How I Grow Crops Without Using Soil – Samson Ogbole

Traditionally, soil serves three crucial functions for plants: providing structural support, retaining water, and facilitating aeration. Our approach involved identifying materials capable of replicating these functions, such as rice bran, coconut coir, vermiculite, perlite from rock, or even water itself. These materials are used to create a supportive structure for plants, enabling them to grow without soil. Hydroponics, in essence, involves cultivating plants without soil. Various hydroponic methods include aeroponics, where plants thrive in a nutrient-rich medium with suspended roots, necessitating 24-hour lighting.

Further insights into hydroponics

One significant challenge we faced was resistance based on religious beliefs, with some associating non-traditional farming methods with ‘unnatural’ practices. Another hurdle was adapting our technology to different contexts and environments. Additionally, we embraced asset-based community development, harnessing locally available materials to achieve comparable results. Vertical farming maximizes the use of vertical space, allowing us to control substrate selection and water supply, minimizing water wastage. Hydroponics holds the potential to significantly increase food production, thereby addressing food scarcity issues.