted that if it gets into water and then becomes active, it can kill all the carp in 24 hours." He suggested that the disease had spread through unscrupulous dealers in ornamental koi carp who had introduced unhealthy specimens in several countries and sold them to unsuspecting buyers.

"[The carp] grow too big for their tanks, so owners throw them into the lakes. Anglers are now finding massive goldfish, for want of a better word. It sounds funny but the potential for ecological disaster is massive."

Carp farming is big business. But angling bodies are concerned by increased illegal trading and stocking of carp, and fear that non-native species threaten the fishing economy and other wildlife.

Some farms and angling lakes already provide disinfectant for anglers' nets, boots, and other equipment to try to reduce the potential for spreading KHV, but this is far from universal.

Angling organisations are also worried that the Environment Agency, which manages and polices angling in England and Wales, and CEFAS, the government research and consultancy body, are not sufficiently funded to tackle such problems. Mr Chillcott said: "Research is going full steam ahead, and we are trying to fund it to get it done quicker. If this is not checked it could prove disastrous, without a doubt."

Kevin Denham, of CEFAS's fish health laboratory, in Weymouth, Dorset, has recently alerted vets to look out for evidence of KHV, which may often be latent and not obvious. He believes the ideal conditions for its spread, including sufficiently warm water, are most likely between May and September.

On 2003's results, Dr Denham said: "We haven't sufficient evidence to say, 'this was the cause of mortality'. We have plenty of circumstantial evidence to say it probably was. Whilst we have 90 percent of the picture in some circumstances, we need to be absolutely certain before we say this is causing significant mortality in the wild in this country."

Some people released ornamental fish because they thought they would stand a better chance. Nigel Hewlett, a senior fisheries scientist at the Environment Agency, said the incidents last year had been "quite widespread" and ornamental fish were "likely" to be the cause, but the fishing centres involved had a legal right to keep it private. They had not been allowed to move stock elsewhere. "We are certainly concerned about it because of the scale of the carp industry in this country."

Source: Date: Fri, 16 Jan 2004

From: ProMED-mail <promed@promedmail.org>

Source: The Guardian, 10 Jan 2004 [edited]

<http://www.guardian.co.uk/uk_news/story/0,3604,1119897,00.html>

3. FDA tests missing many contaminants in imported seafood

European countries this year seized dozens of tons of farmed salmon from Chile found to be contaminated with malachite green, a fabric dye banned in the United States since 1991 and suspected of causing cancer.

But the United States imports thousands of tons of salmon from Chile without testing for malachite green, which also acts as a fungicide, and other chemicals used at foreign fish farms.

It is unclear whether salmon tainted with such compounds is entering U.S. markets.

Earlier this year, however, Canadian inspectors found malachite green in smoked salmon they believe was first imported to the United States and packaged here. And Costco, which annually sells more than 30 million pounds of mostly Chilean farmed salmon, said recently that it soon will begin screening for the fungicide.

And other drugs, some of them antibiotics familiar for their human application, might be slipping through. The FDA does not test salmon for oxytetracycline, an antibiotic, although authorities in Japan recently

seized Chilean salmon with excessively high levels of it.

From :AquaVetMed e-news(DScarfe@avma.org).

Source: Michael Milstein

Newhouse News Service

<http://www.cleveland.com/living/plaindealer/index.ssf?/base/living/106682221453930.xml>

4. A national simulated aquatic disease outbreak

The aim of Exercise Tethys is to effectively address issues of inter-jurisdictional communication and cooperation in response to an emergency disease incident, and heighten the awareness of these jurisdictions to the potential for incursions of emergency disease in Australia's aquatic environment.

The objectives of the simulation include:

- * Evaluating formal communication networks between jurisdictions;
- * Evaluating informal communication networks between jurisdictions;
- * Improving cooperation between jurisdictions during an emergency response;
- * Evaluating awareness of emergency disease management mechanisms (eg disease control policies and strategies as described in AQUAVETPLAN, AqCCEAD operation) among states/territories; and
- * Improving general awareness of aquatic animal emergencies.

AquaVetMed e-news(DScarfe@avma.org).

See <http://www.affa.gov.au/content/output.cfm?ObjectID=3D90B9C3-6F86-43A2-A70B047B9DFBB629&contType=outputs> for

- * Background
- * Aim
- * Objectives
- * Who's involved?
- * Why a multi-jurisdictional exercise?
- * What's in name? - 'Tethys'

5. INFECTIOUS SALMON ANAEMIA (ISA).

This disease which has been known in Norway for 14 years has suddenly become news in Scotland and Canada where the first confirmed outbreaks have occurred. In Scotland it is not yet clear whether the disease has been contained. Affected farms have culled stock and put in place a number of sanitary measures. In Eastern Canada severe losses have been experienced over a wide area centred on the Bay of Fundy.

Aqua Health was given permission to release its ISA vaccine under an autogenous licence to a number of farms in this area. In the laboratory this vaccine has shown a very high degree of protection and it is hoped that, together with the management controls, this will contain the disease during the coming season. Although preparations have been

made to produce a version of the vaccine for Europe, its use will not be permitted unless a change is made in the current EU legislation which lists ISA as a "List 1" disease for which eradication is the only option.

AquaVetMed e-news(DScarfe@avma.org).

Source: Aqua Health - Europe, Ltd. - <http://www.aquahealth.co.uk/news.htm>

6. Will FDA bite on genetically modified salmon?

Elliot Entis has a whopper of a fish tale to tell. Now if he could only come up with an ending. Entis' story is about a salmon that has been genetically modified to grow to its full size of 8 pounds in 18 months, half the time for a normal fish. Entis and his backers champion the fish, the "AquAdvantage" salmon, as cheap, nutritious and environmentally friendly.

Entis hopes the Food and Drug Administration (FDA) will soon proclaim that his salmon is safe to eat, making it the first genetically modified animal allowed into the human food chain and opening the door for other biotech animals to be sold as food.

The problem is that the FDA has yet to figure out how to regulate genetically engineered animals. The agency planned to release guidelines for regulatory approval in 2001, but Entis and other biotech entrepreneurs still are waiting.

FDA officials said the recent setback on cloned animals will not affect their review of genetically modified animals, which is a separate issue.

Tollefson said the FDA will consult the other federal agencies with environmental expertise, including the Environmental Protection Agency and the Fish and Wildlife Service, to help assess the environmental risks.

AquaVetMed e-news(DScarfe@avma.org).

Source: By Andrew Martin

Chicago Tribune. See link for full article.

http://seattletimes.nwsources.com/html/nationworld/2001798386_bigfish22.html

7. JAPAN: Scientists find safer way to keep farmed fish virus-free

Japanese researchers claim they have perfected a technique that will keep farmed fish and shellfish virus-free without the use of controversial anti-bacterial drugs or chemicals.

Microscopically small bubbles that carry ozone were successful in killing the Norovirus when circulated in seawater in experiments by scientists at

the National Institute of Advanced Industrial Science and Technology in Tsukuba.

Norovirus is responsible for many cases of food poisoning in winter months, particularly from infected oysters. The success trials have led to team to start using the technique to suppress legionella bacteria and viruses that commonly effect livestock in fish farms.

AquaVetMed e-news(DScarfe@avma.org).

16 Feb 2004

Michael Fitzpatrick

Source: http://www.just-food.com/news_detail.asp?art=56711

8. Drugs Used in the US Aquaculture Industry

(November 2003) This white paper was developed by the Get the Facts Aquaculture Scientific Advisory Panel, an alliance of US organizations, including several professional societies. http://aquanic.org/asap/white_pages/drugs.pdf

Summary

The use of drugs and chemicals by the US aquaculture industry is strictly regulated by the US Food and Drug Administration (FDA) and the US Environmental Protection Agency (EPA). FDA requires a scientific evaluation of a drug's effectiveness and safety for humans and the environment before approval. The EPA requires a scientific evaluation of a chemicals safety before it can be registered and sold. In the US, there are only six drugs approved for use in aquaculture: one anesthetic, one parasiticide, one spawning agent, and three antibiotics. One of the approved antibiotics is no longer manufactured and available. All drugs must be used according to label instructions.

Oxytetracycline and a potentiated sulfonamide (sulfadimethoxine: ormetoprim) are antibiotics approved for use to treat disease but only in certain types of aquatic animal (channel catfish, salmonids and lobster with oxytetracycline) and only to treat certain diseases. Antibiotics are only approved to treat disease and cannot be used as a growth promotant or prophylactically. Survey results indicate only 50,000 to 70,000 lbs of antibiotic active ingredient are sold per year for use in the domestic aquaculture industry.

This represents approximately 0.3-0.4 % of all the antibiotics used in animal agriculture in the US. There is little scientific documentation to support suggestions that the domestic use of antibiotics in the aquaculture industry has caused any harm to humans or the environment.

Copper sulfate is a chemical algacide registered by the EPA for this purpose. It also has therapeutic value to treat protozoal parasite infestations of various aquatic animals. The discharge of copper sulfate is regulated by the EPA. Discharges must meet water quality standards as specified in the US Clean Water Act.

Source: AquaVetMed e-news(DScarfe@avma.org).