

Vertical Grow Tower

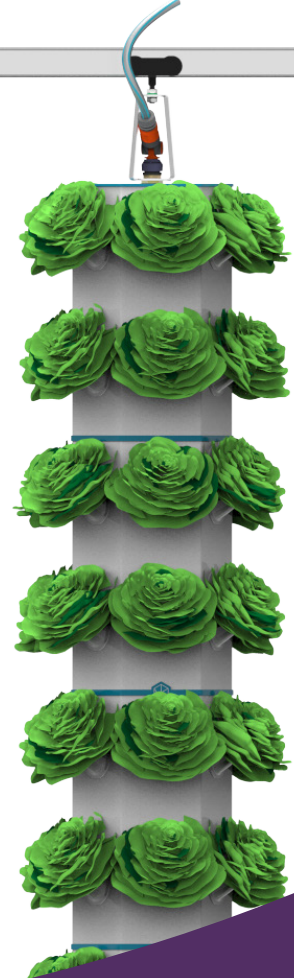
The outcome of the project is able to grow nine times the amount of plants on the same given surface, compared to current indoor agriculture. Moreover the developed Grow Tower with the name "Hygrow" is capable of reducing the needed fresh water by up to 90%.

Besides being modular in height, the tower utilizes a special kind of hydroponics in order to enhance production efficiency. The tower in its current state is optimized to grow leek and lettuce, but can be modified for an almost unlimited variety of plants.

For more information, visit: www.greentechlab.nl/verticalgrowtower



HYGROW



Current agricultural productivity

Based on the current agricultural productivity rates, the UN estimates that agricultural land equal in size to roughly half of South America will be needed to feed this larger population. Therefore the world will face large-scale food security concerns, a loss of usable land and reduced access to fresh water. (National Geographic - population global - United Nations)



Boosting efficiency

The only option to be able to satisfy the growing hunger is to boost efficiency of food production. Thus meaning to decrease water-consumption while increasing the amount of growable crops on the same given surface area at the same time.



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