EXAMPLES OF VFD DOSING FOR MINOR SPECIES where units not available in VIN calculator – arrive at grams/ton using labeled mixing instructions

Example of oxytetracycline for honey bees for control of American Foulbrood caused by *Bacillus* larvae, and European Foulbrood caused by *Streptococcus pluton* susceptible to oxytetracycline.

https://animaldrugsatfda.fda.gov/adafda/app/search/public/document/downloadBBL/2179

Mixing and Use Directions for Honey Bees

Due to the high drug concentration of this product, an intermediate mixture must be prepared for use with bees. To prepare this intermediate mixture add 7 lb of TERRAMYCIN-100MR Type A medicated article to 200 lb of powdered sugar and mix well. **This mixture contains approximately 200 mg of oxytetracycline hydrochloride activity per oz.**

Dusting Directions: Apply 1 oz (200 mg oxytetracycline) of this mixture per colony. Apply the dust on the outer parts or ends of the frames.

$$\frac{200mg}{oz} \times \frac{32000oz}{ton} \times \frac{1g}{1000mg} = \frac{\mathbf{6400g}}{\mathbf{ton}}\ oxytetracycline\ in\ dusted\ form$$

Syrup Directions (**NOTE**: As the vehicle for drug delivery in this formulation is water, not feed, its application requires a veterinarian's **prescription**, *not* a VFD order.): Use 1 oz (200 mg oxytetracycline) of this mixture per 5 lb jar containing 1:1 sugar syrup (equal parts sugar and water w/w) per colony. Dissolve in a small quantity of water before adding to syrup. Bulk feed the syrup using feeder pails or division board feeders or by filling the combs. Administer in 3 applications of sugar syrup or 3 dustings at 4- to 5-day intervals.

Extender Patty Directions: Use 4 oz (800 mg oxytetracycline) of this mixture mixed with 165 g of vegetable shortening (Crisco® or equivalent) and 330 g of sugar. The patties are placed on the top bars of the brood nest frames.

$$165g\ shortening + 330g\ sugar = 495g\ patty\ carrier$$

$$4oz\ oxytet\ sugar\ mix\ \times \frac{28.35g}{oz} = 113.4g\ of\ oxytet\ sugar\ mix$$

$$495g\ patty\ carrier + 113.4g\ oxytet\ sugar\ mix \cong 608g\ oxytet\ patty$$

The patty form weighs 608g, when mixed as directed, and contains 800mg of oxytetracycline. Now, to convert the drug concentration in mg/patty to g/ton for the VFD:

$$\frac{800mg}{608g} \times \frac{907185g}{ton} \times \frac{1g}{1000mg} \cong \frac{\mathbf{1194g}}{\mathbf{ton}}\ oxytetracycline\ in\ patty\ form$$

Example of oxytetracycline in lobsters for control of gaffkemia caused by *Aerococcus viridans*:

https://www.fda.gov/media/101537/download

MIXING DIRECTIONS – Mix 100 lbs. of this Type B with 1900 lbs of feed to manufacture one ton of Type C feed containing **1 g oxytetracycline/lb of feed**. Feed the resulting Type C medicated feed as the sole ration for 5 consecutive days.

$$\frac{1g}{pound} \times \frac{2000lbs}{ton} = \frac{\mathbf{2000g}}{\mathbf{ton}}\ oxytetracycline\ in\ lobster\ feed$$

Example of chlortetracycline in psittacine birds suspected or known to be infected with psittacosis caused by *Chlamydia psittaci* sensitive to chlortetracycline.

https://animaldrugsatfda.fda.gov/adafda/app/search/public/document/downloadBBL/2202

For treatment of psittacine birds (parrots, macaws, cockatoos) suspected or known to be infected with psittacosis caused by *Chlamydia psittaci* sensitive to chlortetracycline.

Active Drug Ingredient: Chlortetracycline……..**10 mg/g** (1.0%)

$$\frac{10mg}{g} \times \frac{907185g}{ton} \times \frac{1g}{1000mg} \cong \frac{\mathbf{9072g}}{\mathbf{ton}}\ chortetracycline\ in\ psittacine\ feed$$