

BiOWiSH® MultiBio 3PS

Feed Mill Process: Spray Coating BiOWiSH® MultiBio 3PS onto Extruded and Pelleted Feeds for Aquaculture

Please use the following instructions for spray coating BiOWiSH® MultiBio 3PS onto compound pelleted and extruded aquaculture feeds. Refer to species-specific user guides for recommended BiOWiSH® MultiBio 3PS dosages. For feeds that dissolve in less than 2 hours please see our Technical Bulletin for Coating Feeds using Xanthan gum.

Equipment

- a. Spray system with stirred container and spray nozzle
- b. Large mixer (e.g., conveying paddle mixer)

Ingredients

- a. BiOWiSH® MultiBio 3PS
- b. Aquaculture feed pellets (recommended pellet temperature for coating is $\leq 45^{\circ}\text{C}$)
- c. Water
- d. Optional coating agents: Oil (vegetable or fish)

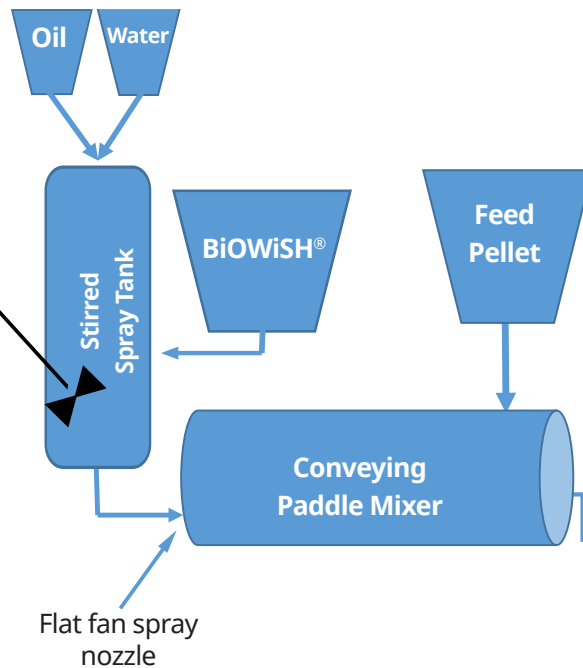
Coating Process per 1 Metric Tonne of Feed (See Process Flow Diagram)

- a. BiOWiSH® MultiBio 3PS may be coated onto aquaculture feed with or without oil, allowing the Feed Mill the option that best fits with their current practices.
- b. Add the species-specific recommended amount of BiOWiSH® MultiBio 3PS to water. If oil coating is used, the volume of water should be 10% of the volume of oil. If oil is not used, a minimum of 2L of water per tonne of feed is recommended. Mix the BiOWiSH® MultiBio 3PS and water for at least 2 minutes prior to the next step.
 - I. If oil is used:
 - i. Add oil, as per current recommended Feed Mill practice, to the mixing spray tank. Oil spray rates are not altered when adding BiOWiSH® to the process.
 - ii. Add the BiOWiSH® MultiBio 3PS and water mixture to the oil in the mixing spray tank and mix vigorously for 15 minutes prior to use.
 - II. If oil is not used:
 - i. Add the BiOWiSH® MultiBio 3PS and water to the mixing spray tank and mix for at least 2 minutes prior to use.
- c. Maintain continuous mixing of the coating mixture throughout the coating process.
- d. Load 1000 kg of feed, less the weight of the coating mixture, into the conveying paddle mixer.
- e. With the conveying paddle mixer running, spray the coating mixture onto the feed bed. Empty the coated feed pellets into an appropriate container.

Process Flow Diagram

Step 1: Add the species-specific recommended amount of BiOWiSH® MultiBio 3PS and water to the mixing spray tank. If oil is used, the volume of water should be 10% of the volume of oil, or a minimum of 2L of water if oil is not used. Mix oil and water mixtures for at least 15 minutes before use. Mix oil and water mixtures for at least 15 minutes before use. For water only, mix for at least 2 minutes before use. Continue to mix during the spray-on process.

Step 2: Add 1000 kg of feed, less the weight of the coating mixture to the conveying paddle mixer and turn the mixer on.



Step 3: With the mixer running, and the BiOWiSH® MultiBio 3PS solution mixing, spray the BiOWiSH® MultiBio 3PS solution over the mixing feed bed.

Step 4: Empty Mixer (Coated Feed Ready for Use).

Notes

- After coating, store coated feed in a cool, dry location out of direct sunlight until ready to use. Storage of BiOWiSH® MultiBio 3PS and coated feed above 40°C (104°F) for extended periods is not recommended.
- For feed volumes other than 1 tonne, adjust the amount of coating mixture and BiOWiSH® MultiBio 3PS proportionally.

Technical Support

Please contact a distributor near you or email aquaculture@biowishtech.com.



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