

Lorath Hydroponics

Lorath Hydroponic Crops – Exile Era – Reclamation Era.

Designer: Lmanel Caste.

During the [Lorath Matriarchy](#) exile below the surface of [Lor](#), the need for sustained crops became apparent quite quickly. With the need for the growth of large amounts of food, the need for large scale crops that can be grown underground became a priority.

Shortly after their exile, the original exiles went about tunneling into the depths of the soil of Lor to clear out large caverns to conduct the growth and storage of food supplies to sustain their race. Farming caverns that were made by the original exiles were constructed through the use of their bare hands, and crudely constructed tools.

Original Lorath subterranean farms followed traditional methods of farming; the original crops relied upon the soil the plants and fungus were planted in, along with primitive electric light systems to provide light for plant photosynthesis. Over time, the primitive method of farming proved lacking to the needs of the increasing Lorath population that resided in the caverns, especially with the decreasing nutrient levels in the soil of the original farm caverns. With the need for new farming methods, and the introduction of geothermal generators to deliver large amounts of sustained power to electric lights, and steam from these generators to provide water for the crops, a new farming method was introduced.

With extensive study, the Lorath shaman caste made the introduction of a balanced nutrient solution to be mixed into the water supplies to the new Lorath crop system, these crop systems were soon converted to a hydroponic method of farming due to the lack of nutrients within the soil, and the new nutrient solution mixed with the steady supply of water.

With the hydroponic farms, the Lorath were able to sustain a steady supply of food to their growing subterranean culture, until the day that they were able to free themselves. Upon the retaking of the surface, the farming method also was moved above ground, but even though the surface was taken back, some individuals chose to continue their farming underground, due to tradition, and the regulated conditions that the caverns provided.

Technical Information

Construction: The hydroponic farms are constructed in 25×25 meter shallow stone lined ponds. These ponds are dug into solid compressed bedrock that has been coated with a concrete mixture.

Nutrients: In these ponds a regulated level of water was maintained along with a slow drip of nutrients designed for optimal plant growth. This drip includes a mixture of various minerals along with a steady but regulated supply of Gibberellic Acid.

Lighting: The lighting for these plants is delivered by a series of sodium lamps. These lamps are hung from the cavern walls and ceilings. In the case of surface application, the lamps are hung upon poles that

line the edges of the pond, and poles dispersed through the pond. Power for these lamps is delivered by the power grid that is fueled by the geothermal generator system.

Water supply: Water for the crops is delivered by the pipe system that is connected to the geothermal generator steam system. The steam from the geothermal generators is pumped through the pipe system and allowed to cool, once the steam condenses into water and is at a cooled temperature, it is then available for filtration and then the final product is delivered to the crop pond. Water is steadily drained from the pond to prevent it from becoming stagnant. Water is drained from the pond through the use of low pressure pumps that return the water into the pipe system that is attached to the geothermal generator system. The water returns to the [geothermal generator](#) and is used to fuel the power generator and water cycles.

Harvesting: Harvesting of the crops is done by hand; the collected harvest is then distributed to individuals whom have placed a requisition for food.

Computer Control (After Reclamation): PH balances, nutrient flow, water flow, and lighting control are handled by an automated computer system that is pre-programmed by the agricultural personnel running the hydroponic farm.

OOC Notes

Approved on April 7, 2006 by [Wes](#)

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