

# Industry Weekly Digest

School of Hospitality & Tourism Management



## From Tower to Table

**Previous editions** of this Industry Digest have highlighted the **School of Hospitality and Tourism Managements** training facility and its efforts in sustainable development. As part of its latest initiative to innovate, the **Lakeside Restaurant** is pleased to introduce Vertical Farming.

In this digest **Lauren Haffenden** will provide an insight into the process, the rewards being reaped and what's next for the **Lakeside Vertical Farm**.

Have a great Weekend!





# Adopting Vertical Farming in Lakeside Restaurant

Lauren Haffenden

Instead of only using the surface of the land, vertical farming grows crops upwards, in vertically stacked layers. Allowing restaurants such as ourselves, with limited indoor and outdoor space, to grow our own produce. The Lakeside towers are aeroponic systems. This means, instead of sitting in soil, plants are drip fed water and liquid nutrient from above. Energy efficient lights then help to stimulate growth.

In phase one, seeds are propagated in a specialised grow tent in the Lakeside kitchen. Housed in an upcycled fridge, and growing next to the seedling tent, are several varieties of delicious mushrooms. Whilst growing, these mushrooms provide c02 to our seedlings, helping them to photosynthesise and produce oxygen. 7-10 days later, our seedlings have grown sufficient roots and are ready to move into their tower. The tower then feeds precise amounts of water and liquid nutrient to the seedlings on a timer. Another 7-10 days later and we are ready to start harvesting our crops. With careful trimming, our seedlings will keep growing and producing for weeks to come.



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Aeroponic growing uses as little as 2% of the water as traditional methods. Plants grow three times as fast, and yields are increased by an average of 30%. Already, **we are growing over 80% of all of our own herbs and salads**. This enables us to reduce our plastic waste. Crops move from tower to table on the same day, enabling us to use the freshest and tastiest produce in our dishes. What's more, growing our own enables Head Chef David and his team to plan menus, grow and harvest accordingly.

Stage one of vertical farming has been a great success, and quite the talking point. Next, we are looking forwards to installing 10 more towers externally. Between providing food for our restaurant, the University community, and the bees, we are excited to continue to explore what vertical farming has to offer.

*If you would like to give vertical farming a go in your own kitchen, please see the bold links in the text for more information, or get in touch at [lakeside@surrey.ac.uk](mailto:lakeside@surrey.ac.uk)*