

IOP 014.2
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Replaces IOP 014.1
Page 1 of 4

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INSTRUMENT OPERATING PROCEDURE

INSTRUMENT:

Procedure for operating system used to apply Bayluscide 70% Wettable Powder

MODEL:

None

MANUFACTURER:

Components manufactured by various companies

SERIAL NUMBERS:

None

PROPERTY NUMBERS:

None

PRECAUTIONS:

POTENTIAL INTERFERENCES

Two-way radio transmissions in the vicinity of the pumps may affect the rate of delivery.

SAFETY

See Pesticide Labels and MSDS for Bayluscide 70% WP and TFM (Appendices E and F)

PROCEDURES:

- I. Preparation
 - A. Pumps
 1. Lampricide delivery pumps
 - a. TFM
 - (1) Prepare a peristaltic delivery pump (IOP:005.x) to deliver TFM according to TOP:012.x.
 - (2) Set the pump to deliver into the sump barrel.
 - b. Bayluscide
 - (1) Prepare a peristaltic delivery pump (IOP:005.x) to deliver Bayluscide slurry according to TOP:013.x.
 - (2) Set the pump to deliver into the sump barrel.
 2. Water pump for spreader system
 - a. Locate the 110 VAC water pump near the stream. The pump must be near both the end of the spreader and the sump.
 - b. Place the intake into the sump barrel (already located in the stream).
 - c. Connect the water pump to the spreader.
 - B. Spreaders
 1. Perforated hose
 - a. Extend the perforated hose across the stream and anchor at the end and along the length of the hose to secure.
 - b. Connect the hose to the water pump and establish a flow to assure that holes are not clogged and that delivery is even across the stream.
 2. Perforated PVC pipes and manifold
 - a. Place the perforated PVC spreader pipes at sites which provide a spread of lampricide across the stream.
 - b. Anchor each of the spreader pipes in place on the stream bottom.
 - c. Connect hoses to each of the pipes and extend them to the spreader manifold.
 - C. Mixing apparatus
 1. Mixing tub and electric outboard motor or submersible pump
 - a. A 30-gallon vinyl tub is filled half-way with stream water.
 - b. A predetermined amount of Bayluscide 70% WP is carefully added to the tub.
 - c. A 12-volt electric outboard motor is fitted to the tub and started to mix the lampricide/water slurry or the submersible pump is placed in the tub and started.
 - d. The tub is filled to the 30-gallon mark with stream water.
 - e. The electric outboard motor or submersible pump continues to mix the slurry throughout the application to assure a homogeneous mixture.

2. Dedicated mixing device for Bayluscide 70% WP
 - a. This device holds the mixture of water and Bayluscide 70% WP prior to delivery, and provides a well-mixed slurry for application.
 - b. Set-up of apparatus
 - (1) Place the two tanks side by side on a level, solid surface.
 - (2) Attach a Mag drive 110 VAC mixing pump to each tank; hoses are stored in the tanks. The input to the pump draws water from the bottom of the tank, and the output connects to the fitting on the side. The hose with the valve is used for the input to the pump. The valve assures that the flow can be shut off for repairs or replacement in case of a pump failure.
 - c. Preparation of slurry
 - (1) Fill the tank to the desired level with stream water.
 - (2) **Open both valves** and turn on power to the pumps. This begins circulation of the water in the tanks.
 - (3) A predetermined amount of Bayluscide 70% WP is slowly added to each tank.
 - (4) The slurry is allowed to mix for a minimum of ½ hour before the application begins. This ensures a homogeneous mix.
 - (5) The mixture is delivered to the stream by a peristaltic pump connected to the fitting located on the side of the tank near the top.

D. Hoses

1. Water intake: This hose extends from the PVC “Y” fitting or sump barrel to the water pump.
2. Lampricide delivery: This hose extends from the water pump to the spreader hose or spreader bar manifold.

E. Generator

1. The generator is started to furnish power to the 110 VAC water pump or,
2. A gas-powered water pump is used to pump the water/lampricide mixture through the spreader system.

F. Sump barrel

1. PVC “Y” fitting with foot valve is set in the stream.
 - a. Water is pulled through this fitting by the water pump.
 - b. Both lampricides are metered into the arm of the “Y” and drawn through the water pump to the spreader system.
2. A perforated sump barrel is set in the stream (older method).

II. Operation

- A. Mixing of Bayluscide 70% WP slurry
 - 1. One or more batches of Bayluscide 70% WP/stream water slurry are prepared prior to the beginning of an application.
 - 2. The slurry is mixed continuously to suspend the lampricide.
- B. Adjustment of application rate (see TOP:013.x)

MAINTENANCE:


All pumps, hoses, spreader apparatus, and associated equipment must be cleaned after each use.

REFERENCE:

None

This procedure has been reviewed and approved by the undersigned representatives of the U.S. Fish and Wildlife Service and Fisheries and Oceans Canada.

REVIEWED/APPROVED  DATE 4-15-2004
Field Supervisor (U.S.)

REVIEWED/APPROVED  DATE April 14/2004
Division Manager (Canada)