



Blume Distillation produces food- and medical-grade alcohol and hand sanitizer using organic wastes from nearby farms. The organic by-products of the distillation process are recycled into the greenhouses to enhance crop growth and grow duckweed fed to fish and crayfish. Solid and liquid organic wastes are deposited in a large methane digester whose liquid outputs are piped into ponds to grow cattails that are turned into feed pellets and other products. Digester solid residues are turned into rich compost which is then worked into the soil to restore it, increasing soil productivity. Crops are grown with polyculture techniques, at multiple levels, with tall plants providing shade for low ones. Hot water from an alcohol distillation system is piped through drip irrigation lines to warm the soil and encourage growth. Carbon dioxide from the distillation process is also piped into greenhouses, via the same drip irrigation lines, to maintain high CO₂ levels that feed plants and increase growth. With these applications, WHF can generate thousands of dollars of tropical and exotic products, such as turmeric and passion fruit, per

acre, which make the farm operation profitable.