

Imagine a farmer...



A farmer can also be like...



**Shashank Jain**  
Class of 2020  
MSIS



**Ting Pan**  
Class of 2020  
MSIS



**Jingyi Cheng**  
Class of 2020  
MSIS



**Elizabeth Moore**  
Class of 2020  
MIS



**Harika Bommu**  
Class of 2020  
MSIS

**What?**

# **Urban Farming**

**Where?**

**Community based**

**Less commercial**

**In your neighborhood**

**Sustainable practices**

**Who?**



**What?**

# Environment

**Where?**



**Who?**

**Urban Roots**

**UT Microfarm**

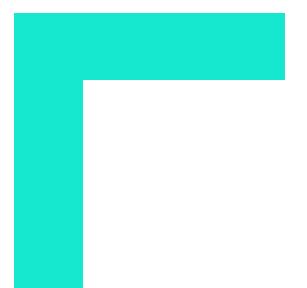
**Department of  
Sustainability**

What?

Where?

Who?

# Our Personas



Volunteer



Farm Manager



# Jill Volunteer

## Who is she?

Jill is a sophomore student at UT doing her major in business studies. She's an ethical consumer and loves cooking. Pursuing a healthy life style in eating organic food and buying foods from farm's market. By curious about where does her food come from, she signed up a student volunteer activity in a local community urban farm. That's where she got interested in urban farming and start to become a volunteer in urban roots.

Love to eat sustainably

A social butterfly who loves to meet new people

Enjoy the beauty of nature





# Jill Volunteer

## Goal

Learn more sustainable practice to grow her food

The work is not easy, she wants to have  
a more enjoyable farming experience

Complete tasks properly and efficiently

Be able to help when something goes wrong

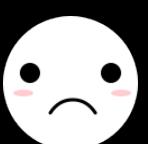
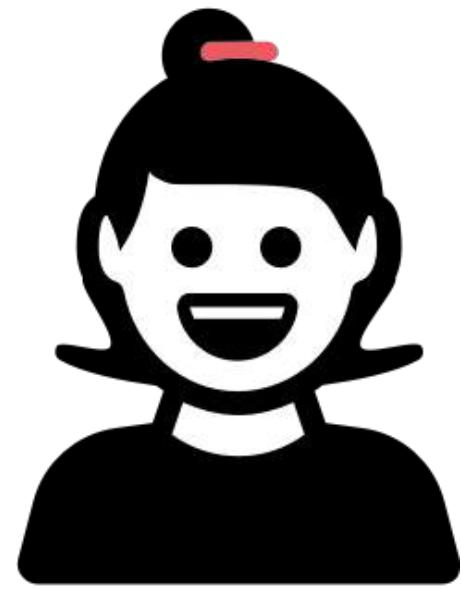




# Jill

## Visiting the Farm

Jill goes to Urban Roots, she's very happy to work on the farm today!



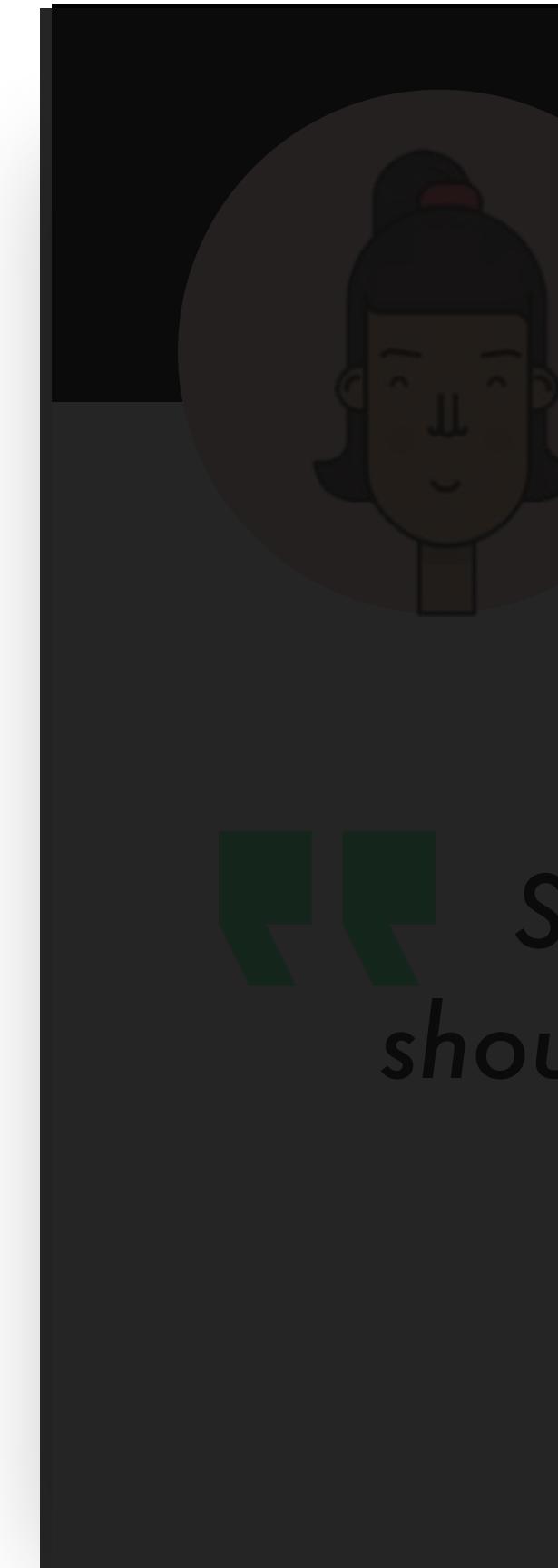


# Jill

## Visiting the Farm



I'm so excited to plant food that I wanna grow!



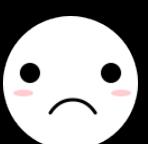
the Farm



Jill

Receiving Tasks

She receives tasks from the farm manager Neil.  
There are many different tasks on the farm  
according to different needs.



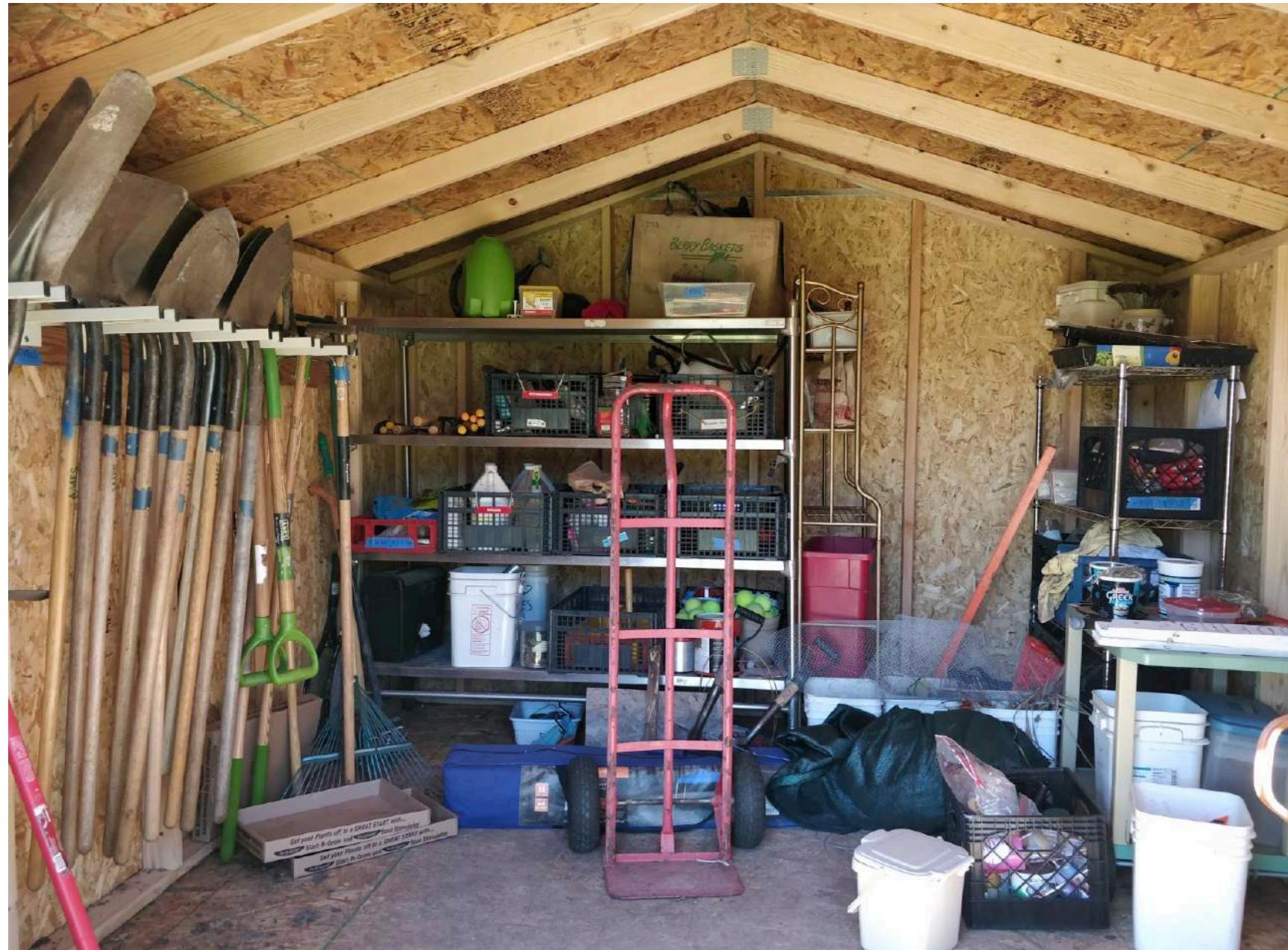
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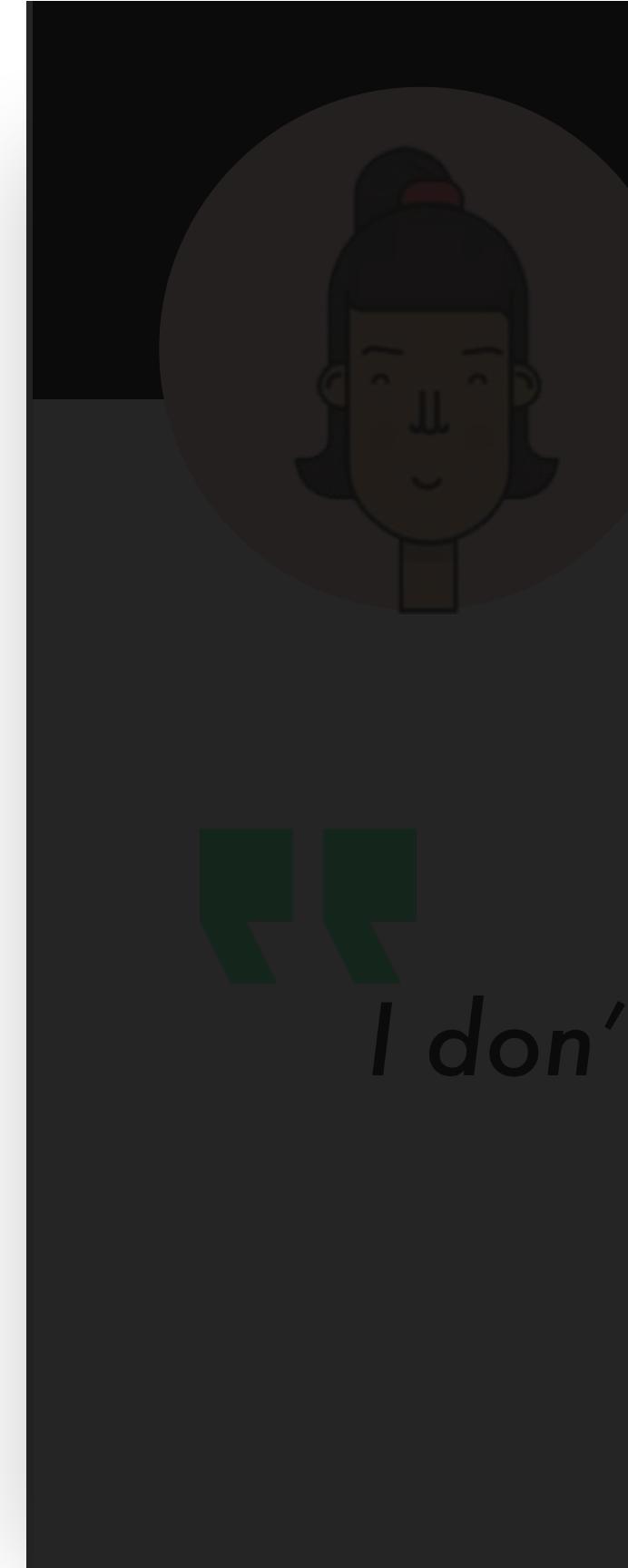
# Jill



Some tasks I'm doing with my task checklist include:  
and I have never washed a plant by hand with a hose.



## Receiving Tasks





Jill

Transplant thymes

The next task is to transplant thymes  
on the bed that has been properly  
prepared.



She w  
happily



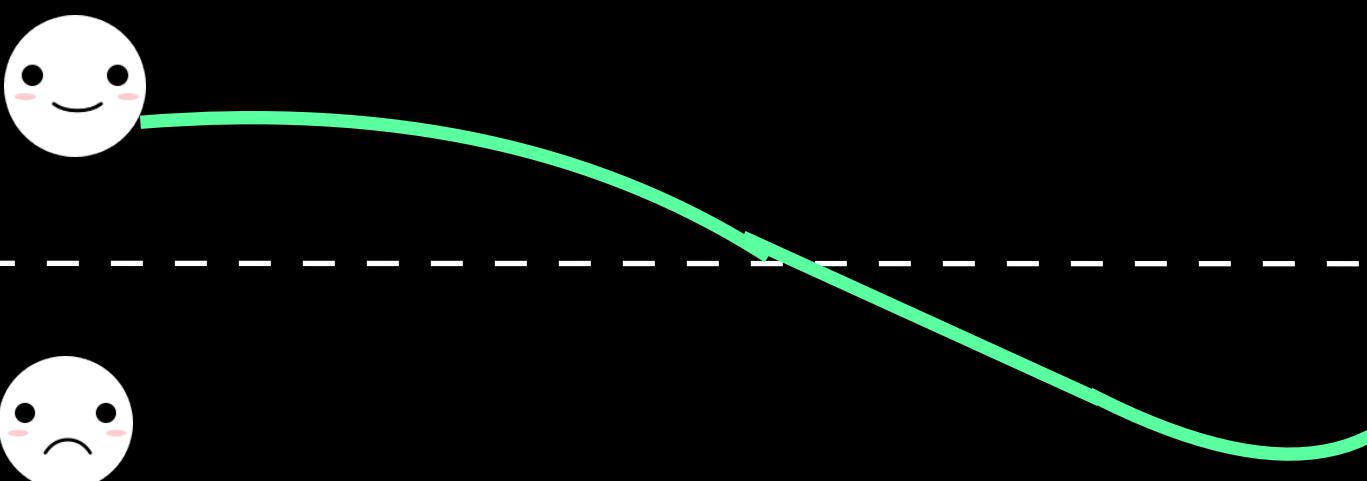
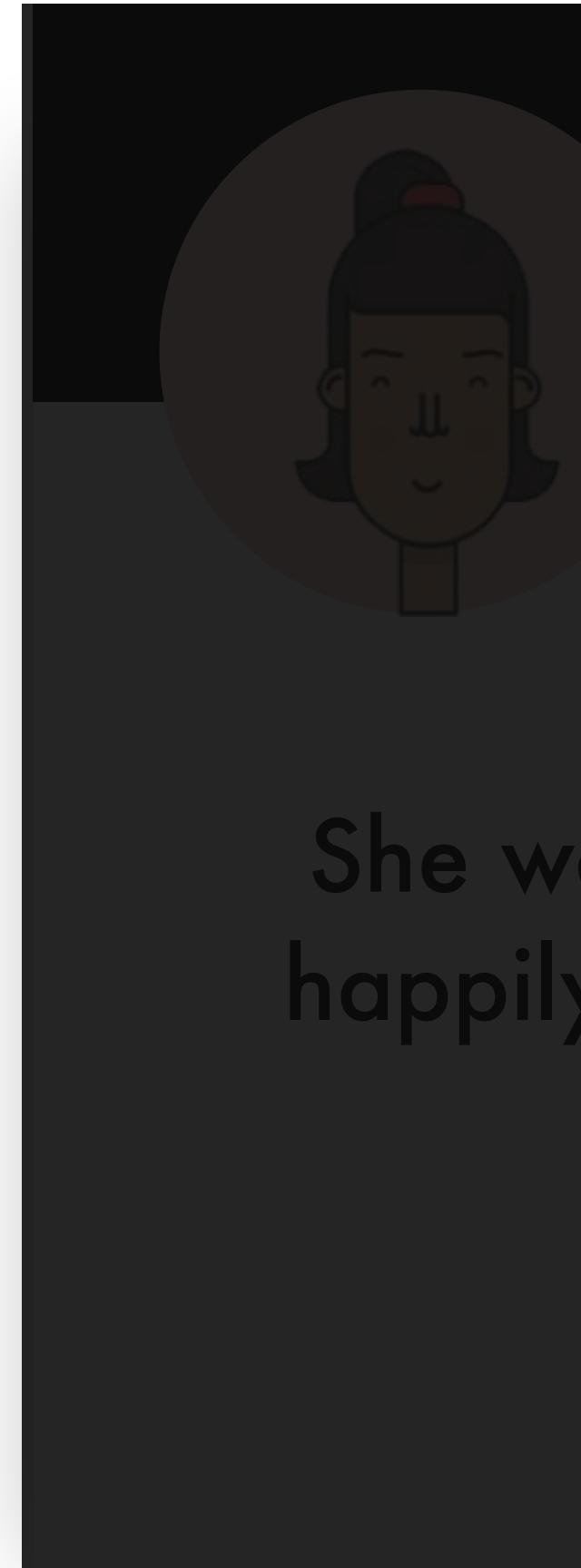
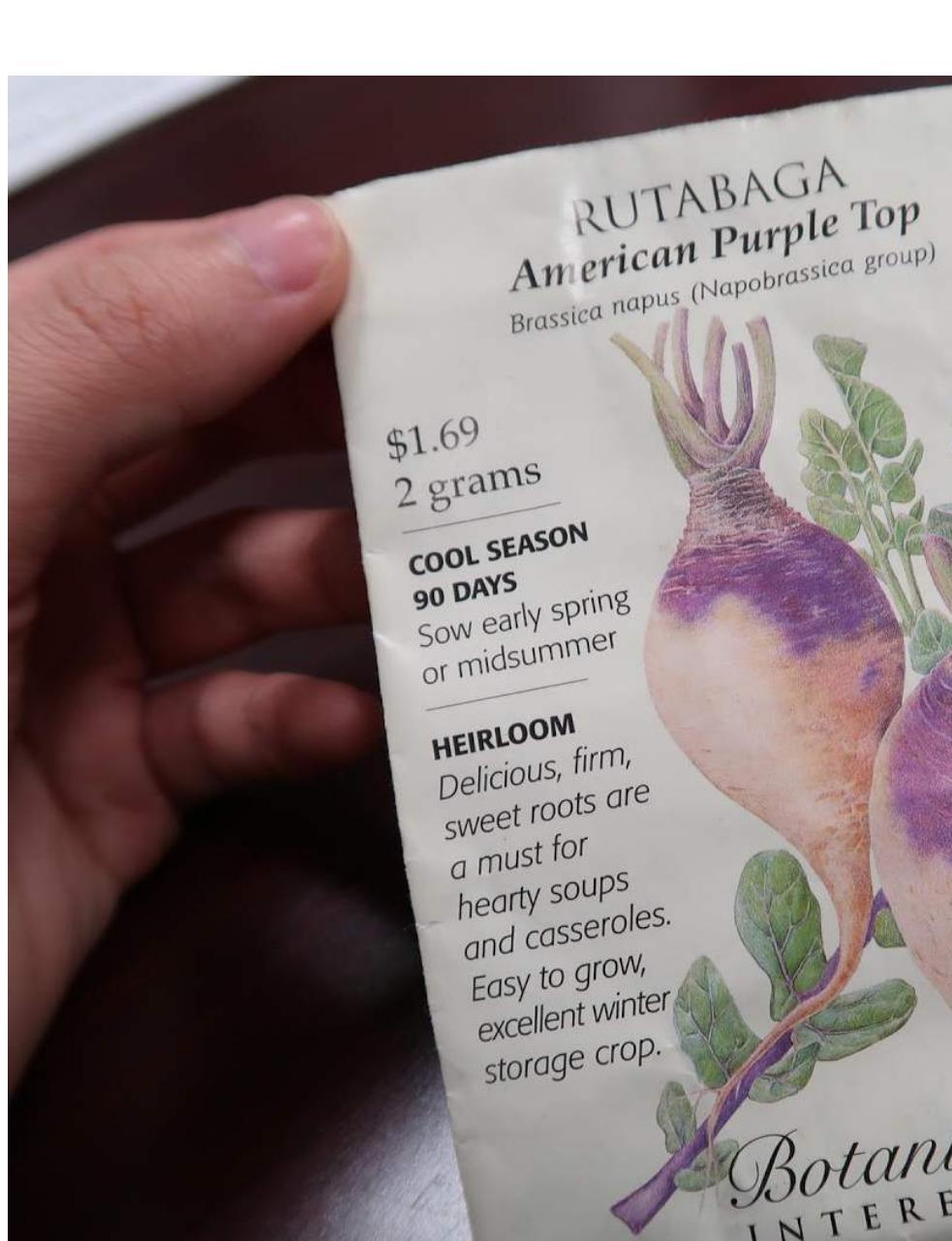


# Jill

## Change of plan: planting turnip



Some weather issues make the planting process harder than expected  
I don't know if I'm doing this right.



g tomatoes





# Jill

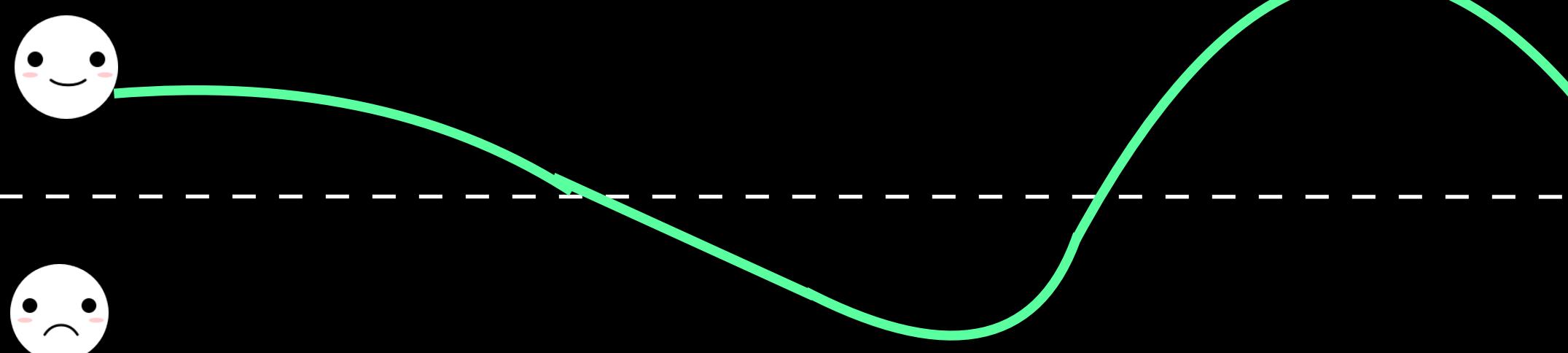
Enjoy the community

She worked with other volunteers and happily found out a friend who has the same interest with her!



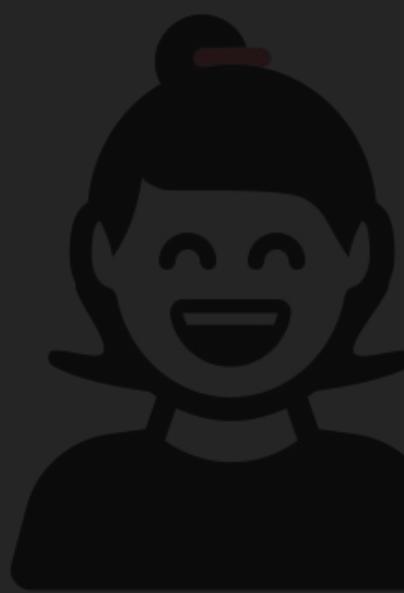


While dyin



community

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the



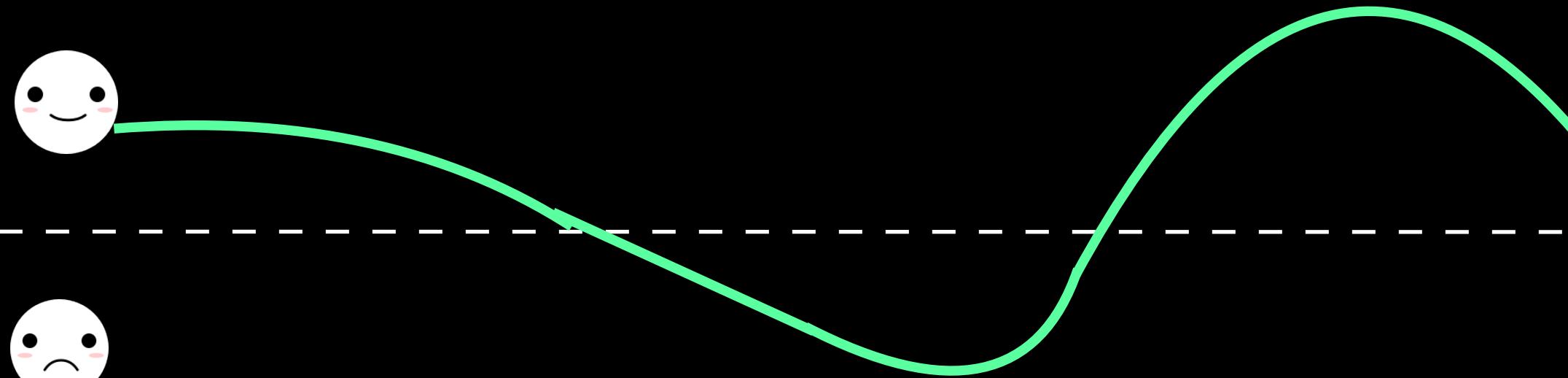
Jill

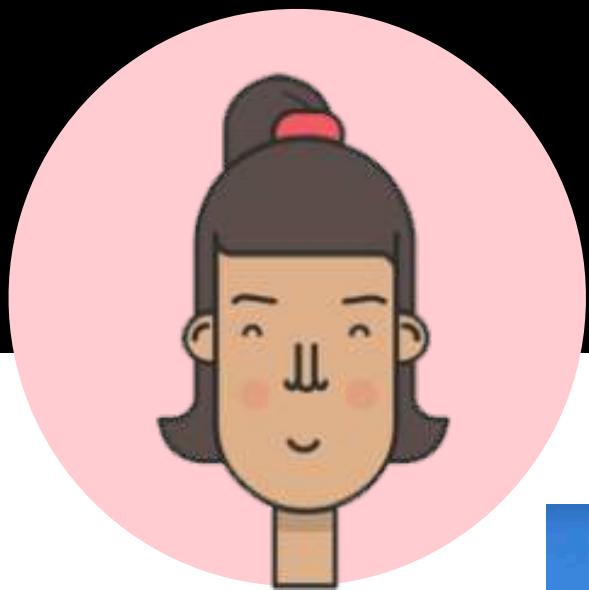
Oh! Something's wrong

While talking, she noticed the plant she planned several weeks ago is not germinating, and there's another plant lettuce was dying.



She used  
manager  
sure wh





# Jill



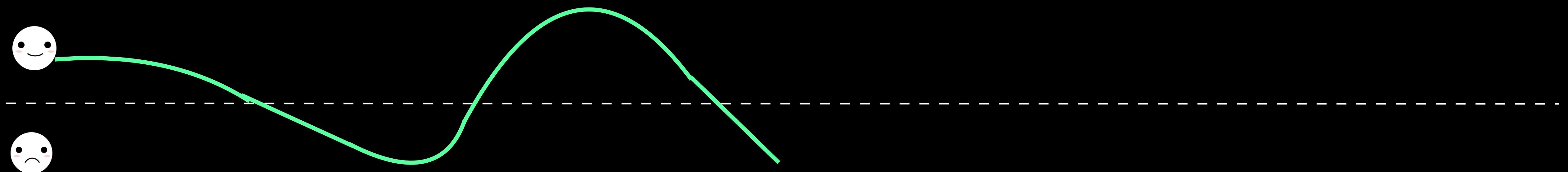
I want to help! but...



I planted the beets three weeks ago. I don't know what's happening cause it's not germinating. There's nothing I can do.



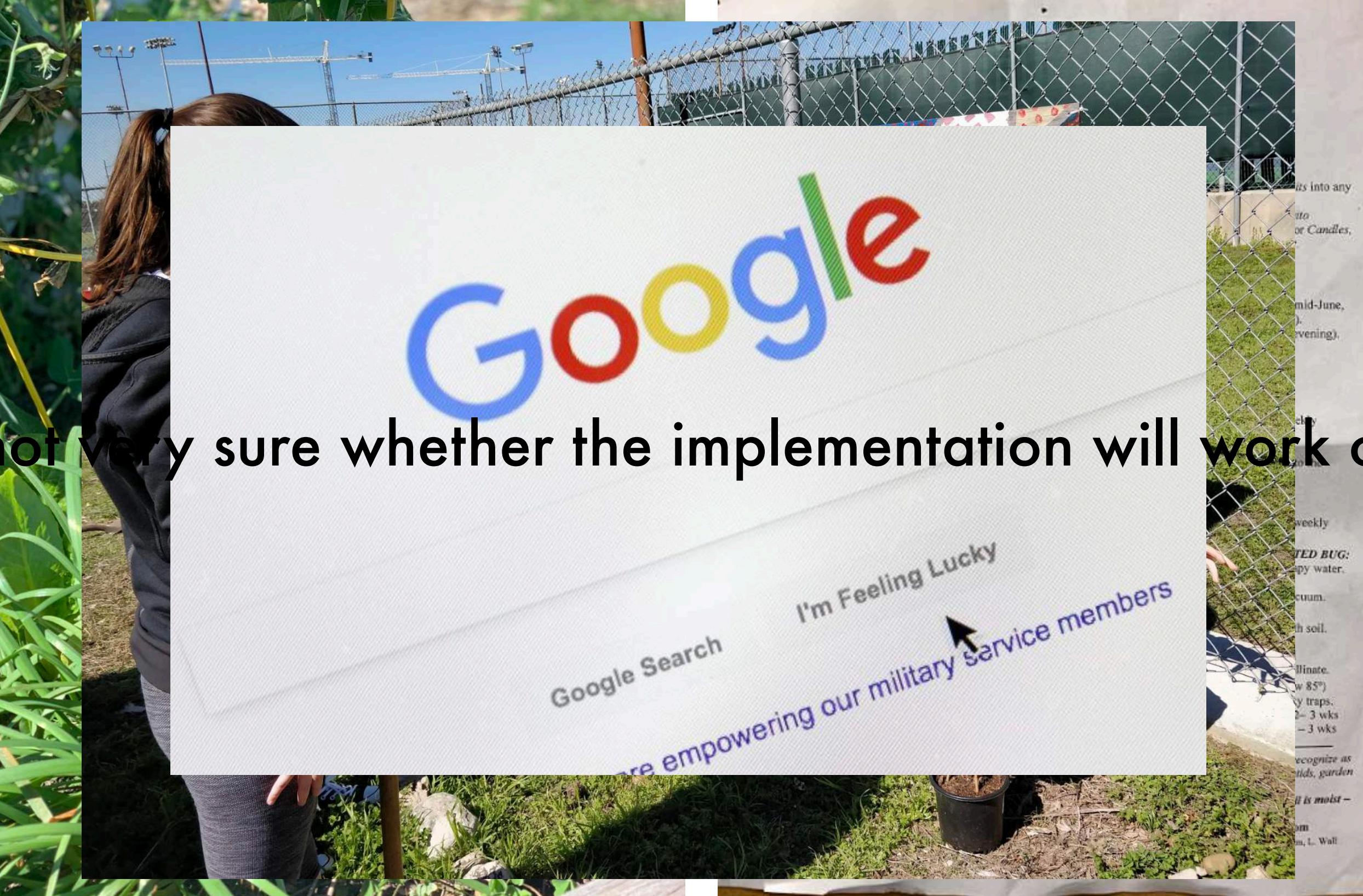
She used  
manager  
sure wh





Jill

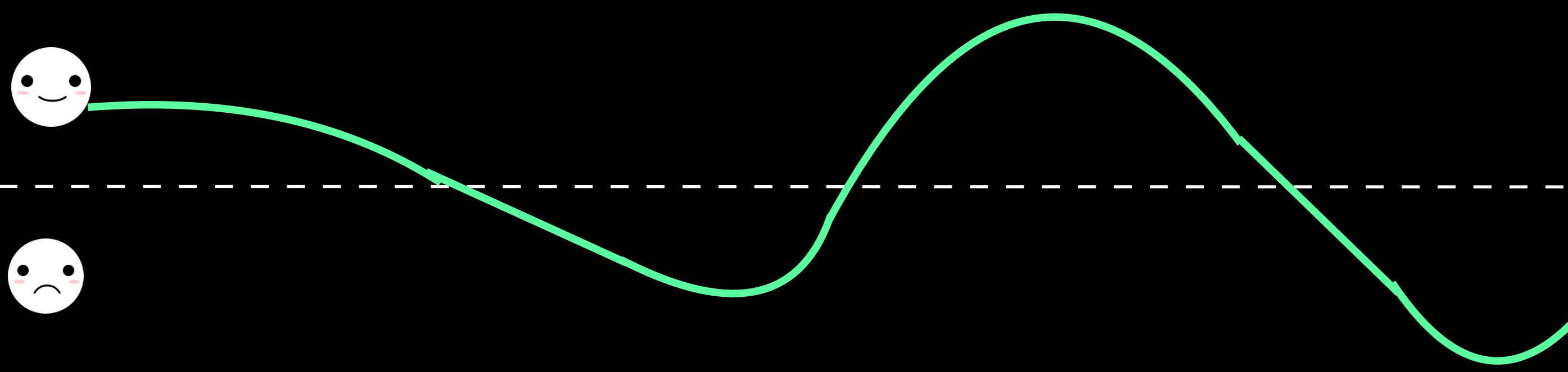
As for the plant is dying...



She's not very sure whether the implementation will work or not



She's leaving  
a sense of  
community



that work?

the  
every  
ed

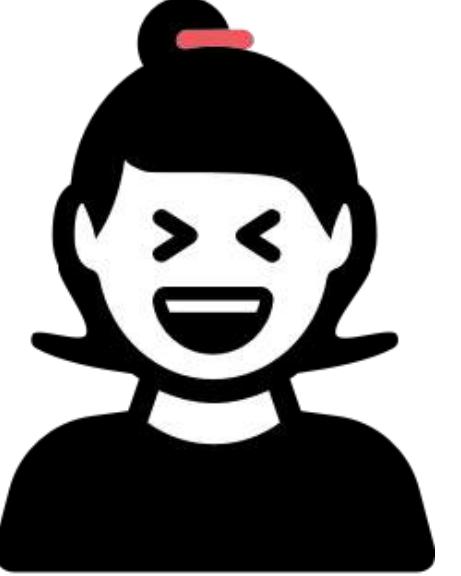




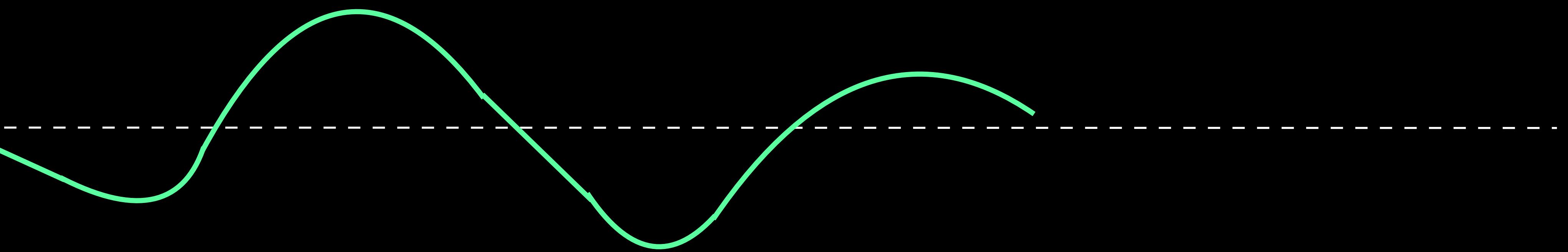
# Jill

Completed!

She's leaving the farm feeling fulfilled and a sense of achievement! She enjoyed the community and being close to nature



But she's not sure what wa



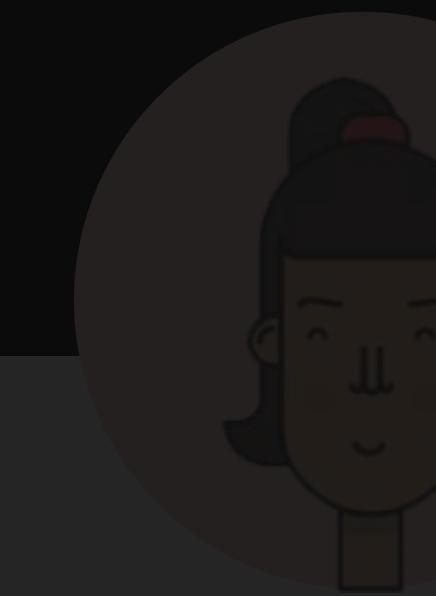
ompleted!



Jill

Leaving the farm

But she's worrying about the plants. She is not sure if the solution she implemented was enough to kill the disease.



I live  
my

leaving the farm

s. She is  
mented  
e.



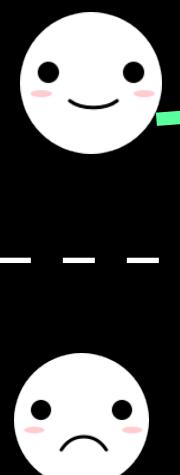


Jill

Hoping everything's fine

 *I live far away from the farm. I hope my plants are ok during the week*





# Painpoints

**01**

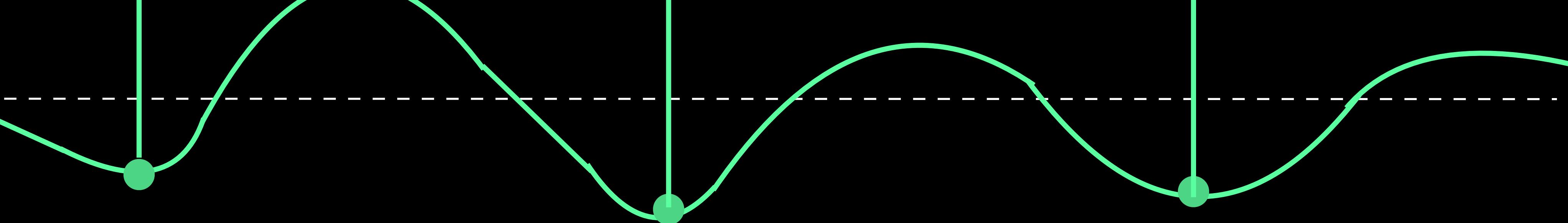
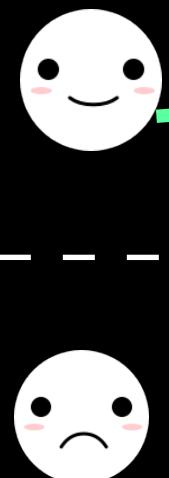
Task is confusing  
and difficult to  
keep track of

**02**

Hard to deal with  
problems

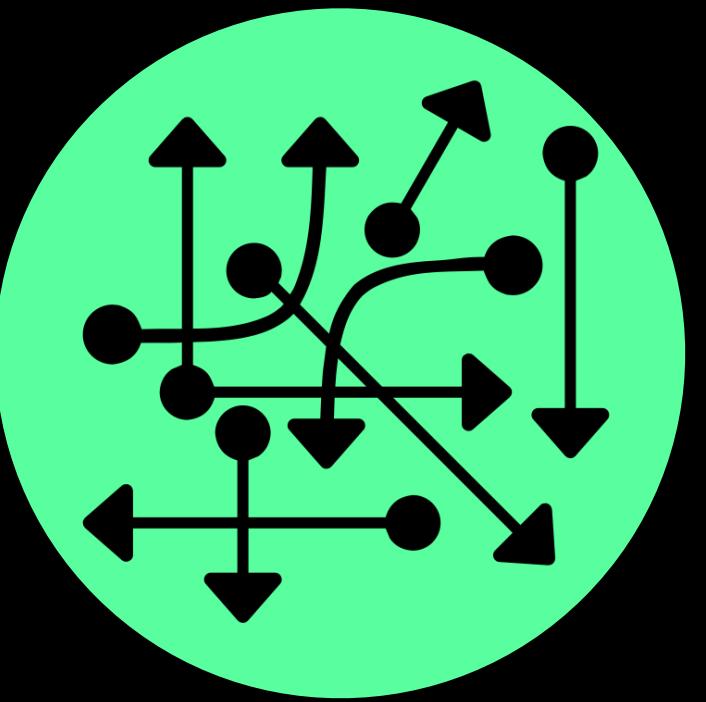
**03**

Can't monitor  
plants status  
remotely



## **Further insights**

# Insights 01



There are many uncertainties in the process and even the managers learn as they go.



# Insights 02



People come for the hands on, tactile experience of farming and to be a part of a community. They do not want automation to take that away from them.



# Insights 03



New volunteers come and go. There is **not** much retention of volunteers over long periods.



# Insights 04

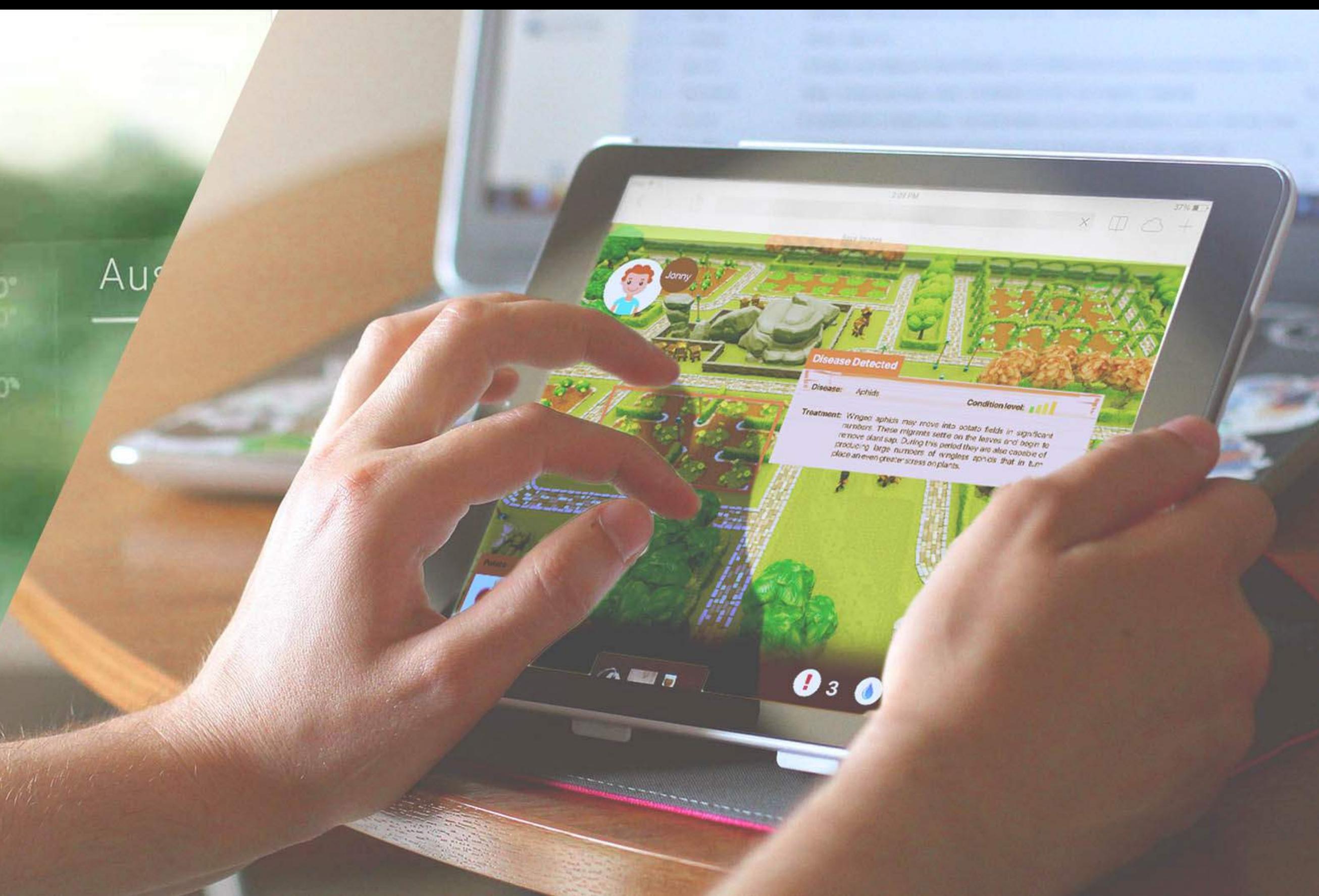


Farmers want to tell the story about their produce to the consumers.



# Farmvision

Farmvision is a smart AI assistant that helps urban farmers by *recommending safe farming techniques*, *monitoring plant development* but most importantly it *grows a story with your plants*



Let us see what Jill's journey looks like with  
**FarmVision**

CTExcel



1:49

Friday, May 3



Farmvision

15m ago

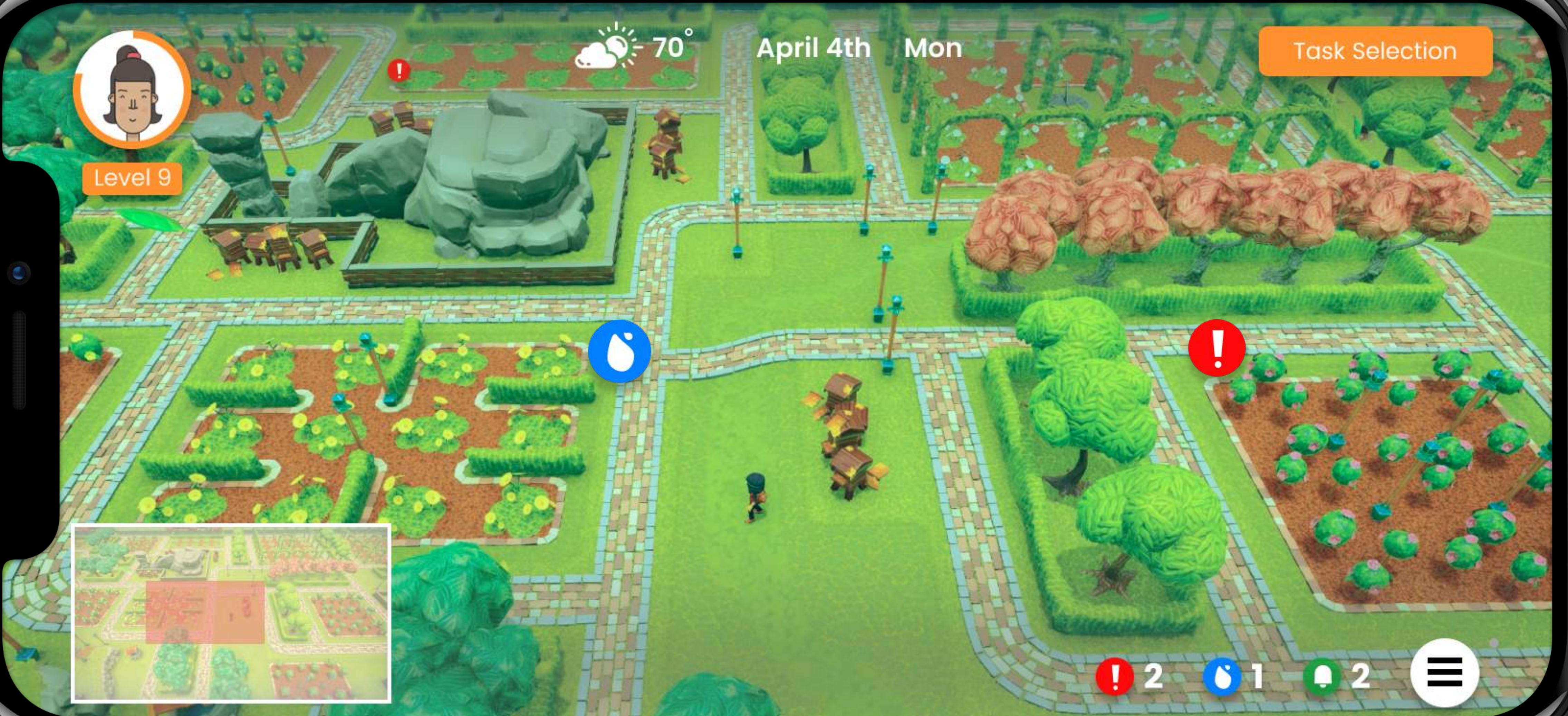
Growth Tracker

Your lettuce is ready to be harvested! Go  
check them out!

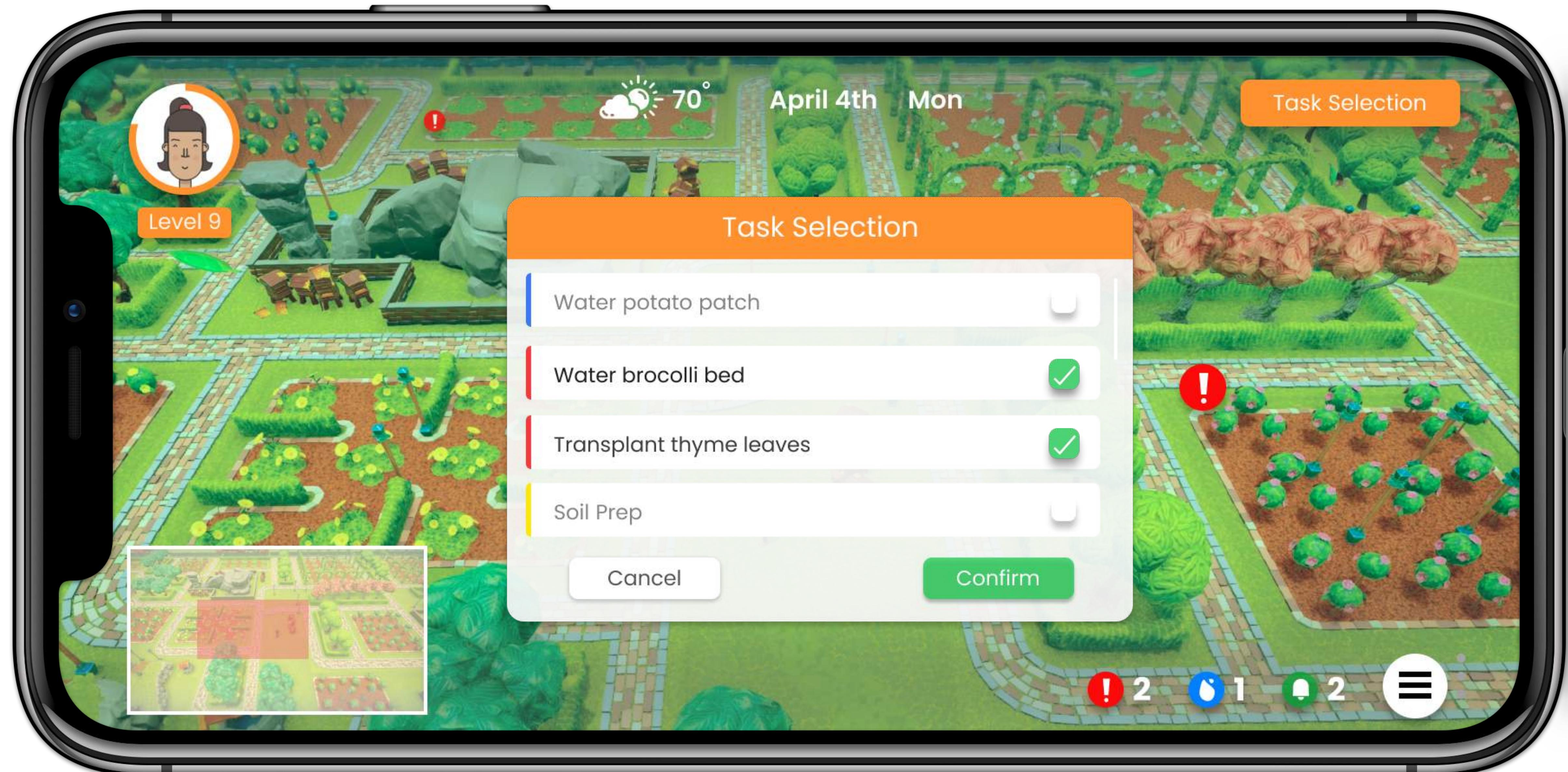


"Organizing is about reaching  
—Koshikai Sato"









Jill goes to the farm





FarmVision

Hi! Jill,  
Welcome back to  
UrbanRoots Farm!



“

FarmVision, show me tasks for the day”



## Task list

Transplant Thyme leaves

Water brocolli bed

Harvest Kale







Watered





“

Farmvision, activate detection mode”





! Detect Mode On

## Pest : Beet Armyworm

Infestation level

Step 1



Handpick  
worms

Urgency level

Step 2



Spray  
Neem Oil

Video



Pests





*"Thanks for your caring. We  
are feeling much better now"*



All tasks completed



**Jill goes back home**









Three months later...



Sugar  
Snap  
Peas

STRING BEANS

SHELLING  
PEAS

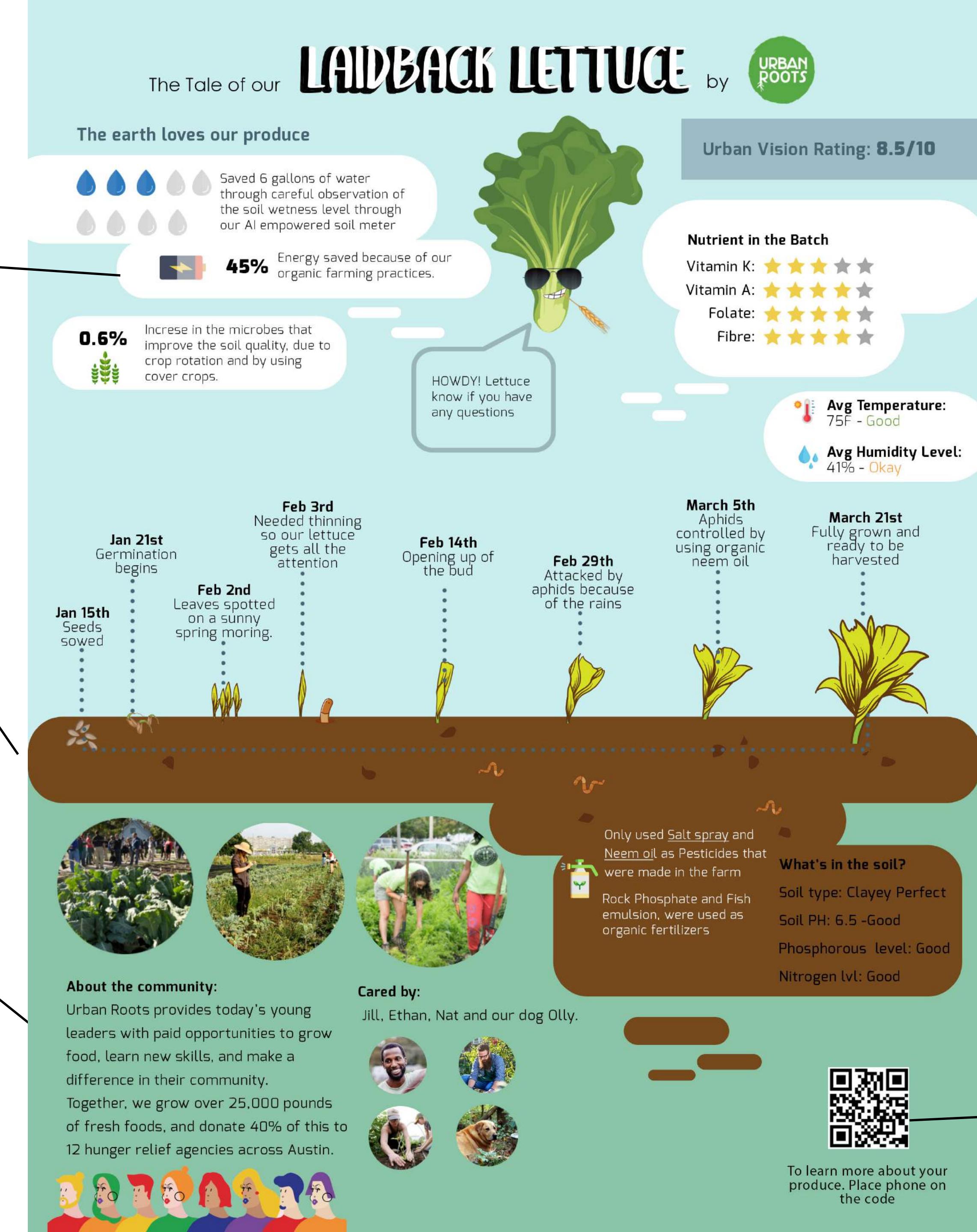
SWEET MILD  
PEPPERS

3.75\$

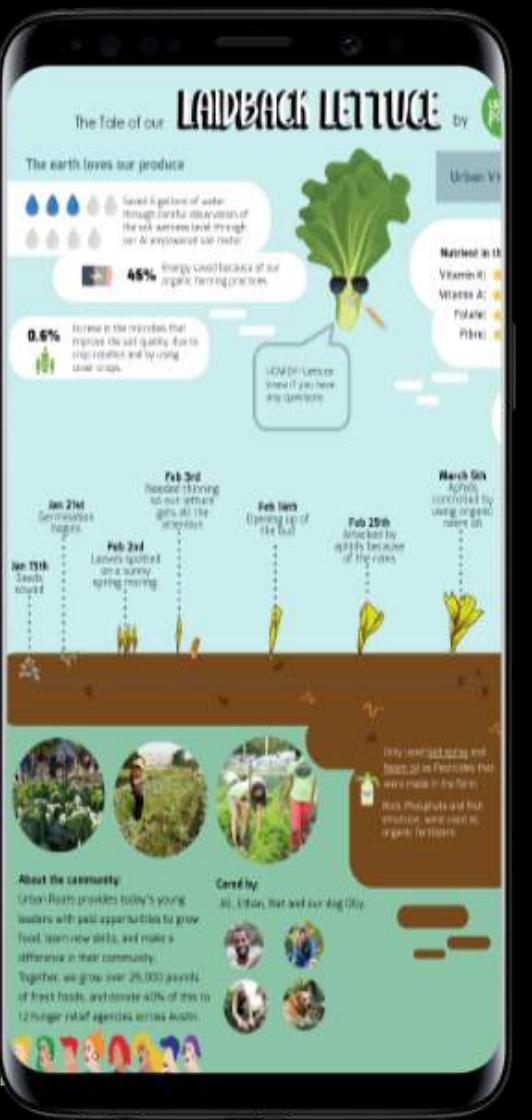
tomatoes - 1.99\$  
BEETROOT - 3.75\$

KNOW OUR FARM  
STORY





The fruitful cycle...



- Promote the farm community
- Generate interest among consumers
- Build a stronger, larger community

# The Next Farmers



**So who is ready to grow a story ?**

Questions?

# **Future**

**Management feature for farm manager**

**Distribution of food based on demand**





**Accessibility**

**Cost**

**Low Vision**

**Address this while presenting the product**

## **Privacy/data**

**Data being used for the food story**

**Volunteer motivator story**

**Public available data: weather, climate, soil condition, ...**

**Private user data: volunteer name, activity log, or they can choose to be anonymous**

