

NOW APPROVED FOR FRESHWATER-REARED SALMONIDS

Get ready
to reach
new highs

AQUAFLO[®]
(FLORFENICOL) TYPE A MEDICATED ARTICLE

[HIGH PERFORMANCE]

[HIGH SAFETY]

[HIGH PALATABILITY]

[HIGH VALUE]

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This year even more fish farmers will scale new heights in performance.

AQUAFLO[®] — the first antibiotic licensed for US aquaculture in more than 20 years — has been approved for use in trout and other freshwater-reared salmonids.

With early diagnostics and proactive management, AQUAFLO will help you reach new highs for fish survival and profitability.

Contact your veterinarian, feed supplier or extension agent today and say you want to bring your fish health program to a new high.

THE SKY'S YOUR LIMIT FROM HERE.



[HIGH PERFORMANCE]

- **First and only antibiotic** approved in the US for controlling mortality in freshwater-reared salmonids associated with *Flavobacterium psychrophilum* (coldwater disease)
- **Field-proven worldwide** against major fish pathogens
- New-generation, broad-spectrum antibiotic with **unique molecular structure**
- **Goes to work quickly** for rapid decline in mortality
- **Well distributed** in fish tissue and fluids
- Optimal bioavailability — **maximizes delivery** of active ingredient to fish, minimizes waste

IN RAINBOW TROUT:

73.9% bioavailable at 10°C

66.3% bioavailable at 16°C

- Keeps fish healthy so they **stay on feed** for **optimum survival and growth** — lets you reduce stocking rates, lower costs of production
- **Exclusive Veterinary Feed Directive** status ensures correct usage

AQUAFLO[®]

*Studies show US field isolates of disease-causing bacteria are more sensitive to **AQUAFLO**R than other antibiotics that have developed resistance.*

**IN VITRO ACTIVITY AGAINST US FIELD ISOLATES —
AQUAFLO**R vs. OTHERS*

Antibiotic	<i>Flavobacterium psychrophilum</i> ** n = 51			<i>Aeromonas salmonicida</i> *** n = 54		
	S	I	R	S	I	R
AQUAFLO R (florfenicol)	100%	0%	0%	100%	0%	0%
Oxytetracycline	86%	5.9%	7.8%	20.4%	0%	79.6%
Ormetoprim / Sulfa	N/A	N/A	N/A	98%	0%	2%

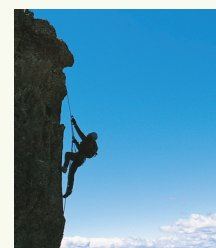
S = Sensitive I = Intermediate R = Resistant

* Susceptibility based on published zones of inhibition for non-aquatic pathogens, *Performance standards for antimicrobial disk and dilution susceptibility tests for bacteria isolated from animals* - information supplement, M31-S1, Vol 24, No. 17.

** Fish pathogens on label have demonstrated *in vivo* susceptibility to florfenicol which correlates to clinical efficacy.

*** The correlation between *in vitro* susceptibility data and clinical efficacy has not been determined. Refer to product for specific instructions.

Source: Olympia Fish Health Center, USFWS, Olympia Washington 2001-2005.



SALMONID FEEDS CONTAINING AQUAFLOR (FLORFENICOL) MUST BE WITHDRAWN 15 DAYS PRIOR TO SLAUGHTER. THE EFFECTS OF AQUAFLOR ON REPRODUCTIVE PERFORMANCE HAVE NOT BEEN DETERMINED. SEE ACCOMPANYING PACKAGE INSERT FOR MORE PRODUCT INFORMATION.



HIGH SAFETY

- **Excellent safety profile** for fish, human food, environment
- Well tolerated by fry, fingerlings and food fish — with **no performance setbacks**
- Developed specifically for use in fish and food animal species — **market your product with added confidence**
- **Friendly to environment** — no significant risk to aquatic ecosystems

Safety and palatability trial in Atlantic salmon parr (11 g) and freshwater-reared rainbow trout (45-75 g)

TRIAL DESIGN

- **Salmon parr** were fed up to **10 times the recommended dose rate** for the recommended treatment period (10 days)
- **Trout** were fed to up to **5 times the recommended dose rate** over 20 days or **twice the prescribed treatment period**

RESULTS NO NEGATIVE EFFECT ON:

- **FEED CONSUMPTION**
- **BODY WEIGHT**
- **FISH BEHAVIOR**
- **TISSUES** (histopathology)
- **MORTALITY**

AQUAFLO[®]

*Studies show **AQUAFLO** has no negative impact on mortality, behavior, histopathology or feed consumption — even when fed at 10 times the recommended dose rate.*

AQUAFLO SAFETY TRIALS — EFFECT OF DOSE RATE
ON MORTALITY, HISTOPATHOLOGY AND FEED CONSUMPTION

	10 Days Recommended treatment period				20 Days 2x recommended treatment period*		
	1X	2X	4X	10X	2X	6X	10X
<i>Times recommended dose of 10 mg/kg x 10 days</i>							
<i>Mortality, %</i>	0	0	0	0	0	0	0
<i>Significant change in fish behavior</i>	0	0	0	0	0	0	0
<i>Significant lesions from treatment, %</i>	0	0	0	0	0	0	0
<i>Reductions in feed consumption and fish growth</i>	0	0	0	0	0	0	0

* 2X = 10 mg/kg for 20 days / 6X = 30 mg/kg for 20 days / 10X = 50 mg/kg for 20 days.



Wide safety margin with AQUAFLO



[HIGH PALATABILITY]

- Fish readily consume feed with AQUAFLO — palatability comparable to unmedicated feed
- Studies show fish stay on feed and continue to gain weight throughout treatment period
- Well accepted — no adverse effects on fish behavior or performance, even at 5x and 10x dose rates
- Minimize feed wastage, maximize antibiotic uptake

PALATABILITY TRIAL, RAINBOW TROUT — AQUAFLO vs. UNMEDICATED FEED

Treatment groups 10-day treatment period	Feed consumed, % **
Untreated	99.5
	99.0
	99.6
AQUAFLO 1X*	99.8
	99.6
	99.4
AQUAFLO 3X	99.2
	99.2
	99.7
AQUAFLO 5X	99.3
	99.6
	99.6

* Recommended dose rate for AQUAFLO (10 mg/kg for 10 days).

** Total percentage of unconsumed feed adjusted for a recovery efficiency of 97.75%.

HIGH VALUE

- **Convenient to use** — may be incorporated into pellets or top-coated
- Uniform premix granulation for optimum distribution in and on feed plus **more precise dosage delivery**
- **Excellent stability** in extruded feed
- Backed by Schering-Plough Animal Health — **the world leader** in fish health
- **Excellent field experience** by US fish farmers

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2006 USER SURVEY, US FISH FARMERS

In a recent survey, US fish farmers were asked to rate their experience with **AQUAFLO[®]***

* Data on file at Schering-Plough.

EXPERIENCE WITH AQUAFLO

SATISFACTION RATING

CONTROLS BACTERIAL DISEASE>	100%
REDUCES MORTALITY QUICKLY>	100%
KEEPS FISH ON FEED DURING TREATMENT>	97.2%
OVERALL EXPERIENCE WITH AQUAFLO>	100%

AQUAFLO[®]

VETERINARY FEED DIRECTIVE CHECKLIST

VFD

AQUAFLOR is the first product for aquaculture classified by FDA as a **Veterinary Feed Directive (VFD) drug**.

FDA established this new category for new in-feed therapeutics to **ensure judicious use and long-term effectiveness**.

- ✓ **A veterinarian-client-patient-relationship, as defined by FDA, must be in place to obtain a VFD drug.**
- ✓ **VFD orders must be signed by the producer's veterinarian and issued in triplicate, with one copy being retained by each party:**
 - **Feed supplier (white)**
 - **Producer (yellow)**
 - **Veterinarian (pink)**
- ✓ **Producers should provide an original copy of the VFD order to their feed supplier if the veterinarian has not already done so.**
- ✓ **VFD orders that have been faxed to the feed supplier must be followed by the original VFD order within 5 days.**
- ✓ **Producers, feed suppliers and veterinarians must retain signed VFD orders for a minimum of 2 years and make them available for review and copying during FDA inspections.**

For more information and for copies of VFD forms, go to

WWW.AQUAFLO-R-USA.COM

or call **1.800.521.5767**





CAUTION: Federal law limits this drug to use under the professional supervision of a licensed veterinarian. Animal feed bearing or containing this veterinary feed directive drug shall be fed to animals only by or upon a lawful Veterinary Feed Directive (VFD) issued by a licensed veterinarian in the course of the veterinarian's professional practice.

AQUAFLO® is a registered trademark of Schering-Plough Animal Health Corporation.

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