



SPROUTACUS

Greens Harvesting System

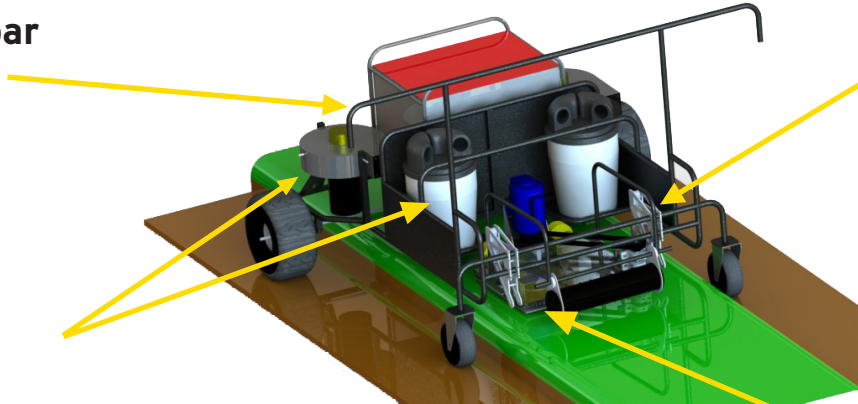
Designed for the Small Farm

**Ergonomic and
safe handlebar**

**Adjustable
cutting
carriage**

**Automated
collection
system**

**20 inch
reciprocating
blades**



Problem Definition

Greens harvesting at small farms is currently a tedious, time consuming process involving backbreaking work using shears to individually snip leaves off each plant. The current rate of harvesting is 20 pounds per hour, and there are a few thousand small and medium farms in the Northeast producing leafy greens. Many individuals working at these farms deal with this repetitive and arduous task. Rudimentary devices exist coupling hedge-clippers to baskets in order to aid with the difficult and painstaking harvesting and collection procedure; however, such devices do

little to resolve the issues involved. Existing mechanical harvesters that do fulfill the functional requirements of small farmers are not affordable, costing upwards of \$8000.

Technical Solutions

Sproutacus provides an optimal solution to improve greens harvesting for small farmers. The device includes an innovative cutting and collection system, allowing for adjustments in farm set-ups. The cutting carriage incorporates a reciprocating blade that maintains its level height regardless of the rough terrain on farms. The collection system incorporates a com-

bination of a front mounted blowing manifold coupled with a cyclone vacuum to minimize leaf losses. The two systems are optimally mounted onto a light-weight frame with an ergonomic handle set-up, for ease of use.

Benefit

We are faced with an open market for our low-cost mechanical greens harvester; we addressed very specific technical challenges, but dealt with them through technical innovation and close interaction with farmers from amongst our future customer base. Sproutacus will increase the rate of harvesting whilst decreasing the associate injury rate pro-

viding improvements to the greens harvesting process.

Market Potential

We aim to break even in approximately 3 years, based on our financial projections. The agriculture market is currently at maturity, so despite a lack of significant growth, a factor of approximately 1% annual increase is visible and the sector is stable. We project an internal rate of return of 41%. The Northeast market provides a niche sector to expand within before moving to the greater US and abroad. We expect to sell Sproutacus at a retail price of \$2,000 directly to farmers in the Northeast.

IMPROVE productivity
ADD functionality
MAINTAIN quality



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