



Solutions for Change

Solve It! Resources

August 2017

How Aquaponics and Organic Lettuce Production Impacts Homelessness

Produce the Tastes Good and Does Good

Solutions Farms provides nutritious organic produce and serves as workforce training for formerly homeless families. It also contributes to the sustainability of Solutions for Change, a program solving homelessness, by generating income for its transformative programs. As an environmentally-friendly food production model, it can be replicated in almost any community. Replication is possible because the produce is grown indoors, the footprint is relatively small, and operations can be set up almost anywhere.

Solutions Farms operates with the following goals:

1. Provide workforce experience for formerly homeless parents.
2. Provide a sustainable revenue stream for the organization's charitable programs.
3. Provide fresh organic produce and protein to the community.
4. Provide educational opportunities to students.
5. Provide a model that can be replicated in other communities.

Aquaponics is a nutrient-rich, soilless system that uses fish in lieu of traditional chemical fertilizers. When aquaponics is combined with a controlled-environment greenhouse, premium quality crops

Benefits of Aquaponics

- More sustainable method of growing over traditional farming
- 90-97% less water needed compared to traditional farming
- Smaller space required and can be grown indoors (perfect for urban areas)
- Vegetables have a reduced growing time (more "turns")
- Local production lowers carbon footprint required to bring food to table (lower transportation costs and no shipping costs)
- Simple equipment and process
- Provides nutritious vegetables and high-quality protein

can be grown on a year-round basis without the use of pesticides at a fraction of the time of conventional farming. And because crops are raised in a controlled environment, they are largely pest-free and not subject to the kinds of contamination that have resulted in major recalls of produce. The few pests that do occur are addressed through the use of all-natural pest controls, such as ladybugs. Aquaponics is an inherently green and sustainable technology that is water efficient because the water is continuously re-circulated. Unlike conventional farming, there is no nutrient-dense fertilizer runoff to cause pollution of lakes, streams, or aquifers.

The farm's environmental benefits come alongside major social benefits. Run almost exclusively by formerly homeless men and women, it's a unique training ground for future employment. Program residents often experience prolonged unemployment while homeless and have limited work experience and skills. Solutions Farms provides employment-related training that prepares clients through job experience with onsite supervision to equip individuals to successfully enter the workforce. Solutions Farms provides vital work experience for residents of the program. Because Solutions Farms is a full-fledged business venture, it requires all the skills and knowledge of any business - teaching skills like working in a team, taking direction on the job and workplace etiquette, working with customers, tracking production, and fulfilling orders.

Solutions Farms also connects local students with food through its community education program. For a generation where children's food knowledge ends at the grocery store (a place where the difference between organic produce and processed foods is essentially nonexistent), the farm educates students and re-connects them to agriculture.

As a social enterprise, Solutions Farms serves as a built-in revenue source that helps underwrite the operations of Solutions for Change's transformational housing program. Organic produce grown at Solutions Farms is sold to local school districts, which uses it for school lunches. Local restaurants also purchase the lettuce and include it in their menus.

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Impacting Homelessness

Since homelessness is inextricably linked to poverty and social isolation, it is critical to help the homeless person or family increase their income through training and education. It is also critical to help them establish healthy, reliable social networks to the point where they can afford housing and overcome deep poverty. Solutions Farms does both.

Through Solutions for Change's educational and employment training programs, residents, on average, triple their incomes within the first year of participation. They also reduce the amount of public assistance they receive by nearly half. By acquiring the skills, resources, and knowledge to never be homeless again, residents are able to pay rent and establish permanent housing, creating economic independence for themselves and their families.