TEN FACTS ON FISH NUTRITION IN AQUAPONIC SYSTEMS

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1. Design carefully a proper fish feed because it is the single input of the nutrient flow for both animals (macronutrients) and plants (minerals) in an aquaponic system. (See diagram below)
2. Always use the correct feed and pellet size according to the fish species and stage, to avoid fish stress and energy wastage.
3. Feed fish at the right time! Meal timing should match fish appetite, so feed diurnal fish species during daytime and nocturnal fish at night.
4. Smaller fish need to be fed more (g feed/100g fish weight/day) and more frequently (at least 4-5 meals/day) in comparison with big fish.
5. Select lower lipid diets as much as possible to prevent the excess oil in the system.
6. Store the pellets in a cool area and keep closed bags at any time, avoiding direct sun and high temperatures and ambient moisture. Check out for any alterations in the pellets, like oily, moisture or fungus.
7. Fish feeds normally present a shelf life of 6 month, which should be clearly specified in the bags. After that, most of the nutrients lose their characteristics and fool bindings may occur that made them unavailable or noxious to fish. For instance, high fatty feeds may oxidize and lipid peroxides appear which could rapidly affect fish health and quality.
8. Keep a daily routine for feeding fish as they anticipate mealtime and prepare their digestive system to optimize nutrient utilization of the forthcoming meal.
9. Watch out water ammonia levels from fish nitrogen metabolism. Ammonia is a fertilizer for plants as well as toxic for fish.
10. Do not feed fish for at least 24 hours before slaughtering to maintain empty stomach and promote higher shelf life and quality for the consumers.