



Kent Science Park Greenbean Scientific

Dr Sarah Taylor, Director and Owner of Greenbean Scientific, explains the company's raison d'être and the importance of maintaining close relationships with clients.

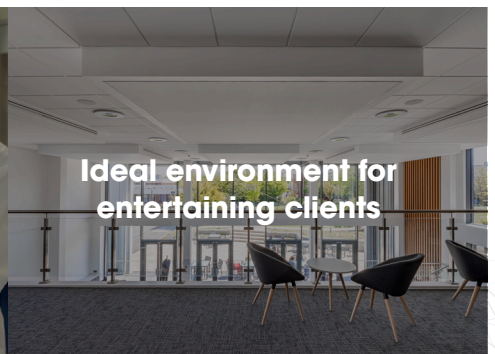
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Please can you start by explaining what Greenbean Scientific does.

We are specialist providers of technical services, R&D and postharvest advice to the fresh produce industry. We are very passionate about reducing food and packaging waste, and our mission is to help the fruit and vegetable sector achieve this in a sustainable way. We work with clients ranging from small growers – for example, mango producers in India – to the large UK food retailers, as well as start-up technology companies to international agri-businesses. A lot of our work is troubleshooting, such as identifying the nature and cause of produce loss/wastage in the supply chain, then providing practical solutions to address these issues. We aim to bridge the gap between scientific understanding and the commercial considerations of the industry.

What sort of issues do you deal with?

We handle a wide range of problems, such as cargos of bananas that start to ripen during shipping, the development of moulds and rots on citrus fruit, poor eating quality of peaches and nectarines, the presence of taints/off-flavours on berries, or the yellowing of greens and broccoli. Clients tend to come to us after they've undertaken some preliminary investigations themselves, but are struggling to identify the cause of the issue. This is largely due to the fact that they lack the scientific expertise to resolve these problems, or simply don't have the time to investigate. We'll often start by going through the entire supply chain looking for potential causes, beginning in the field or orchard where the product is grown, then following it all the way through the harvesting, postharvest handling and packing, and shipping processes to the retailers' shelves. Growers often report that there were no quality problems with their product prior to shipment – the issue only becoming apparent on arrival at the destination market or in our fruit bowls – leading them to the conclusion that the issue was not farm-related. However, the causative organisms, typically fungi and bacteria, may be dormant on the fruit, and only lead to rot when the product is transferred to 'shelf-life' conditions, or placed in the warm, humid environment of a ripening room. These organisms are often present in the field and, unless properly managed, may become a problem later down the line. This type of issue is often not easy to solve straightaway but, by combining our extensive experience in this area with the results of testing in our laboratories, we can provide practical recommendations to help our clients.





What other services do you offer?

The other side of our business is working with parties across the supply chain to investigate new technologies. This might be working with the technology companies directly, helping them to develop novel solutions or adapt their existing products for the fresh fruit and veg market, or it could be working with a supplier or retailer to assess the efficacy of a new product. For example, we have worked with a manufacturer who wanted assistance adopting their existing absorbency pads used in the meat and fish industries for fruit. This type of pad is now routinely seen in the bottom of fruit punnets, where they can reduce waste by absorbing impacts, soaking up juices and providing a degree of humidity control to reduce rot development. On the other side, we are often approached by producers, suppliers or retailers who may wish to evaluate a new technology, as they have concerns about its impact on fruit quality and shelf-life, or the actual benefits of the technology. Unfortunately, there are quite a lot of companies out there selling products that work very well in the laboratory, but are not as effective in the real world. We can perform trials simulating the entire journey of the fruit, then provide an independent, unbiased assessment of how the packaging performs. Through this work, we have also identified a number of unmet needs in the market, and are now looking at developing in-house technologies to help reduce fruit and vegetable waste throughout the supply chain.

How important is it for you to be in Kent?

Our business relies on our reputation, so it is very important to build long-term relationships with our clients. Being based in Kent is ideal for this, as our proximity to rail and airfreight links – plus the large number of growers locally – means that a lot of suppliers are based in the county. Kent Science Park is also an ideal environment for entertaining clients, and the management team is very supportive of this. For example, they recently arranged for the deputy governor of the Bank of England to give a talk on the current economic situation, and we invited more than a dozen clients who wanted to know more about how Brexit might affect the fresh produce industry. While they were here, we were able to show them the recent additions to our facilities, and remind them of the services we offer. It was a win-win situation.

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To learn more about Greenbean Scientific, visit www.greenbeanscientific.com.
To find out more about the facilities and opportunities at Kent Science Park, visit www.kentsciencepark.com.

