

# HORTICULTURE

“GARDEN CULTURE”

ART

SCIENCE

TECHNOLOGY

BUSINESS

Of growing plants  
that're used by people

FOOD

MEDICINE

AESTHETICS

HORTICULTURE

Is a branch of

AGRICULTURE

whats the difference?

VS

The study and cultivation of plants  
and not animals

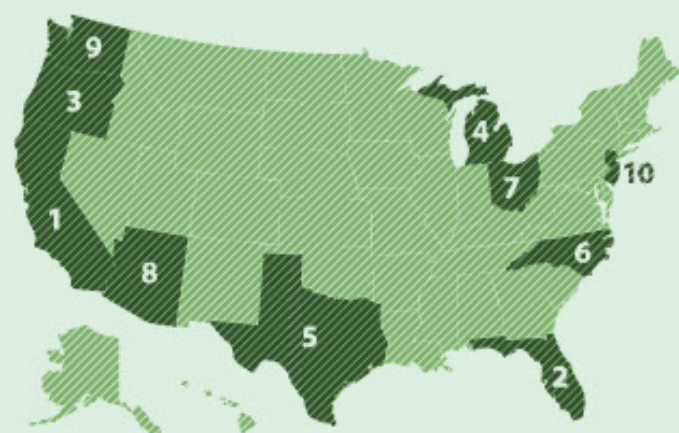
The cultivation of crops, animals,  
and livestock

Plants grown by horticulturists are not  
necessarily used for food, but for  
aesthetic and medicinal use as well

The main concern is about human  
consumption

Can refer to a small garden or large  
field of plants grown for the purpose

Grown in large fields with the  
express purpose of being sold



## TOP 10 STATES IN TOTAL HORTICULTURAL SALES (2014)

California	\$2.9 Bil
Florida	\$1.8 Bil
Oregon	\$932 Mil
Michigan	\$645 Mil
Texas	\$594 Mil
North Carolina	\$571 Mil
Ohio	\$392 Mil
Arizona	\$389 Mil
Washington	\$366 Mil



2% OF THE  
POPULATION IS FARM  
AND RANCH FAMILIES



97% OF U.S FARMS  
ARE INDIVIDUAL OR  
FAMILY-OWNED FARMS



70% OF WORLDS  
WATER IS USED FOR  
AGRICULTURE



38% OF WORLDS  
LAND IS USED FOR  
AGRICULTURE



## PART 1

# HORTICULTURE

### COMMUNITY RESEARCH, REFLECTION, AND DESIGN OUTCOMES

The following project is based on research I conducted on environmental & horticultural enthusiasts in the Gainesville area, with a focus on the Horticulture major at the University of Florida. Gainesville has a big farming, gardening, and nature loving community. I would like to talk to several different groups in order to get a more holistic view oaf what their needs are and how new design solutions can help solve some of the problems they face.

## CONCEPT MAP

## INTERVIEW QUESTIONS & ANSWERS

## FIELD OBSERVATIONS

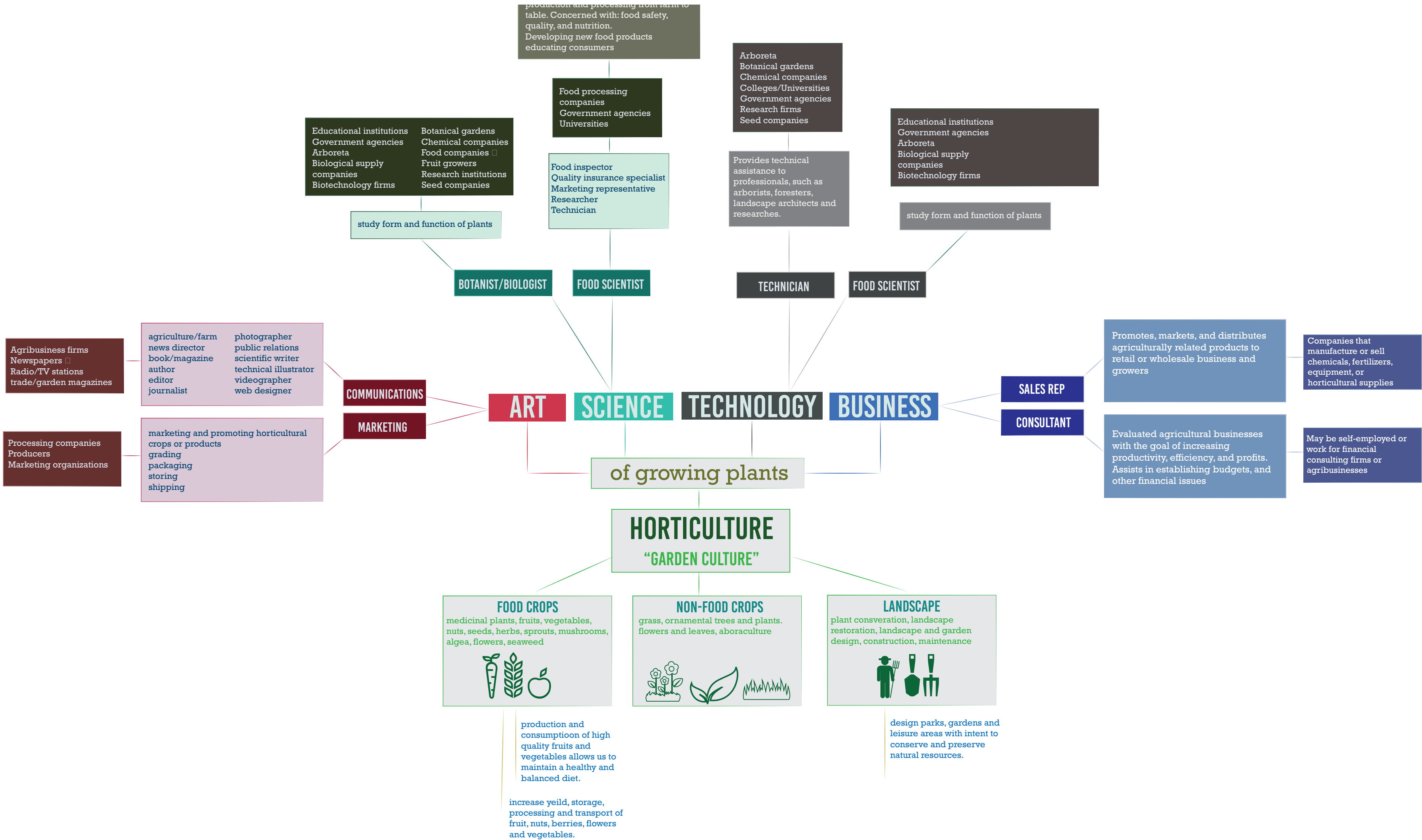
## PERSONA

## POSTER

## POSTER DETAILS

## SELF REFLECTION

CONCEPT MAP



# INTERVIEW

## Q&A'S

***\*I interviewed Courtney Miller, a 21 year old Horticulture major at the University of Florida. She is the Secretary for the University of Florida's Campus Kitchens, and a Garden Assistant for the Field and Fork Pantry on campus.***

**What is horticulture/agriculture to you? What are the differences/similarities between the two?**  
To me, horticulture falls within the sphere of agriculture. Agriculture involves the whole production of growing crops and/ or raising livestock, while horticulture cares about the art aspect of production and includes not only crops, but all types of plants and ornamentals.

**What would you call yourself or identify with?**  
I typically use both terms interchangeably, but I would say that I am more of a horticulturist. I generally tell people I'm studying agriculture though, in case they don't know what horticulture is.

**How did you get into the field?**  
So actually my family owns a large produce company in south Florida. And although I was never involved with the farms operations, it inspired me to want to learn more about agriculture. My grandpa is a very hard working farmer and I value his dedication and hard work to the company.

**What experience do you have in the Agriculture field?**  
I have experience working in a horticulture lab at UF that studies nutrient content in potatoes. I have also worked for a very small farming operation in Buffalo, NY growing a variety of vegetables and herbs. And my most recent experience has involved me researching techniques for an integrated pest management (IPM) plan for a UF farm.

**What would you say are your daily/weekly tasks in this field?**  
Typical daily tasks while working on a farm include irrigating, weeding, hoeing, fertilizing, planting, and monitoring

**Out of those, what do you find to be the most important and/or interesting?**  
I think that one of the most important is definitely weeding. While of course plants need water to develop and survive, taking appropriate measures to eliminate weed species is crucial for the growth of crops. By letting weeds mature in a field, there is a greater chance that they will reproduce and send new weed seeds across the field.

**Do you think shadowing you as a way for me to understand what you do better?**  
Yes, in agriculture, shadowing or learning from experience is definitely the best way for someone to get educated on the topic. It's much easier to go outside and show someone what farming is all about as oppose to explaining it to them.

**What would you say is a common misconception about what you do?**  
People think that growing food is easy, but it certainly is not. There is a whole science behind crop production, it's not simply about planting a seed and giving it adequate water and sunlight. There are many elements that affect crop growth and those change when you grow different plants. Agriculture involves very complicated integrated systems.

**If you could educate people on a common stereotype/ misconception or just something they generally don't/ wouldn't know, what would it be/what would you say?**  
I would educate people on the words "organic" and "natural." Just because a food item says that it is natural on the front, does not mean that it is organic or even healthy. And just because a food is labeled organic, it does not mean that it is superior to the same food that is not organically produced. I think that people try to look for these words that they think are good for them without actually knowing what they mean or stand for.

**What do you grow?**  
In the past, I have grown a variety of vegetable crops such as tomatoes, peppers, green beans, squash, lettuce, and radish. I have also grown flowers like zinnias, sunflowers, and nasturtium.

**What are your plans for the future?**  
As of right now, I do not know where I will be after graduation, but I hope to either get my Master's or get an industry job working for a large farming company, like Driscoll's or Monsanto.

**Do you farm organic/natural? How do you feel about pesticides/GMO's?**  
I would like to say that I farm sustainably, which is kind of in between organic and conventional farming. I try to use methods that are environmentally friendly while also trying to improve the quality of my crops. I think that pesticides are possibly needed in some agricultural productions, but for the most part they should be used to a bare minimum since they are caustic chemicals. I also believe in the power and science of GMOs

**What places do you think are important to farmers or to you as a farmer?**  
I think farmers markets are an important feature for farmers and the community. They allow farmers to become engaged with citizens and vice versa. Community members can find the best, most fresh produce that is worth the price. And farmers can get input from people on what they like best about the produce or what they would like to see different in the future.

**Are there ways the town supports or hinders your ability to farm?**  
In Gainesville, I can't really think of any ways that the town hinders the ability to farm. In terms of support though, I would say that there are people in the community who want to help out and volunteer with simple farming tasks like weeding or hoeing.

**What issues are you passionate about?**  
I'm passionate about growing healthy and bountiful food for the community. I believe that fresh foods should be locally sourced and not sold by the truckloads at large supermarkets. I am also a strong advocate for fighting food insecurity in communities that rank high in poverty.

**What do you wish more people knew or cared about?**  
I really do wish that people knew more about the actual facts of GMOs and not just the misconceptions that are seen on social media. There are plenty of years of research to show that they are not harmful.



## FIELD OBSERVATIONS

Through my initial interviews and shadowing my interviewee I observed the amount of work it really takes to be in the field. First and foremost, it is very physically demanding and there is a lot of labor that goes in to farming and gardening. Of course we may know this, but I felt that perhaps the amount is underestimated.

I also noticed that the opportunities in the field are underestimated by many as well. Although it may seem that they are just “farmers” or just “gardeners” there are actually an endless number of opportunities and job titles in the field of horticulture. It also seems to be unclear to many the differences between agriculture and horticulture. Because of this, many see it as the same discipline.


There are many misconceptions in the field in regards to topics such as organic, natural, and sustainable. Many consumers are uneducated to what these terms really mean. Many people in the field dedicate themselves to the cause of educating people on such topics. It seems that individuals choose these such topics to focus on, and in turn become really passionate about the cause. This then informs and guides the work that they do.





# PERSONA

I based my persona off of my interviewee. I felt she was an appropriate representation of the Horticulture community in Gainesville, where much of the community is made up of students who are entering the field.



**SARAH P.**  
COMMUNITY ORIENTED HORTICULTURIST

**AGE** 22  
**LOCATION** WARRENTON, VA  
**STATUS** SINGLE

“PEOPLE THINK THAT GROWING FOOD IS EASY, BUT ITS NOT SIMPLY ABOUT PLANTING A SEED AND GIVING IT ADEQUATE WATER AND SUNLIGHT.”

“PEOPLE THINK THAT GROWING FOOD IS EASY, BUT ITS NOT SIMPLY ABOUT PLANTING A SEED AND GIVING IT ADEQUATE WATER AND SUNLIGHT.”

Sarah is a 3rd year college student studying horticulture in the school of agriculture in her hometown of warrenton, Virginia where mountains cover the north and farm fields cover the south. Shes inspired by her families business and dedication to their produce company. She wants to educate people as much as she can about sustainable methods and environmentally friendly practices. shes passionate about the issue of food insecurity in poor communities and believes fresh foods should be locally sourced and not sold by truckloads at large supermarkets.

## MOTIVATIONS

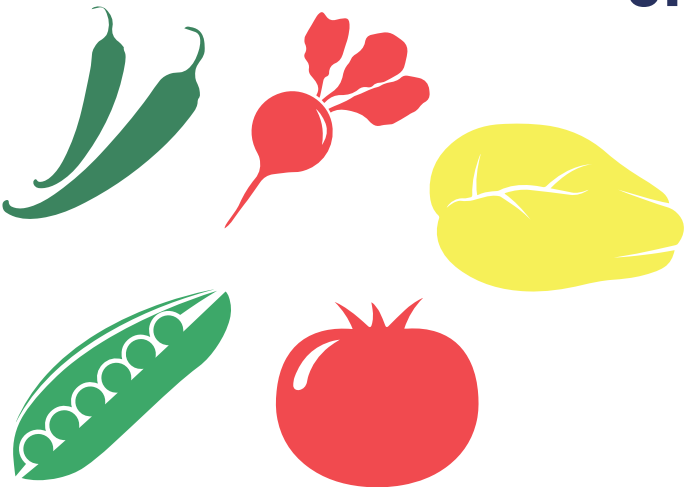
- Family owns a produce company and farming operation
- Grandpa is a hardworking and dedicated farmer
- Her families company and the dying of family farms inspired her to pursue agriculture and continue in the family



## GOALS

- Use environmentally friendly methods while also trying to improve quality of crops
- Fight food insecurity in communities that rank high in poverty
- Educate people on what “organic” and “natural” actually mean
- Increase awareness, with research, on GMOs and the common misconceptions that accompany them

## CROPS



VEGETABLES

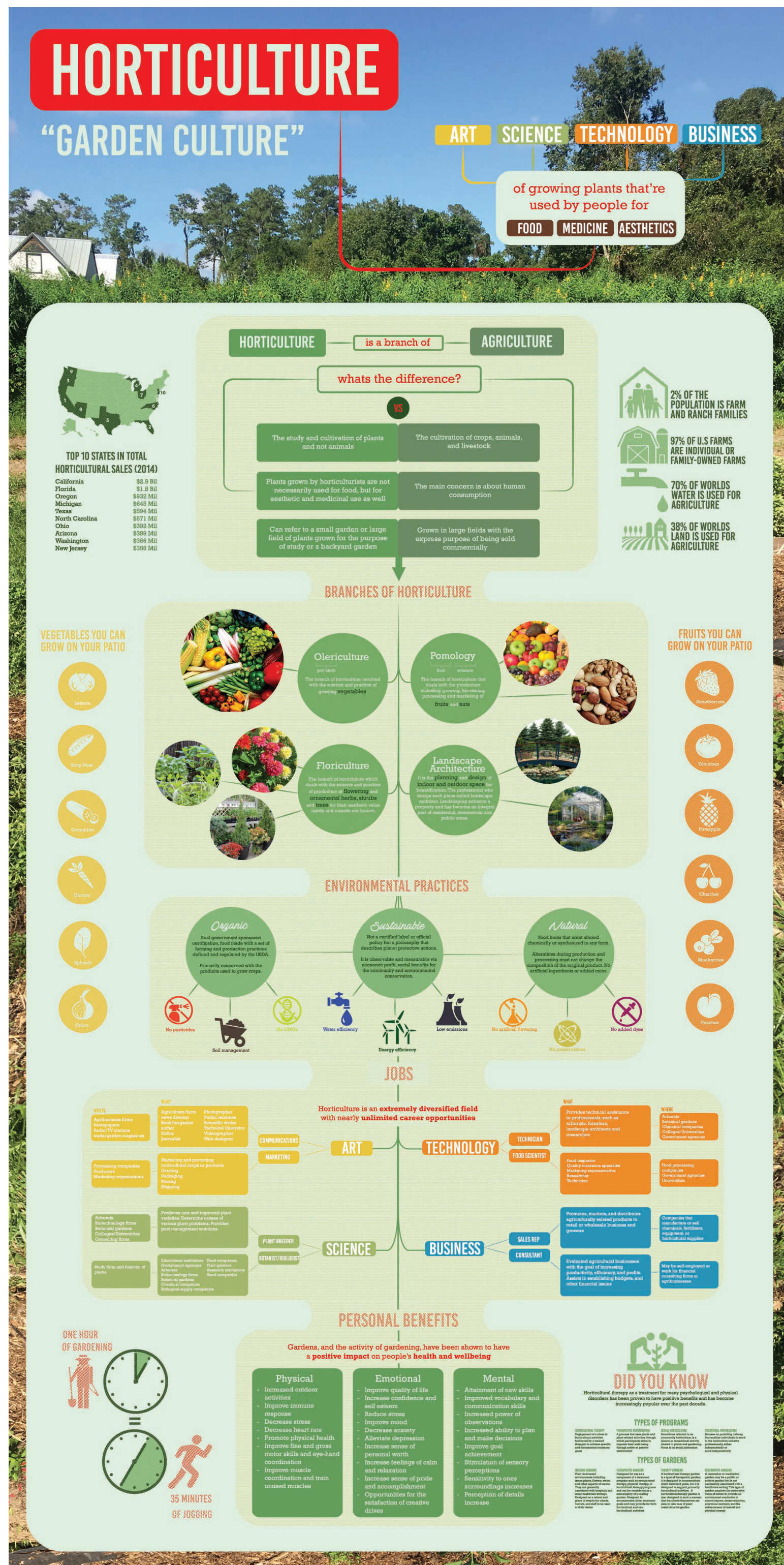


FLOWERS



# POSTER

I conducted research on the horticulture community in Gainesville and articulated my findings in an infographic. Focusing on small scale farming and gardening, my goal for this piece was to communicate my research to audiences who may not have any knowledge on the subject. Printed as a 30x60 inch poster.





POSTER  
DETAILS

North Carolina	\$571 Mil
Ohio	\$392 Mil
Arizona	\$389 Mil
Washington	\$366 Mil
New Jersey	\$356 Mil

Can refer to a small garden or large field of plants grown for the purpose of study or a backyard garden

Grown in large fields with the express purpose of being sold commercially

 38% OF WORLD'S LAND IS USED FOR AGRICULTURE

BRANCHES OF HORTICULTURE

VEGETABLES YOU CAN GROW ON YOUR PATIO



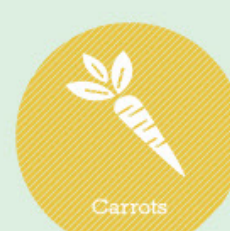
Lettuce



Snap Peas



Cucumber



Carrots



Spinach



Onion



Olericulture

pot herb

The branch of horticulture involved with the science and practice of growing vegetables.



Floriculture

The branch of horticulture which deals with the science and practice of production of flowering and ornamental herbs, shrubs and trees for their aesthetic value inside and outside our homes.



Pomology

fruit science

The branch of horticulture that deals with the production including growing, harvesting, processing and marketing of fruits and nuts



FRUITS YOU CAN GROW ON YOUR PATIO



Strawberries



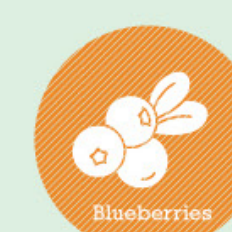
Tomatoes



Pineapple



Cherries



Blueberries



Peaches

ENVIRONMENTAL PRACTICES

Organic

Real government sponsored certification, food made with a set of farming and production practices defined and regulated by the USDA.

Primarily concerned with the products used to grow crops.



No pesticides



Soil management



No GMOs

Sustainable

Not a certified label or official policy but a philosophy that describes planet protective actions.

It is observable and measurable via economic profit, social benefits for the community and environmental conservation.



Water efficiency



Energy efficiency



Low emissions

Natural

Food items that aren't altered chemically or synthesized in any form.

Alterations during production and processing must not change the composition of the original product. No artificial ingredients or added color.



No artificial flavoring



No preservatives



No added dyes

JOBS

Horticulture is an extremely diversified field with nearly unlimited career opportunities

ART

COMMUNICATIONS

MARKETING

WHERE

Agribusiness firms  
Newspapers  
Radio/TV stations  
trade/garden magazines

WHAT

Agriculture/farm news director  
Book/magazine author  
Editor  
Journalist

Photographer  
Public relations  
Scientific writer  
Technical illustrator  
Videographer  
Web designer

Processing companies  
Producers  
Marketing organizations

Marketing and promoting horticultural crops or products  
Grading  
Packaging  
Storing  
Shipping

TECHNOLOGY

TECHNICIAN

FOOD SCIENTIST

WHAT

Provides technical assistance to professionals, such as arborists, foresters, landscape architects and researchers

Food inspector  
Quality insurance specialist  
Marketing representative  
Researcher  
Technician

WHERE

Arboreta  
Botanical gardens  
Chemical companies  
Colleges/Universities  
Government agencies

Food processing companies  
Government agencies  
Universities