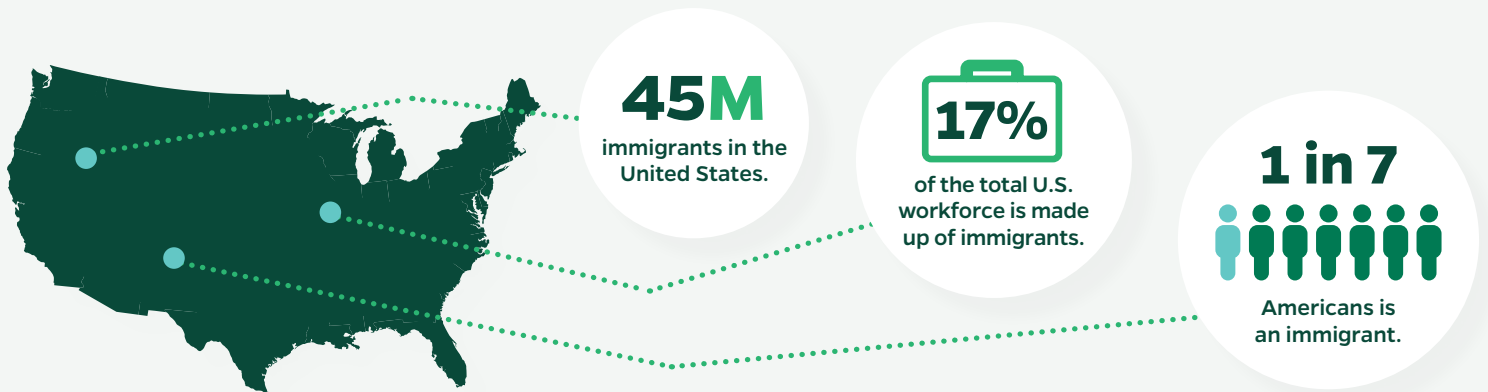


# WHAT DO U.S. CITIZENS THINK ABOUT IMMIGRATION?



In March 2022, 1,509 adult United States citizens were surveyed about their attitudes toward immigrants and perceptions of immigration during the COVID-19 pandemic.



## ATTITUDES TOWARD IMMIGRANTS

Overall, respondents expressed positive attitudes toward immigrants. Respondents were asked to indicate the degree to which they felt different emotions when they thought of immigrants in the United States. Acceptance, understanding and sympathy were the top emotions felt by respondents when they thought of immigrants.

Over two-thirds of respondents said they interact with immigrants at least sometimes. The majority of respondents felt comfortable and safe during their most recent interaction with an immigrant. Respondents believed that most immigrants in the U.S. could be described as hardworking, intelligent and friendly.

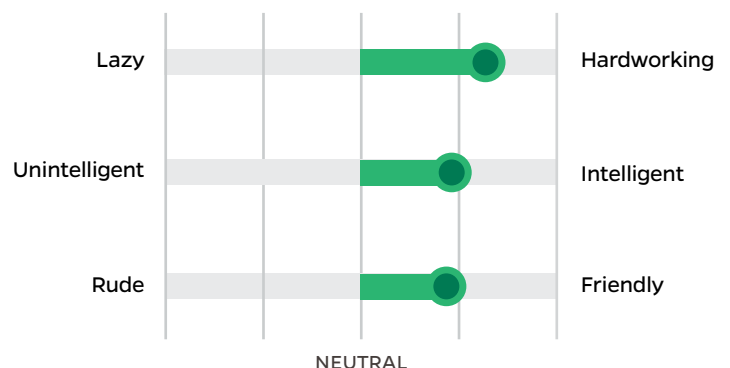


U.S. citizens generally felt **positive emotions** when they thought about immigrants in the United States.

## HOW OFTEN DO YOU INTERACT WITH IMMIGRANTS?



## MOST IMMIGRANTS IN THE UNITED STATES CAN BE DESCRIBED AS...



## PERCEIVED THREATS OF IMMIGRATION

Respondents were asked whether they believed immigration would threaten different aspects of society if immigration into the U.S. continues at the present rate.

Respondents were most concerned about immigration threatening the availability of government benefits, the United States economy and traditional American culture and way of life. Respondents who perceived greater threats of immigration were more likely to possess negative attitudes toward immigrants.

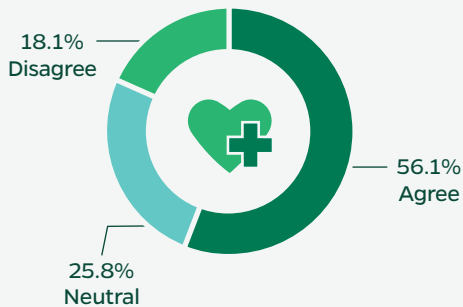
## TOP PERCEIVED THREATS

*If immigration continues at the present rate, it will threaten...*

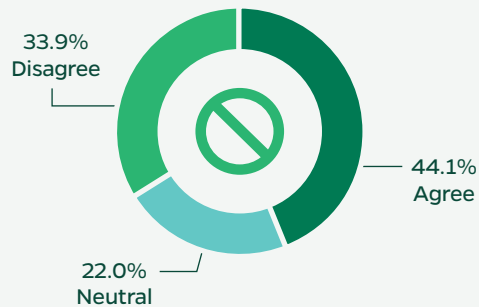
- 1 The availability of government benefits**
- 2 The United States economy**
- 3 Traditional American culture & way of life**

## PERCEPTIONS OF IMMIGRATION RELATED TO COVID-19

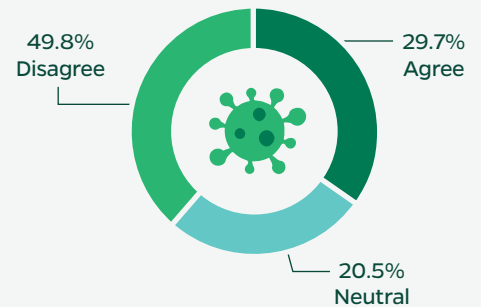
*I am concerned about the health & wellbeing of immigrants in the United States during COVID-19.*



*The United States should restrict immigration in order to slow the spread of COVID-19.*



*Immigration into the United States is responsible for the high number of COVID-19 cases.*



## IMMIGRATION & COVID-19

Respondents were asked about their perceptions of immigration related to COVID-19. The majority of respondents were concerned about the health and wellbeing of immigrants during COVID-19. Opinions were divided regarding whether immigration should be restricted to slow the spread of COVID-19. More respondents agreed with restricting immigration than those who disagreed. Nearly half of respondents did not agree that immigration was responsible for the high number of COVID-19 cases.

## CONCLUSIONS

Results from this study suggest that U.S. citizens view immigrants and immigration differently. While attitudes toward immigrants were largely positive, respondents expressed conflicted opinions about immigration.

Certain factors were found to influence attitudes toward immigrants. More frequent interaction with immigrants was associated with more positive attitudes. Additionally, significant differences in attitudes were apparent between personal values, such as political beliefs and political party affiliation.

Data were collected between March 11 and 21, 2022 by the UF/IFAS Center for Public Issues Education. The sample included 1,509 adult United States citizens with characteristics similar to the 2020 U.S. Census.

# ON-FARM TRIAL PARTNER EXPERIENCES

## With the UF/IFAS Industrial Hemp Pilot Project



Focus groups were conducted in November 2020 with on-farm trial partners of the UF/IFAS Industrial Hemp Pilot Project. Industrial hemp is a variety of *Cannabis sativa* grown for fiber, grain and essential oil that can be processed for diverse uses. This Pilot Project aims to develop a viable hemp industry for Florida supported by the best available information and technology. The purpose of this study was to gain feedback from on-farm partners regarding their experiences as part of the project.

### GROWING EXPERIENCES

When asked about their experiences growing hemp, participants reported mixed results for hemp strains. For example, some reported more success from transplant, while others reported more success from seed.

Growing challenges related to weather included heavy rain, heat, humidity and hurricanes. Other key growing challenges included pressure from pests and weeds, late planting and associated quick flowering and trouble planting seeds directly into the ground.

#### GROWING CHALLENGES



MIXED RESULTS  
FOR STRAINS



WEATHER



PESTS &  
WEEDS



LATE PLANTING/  
QUICK FLOWERING



DIRECT  
SEED

Recommendations from participants included planting earlier, such as in March, and either using raised beds with plastic coverings or growing plants in containers rather than directly in the ground. These alternative growing environments fight pressure from pests and weeds, though may increase installation cost and limit the spatial scale of operation.

Many participants expressed a research mindset by anticipating crop loss and being eager to continue trying new methods for optimal plant establishment and success. They also described a desire to continue working with the Pilot Project in the future.

ON-FARM PARTICIPANTS  
HAD OVERALL  
**POSITIVE**  
EXPERIENCES  
WITH UF/IFAS  
HEMP PILOT  
PROJECT LEADERSHIP



### PILOT PROJECT EXPERIENCES

Participants described their overall experience with the project leadership as positive and noted the team was receptive to phone calls and quick to solve any issues. Some participants experienced challenges due to circumstances surrounding COVID-19 and others described difficulty with the short growing timeline.

The overall best qualities of the project were seed donations to participants, attentive program leaders, support from Extension agents, a clear and quick application process and low start-up costs.

Participants recommended the development of a communication network for participating farmers to share information and support one another throughout the project.

#### PILOT PROJECT BEST QUALITIES

- 1 Seed donations
- 2 Attentive program leaders
- 3 Support from Extension agents
- 4 Clear & quick application process
- 5 Low start-up costs

### FUTURE HEMP INDUSTRY NEEDS

The following themes emerged when participants were asked about their perceptions of the future needs of the hemp industry overall: (1) **continued research** in areas of production quality control and cannabinoid content; (2) **reduced restrictions**, particularly the restriction on cottage food for hemp; (3) **market needs** such as finding real buyers for the product and a desire for locally grown labelling; (4) **communication needs** such as developing a group of serious growers in Florida to share experiences, challenges and resources; and (5) **shifting to U.S. grown hemp** competitive with imports.

Rampold, S. D. (2021). Experiences of on-farm trial partners. PIE2022/23-01. Gainesville, FL: University of Florida/IFAS Center for Public Issues Education.



# KNOWLEDGE, ATTITUDES, & PERCEPTIONS OF HEMP

## A Survey of the Florida Public



The purpose of this study was to examine adult Florida residents' knowledge, attitudes and perceptions of hemp topics including the legalization of growing and processing hemp. This study was conducted in August 2020 via an online survey with 524 Florida residents, age 18 or older. This data will aid the UF/IFAS Industrial Hemp Pilot Project in developing its public communication and outreach campaign efforts to highlight the benefits of the project and foster exposure to accurate information.

### KNOWLEDGE OF HEMP

Respondents perceived themselves as being moderately knowledgeable on hemp topics but scored an average of 50% on a short quiz that measured how much they knew. This indicates a discrepancy between self-perceived knowledge and objective knowledge on hemp topics.

Most respondents (83.5%) were not aware of the UF/IFAS Industrial Hemp Pilot Project, but over half (54.6%) were interested in learning more about it.

#### HAVE YOU HEARD OF THE UF/IFAS INDUSTRIAL HEMP PILOT PROJECT?

YES- 16.5% NO- 83.5%

#### WOULD YOU LIKE TO KNOW MORE ABOUT THE UF/IFAS INDUSTRIAL HEMP PILOT PROJECT?

YES- 54.6% NO- 45.4%

Respondents were most likely to seek information about hemp topics from the UF/IFAS Industrial Hemp Pilot Project website or through communication with friends or family who have knowledge on the topic. However, it should be noted that one-fourth of respondents were not familiar with the UF/IFAS hemp website.

Respondents were least likely to seek information about hemp topics from local TV news channels or national cable TV news channels.

#### PREFERRED SOURCES OF INFORMATION ON HEMP



UF/IFAS HEMP WEBSITE



FRIENDS/FAMILY

### ATTITUDES & PERCEPTIONS OF HEMP

Over three-fourths (77.4%) of respondents indicated they were overall "for" legalizing the growing and processing of hemp. Respondents perceived the legalization of hemp as slightly good for the economy and good for farmers, but were relatively less convinced that it is a wise and low-risk thing to do.

## MOST RESPONDENTS SUPPORTED LEGALIZING THE GROWING AND PROCESSING OF HEMP IN FLORIDA

Key themes for the "pro-hemp" stance included medical and health benefits, the diversity of uses and economic benefits. Other reasons for the legalization of hemp included the relative advantage of hemp compared to other products and a "why not" attitude due to lack of reasons against it.

Key themes for the "anti-hemp" stance included the potential dangers of abuse and misuse and either lack of knowledge or lack of a strong opinion needed to take a stance.

#### PRO-HEMP

- 1 Medical/Health Benefits
- 2 Diversity of Uses
- 3 Economic Benefits

#### ANTI-HEMP

- 1 Dangers of Abuse & Misuse
- 2 Lack of Knowledge
- 3 Lack of a Strong Opinion

Rampold, S. D., & Telg, R. W. (2020). Knowledge, attitudes, and perceptions of hemp: A survey of the Florida public. PIE2020/21-04. Gainesville, FL: University of Florida/IFAS Center for Public Issues Education.



# COVID-19:

## PUBLIC COMMUNICATION CONCERNS, BEHAVIORS, BELIEFS

In a recent survey conducted by the UF/IFAS Center for Public Issues Education (PIE Center), Americans were asked about their ability and willingness to abide by social distancing practices and wear facial coverings, as well as COVID-19 related concerns. This survey was conducted between July 23 and August 9, 2020 nationwide with 1,538 respondents sampled to be representative of the U.S. Census. \*Note, some of the data reported in this issue guide is similar to previous issue guides, but was collected at a different point in the pandemic.

### ABILITY AND WILLINGNESS TO FOLLOW SOCIAL DISTANCING AND FACE MASK GUIDELINES

As more cities and counties around the United States implement social distancing guidelines and mask mandates, the PIE Center sought to understand Americans' perceptions of these guidelines.

When asked about overall ability to comply with recommended social distancing practices, the overwhelming majority of respondents (97.9%) indicated they were **able** to socially distance. Similarly, the majority of respondents (96.8%) were **willing** to socially distance.



Approximately 96.7% of respondents indicated they were overall **able** to wear a mask or face covering when out in public. Ninety-six percent of respondents were overall **willing** to wear a mask.



**MOST RESPONDENTS INDICATED THEY ARE ABLE AND WILLING TO WEAR A MASK.**

### I AM CONCERNED THAT OTHER MEMBERS OF THE PUBLIC ARE NOT GETTING ACCURATE & FACTUAL INFORMATION ABOUT COVID-19:

YES - 78.9%

NO - 21.1%

### I AM CONCERNED THAT I AM NOT GETTING ACCURATE AND FACTUAL INFORMATION ABOUT COVID-19:

YES - 69.2%

NO - 30.8%

### I AM CONCERNED THAT MY LOVED ONES ARE NOT GETTING ACCURATE & FACTUAL INFORMATION ABOUT COVID-19:

YES - 68.3%

NO - 31.7%

### COMMUNICATION AND CULTURAL CONCERNS

Americans were asked about their communication-related concerns regarding the COVID-19 pandemic. The majority of respondents (69.2%) reported feeling concerned about not receiving factual and accurate information. Approximately 68.3% of respondents were concerned their loved ones were not receiving accurate information, and 78.9% were concerned other members of the general public were not receiving accurate information.

### THE MAJORITY OF RESPONDENTS BELIEVE COVID-19 IS CREATING A CULTURAL DIVIDE IN THE U.S.

Respondents indicated they had cultural concerns related to COVID-19. Fifty-five percent of respondents reported feeling concerned COVID-19 is making race and cultural relations worse in society. Fifty-six percent feel COVID-19 is creating a cultural divide in the United States. Fifty-eight percent believe COVID-19 is making it harder for underrepresented groups to achieve the American dream.

Data was collected between July 23 and August 9, 2020 by the UF/IFAS Center for Public Issues Education. This survey was conducted nationwide with 1,538 respondents.





# WHAT AMERICANS THINK ABOUT COVID-19

The first case of the novel coronavirus (COVID-19) in the United States was reported in late January and has spread to more than 160 countries resulting in far-reaching implications for people around the world and in the United States. The UF/IFAS Center for Public Issues Education in Agriculture and Natural Resources (PIE Center) recently surveyed 1,512 Americans to examine their knowledge, response, concerns and beliefs related to COVID-19. The survey was conducted between March 13-16, 2020.

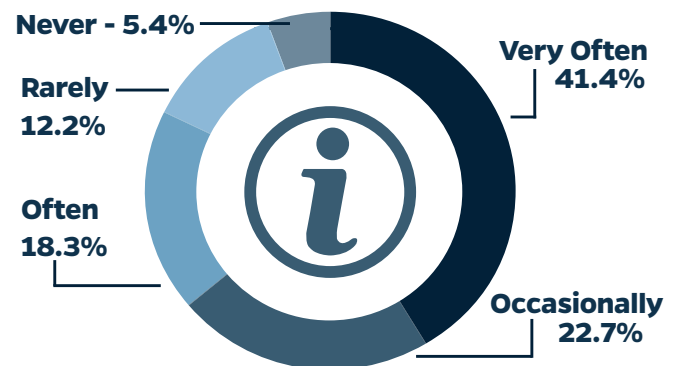
## TWO-THIRDS OF AMERICANS RANK COVID-19 AS THE NO. 1 PUBLIC HEALTH CONCERN

According to a recent survey conducted by the UF/IFAS PIE Center, two-thirds of Americans ranked COVID-19 as the No. 1 public health concern, even when compared to influenza, HIV and Ebola.

Americans were also asked about their information-seeking behaviors. More than 40% of respondents reported seeking information about COVID-19 very often within the past month. Another 22.7% percent of respondents indicated seeking information occasionally.

Respondents indicated they were most likely to seek COVID-19 information from the following sources: Centers for Disease Control and Prevention websites, Department of Health websites, personal healthcare provider and the World Health Organization website.

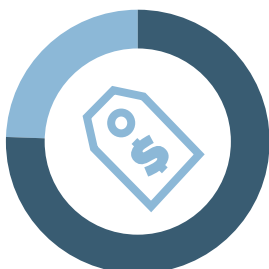
### WITHIN THE PAST MONTH, I HAVE SOUGHT INFORMATION ABOUT COVID-19:



Three-fourths of respondents reported being concerned about the impact of COVID-19 on increasing food prices. Eighty-six percent of respondents reported being concerned about the impact of the virus on their state's economy. Nine in 10 people were concerned about the United States economy.

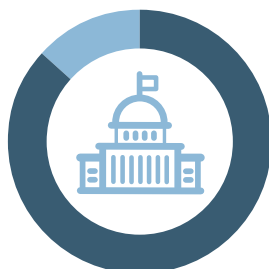
### I AM CONCERNED ABOUT THE IMPACT OF COVID-19 ON....

#### INCREASING FOOD PRICES



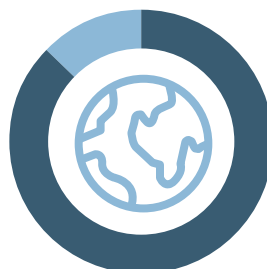
**YES - 75.6%**

#### STATE ECONOMY



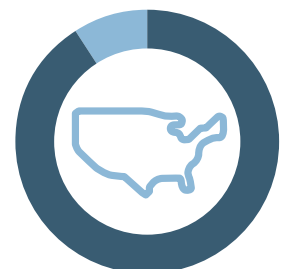
**YES - 86.8%**

#### GLOBAL ECONOMY



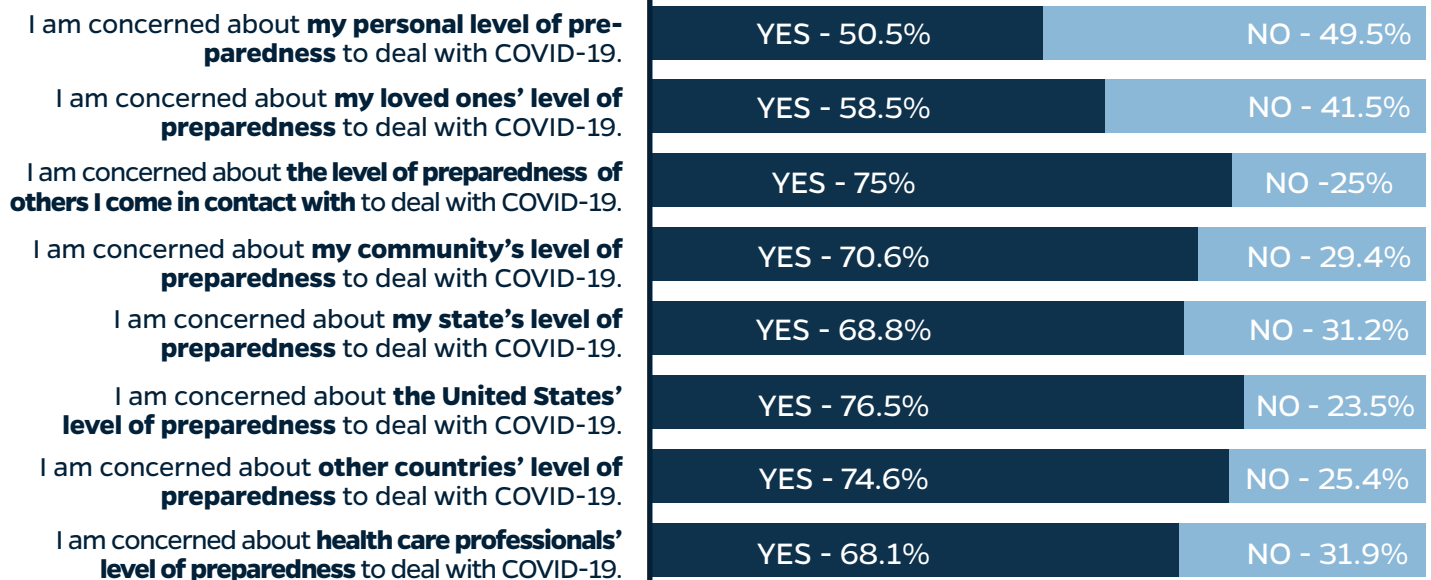
**YES - 87.3%**

#### UNITED STATES ECONOMY



**YES - 91%**

## PREPAREDNESS CONCERNS REGARDING COVID-19



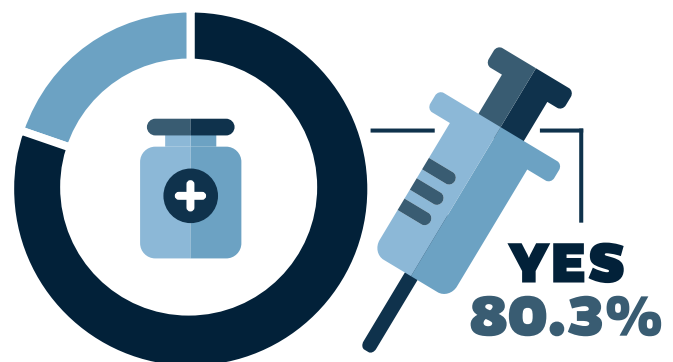
## AMERICANS ARE MORE CONCERNED FOR OTHERS AMIDST COVID-19 CRISIS THAN FOR THEMSELVES

Americans were asked about their preparedness concerns regarding COVID-19. Overall, respondents were more concerned about others' level of preparedness than their own. A little more than half of respondents indicated being concerned about their personal level of preparedness to deal with COVID-19. However, nearly 60% of respondents were concerned about their loved ones' level of preparedness and 70% were concerned about their community's level of preparedness.

Respondents indicated concerns related to COVID-19 communication. Nearly 60% of respondents were concerned they were not getting accurate information. Three-fourths of respondents were concerned other members of the public were sharing inaccurate information about COVID-19.

Americans were asked about a vaccination for COVID-19. Eighty percent of respondents indicated they would get a vaccination for COVID-19 if it were available. Additionally, 82% of respondents indicated they believe a vaccine for COVID-19 will be available in the next 12 to 18 months. Americans were also asked about their overall perceptions of vaccines. Sixty percent indicated they got the flu vaccine in the past year, while 72% indicated getting other recommended vaccines.

### IF A VACCINATION WERE AVAILABLE FOR COVID-19, WOULD YOU GET IT?



Data was collected between March 13 and 16, 2020 by the UF/IFAS Center for Public Issues Education. This survey was conducted nationwide with 1,512 respondents.

# WHAT AMERICANS THINK ABOUT SOCIAL DISTANCING

The first case of the coronavirus (COVID-19) in the United States was reported in late January and has spread to more than 213 countries resulting in far-reaching implications for this global pandemic. The UF/IFAS Center for Public Issues Education in Agriculture and Natural Resources (PIE Center) recently surveyed more than 1,500 Americans to examine their behaviors, practices, concerns, and beliefs related to social distancing. The survey was conducted between April 23 - May 7, 2020

## MAJORITY OF PEOPLE ARE SOCIAL DISTANCING

According to a recent survey conducted by the UF/IFAS PIE Center, 99 percent of participants were able to comply with social distancing practices and over 98 percent were willing to comply with social distancing practices.

Americans were also asked about their behaviors related to social distancing. Respondents identified the following items as being most true of them: avoiding travel (87.4%), stopped participating in extracurriculars (85.7%), and avoiding contact with strangers (80.5%).

Over seventy percent of respondents indicated they were not concerned social distancing measures violate their civil liberties. Seventy-five percent of respondents also indicated not being concerned that social distancing will make COVID-19 last longer in the population. Overall, 80 percent of respondents agreed they wanted to do what scientists and healthcare professionals think they should do.



**71.1%**  
were not concerned social distancing measures violate their civil liberties.

### RESPONDENTS IDENTIFIED THE FOLLOWING SOCIAL DISTANCING BEHAVIORS AS BEING MOST TRUE OF THEM...

**AVOIDING TRAVELING**



**YES - 87.4%**

**STOPPED PARTICIPATING IN EXTRACURRICULARS**



**YES - 85.7%**

**AVOIDING CONTACT WITH STRANGERS**



**YES - 80.5%**



# AMERICANS BELIEVE SOCIAL DISTANCING IS IMPORTANT

Respondents indicated that following social distancing practices were important and good for others. Specifically, respondents agreed most that following recommended social distancing practices will reduce their risk of contracting COVID-19, slow the spread of COVID-19 and protect vulnerable populations.

Even though respondents indicated many benefits to practicing social distancing, there were some concerns expressed with social distancing. Slightly more than half (57%) of respondents were concerned about the effects of social distancing on people's mental health.

Respondents also had concerns about how others were following social distancing practices. Eighty-two percent of respondents indicated concern that other people were not following recommended social distancing protocols.

**FIFTY-SEVEN PERCENT  
OF RESPONDENTS WERE  
CONCERNED ABOUT  
THE EFFECTS OF SOCIAL  
DISTANCING ON PEOPLE'S  
MENTAL  
HEALTH.**



## RESPONDENTS AGREED MOST THAT FOLLOWING THE RECOMMENDED SOCIAL DISTANCING PRACTICES WILL...

Reduce their risk of contracting COVID-19.	YES -80.5%	NO -19.5%
Slow the spread of COVID-19.	YES -77.3%	NO -22.7%
Protect vulnerable populations.	YES -77%	NO -23%
Reduce the risk of others contracting COVID-19.	YES -76.3%	NO -23.7%
Reduce the peak of COVID-19.	YES -74.6%	NO -25.4%

Data was collected between April 23 - May 7, 2020 by the UF/IFAS Center for Public Issues Education.  
This survey was conducted nationwide with 1500 respondents.

# WHAT DO AGRICULTURE AND NATURAL RESOURCES LEADERS THINK ABOUT COVID-19?

The first case of novel coronavirus (COVID-19) in the United States was reported in late January and has since spread to more than 160 countries, resulting in far-reaching implications for people around the world. The UF/IFAS Center for Public Issues Education in Agriculture and Natural Resources (PIE Center) recently surveyed 225 leaders in the agriculture and natural resources sectors in 17 states to examine their knowledge, response, concerns and beliefs regarding COVID-19. This survey was conducted between March 16 and April 21, 2020.

## AGRICULTURE AND NATURAL RESOURCES LEADERS CONCERNED ABOUT INACCURATE INFORMATION RELATED TO COVID-19

According to a recent survey conducted by the UF/IFAS PIE Center, agriculture and natural resources leaders were concerned about inaccurate information being shared related to COVID-19.

Seventy-eight percent of agriculture and natural resources leaders were concerned that media and news outlets were sharing inaccurate information about COVID-19. Over two-thirds of participants indicated they were concerned agricultural laborers were not receiving accurate information; and over half of respondents were concerned they were personally not receiving accurate information about COVID-19.

Over half (55.5%) of the survey participants indicated they were business owners and answered

## I AM CONCERNED MEDIA & NEWS OUTLETS ARE SHARING INACCURATE INFORMATION ABOUT COVID-19

YES- 78.7%

NO- 21.3%

## I AM CONCERNED AGRICULTURAL/ FARM LABORERS ARE RECEIVING INACCURATE INFORMATION ABOUT COVID-19

YES- 64.4%

NO- 35.6%

## I AM CONCERNED I AM NOT RECEIVING ACCURATE INFORMATION ABOUT COVID-19

YES- 52.4%

NO- 47.6%

a subset of questions specifically related to the impacts of COVID-19 on businesses. Ninety percent of agriculture and natural resources leaders who own businesses were concerned about the impact of COVID-19 on their business' bottom line. Most respondents also indicated they were concerned for their ability to provide a safe workplace environment for their employees.

## I AM CONCERNED ABOUT THE EFFECT OF COVID-19 ON:

### MY BUSINESS' BOTTOM LINE



YES  
90.4%

### MY EMPLOYEES MISSING WORK



YES  
67.2%

### MY ABILITY TO PROVIDE A SAFE WORK PLACE FOR EMPLOYEES

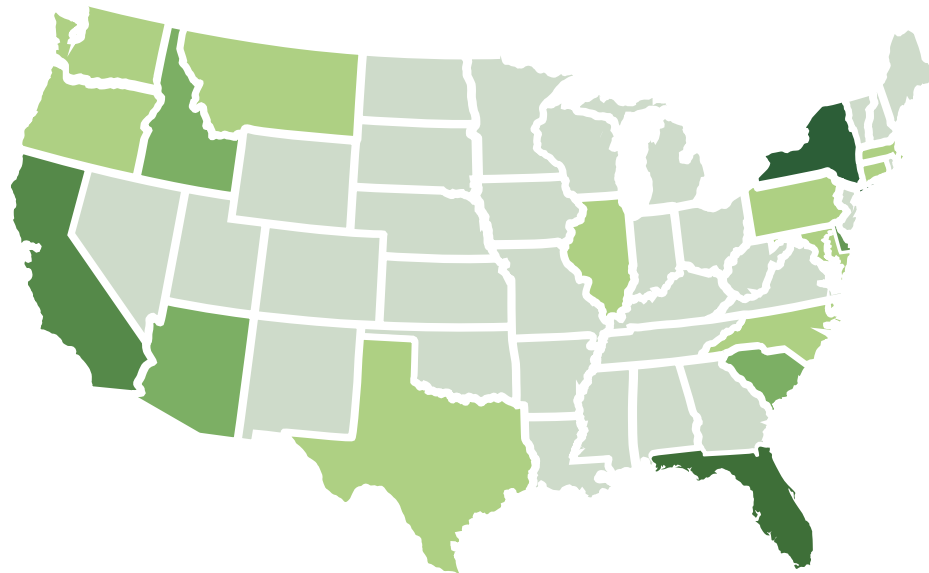


YES  
57.6%

### MY ABILITY TO PROVIDE A SAFE ENVIRONMENT FOR CLIENTS/ CUSTOMERS



YES  
49.6%



**NUMBER OF RESPONDENTS PER STATE**



States with zero respondents did not participate in this study.

**I AM CONCERNED ABOUT  
THE IMPACT OF COVID-19  
ON MY STATE ECONOMY:**

**YES - 97.8%**



## **AGRICULTURE AND NATURAL RESOURCES LEADERS CONCERNED ABOUT THE IMPACT OF COVID-19 ON THEIR STATE ECONOMY**

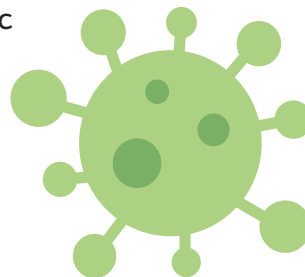
This survey was conducted nationwide with participants representing 17 states. New York had the most representation with 81 participants, followed by Florida (42), California (31) and Delaware (21).

The vast majority of agriculture and natural resources leaders (97.8%) indicated they were concerned about their state's economy because of COVID-19. The majority of respondents also reported they were concerned about the economic effect of COVID-19 on labor shortages, personal finances and increased food cost.

Agriculture and natural resources leaders were asked about their general health concerns related to COVID-19. Over three-fourths of respondents indicated they were concerned that others they

come in contact with are not taking appropriate precautions to prevent the spread of COVID-19. Additionally, 70.4% of agriculture and natural resources leaders ranked COVID-19 as the No. 1 current public health concern. COVID-19 was followed by Influenza and Ebola.

Regarding preparedness concerns, agriculture and natural resources leaders indicated strong levels of concern for the preparedness of their local community and state to deal with COVID-19. Furthermore, 81.8% reported concern regarding the United States' level of preparedness.



**70.4% OF AGRICULTURE  
& NATURAL RESOURCES  
LEADERS RANKED  
COVID-19  
AS THE #1 PUBLIC  
HEALTH CONCERN**

Data was collected between March 16 and April 21, 2020 by the UF/IFAS Center for Public Issues Education. This survey was conducted in 17 states with 225 participants.

[www.piecenter.com/covid-19](http://www.piecenter.com/covid-19)

**UF|IFAS**  
UNIVERSITY of FLORIDA



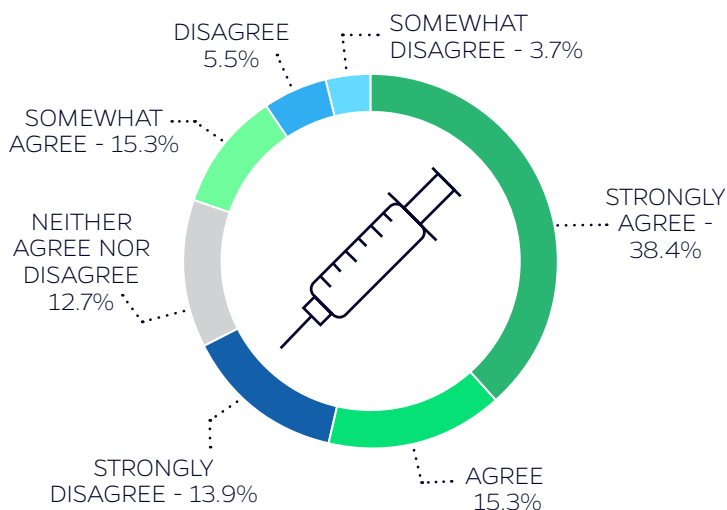
**Center for  
Public Issues Education**

# WHAT DO AMERICANS THINK ABOUT THE COVID-19 VACCINE?

In a recent survey conducted by the UF/IFAS Center for Public Issues Education (PIE Center), Americans were asked about their attitudes, beliefs and intent to receive the COVID-19 vaccine. This study was conducted between January 8 and 21, 2021 among 1,549 American adults sampled for characteristics to match the U.S. Census.

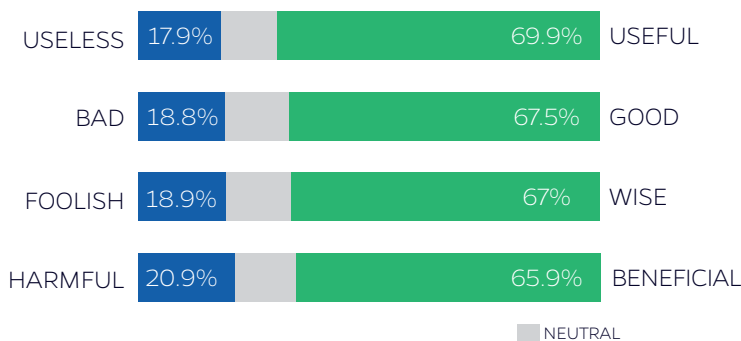
## INTENT TO RECEIVE COVID-19 VACCINE

When asked about their intent to receive the COVID-19 vaccine, the majority of respondents indicated they intend to get the vaccine when it becomes available to them.



## ATTITUDES TOWARD COVID-19 VACCINE

Respondents reported overall positive attitudes towards the COVID-19 vaccine. The majority of respondents indicated they believed the vaccine was useful, good, wise and beneficial.



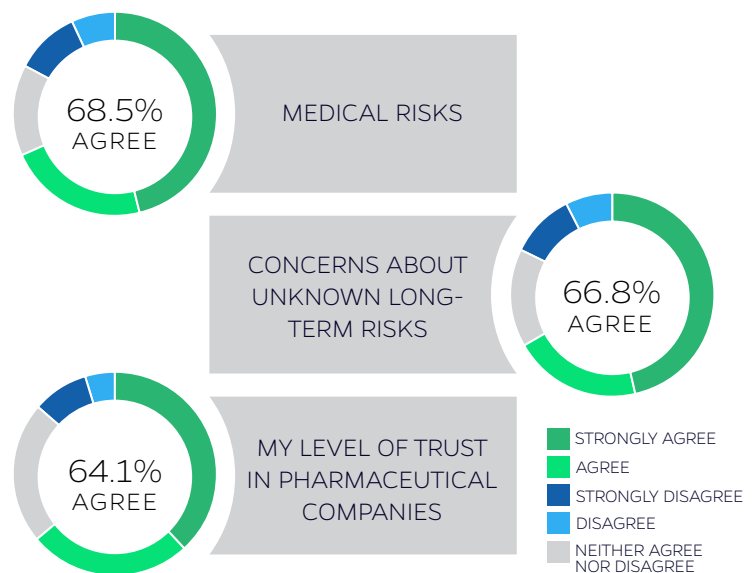
## TOP 3 PREVENTATIVE FACTORS:



Respondents were asked what factors would prevent them from receiving a COVID-19 vaccine. Potential risks, associated costs and insurance coverage concerns were the most reported preventative factors.

When asked what would influence their decision to receive a vaccine, respondents indicated medical risks, concerns about unknown long-term risks and level of trust in pharmaceutical companies were the most influential deciding factors.

## FACTORS THAT INFLUENCE VACCINE DECISIONS:



Data was collected between January 8 and 21, 2021 by the UF/IFAS Center for Public Issues Education. This survey was conducted among 1,549 adult Americans sampled for characteristics to match the U.S. Census.

# USING FORECASTING TO TRACK HARMFUL ALGAL BLOOMS

## WHAT ARE HARMFUL ALGAL BLOOMS?

Harmful algal blooms, or HABs, occur when colonies of algae — simple plants that live in the sea and freshwater — grow out of control and produce toxic or harmful effects on people, animals or ecosystems. Florida experiences HABs like red tide (caused by *Karenia brevis* in coastal waters) and blue-green algal blooms (caused by different species of cyanobacteria).

HAB forming algae produce different types of toxins. Exposure to these toxins can result in different symptoms. Respiratory irritation, skin irritation and itchy eyes are potential symptoms of exposure to HAB toxins. Since HABs can be detrimental to the health of humans, pets, livestock and wildlife, it is important to stay aware of water conditions and avoid active bloom areas.

## HOW ARE HAB FORECASTS PRODUCED?

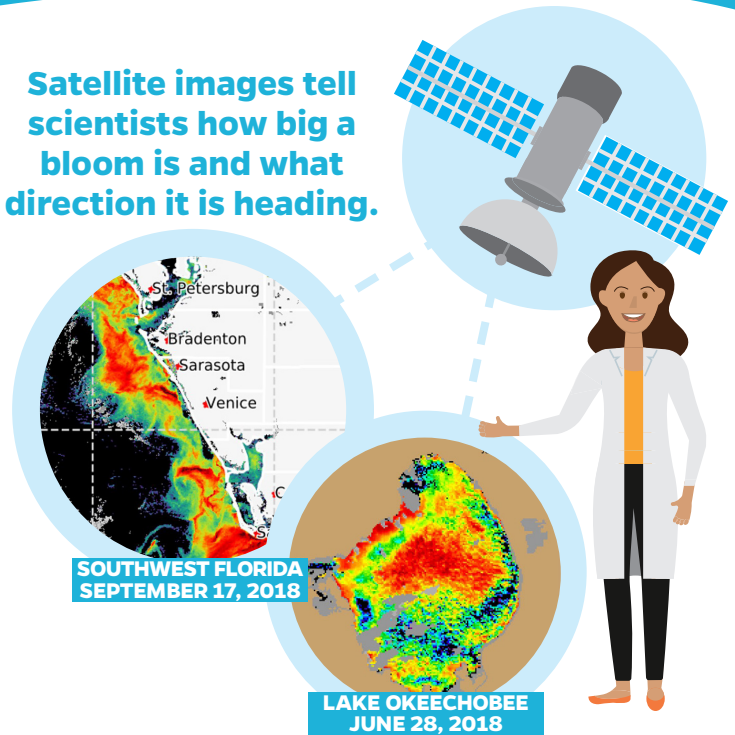
All algae require nutrients to grow. When nutrients are present in high concentrations algal blooms form. During blooms, color pigments contained in algae cells produce a visible change in water color which can be detected by satellites monitoring the Earth. Most ocean color imagery uses a color palette ranging from purple to red as algae concentration increases.

Satellite color data helps scientists locate and track HABs, providing an early warning to people. Satellites are able to cover much larger areas than a person could on the water. They are also more sensitive than the human eye, meaning they can detect changes in water color that scientists might otherwise miss.

However, there are limitations to satellite imaging. Satellite data does not identify what species of algae are responsible for the change in water conditions.



Satellite images tell scientists how big a bloom is and what direction it is heading.



To determine if an algal bloom is harmful, oceanographers must combine satellite images with field samples.

Along the Gulf Coast of Florida, *K. brevis* red tide respiratory forecasts are produced regularly by the Gulf of Mexico Coastal Ocean Observing System (GCOOS). The forecasts can be used the same way a weather forecast is used — to plan beach walks, waterfront dining and other outdoor activities. These forecasts are communicated to the public via the HABscope website (<https://habscope.gcoos.org>) in near real-time, projected over 24 hours and updated with the latest wind models every three hours.

Satellite imaging and forecasting not only helps scientists identify and monitor HABs, it allows citizens to make informed decisions while visiting bodies of water that are experiencing blooms.

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# PERCEPTIONS OF LOCAL FOOD PRODUCTION IN FLORIDA AMONGST DECISION-MAKERS

The purpose of this study was to gain a better understanding of local food production in Florida cities and counties. Local food production (LFP) refers to the production, processing, distribution and sale of food within urban and suburban areas for noncommercial/hobby, commercial, educational or nonprofit purposes. Decision-makers are defined as local government officials and agency personnel involved in establishing and/or carrying out policies and practices that impact local food production in Florida. Examples of decision-makers include county or city commissioners, mayors and clerks. This study was conducted in November 2019 and included 225 decision-makers.

## DECISION-MAKERS INDICATE LOCAL FOOD PRODUCTION IS BENEFICIAL AND IMPORTANT FOR ALL COMMUNITIES

The results of this study indicate that local decision-makers had overall positive attitudes toward local food production and believed local food production was beneficial, useful, important and overall good for both urban and rural communities.

Thirty-six percent of respondents reported they managed issues related to local food production as part of their job description. Respondents who were involved in local food production demonstrated higher levels of knowledge regarding local food production topics.

Respondents reported that members of their communities who engaged in local food production activities primarily did so for personal consumption, as a hobby or to supplement household income.

The local food production activities identified by respondents as those most frequently conducted in their communities were farmers' markets, beekeeping, backyard chickens or goats and community gardens.

**RESPONDENTS  
HAD OVERALL  
POSITIVE  
ATTITUDES  
TOWARD LOCAL  
FOOD PRODUCTION**



## PERCEIVED BENEFITS AND BARRIERS

Respondents agreed most that local food production provides opportunities for youth development programs and educational experiences for community members, and increases food access and security.

Perceived barriers were assessed by asking respondents to indicate the extent to which they believed 12 items hindered local food production in their cities/counties. The most frequently reported barriers were lack of agricultural knowledge in urban areas, available funding for local food producers and knowledge of local food production among decision-makers.

### BENEFITS



**YOUTH  
DEVELOPMENT  
PROGRAMS**



**COMMUNITY  
EDUCATIONAL  
EXPERIENCES**



**FOOD  
ACCESS &  
SECURITY**

### BARRIERS



**LACK OF  
UNDERSTANDING  
IN URBAN AREAS**



**LACK OF  
FUNDING**



**LACK OF  
KNOWLEDGE IN  
DECISION-MAKERS**

Rampold, S. D., & Telg, R. W. (2020). Local food production in Florida: Knowledge, attitudes, and needs of local decision-makers. PIE2020/21-1. Gainesville, FL: University of Florida/IFAS Center for Public Issues Education.

# SEPTIC to SEWER

## Informational Needs and Perceptions of Florida Residents



The purpose of this study was to examine the Florida public's perceptions, informational needs and informational delivery preferences regarding septic to sewer conversion. This information will assist local governments in facilitating homeowners' conversion from an onsite wastewater treatment system to a centralized sewer system. This study was conducted in October 2020 with 517 Florida homeowners who currently use a septic system as their wastewater treatment system.

### PERCEIVED BARRIERS TO CONVERSION

Respondents were asked about their perceived external and internal barriers to converting from a septic system to a sewer system. The external barriers reported most were lack of availability of a sewer hook-up in their area, up-front financial costs and costs of monthly sewer bills.

The internal barriers reported most were a lack of desire to convert, a lack of clear benefits to conversion and not having enough information about homeowner responsibilities in the conversion process.

In reference to the perceived barrier of up-front costs, 79.1% of respondents indicated they were more likely to convert to a sewer system if up-front costs were dispersed over time.

### WOULD YOU CONVERT TO A SEWER SYSTEM IF THE UP-FRONT COSTS WERE DISPERSED OVER TIME?



■ YES — 79.1%  
■ NO — 20.9%

### PERCEIVED BENEFITS OF CONVERSION

When asked about their perceived benefits of converting from a septic to sewer system, respondents agreed most that converting from a septic system to sewer system reduces maintenance burdens on homeowners, frees up land for other purposes, increases property values and is better for human health.

When asked how useful various informational topics about septic to sewer conversion would be to them, respondents identified the most useful topics as: timelines of construction for conversion projects, community programs or regulations, costs associated with conversion, evidence-based benefits for the environment and evidence-based benefits for homeowners.

### MOST USEFUL SEPTIC TO SEWER TOPICS

- 1 Timelines of construction for septic to sewer conversion projects
- 2 Programs and regulations for community septic to sewer projects
- 3 Costs associated with septic to sewer conversion projects
- 4 Evidence-based benefits for the environment
- 5 Evidence-based benefits for homeowners

Respondents found mailed print materials, websites and short online videos to be the most useful methods of delivery for receiving information about septic to sewer conversion.

### PREFERRED FORMATS OF SEPTIC TO SEWER INFORMATION DELIVERY



MAILED PRINT MATERIALS



WEBSITES



SHORT ONLINE VIDEOS

Rampold, S. D., Krinsky, L., Telg, R. W., & Warner, L. (2021). Florida homeowners' knowledge, perceptions, and informational needs regarding septic to sewer conversion. PIE2020/21-05. Gainesville, FL: University of Florida/IFAS Center for Public Issues Education.



# WATERFRONT HOMEOWNERS' PERCEPTIONS OF SHORELINE TYPES & MANAGEMENT

In 2018, a survey of waterfront homeowners in Florida was conducted to understand how they perceive and value their shorelines. The survey provided information on what features homeowners prioritize when deciding on shoreline protection, perceptions of functions and values provided by different shoreline types and satisfaction with their current shoreline. This information will aid managers and restoration practitioners in developing restoration plans and management actions aimed at increasing coastal resilience.

## SHORELINE TYPE DEFINITIONS:

**ARMORED:** seawall or rock revetment with no natural elements.

**HYBRID:** armored shoreline that incorporates natural elements (oysters, beach, dune, marsh or mangroves).

**LIVING SHORELINE:** marshes/mangroves, oyster reefs & other nature-based features installed by humans, without armoring.

**NATURAL:** naturally occurring marshes or mangroves without armoring.

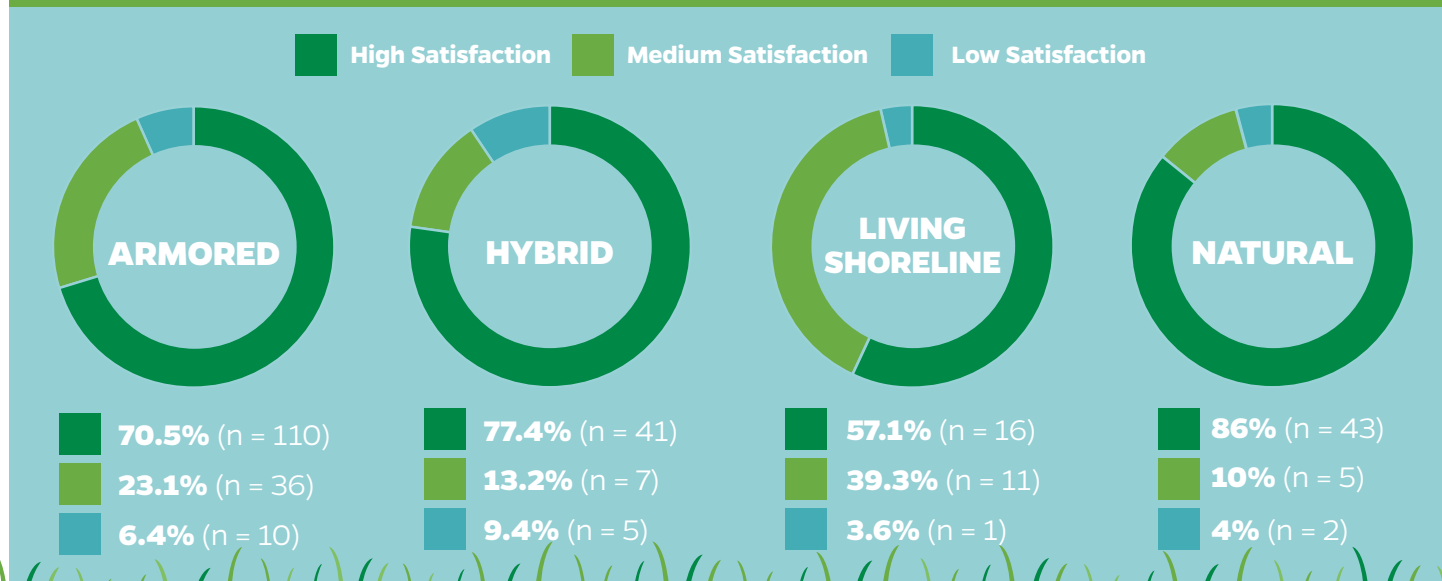
When asked to rate their overall satisfaction with their shoreline type (armored, hybrid, living shoreline or natural). The majority of respondents reported high levels of satisfaction with their shoreline. Property owners with natural and hybrid shorelines reported the highest rates of satisfaction.

Participants were asked about their considerations when making shoreline management decisions. Effectiveness was identified as the most important factor in shoreline management decision-making. Participants perceived armored shorelines to be the most effective. However, more natural shoreline types ranked higher in all other aspects.

## TOP CONSIDERATIONS FOR MAKING SHORELINE DECISIONS









## SATISFACTION WITH OWN SHORELINE TYPE



## BENEFITS OF SHORELINE TYPES

For their shoreline type, respondents were asked to rate access, recreation, aesthetics, maintenance, protection and environmental benefits. Hybrid shorelines received the highest scores in the areas of access, recreation and maintenance. Property owners thought armored shorelines provided the most protection. Natural shorelines were rated highest for aesthetics, and living shorelines received the highest score for environmental benefits. Scores are displayed below on a 5.0 scale.

CATEGORY	RATING OF BENEFITS BY SHORELINE TYPE			
 ACCESS	<b>ARMORED</b> ●●●●○	<b>HYBRID</b> ●●●●○	<b>LIVING SHORELINE</b> ●●●●○	<b>NATURAL</b> ●●●●○
	3.69	3.89	3.62	3.82
 RECREATION	<b>ARMORED</b> ●●●●○	<b>HYBRID</b> ●●●●○	<b>LIVING SHORELINE</b> ●●●●○	<b>NATURAL</b> ●●●●○
	3.88	4.16	4.07	4.07
 AESTHETICS	<b>ARMORED</b> ●●●●○	<b>HYBRID</b> ●●●●○	<b>LIVING SHORELINE</b> ●●●●○	<b>NATURAL</b> ●●●●○
	3.70	4.21	4.04	4.29
 MAINTENANCE	<b>ARMORED</b> ●●●○	<b>HYBRID</b> ●●●○	<b>LIVING SHORELINE</b> ●●●○	<b>NATURAL</b> ●●○
	2.64	2.73	2.51	2.24
 PROTECTION	<b>ARMORED</b> ●●●●○	<b>HYBRID</b> ●●●●○	<b>LIVING SHORELINE</b> ●●●●○	<b>NATURAL</b> ●●●●○
	4.00	3.69	3.49	3.46
 ENVIRONMENTAL	<b>ARMORED</b> ●●●○	<b>HYBRID</b> ●●●●○	<b>LIVING SHORELINE</b> ●●●●○	<b>NATURAL</b> ●●●●○
	3.22	4.08	4.29	4.20