

## Discharge Worksheet - Oxytetracycline

**Instructions:** Use this Worksheet to calculate estimates of 1) the *maximum* amount of Oxytetracycline (in grams) to be fed each day during treatment of the fish at your facility, and 2) the resulting average daily concentration of Oxytetracycline in your total hatchery wastewater discharge.

*Handy conversion factors:* 1 part per million (ppm) = 0.0283 grams/cuft; or, 0.0038 grams/gallon.

### Calculations:

#### Step 1 - Calculate the total volume of treated and untreated water:

1a Number of rearing units to be treated: 8

1b Total water volume through these treated units during 24

hours: 2,927,520 gal (gal.) or (cuft.) of treated flow

1c Total water volume through all other untreated units during 24

hours: 66,960,334 gal (gal.) or (cuft.) of untreated flow

1d Grand total hatchery discharge (Treated + Untreated):

69,887,854 gal (gal.) or (cuft.) of flow during 24 hours.

#### Step 2 - Calculate the daily amount of Oxytetracycline fed each day (24 hours) in this trial:

$$2a \quad \frac{\text{Amount}}{\text{Pounds of fish treated}} = \left( \frac{\text{Pounds of fish treated}}{100} \right) * \frac{\text{Oxytet dosage given}}{\text{Oxytet dosage given}} \text{ gms Oxytet/100 lbs of fish}$$

671
6,712
10.0

#### Step 3 - Calculate Oxytetracycline level resulting in hatchery discharge during treatment period:

$$3a \quad \frac{\text{Disch. level}}{\text{Disch. level}} \text{ PPM} = \frac{\text{Amt. from line 2a}}{\text{Total vol. (line 1d)}} * \frac{\text{Conver. factor}^*}{\text{Conver. factor}^*}$$

0.00253
671
69,887,854
0.0038

\*If in gallons use 0.0038  
If in cubic ft use 0.0283