



ANTIBIOTIC USE

- Huon has not used antibiotics on any fish in any marine sites since 2016 when a single pen was treated.
- Further, Huon did not use antibiotics at any of our freshwater sites in the 2019-20 financial year. Our use of antibiotics across our freshwater operations (i.e. hatcheries) is restricted to our non-consumptive flow-through hatcheries (which only hold on average around 20 per cent of our total smolt biomass). We publicly disclose our antibiotic use - see our website for details. (<https://www.huonaqua.com.au/our-approach/approach/ethical-farming/antibiotic-use/>).
- Huon also reports antibiotic use to the State Government in real time.
- We believe that disease control in salmon requires a holistic approach. Good site management, fish husbandry and rigorous biosecurity measures are central to reducing the risk of disease outbreaks and controlling the spread of infectious diseases.
- The correct use of antibiotic is critical in reducing antimicrobial resistance which is why our Fish Health teams (which includes veterinarians) follow World Health Organisation (WHO) guidelines for the use of antibiotics in livestock industries.
- Our veterinarians only prescribe antibiotics as a last resort. Before prescription they conduct a full investigation including confirmation of diagnosis through laboratory testing of fish health samples, and confirming antibiotic sensitivity of causative organisms.
- If antibiotics are administered, there is a strict withholding period which means that any traces are completely passed through the fish long before it is harvested.
- Huon also participates in an annual national residue survey to monitor levels of therapeutants and regularly participates in research projects to assess antimicrobial resistance in collaboration with the Australian Government as part of its National Antimicrobial Resistance Strategy.
- The Australian Government released a report on the total antimicrobial products sold in Australia for Veterinary use from 2005-2010. More than 99% of antimicrobial products used every year in the agriculture/aquaculture sector relate to land-based animals. As an example, in 2009-10, of the total quantity of antimicrobials sold for therapeutic purposes for use in food animals, 55.9% were used in poultry, 13% in cattle and sheep, pigs accounted for 31% and other species (including salmon) accounted for 0.1%! [The report can be viewed here.](#)

A LAST RESORT

We believe that antibiotics should only be used as a last resort which is why we practice a holistic approach to farming. This approach is the reason why it has been five years since we last used antibiotics at sea, which was to treat a single pen of fish.

In January 2019, we used antibiotics to treat the small fish we grow in two of our freshwater hatcheries. The fish in these hatcheries were prescribed the treatment as they had *Yersinia* (a coccobacilli bacterium which is naturally present in some water). However, Huon has not used antibiotics at sea since 2016 when a single pen was treated.



We will never use antibiotics at our closed-loop (RAS) hatcheries as these systems rely on good bacteria within the waste treatment system to treat the water. Using antibiotics in these systems would kill both the good and bad bacteria.

TYPES USED

Huon does not use any of the antibiotics listed as Critically Important by the WHO—despite WHO guidelines stating that their use would be acceptable under certain defined circumstances.

WHO categorises all antimicrobials used in human medicine as either Critically Important, Highly Important or Important in the medically treatment of bacterial infections in humans; in effect placing a value/importance on each antimicrobial in terms of its effectiveness in combating bacterial infections.

Huon only uses Trimethoprim (Dihydrofolate Inhibitor) and Oxytetracycline (Tetracycline) which are on the WHO Highly Important list. If needing to be used, it is undertaken during the fish's early life stages. Using at this early stage (some 12 months before it reaches harvest size) significantly exceeds the required withdrawal periods.

The Tasmanian industry as a whole independently made the decision many years ago not to use antibiotics such as Oxolinic Acid (Quinolone) and Amoxycillin (Penicillin) which are compounds listed by the WHO within Critically Important classes of antimicrobials. This decision was made despite these particular antibiotics being used in salmon farming across other countries.

WITHOLDING PERIOD AND RESIDUE TESTING

In the event that antibiotics are used in a population of fish at sea, we adhere to strict withholding periods which allows any therapeutants to pass through the fish before it is harvested for consumption.

In addition, Huon participates in an annual national residue survey to monitor levels of therapeutants. Results of flesh testing can be found via the following website: <https://www.agriculture.gov.au/ag-farm-food/food/nrs>.

On occasion we also conduct voluntarily flesh testing which is not required by government regulations. When we do this, we publish the results on our website.

