

A large indoor aquaponics facility. The foreground shows a white PVC channel filled with water, with several white pipes and fittings. The channel is filled with rows of young green leafy plants, likely lettuce, growing in a nutrient film technique (NFT) system. The plants are densely packed and extend far into the background. The facility has a high ceiling with a complex network of metal beams, pipes, and electrical conduits. Several yellow vertical strips are hanging from the ceiling. The overall environment is clean and well-lit, typical of a modern hydroponic or aquaponic grow room.

Aquaponics

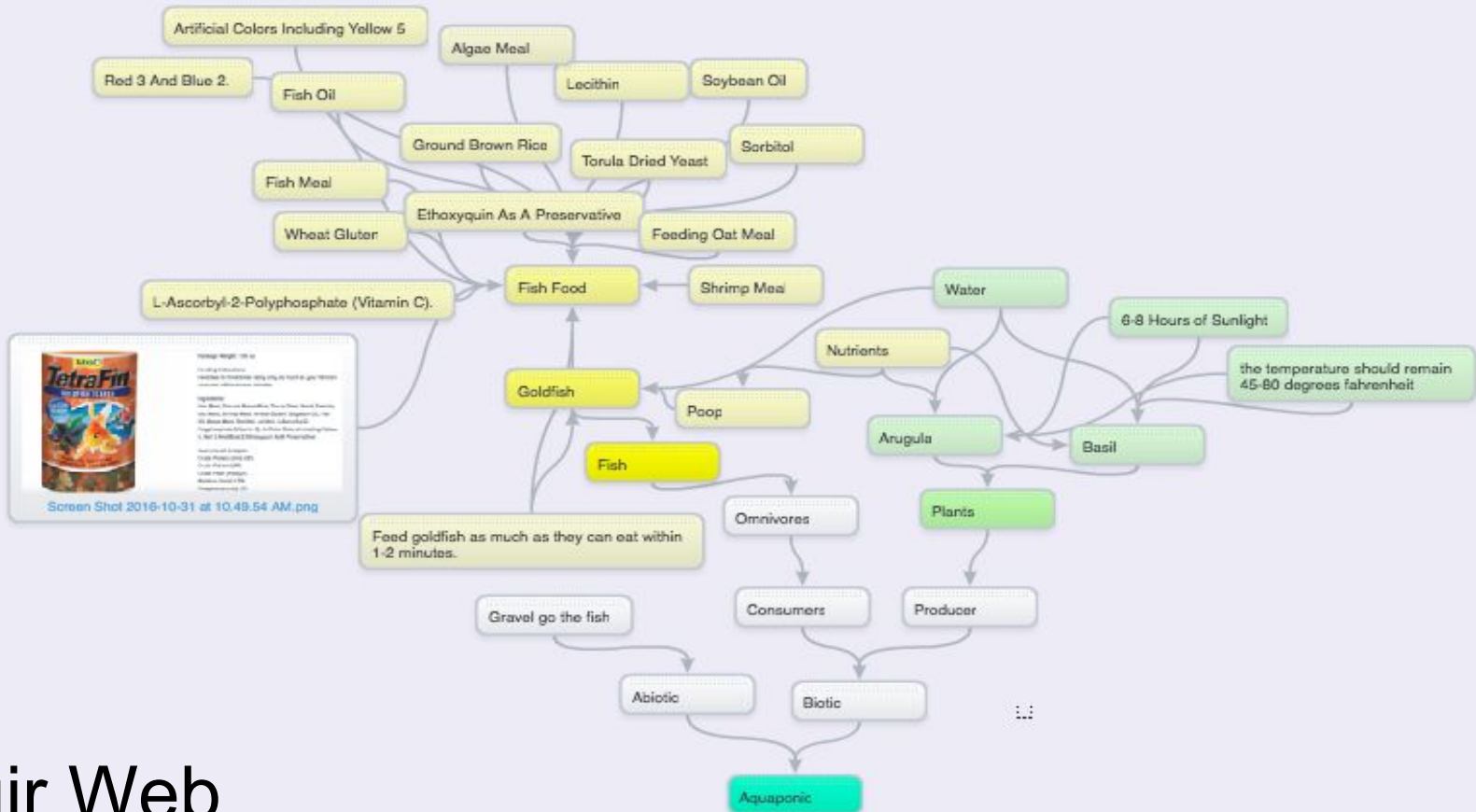
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The Problem



Organisms We Are Focusing On



Muir Web

A photograph of a rooftop garden in a city. In the foreground, a woman with long brown hair, wearing a dark jacket and blue jeans, stands on a wooden bench, taking a photo with her phone. To her left, a paved walkway leads into the garden, where several other people are walking and looking at the plants. The garden is filled with various green plants, including tall grasses and flowering bushes. In the background, there are several modern and older buildings, including one with a prominent red-tiled roof. The overall scene is bright and sunny.

Innovation Solution



FISH

1
FISH
PRODUCE
WASTE

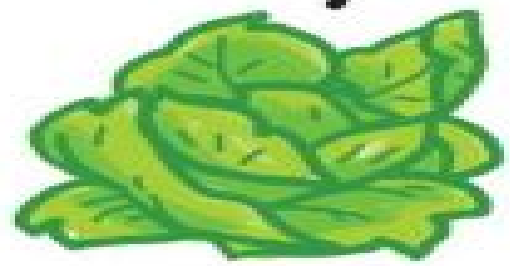
3
PLANTS FILTER
WATER THAT
RETURNS TO
THE FISH

How It Works



MICROBES
& WORMS

2
MICROBES & WORMS
CONVERT WASTE TO
FERTILIZER FOR PLANTS



PLANTS

Materials We Used



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Our Original Experiment Question

How does an aquaponic system affect the growth of black eyed peas, arugula, and basil?

Our New Experiment Question

How can an aquaponic system show how fish and plants help each other survive?

Experiment Design



Advantages

Disadvantages

Conclusion



Thanks for listening!