# Aquaponics

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The objective of this project was to evaluate different types of material for use as seeding material and evaluate cucumber growth and determine which types of lettuce can harvested and regrown from the same plant System Construction Floating Raft System- Holes (3/4”) were drilled in 2 4x8 sheets of foam insulation. Fiberglass and commercial seeding material were placed in each hole.The raft was placed directly in the KOI tank. Closed Aquaponic System -One end was fitted with an inflow connector and the other end fitted with a drain cap to control water level. The system was set over a KOI tank (5,000 gal). Water from the KOI tank was recirculated through the PCV system. Experimentation Germination Study: 3 seeds of each plant type were placed in the seeding material. (6 planting holes/plant. The number of seedlings/hole were counted. Plant growth in tube system: Seedlings and seeding material were transferred to the PVC tube system. After 6 weeks the each lettuce type was harvested above the stem and observed for regrowth. Cucumber were allowed to grow for fruit development to determine if the seeding material could support plant growth. Seeding material did not affect seed germination. Fiberglass can be used to support lettuce growth if a support screen used. Fiberglass will not support cucumber plant growth. Leaf weight of harvested re-grown lettuce has not been determined but all plants appear healthy after 2 weeks. The closed tube recirculating system is an efficient way of raising vegetables in an aquaponic system. Simply adding additional sticks of PV

**Awards Won:**