

## State of Maine Department of Marine Resources Information Sheet on Use of Therapeutic Agents in Marine Finfish Aquaculture

All therapeutic agents in aquaculture must be prescribed by a veterinarian to treat a specific diagnosed condition or disease. Preventative treatment and use to enhance growth is illegal. Vaccines for several common infections and an integrated pest management program for sea-lice have reduced use of therapeutics.

Of the three therapeutics (formalin, Romet 30™, and Terramycin™) that are fully approved by the U.S. Food and Drug Administration for use on marine species, only Terramycin™ is used in Maine. In addition, only one sea-lice treatment (Slice™) and one bacterial treatment (Aquaflor™) are used under the U.S. Food and Drug Administration's Investigational New Animal Drug (INAD) program. Use of Cypermethrin™ and formalin, both external bath treatments for sea lice, have been entirely replaced by Slice™. All therapeutics used in Maine are now administered orally through specially formulated feed for more effective delivery and less loss to the surrounding environment. Before an investigational drug can be reclassified to approved status, it must undergo research and monitoring to ensure environmental safety. Maine Departments of Marine Resources and Environmental Protection, the University of Maine, the U.S. Food and Drug Administration, and industry participate in the approval process.

### Therapeutic Agents Legal for Use at Maine Marine Finfish Farms

Brand name(s)	Chemical name	Type
Formalin-F™; Paracide-F™; Parasite-S™	Formalin	Fungicide; control of external trematodes
Romet 30™	Sulfadimethoxine : ormetoprim	Antibiotic
Cypermethrin™		Parasiticide
Slice™	Emmamectin benzoate	Parasiticide
Terramycin™ (TM-100)	Oxytetracycline	Antibiotic
Aquaflor™	Florfenicol	Antibiotic

### Total Annual Amount of Therapeutic Agents Used at Maine Marine Finfish Farms

	2001	2002	2003	2004	2005	2006	2007	2008
Compound	(Amount of active ingredient)							
Formalin	none	none	none	none	none	none	none	none
Romet 30™	none	none	none	none	none	none	none	none
Cypermethrin™ (liters)	778	none	none	none	none	none	none	none
Slice™ (kgs)	0.59	1.12	0.66	1.72	0.8	1.01	1.44	0.75
Terramycin™ (kgs)	349	6.7	1,299	316	313	none	none	none
Aquaflor™ (grams)	none	none	none	none	none	0.13	none	none

Time intervals from last dose to before product can be marketed (withdrawal periods) vary with agent. Of the three therapeutic agents used in Maine, Slice™ has a 60-day, Terramycin™ has a 21-day, and Aquaflor™ has a 15 day withdrawal period per USFDA regulations.