

Title: Investigating the effect of agronomic factors on microbiome of horticulture produce

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The ranged microbiome in fruits and vegetables contributes substantially to the health of vegetation, which in effect benefits human health. These microorganisms undertake an extensive variety of responsibilities including flavour creation, ripening and health preservation via the production of second-generation metabolites. There is limited information however on the influence of agronomic practices such as crop ripening stage at harvest, storage, packing material and how they impact the microbiome of the crop itself. The overall role of the crop microbiome in gut health is also not fully clear. .

The Meta-Hort project will examine the effects of premature harvesting along with tray ripening of common foreign goods and will be compared to locally grown produce. Important variables will be investigated, ranging from the influence of harvesting variety and the agronomy of the harvest's microbiome, the fruit's prebiotic and probiotic potential, and its implications on metabolic pathways. The possible influence of the gut health that is likely to be caused by approach will be deduced by means of in-vitro gut models. The practical use of these models will facilitate the evaluation of agronomic strategy for the maximising of advantageous outcomes of the customer. The intent of Meta-Hort is to investigate if shorter supply chains and the ingestion of fruits and vegetables at their physiological apex might have more of a potential influence on consumer's gut health.