

Project Description

Team Leaf It to Us! is focused on understanding the skills and needs of gardeners. Gardening is an activity that is open to everyone therefore it does not require a special set of skills or prior knowledge. Our team decided to learn about gardening from both a hobby and a profession perspective in order to understand the different problems that arise. Also, learning about the gardener's experience will allow us to figure out if their problem has a connection to experience at all. Understanding how they started gardening and how long they have been gardening help us understand their value for gardening. Additionally, learning about their frustrations and setbacks allows us to think about the commonality of issues among other gardeners. Moreover, understanding how they persevere through their frustrations and pains gives us insight of from which angle the problem has been addressed and some potential solutions that exist. We expect interview gardeners from diverse background in knowledge, age, gender, and ethnicity.

Competitive Product Analysis

Aerogarden, automatic indoor garden was invented by Miracle Gro. It allows users to grow veggies, herbs and berries indoor. It has a built-in pump that circulates the oxygen, water and nutrients to the plants [1]. It is useful tool for gardeners or anyone with plant interest because it takes out the heavy equipment and hard work out by allowing users to plant their own plants anywhere indoor year round [2]. It comes in many sizes and models letting the user decided on the convenient size and model for themselves. The biggest size allows user to grow up to 9 crops. They provide step by step guidance from setup to harvest making easier for anyone to start indoor gardening and produce five times faster than traditional gardening (see **Figure 1**)[3] This product meets the need of gardeners because the people who live in apartment complex or don't have a gardening space at home can benefit from the indoor garden. Miracle Gro gives users 30 days refund opportunity for the user to experiment with indoor gardening before they commit to owning one. Aerogarden allows the user to set preference for the lighting and watering setting making them in control of the crops which gives them real gardening experience (see **Figure 2**)[4].



Figure 1. Plants growth timeline in Aerogarden [1].



Figure 2. Touch Controller for Aerogarden [1].

Aerogarden is hydroponics method of gardening which uses water, light and nutrients instead of soil to grow plants. Maintaining photosynthesis is achieved by the use of combined spectrums of

LED lights in which the white LEDs is used for fast growth, blue LEDs to enhance yields, and red LEDs promote more flowers and fruit[2]. Miracle Gro provides all the supplies and equipment needed for a season of planting so that the user is ready to plant upon receiving their purchase. The height of the Aerogarden can adjusted as the plants grow, the maximum height depends on the model, which ranges from 12- 24 inches [2]. Some models has Wi-Fi connection capability and an app allowing the user to remotely monitor and control their plant from their devices. Another benefit of this product is it comes with interactive LCD screen control panels, which inform the user when to add water and when to add nutrients (as seen on Figure 2)[2] Unlike traditional garden, the user can take their Aerogarden with them when they are moving or relocate it when they going away.

Newly Identified Needs for Target Users

- Catalog for times, dates, and environment to grow crops
- Heated personal green house to grow tropical fruits
- Harvesting gear for farmers for winter season

Interview Questions

1. What got you interested in gardening?
2. Did someone get you interested or did you find it on your own?
3. What do you get out of gardening?
4. What's your favorite thing to use while gardening (tools/online resources/apps/books)?
5. Experience Level (How long have you been gardening)?
6. Hobby or profession?
7. Do you have a specialty? (Do you grow something specific?)
8. What has been your most frustrating experience with gardening?
9. What helps you to persevere when you get frustrated? (resources/tools/motivation)
10. What do you do to solve these frustrations?
11. What would your ideal tool or resource to help you garden look/work like?
12. What does your regular day look like?
13. What is your daily gardening routine like?
14. What does gardening mean to you?
15. Do you garden at home? Community gardening? Professional?
16. Is there something you wish you could grow but can't?
17. Are you in a gardening club?
18. Do you have friends that garden?
19. Do you garden with them or use them as a resource?
20. How do you gain new knowledge about gardening?

21. Do you have any gardening advice?

Note: Interviewed a female user who is a farmer at Nash Farm in her mid-thirties.

User Response

Q: What got you interested in gardening (Did someone get you interested or did you find it on your own)?

A: It was just wanting to know where my food came from. At the time I was living in Portland and they are big on farming and organic field so I wanted to be healthier. [I] moved to small town and decided to be a farmer. Just by myself [no outside influencer]

Q: What do you get out of gardening?

A: It is very fulfilling, I guess to be able to see the plants grow throughout their life and see each stage they are in. And to be able to take that to your home, fresh and [get] the food that nourishes you. It's interesting, fascinating and so much to it.

Q: What's your favorite tools to use while gardening?

A: Definitely a hoe, is probably my best tools for weeding and things like that. I have big knife that I use for harvesting like cabbage.

Q: What's your favorite online resources to use while gardening?

A: Honestly I think Pinterest is a great resource for just ideas, gardening times and insider info from people who actually have tried it.

Q: Experience Level?

A: I only have 2 years of gardening. I did a little bit of gardening with my grandparents when I was younger. But I feel like I can go create a garden and space and feel comfortable doing so.

Q: Hobby or profession?

A: Right now it is a profession, someday I will probably move out it and have it as a hobby where I have my own yard and feed my family.

Q: Do you have a specialty? (Do you grow something specific?)

A: The farm itself grows a variety of stuff. Cabbage is really interesting to me just the way it grows, probably kale just because it is very nutritious and people love it.

Q: What has been your most frustrating experience with gardening?

A: Just cold and being muddy. The farm in winter it kinda stinks, you can't see your hands harvesting and things like that.

Q: What helps you to persevere when you get frustrated? (Resources/tools/personal motivation)

A: Other than that having efficient placement of things and gloves help sometimes, you can't use them all the time. It is really the concentration on the work you are doing. I try envision bringing them to the market and seeing the family that gets to eat all the wonderful food helps me out a lot.

Q: What do you do to solve these frustrations?

A: Visualizing the end goal rather than try to stay here in my miserable moment, it is not going to be forever.

Q: What would your ideal tool or resource to help you garden look/work like?

A: Having a hoe is versatile and having extended handle would be nice I use it in different situation. As for resource, having a catalog [of] veggie grow time and environment they grow having something altogether, not like searching all around.

Q: What does your regular day look like?

A: Days I don't harvest, just plan for the days that I will. Go out and see how the plants are acting. If they are ready or not, how much time they need and just take care of things, prune that needs to be pruned down.

Q: What is your daily gardening routine like?

A: wake up pretty early before the sun rise, go get all the equipment for the day, boxes and twist ties to make bunches. Get everything prepared and just harvest for 8 hours. Just out in the field running around in the mud and picking veggies.

Q: What does gardening mean to you?

A: It is a good representation of life. You have it right in your hands, it gets pretty spiritual as someone who is in it a lot. It is really inspiring.

Q: Do you garden at home? Community gardening? Professional?

A: We got designated area for our farm and I do a little bit of gardening at my yard in front of my house. [Grow variety of crops in the farm, but grow crops like squash that takes longer to grow in garden at home]

Q: Is there something you wish you could grow but can't?

A: Avocado, I have plans someday to solar greenhouse heated by the sun get really really hot and grow avocados.

Q: Are you in a gardening club?

A: Not yet.

Q: Do you have friends that garden?

A: I did with my grandma a little bit,

Q: Do you garden with them or use them as a resource?

A: She [grandma] is a great resource.

Q: How do you gain new knowledge about gardening?

A: I definitely go toward books more and people are great resources, old people that work at the farm still.

Q: Do you have any gardening advice?

A: Try it, you might not know something about a plant or what it does or how to grow it, but see what happens when you do put it in the ground and you get some ideas for next time.

References

- [1] Green, A. (2017). *The Ultimate Aerogarden Review and Guide | Essential Home and Garden*. [Online] Essential Home and Garden. Available at: <https://www.essentialhomeandgarden.com/ultimate-aerogarden-review-guide/> [Accessed 17 Oct. 2017].
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- [3] Miraclegro.com. (2017). *Miracle-Gro AeroGarden Bounty - Miracle-Gro*. [online] Available at: <https://www.miraclegro.com/en-us/products/growing-kits-and-seed-pods/miracle-gro-aerogarden-bounty> [Accessed 17 Oct. 2017].
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