

Results of Disinfection Testing by OSU – Summary

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Original intent: to determine if the process used in the KOI's Show Water Quality procedure intended to disinfect equipment actually works and, if so, to what extent.

Testing at OSU: relatively small specimens of the koi netting and tubs were used to represent the equipment actually used in koi shows as testing full-sized equipment would have been cost prohibitive.

Problems encountered: residuals of both the benzalkonium chloride (BC) and the sodium thiosulfate (ST) appeared to be toxic (killed the cells) to the cells used to detect residual virions remaining on or in the samples after the process.

Result: in the testing performed by OSU, the disinfection procedure did not completely kill all the viruses, but reduced original virions approximately 1,000 fold.

Conclusion and Discussion: The test results suggest that K.O.I.'s Show Water Quality disinfecting procedure is not completely effective in eliminating KHV on koi nets and tubs. However, the test did show the procedure yielded an approximate 1,000 fold reduction in virions and thus KOI's disinfecting procedure will likely reduce the virions on nets and tubs 1,000 fold.

It is reasonable to speculate that the dilution factor alone resulting from dipping nets and tubs into the large disinfecting and rinse tanks will significantly reduce any virions adhering to the surfaces of that equipment. Further reasonable speculation: the presence of 200 ppm of BC in the first rinse tank will very likely inactivate virions that are washed off netting and tubs into that tank.