

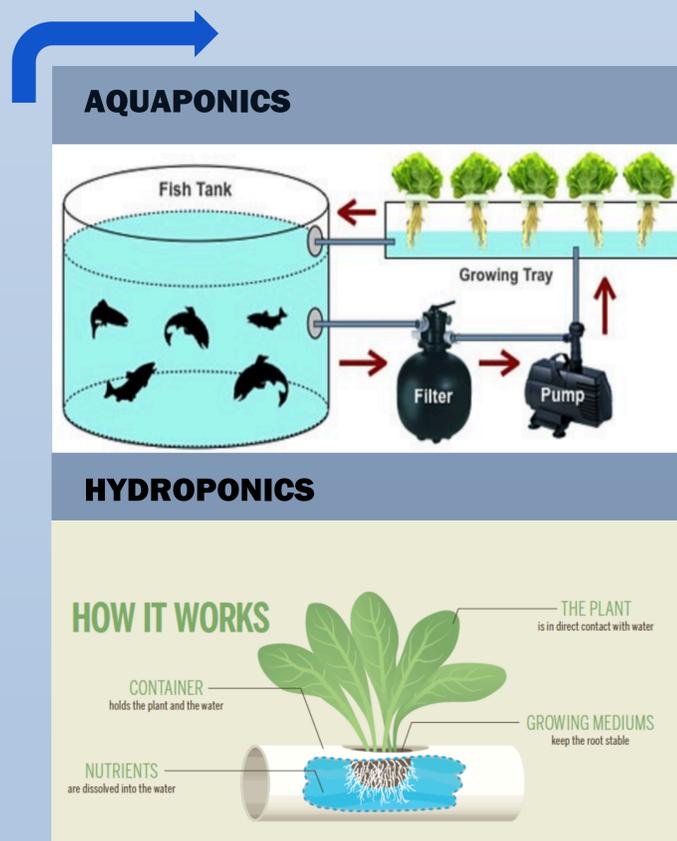


## Why is the Aquaponics and Hydroponics thriving in Midwest businesses?

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### INTRODUCTION

- The compound effects of climate change has increased urbanization, and negative environmental impacts of traditional agriculture has spurred an increase in alternative production methods such as aquaponics and hydroponics (Okemwa, 2015).
- **THE PURPOSE:** study was developed to better understand the current status the aquaponics and hydroponics industry within the Midwest.
- **22 QUESTION SURVEY:** created for gathering information on demographics, systems costs, grower motives.
- **ANALYZE:** current revealing trends within each industry will distinguish the stakeholders in the systems and future of sustainable food production.



Gentry, J.C., (2015). Southern Arkansas University launches hands-on hydroponics program. <https://www.farmlife.com/arkansas/arkansas-agribusiness/southern-arkansas-university-launches-hands-hydroponics-program/>

Plan2Green Vertical Farming (2011). Aquaponics. <http://www.sjcc.edu/fp/wdcr/jurkiewicz/aquaponic.html>

### POTENTIAL PROBLEMS

- Issues that may arise are, we cannot control how many people are willing to take our survey.
- Many industries may be too busy to take time to fill out a questionnaire due to the fact that they are also trying to run a business.
- Possibility of having to make incentives to increase the likelihood of business owners to take the survey.



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### ANTICIPATED RESULTS

- Find the demographics for both industries to show the average age of aquaponic practitioners to be slightly older than hydroponic growers.
- Motives for each industry is expected to be based off of sustainability, but with a greater emphasis on education and hobby within the aquaponic industry.
- Predicted the majority of respondents have been in the industry less than 5 years, especially with commercial producers.
- We anticipate growers to cite challenges within each industry which are isolated from one another.

References: Okemwa, E. (2015). Effectiveness of Aquaponic and Hydroponic Gardening to Traditional gardening. *International Journal of Scientific Research and Innovative Technology*, 2(12), 21-52. Retrieved from [http://www.ijstrit.com/uploaded\\_all\\_files/3563230518\\_m3.pdf](http://www.ijstrit.com/uploaded_all_files/3563230518_m3.pdf)

### METHODS

- Get consultation with industry professionals by developing survey questions intended to produce informative responses for data analysis.
- Create a web-based questionnaire that will be sent to aquaponic and hydroponic practitioners throughout Midwest.
- Increase responses through; chain sampling, reminder notifications, incentives, and etc.

### OBJECTIVES

- Gather and analyze survey responses to identify trends and distinguish differences within each industry.
- Reveal current challenges facing each industry as cited by current practitioners.



Cristo Rey Kansas City, (2018). News and events. [https://www.cristoreykcc.org/alumni/news\\_and\\_events](https://www.cristoreykcc.org/alumni/news_and_events)