

Making Your Own Fish Emulsion

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It doesn't take a PhD in soil conservation to realize the benefits of fish as a soil conditioner and fertilizer. If you remember your elementary school history, the Indians taught the settlers in Jamestown to catch fish and bury them in the ground to use as fertilizer. I once went to a feed store and ask for a bag of fish meal. The man wanted to know what I was going to use it for and I replied, "I am going to feed my roses". He got to laughing and said, "that is the way the Indians did it".

Fish emulsion is mainly used for its quick high organic nitrogen and available soluble P and K benefits as a foliar feed. Fish emulsion is also used as a drench for root feeding. Most fish emulsions have N-P-K value of 4-1-1 with some having an N value of 5 or 6. **Fish meal** is mainly a great soil conditioner and great bacterial food to help feed the soil microorganisms. Most commercially-made fish emulsions come from trash products of the menhaden fish. This group of fish includes herring, sardine, and anchovy fishes. Commercially-produced fish emulsion also contains 5% sulfuric acid in order to preserve the fertilizer on the shelf, but also it supplies needed sulfur to the plant and soil. Most commercially-produced fish products do not contain fish oil which supplies beneficial soil fungi, or fish bone which provides needed calcium.

The benefits of homemade fish emulsion are many. For one, it is cheaper to make in large quantities. There are nutrients in homemade varieties which are not available in commercially-produced products. Commercially-produced emulsions are made from trash fish which have less protein, less bone and less oil than fresh fish or canned fish in a home brew. Aerobic bacteria and fungi are essential to hot composting, disease control, and soil health. In commercial fish emulsions there are little to no aerobic bacteria in the containers. If the bottled product had living organisms, the container would expand and blow apart on the shelf. The homemade versions will always contain more bacterial microorganisms than the commercially-produced products.

Making your own is easy and requires a few items you can pick up at the local store or around the garden. The items you will need are:

A closable, 5-gallon bucket

Fresh fish

Extra browns like sawdust, leaves or straw

Molasses (Note: use unsulfured molasses or dry molasses for faster microbial growth)

Water

Epsom salts

If you are using fresh fish, you need to compost it separately in a 5-gallon closeable bucket. Fill bucket 1/2 full with extra browns like sawdust, leaves, or straw. You can add molasses to the fishy mixture in order to build up microbes to speed up decomposition. A couple tablespoons of Epsom salts will add needed magnesium and sulfur. The sugars will also help control odors. Open the bucket and stir the fishy paste daily or every other day in order to get air in the mix for better decomposition and better aerobic microbial growth in the emulsion. Let this paste rot for at least 1-2 weeks. The browns help control offensive odors and absorb organic nitrogen from the fish so that it is not leached out or evaporated.

After the paste has rotted, it can be added to compost piles or to your special compost tea recipes. Molasses or brown sugar can be added to increase the microbial growth. The sugars are also an excellent natural deodorizer.

You may want to make a simple tea or an aerobic tea. For a simple tea, let your mixture brew for one week stirring every day. For an aerobically-brewed tea, you will use an air pump with your mixture brewing for 3 days or until it has a yeasty smell or has a foam layer on top of the tea. Five gallons of this brew will make 25 gallons of tea mixed with water. If you want to use the tea as a spray, you may add liquid molasses, fish oil or yucca extract to act as a spreader sticker