

Gelatine as a fish food binder

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After reading about its use to raise guppies on the IFGA forums a while back, I decided to try a bag of Zeigler's finfish starter most commonly used to raise trout and salmon in aquaculture.

I am always trying to economize and keep fish room costs down and it is a good value for the balanced protein content it offers at less than \$2.50 per pound. I got myself a 5 lb bag from Aquatic Ecosystems and put it into my freezer to keep it as fresh as possible. I planned on using it mostly for juvenile guppies so I ordered the No1 crumble which is supposed to have a particle size of 0.6-0.85 mm. I figured I could feed it straight to juvenile guppies and rub between fingers to break it up a bit more for fry. Unfortunately, that didn't work out too well, it was a very messy food used that way and the particle size was smaller than advertised. It was about as messy as feeding hardboiled egg yolk. There were probably some particles in the advertised size range, but it was a mostly a lot closer to powder than crumb. I got an oily slick and cloudy water every time I fed it. The fish liked it and I am not the type to throw out something that should be useful especially in this economy.

Just adding a bit of water and making a thick paste and feeding the frozen paste didn't help either, it was just as messy. Same with making the paste and cooking before freezing. I knew at this point I would have to add some gelatine to keep it from getting cloudy water. Speaking of messy, my wife wanted me dead after I tried using the blender in the kitchen with a product that would attract an army of cats if you know what I mean. I bought a Hamilton Beach hand blender of the type usually used to make fruit smoothies and milkshakes directly in a drinking glass. I think it was less than 20 dollars and has pretty much replaced our conventional blender for all blending uses. It is just as effective as a larger blender and MUCH easier to clean, the mix handle with the blade permanently attached to it detaches as an assembly and is easily hand washed in less than a minute. I decided to try to make a more balanced food to feed to all ages of guppies with some fibre to keep the fish from getting constipated. I have heard garlic powder and paprika can help fight intestinal parasites so I figured I would add some of those and a bit of salt to make it palatable. I had previously used egg as a binder but it was less effective than gelatine, and I knew from experience guppies loved spinach so I decided to use it to give them some fibre. I would drop frozen leaf spinach into the tanks to supplement the diet of the Plecostomus I keep in the guppy tanks as glass cleaners and the guppies always set upon it like a pack of piranhas. This is the way I salvaged the Finfish starter:

I used a 4 cup corning ware measuring cup filled with 2.5 cups of boiling water heated in the microwave and dissolved 2 one ounce packets of Knox unflavoured gelatine in with the hand blender. I really didn't want to cook the product since it would lose some nutritional content so I blended in cold ingredients to the dissolved gelatine. After the gelatine was dissolved I quickly blended in 2 cold extra-large eggs, they were quickly cooked at least partially and blended in without creating any visible particles. I then quickly dumped in a teaspoon of sea salt, a teaspoon of paprika, and a teaspoon of garlic powder and 8 ounces of partially thawed frozen leaf spinach and blended well. Finally I added 2 cups of the finfish

starter straight from the freezer and blended it all in. Adding the cold ingredients in the particular order they were added at least partially cooked the eggs and blanched the spinach but by the time the finfish starter was added the mix was just warm to the touch. I divided it into 5 sandwich bags, probably a bit more than a cup in each, sealed them and placed flat on cookie sheets in my freezer. One bag lasts a few days in the fridge and I freeze the rest. It can be fed frozen or thawed. The fish learned pretty quickly to eat it and like it very much, the plecos and corydoras catfish like it too. The first time you feed it you might want to hold a piece at the top of the tank and rub a bit off so the fish start to attack it. One advantage of gelled food like this is that it will hold together for hours in the tank until the fish pick it apart without clouding the water. It is just about the right density the way I made it for guppies to bite pieces off. If you put more in the tank than they can eat they will pick at it until gone even 6-8 hours later. I will probably keep buying the finfish starter and making a gel food with it as a main ingredient to reduce the smell and mess.

You can easily substitute beef heart or shrimp or fish for the fish starter. Leftover flake food that is getting a bit stale can be incorporated into the mix too. Just using more eggs and spinach in about a 50-50 mix as a base with gelatine as a binder and a bit of salt and garlic and paprika as desired will produce what is probably the cheapest nutritious food the fish will do well on and you can make with little effort.

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