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The complete biosecurity solution

Aerial Fogging (Misting) with 1:200 (0.5%) Virkon® Aquatic Solution for Disinfection and Quarantine Uses

Introduction

There is now strong evidence that fish viruses like IPNV the cause of infectious pancreatic necrosis and even protozoan parasites such as Ichthiophthirius can be readily transferred by aerosol to beams or pipework in a building, or from one tank to another. This means that even with regular cleaning of the facility between crops and careful hygiene, infections can persist or transfer between stocks.

In poultry and pig systems this is now dealt with by regular fogging of the production environment as part of an integrated biosecurity programme. It is now also becoming the norm in larger smolt production systems and in specialist koi and wild cyprinid breeding facilities. We strongly recommend that aerial fogging with Virkon® Aquatic at 0.5% be used after every crop transfer clean-down and also weekly during production in hatcheries. This is ESPECIALLY important in salmon culture where there has been a history of IPN infection in the building as the IPN virus is very resistant and can survive in inaccessible places in organic matter for many months.

To make a 0.5% stock solution

1. Select a clean, watertight container of known volume.
2. Fill with clean fresh water to the volume required
3. Using the measure in the box add Virkon® Aquatic at a rate of 5g per litre (2 pints approx) of water
4. Agitate to help the powder dissolve
5. Measure out the volume of solution required into the fogger.
6. Seal container and store any balance in a cool place for up to 5 days
7. If using Virkon® Aquatic tablets, these are 5gm and should be added at rate of one tablet per litre

Foggers

There are two types of fogger-the smaller hand held or moveable cold fogger, which injects the Virkon® Aquatic into the atmosphere and static fan foggers, which may warm the fog for extra penetration and blow it to circulate. The latter can be left on overnight whereas smaller ones foggers need to be refilled and moved around the building after they have fogged a certain area (usually about 400 cubic metres).

Method

The fogger is loaded with Virkon® Aquatic to the appropriate level and fogging can commence. Normally the machine would be adjusted to use one litre of 0.5% solution per 100 cubic metres. If a smaller, portable machine is being used, it must be moved to a new area as the mist approaches the machine from the fogged area. Usually this will allow an area of 400cubic metres to be fogged before moving. Misty air should not be allowed to recirculate through the machine. A small sponge filter placed at the fogger's air intake can help prevent this.

Precautions

Although it is not dangerous to inhale the mist, indeed in pig production animals may be misted two or three times a day, to deal with airborne mycoplasmas and viruses, nevertheless it might cause slight irritation and it is best to leave the building while fogging is taking place.

Since the main purpose of fogging is to deal with microbes in the atmosphere and penetrate inaccessible areas in the building, any electric motors, or electrical equipment which might also be penetrated and damaged by moisture or possibly have electrodes corroded over time should be covered during fogging.