

JEM Consulting

<u>Team Member Name</u>	<u>Year</u>	<u>Major</u>
Jill Coleman	First Year	MS in Sustainability Management
Maeve Davis	First Year	MS in Sustainability Management
Emily Miller	First Year	MS in Sustainability Management

Advisor(s): Kelsey Wali

Topic Title: Expand access to fresh, healthy food through consumer-facing vertical farms

Audience: Walmart Inc. Board of Directors

Sustainable Development Goal

SDG #2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

Executive Summary

Many Americans identify with the desire to eat healthy but accessing fresh and organically grown produce can be a challenge for the average shopper. Research!America, in partnership with The American Heart Association, found that 46% of respondents found it somewhat to very hard to access healthy foods. Yet, as of 2019, ninety percent of Americans live within 10 miles of a Walmart store. Though Walmart is physically accessible to most Americans, the availability of fresh, chemical-free foods in-store can be limited. JEM Consulting has identified a massive opportunity (and moral imperative) for Walmart to leverage their extensive reach and establish a reputation as the leader in healthy food access nationwide. We propose an in-store vertical farm pilot program that would enable Walmart stores to transform the shopping experience for organically grown fresh produce by bringing the farm to the aisle, all while simultaneously reducing high transportation costs and the resulting emissions and therefore lowering prices for customers looking to access fresh produce that may otherwise be prohibitively expensive.

Vertical hydroponic farming is a promising solution for the sustainability issues that Walmart has already identified in their reporting. Walmart's ambitious goal of net-zero emissions by 2040 is currently off-track primarily due to high emissions from transportation and refrigeration. The company can take bold action towards emissions reductions by piloting vertical farms in-store, a proven trend already taking hold in Europe. Walmart's 4,615 store reach poises them to be an unparalleled sustainability leader in the retail grocery space. We propose that Walmart launch a retail pilot program in a rural, Midwestern area with a high concentration of food deserts and higher-than-average rates of obesity or other nutrition-related health risks. The program would implement a hydroponic produce farm within a Walmart store to trial the potential for significant benefits to both consumers and Walmart. JEM Consulting strongly believes that this shopping experience would draw in shoppers to spend more time (and money) per visit to witness the "innovative" experience of seeing produce grown vertically indoors, and it would also visually emphasize Walmart's commitment to fresh and chemical-free produce for consumers. The vertical farm also gives Walmart more control over the supply chain, and therefore more resiliency against unexpected supply disruptions, and helps reduce transportation costs (and emissions). This win-win strategy will unlock Walmart's unrivaled ability to fight food insecurity and meet their sustainability goals, as well as their ethical obligation to improve healthy food access across the US.