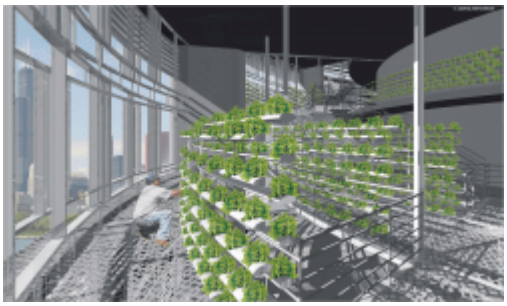
VERTICAL FARMS: PLANT TOMATOES IN A SKYSCRAPER

Posted on 10/11/2010 by Naider



Dickson Despommier is a professor of Columbia University, which has been spreading the concept of vertical farms or vertical farming for years. In summary, these are buildings designed for agriculture, a kind of high-rise greenhouses in which each floor is dedicated to a specific type of crop. As Despommier puts it in this video, the world would be a much better place if we had vertical farms:

https://www.youtube.com/watch?feature=player_embedded&v=1clRcxZS52s

The Guardian recently wondered< /a> if vertical farms could be the future of food in cities. Companies like Valcent are developing the concept through commercialization of technologies for vertical cultivation. The main idea is to take advantage of the maximum possible space through superimposed floors of crops in a glass envelope.

Image taken from Valcent< /em>

There are several arguments that accompany the concept of vertical farms. In the first place, the world population is expected to exceed 9,000 million people by the year 2050, so there will be more and more demand for land for agriculture (contemplating both food and energy crops). In this sense, vertical farms would act as redensifiers for agricultural activity, also bringing the products closer to the final consumer.

This would link to the second argument, which is related to the self-sufficiency of cities in terms of food, something we already talked about in another post. Bringing the point of production closer to the final consumer generates a reduction in the carbon footprint caused by transportation.

On the other hand, as they are crops under shelter, the viability of the entire harvest is ensured, since it is assumed that exhaustive monitoring of the crops is also carried out. Of course, these buildings generate more energy than they consume, carry out gray water recycling, and minimize the use of fertilizers and pesticides.

Image taken from www.verticalfarm.com: "The Living Skyscraper: Farming the Urban Skyline" by Blake Kurasek.

As a breakthrough concept, for now the applications to reality are not very numerous, although we can cite some striking examples. Home Town Farms is one of them. It is a company that sells urban organic agriculture services, offering quality food at a lower price than conventional food (thanks to the savings achieved in transportation); In addition, they state that they achieve savings of up to 85% in water consumption, and that they manage to reduce their carbon footprint compared to traditional agriculture.

https://www.youtube.com/watch?feature=player_embedded&v=MPvgkZhrWUA

The other example is the Center for Urban Agriculture, a project by the Mithun firm that won the "Best of Show" in the Living Building Challenge in 2007. The project, whose possible location would be the city of Seattle, links the concept of vertical farming with energy self-sufficiency, bioclimatic architecture and the promotion of quality housing.

https://www.youtube.com/watch?feature=player_embedded&v=FPC_vViH9Z0

Cover image taken from www.verticalfarm.com: "The Living Skyscraper: Farming the Urban Skyline" by Blake Kurasek.

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