

C F F T A

COARSE FISH FARMERS AND
TRADERS ASSOCIATION

Protection against Koi Herpes Virus (KHV)

Aim

The fisheries industry was been badly hit by the outbreak of Koi Herpes Virus in 2006. This has highlighted the problems associated with new and emergent disease and the legislative control methods that are currently in place. This document will set out the response of the fish supply industry, as it works towards establishing codes of practice that will help both the industry and its customers.

We hope that this transparent approach will allow a greater degree of trust and understanding between customer and supplier, which will allow the industry to have much greater control over problems that may arise in the future.

Background

Koi Herpes Virus was first officially recorded in the England in 1999 but has been found in samples of fish collected from as far back as 1996. During the summer of 2006 it caused significant mortalities in 23 fisheries in England. As a result the fisheries industry was badly disrupted and many fish farmers and traders found their businesses badly affected. Fortunately no farmers or traders were found to be infected with KHV, or to be linked to the outbreak. Further outbreaks are likely if no action is taken.

In the future it is likely that further “new and emerging” diseases will appear in fish populations in England. These have the potential to greatly damage the fisheries industry in the UK as a whole and the business of farmers and traders, through direct mortality, loss of customer confidence and legislative control methods.

It is therefore in everyone’s best interest to attempt to prevent the transfer of any pathogen, in all areas of the work carried out by our members. By far the greatest risk of disease transfer is through direct fish to fish contact. However, many pathogens will survive away from the host for some time, so equipment, personnel and water will also carry risks. The trade in live fish needs to quickly move towards adopting codes of practice that include the principle of biosecurity.

Furthermore, the techniques used to control infection through biosecurity and through adaptive and good husbandry practice will allow farmers and traders to illustrate how their businesses conform to the codes of practice for animal welfare.

Site Management Plans

A “Biosecurity plan” is a plan that identifies potential pathways for the introduction and spread of disease in a zone or compartment. It describes the measures that are being, or will be, applied to mitigate disease risks in accordance with the recommendations in the Aquatic Code. It will also describe how these measures are

audited, to ensure that the risks are regularly re-assessed and the measures adjusted accordingly. **(OIE definition)**

Such a plan will obviously need to be site specific and will alter depending on the type of trade performed at that particular site. It is therefore sensible to develop a **Site Management Plan** for each site run by a business. It should be possible to include in the Site Management Plan details of husbandry techniques and transport protocols, thus allowing the business to show how it conforms to other legislation, such as the Animal Welfare Bill and the Welfare of Animals during Transport Bill.

Site Management Plans can be used in the prevention of disease transfer. However it must be understood that whilst the risk can be minimised in most circumstances, it can never be completely removed. It is important therefore that their use is widely understood and publicised. To this end we would expect there to be an easily accessible register of businesses, which will include a summary of their Site Management Plans. This will allow customers to make an informed choice when purchasing their fish.

Disinfection

One of the underpinning factors for biosecurity is effective disinfection of equipment and personnel. Most viruses, including KHV, are inactivated by exposure to UV, temperatures over 50°C for 1 minute or the use of a chemical disinfectant. Viruses are generally the most resistant and so our recommendations are as follows:

All equipment, including personnel equipment (waders, gloves, etc.) should be cleaned and dried. The following disinfectants can then be used although Virkon S will be the recommended disinfectant.

Disinfectant	Concentration Milligrams per litre	Exposure time
Virkon S for aquaculture	1% solution	10 minutes
Iodophore (Iosan CCT, Wescodyne)	200	30 seconds

Detection techniques for KHV and other pathogens.

The routine examination of stock for pathogens will be a key aspect of any site management plan. This will not only allow for reaction to the presence of a serious fish disease, but will also allow for adaptive husbandry methods to be used to control more normal pathogens.

Routine examination should therefore play an active part in the management of the site. These examinations should occur in such a way that they fulfil the husbandry requirements of the site, as well as any legislative requirements of the enforcement agencies.

For KHV there are two main tests available at the present time, Polymerase Chain Reaction (PCR) and Enzyme Linked Immuno-Sorbant Assay (ELISA). Neither of these will accurately detect KHV in the latent stage. It is important that the industry supports the efforts of the scientific community to develop more accurate tests.

The best methods for detection of pathogens should always be used and they should be a routine part of the running of any site.

Audit

Any site management plan will only reduce the risk not eliminate it completely. It also requires a certain degree of trust from customer groups that the plans are effective.

The detailed structure of these plans will be agreed in consultation with representatives from the customer organisations, such as FACT and ECHO. This will hopefully give some confidence to the customer groups that these plans will be effective in minimising the risk.

Furthermore an audit system needs to be established, where sites can be visited by a third party who will be able to check that they are continuing to maintain the standards required.

Finance

It is considered that the industry group could bear the cost of establishing this process for the industry in the short term. However audit procedures would be difficult to finance and some consideration to an accreditation scheme needs to be given in the medium term.

Further considerations

It is vital for the future that an understanding of the spread of KHV within the UK freshwater fish populations is established. All businesses should support and facilitate ongoing work to develop accurate tests.

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Secretary CFF&TA

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