

CENTER FOR PUBLIC ISSUES EDUCATION

IN AGRICULTURE AND NATURAL RESOURCES

Final Report

Knowledge, Attitudes, and Perceptions
of Hemp: A Survey of the Florida Public

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Executive Summary

Public Perceptions of Hemp
UF/IFAS
August, 2020

Key Findings

Knowledge

- Respondents had moderate knowledge of hemp topics and answered an average 6.05 ($SD = 2.42$) answers out of 12 possible answers correctly on the objective assessment, for an average test score of 50%.
 - One-fourth of respondents incorrectly believed that cannabidiol (CBD) is a psychoactive compound found in cannabis plants.
 - One-fourth of respondents also believed that both hemp and marijuana can be “mind-altering” if consumed and are used primarily for recreational purposes.
- Regarding self-perceived knowledge, respondents perceived themselves as being moderately knowledgeable about hemp topics.
 - Respondents agreed most that they know what CBD and Tetrahydrocannabinol (THC) is. On the objective assessment of such knowledge, a little over half of respondents correctly answered the questions about CBD and THC.
 - Respondents also agreed that they can explain the difference between hemp and marijuana. On the nine-item section of the objective assessment of this topic, however, the average score of respondents was only 50% (i.e., an average of 4.5 of 9 questions answered correctly on this segment).

Attitudes

- Overall, respondents had neutral, though slightly positive, attitudes toward both the legalization of hemp and marijuana.
 - Further analysis of individual items revealed 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.
 - Similar results were observed for marijuana attitudes.

Personal Relevance

- The majority of respondents did not use topical or ingestible hemp products, while only one-fourth did.
 - The frequency of use of such products varied.
- Overall, respondents held very neutral views on the personal relevance of the legalization of hemp.
 - Of the items listed, respondents agreed most that the legalization of hemp impacts the state of Florida.
 - Respondents neither agreed nor disagreed that the legalization of hemp is something they care about, is something personally important to them, or is something that impacts them or their friends/family.

Support for Legalizing Hemp

- When asked to pick a stance of being overall “for” or “against” legalizing the growing and processing of hemp, roughly three-fourths of respondents indicated they were overall for it.



- The primary reasons for being overall “for” legalizing hemp were medical/health benefits, the diversity of use of hemp products, economic benefits, and a lack of reasons to be against it (i.e., “why not?” mindset).
- One-fourth of respondents were overall “against” legalizing the growing and processing of hemp.
 - The primary reasons listed among respondents in the “against” group were dangers of abuse and misuse, an apparent lack of knowledge regarding differences between hemp and marijuana, and a general lack of a strong opinion on the topic.
- When asked about their perceived support of others, respondents agreed that most U.S. citizens, most of their friends, most farmers, and most Democrat voters support the legalization of hemp and marijuana.
 - Respondents agreed less that Republican voters support the legalization of hemp and marijuana.
 - While the majority of Republican respondents indicated they were overall “for” the legalization of hemp, statistically significant differences were observed between Republican and Democrat respondents’ attitudes toward the legalization of hemp. Respondents affiliated with the Democratic Party had more positive attitudes toward hemp than did those aligned with the Republican Party.

Perceived Risks

- Overall, respondents were moderately concerned about the associated risks of hemp production.
 - Respondents were more concerned about the ability of federal or local agents to distinguish between hemp and marijuana plants grown in the yards of local residents and in farmers’ fields than any other risk.
 - Respondents were relatively less concerned about the uncertainty in long-term demand for hemp products.

Information Search Behaviors

- Regarding information search frequency, more than half of the respondents had either never or rarely sought information about hemp topics within the past year.
- If they were to seek such information, they reported being more likely to do so using the UF/IFAS Industrial Hemp Pilot Project website or friends/family members who are knowledgeable about the topic than any other of the sources listed.
 - However, it should be noted that one-fourth of respondents were not familiar with the UF/IFAS hemp website.
- When asked to indicate how trustworthy they perceived select sources of information, respondents identified UF/IFAS, the Florida Department of Agriculture and Consumer Services, and UF/IFAS local Extension as the most trustworthy.
 - News channels (local, national network, and national cable TV) were perceived as the least trustworthy of the sources listed.

UF/IFAS Hemp Pilot Project

- More than three-fourths of respondents were not aware of the UF/IFAS Industrial Hemp Pilot Project.
 - Those who were aware of the project, had heard about it through friends/word of mouth, from a non-specified online article, or on a social media platform.
 - These respondents also held slightly positive attitudes toward the project.



- Roughly half of respondents indicated they would be interested in receiving more information about the UF/IFAS hemp project. The primary topics they would be most interested in receiving information about included those pertaining to the project, as well as topics pertaining to hemp in general.
 - Project-related topics included the overall purpose and goals of the project, how the project got started, who is conducting it and where it is being conducted, the benefits of the project/why it is significant, and details about the legal oversight.
 - General hemp-related topics included the benefits of hemp, risks associated with hemp, uses of hemp, the cultivation/growing process, differences between hemp and marijuana, farmers' opinions of hemp, and information on the legal status of hemp.

Key Conclusions and Recommendations

- The findings of this research suggest that Florida residents are, overall, indifferent toward the legalization of growing and processing hemp. Such indifference may stem from lack of awareness of the recent growth in interest in hemp as an agricultural commodity, general lack of knowledge needed to form opinions on the matter, and lack of personal connection to or perceived relevance of hemp production.
- General lack of knowledge was particularly evident across the findings, especially regarding differences between hemp and marijuana. Respondents perceived themselves as knowledgeable of the differences between hemp and marijuana, but answers to the objective assessment and rationale provided for being overall “against” the legalization of hemp indicate otherwise. However, some responses for those who were overall “against” hemp indicated that Florida residents want to make informed decisions, but do not currently have the information needed to do so when it comes to hemp production.
- While residents' perceptions were largely neutral, it should be noted that perceptions were slightly positive rather than negative. This finding was particularly true regarding the public's perception of the economic and farmer benefits of hemp. Such information should be communicated to Florida farmers interested in hemp production.
- Lack of strong opinion among the public may be of benefit to communication experts involved in the hemp pilot project in that there exists the opportunity to control the narrative at this stage. As such, efforts should be given to public communication and outreach campaigns to highlight the project and foster public exposure to accurate information.
- Should such campaigns be implemented, it is recommended that they be designed to provide key information about hemp in general (e.g., how hemp is grown, uses of hemp products, differences between hemp and marijuana, and the current legal environment of production), as well as information specific to the UF/IFAS industrial hemp pilot project.
 - In such campaigns, special attention and efforts should be directed toward developing messages that clearly explain the differences between hemp and marijuana, including composition of CBD and THC levels, medical uses of hemp, and the diversity of other uses of hemp.
- Information should continue to be included on the UF/IFAS Industrial Hemp Pilot Project website and UF/IFAS outlets. However, considering most respondents had or were likely to receive information about hemp from friends/word of mouth, social media should be targeted as a delivery method for delivering information to the public.



Background

Methods

The population of interest was Florida residents, age 18 or older. An online survey was distributed via a public opinion survey research company, Qualtrics, to Florida residents. Qualtrics recruits respondents using traditional, actively managed market research panels and social media platforms. To help exclude duplication and ensure validity, Qualtrics employs digital fingerprinting technology and IP address checks, and works with panel partners who also employ such methods to obtain non-probability opt-in samples in market research (Qualtrics, 2019). An online link to the instrument was distributed to a total of 1,440 residents. An initial pilot test of 50 respondents was conducted, and the pilot data for the scales were analyzed to ensure reliability. All scales were found to be reliable. Therefore, no changes were made to the instrument before resuming data collection. Attention filters (e.g. select “strongly agree” for this answer) were used to identify respondents not paying attention to the questions. Respondents who (a) did not complete all items of the instrument, (b) did not select the appropriate answer to attention filters, and (c) did not fall within the parameters of being a Florida resident 18 years of age or older were excluded from analyses. Useable responses were obtained from 524 residents for a 36% participation rate.

Potential exclusion, selection, and non-participation biases can limit the use of nonprobability samples (Baker et al., 2013). Therefore, to alleviate such impacts, post-stratification weighting methods were executed post hoc. Such weighting methods have been found to yield results in non-probability opt-in samples comparable in standard to those obtained using probability-based samples (Twyman, 2008). Specifically, demographics were used to balance the results based on the 2010 Florida census data to ensure the sample reflected the adult Florida population and to produce results intended to approximate the population of interest (Baker et al., 2013). Additional demographic information (e.g., political affiliation, income, education, etc.) was also collected to better describe respondents and ensure the sample was demographically representative of the population of interest.

A researcher-developed questionnaire was used as the instrument for this study. The instrument was assessed for face and content validity by a panel of experts that consisted of an assistant professor in the Department of Agronomy at the University of Florida, and five UF/IFAS Extension agents and specialists across the state. Internal consistency reliability of scales was calculated using Cronbach’s alpha. Data analysis consisted of descriptive statistics (e.g. frequencies, percentages, means, and standard deviations).



Results

About Respondents

Demographic information about respondents is displayed in Table 1.

Table 1. Personal characteristics of respondents

Variable	<i>f</i>	%
Gender		
Male	253	48.3
Female	271	51.7
Prefer not to answer		
Age		
18 to 19	18	3.5
20 to 29	85	16.3
30 to 39	81	15.5
40 to 49	94	17.9
50 to 59	90	17.2
60 to 69	74	14.2
70 to 79	49	9.4
80 or older	32	6.2
Ethnicity		
Hispanic/Latino(a)/Chicano(a)	111	21.1
Not Hispanic/Latino(a)/Chicano(a)	413	78.9
Race		
White	407	77.6
Black	75	14.4
Asian	13	2.5
American Indian	2	.4
Multi-racial	10	1.9
Other	17	3.2
Education		
Less than 12 th grade (did not graduate high school)	6	1.2
High school graduate (includes GED)	104	19.8
Some college, no degree	101	19.4
2-year college degree (Associate, Technical, etc.)	73	14.0
4-year college degree (Bachelor's, etc.)	134	25.6
Graduate or professional degree (Master's, Ph.D., M.B.A., etc.)	105	20.0
Income		
\$24,999 or less	95	18.0
\$25,000 to \$49,999	127	24.2
\$50,000 to \$74,999	114	21.7
\$75,000 to \$149,999	121	23.1
\$150,000 to \$249,999	51	9.8
\$250,000 or more	17	3.2
Political beliefs		



Variable	<i>f</i>	%
Very liberal	62	11.7
Liberal	107	20.4
Moderate	202	38.6
Conservative	96	18.4
Very conservative	57	10.8
Political affiliation		
Republican	161	30.6
Democrat	210	40.1
Independent	101	19.3
Non-affiliated	52	10.0
Religion		
Evangelical Protestant Christian	93	17.7
Mainline Protestant Christian	59	11.1
Historically Black Protestant Christian	9	1.7
Catholic	133	25.4
Jewish	20	3.7
Muslim	17	3.3
Hindu	2	.3
Buddhist	6	1.1
No religion	139	26.6
Other	46	8.9
Rural Urban Continuum (RUC)		
Metro – Counties in metro areas 1 million population or more	331	63.1
Metro – counties in metro areas of 250, 000 to 1 million population	135	25.7
Metro – Counties in metro areas of fewer than 250,000 population	25	4.8
Nonmetro – Urban population of 20,000 or more, adjacent to a metro area	18	3.5
Nonmetro – Urban population of 2,500 to 19,999, adjacent to a metro area		
Agriculture Involvement		
I have never been involved in agriculture and no one in my immediate family has ever been involved in agriculture.	349	66.5
I am not involved in agriculture, but someone in my immediate family is.	57	10.9
I have been involved in agriculture in the past.	52	9.8
I am involved in agriculture as a hobby.	52	9.9
I am currently involved in agriculture for a living	15	2.9

Knowledge

Respondents' self-perceived, or subjective, knowledge of hemp topics was assessed using eight items and a 5-point Likert-type scale of agreement. Overall, respondents agreed that they were knowledgeable of hemp topics ($M = 3.80$; $SD = 1.28$). Respondents agreed most that they know what cannabidiol (CBD) is ($M = 4.22$:



$SD = 1.47$) and what tetrahydrocannabinol (THC) is ($M = 4.08$; $SD = 1.69$). Table 2 displays the full results for each item.

Table 2. Respondents' self-perceived knowledge of hemp topics

Item	<i>M</i>	<i>SD</i>	Interpretation
I know what cannabidiol (CBD) is.	4.22	1.47	Agree
I know what tetrahydrocannabinol (THC) is.	4.08	1.69	Agree
I am aware of the current legal standing of hemp production in the United States.	3.97	1.52	Agree
I can describe the differences between marijuana and hemp.	3.89	1.60	Agree
I can describe the similarities between marijuana and hemp.	3.88	1.55	Agree
I am aware of the current legal standing of hemp production in Florida.	3.87	1.54	Agree
I can list at least five uses of hemp.	3.55	1.63	Agree
I can explain the general history of hemp production in the United States.	2.95	1.60	Neither agree nor disagree

Note. Construct Mean = 3.76 ($SD = 1.26$)

Note. Real limits: 1.00 to 1.49 = *strongly disagree*; 1.50 to 2.49 = *disagree*; 2.50 to 3.49 = *neither agree nor disagree*; 3.50 to 4.49 = *agree*; 4.50 to 5.00 = *strongly agree*

Respondents' objective knowledge of hemp topics was assessed using a series of 12 multiple-choice questions. The total number of correct answers among respondents ranged from zero to 11. Overall, respondents answered an average of 6.05 ($SD = 2.42$) answers correctly, for an average test score of 50%. Respondents' answers to each question are displayed in Table 3. Correct answers are bolded in Table 3.

Table 3. Respondents' answers per question on the objective knowledge assessment

Question	Answers	<i>f</i>	%
Which of the following best describes the <u>current</u> legal status for the growing and processing of hemp in the United States?	A. Growing and processing hemp is completely <u>illegal</u> in all states with no exceptions.	57	10.9%
	B. Growing and processing hemp is only legal in states where marijuana has been legalized.	202	38.6%
	C. Growing and processing hemp is legal without restrictions to organizations and farmers in states with hemp pilot projects.	84	16.0%
	D. Growing and processing hemp is legal with a permit for organizations or farmers in all states.	181	34.6%

Indicate whether each of the characteristics below is true of hemp, marijuana, both, or neither:

Is botanically the plant species <i>Cannabis sativa</i>	A. True only of marijuana	123	23.4%
	B. True only of hemp	53	10.1%
	C. True of both	282	53.9%
	D. True of neither	66	12.6%



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Question	Answers	<i>f</i>	%
Can be mind-altering if consumed	A. True only of marijuana	318	60.7%
	B. True only of hemp	31	5.8%
	C. True of both	139	26.5%
	D. True of neither	37	7.0%
Contains less than 0.3% THC concentration levels	A. True only of marijuana	44	8.3%
	B. True only of hemp	316	60.3%
	C. True of both	115	21.9%
	D. True of neither	50	9.5%
Is used primarily for recreation	A. True only of marijuana	274	52.4%
	B. True only of hemp	32	6.2%
	C. True of both	146	27.8%
	D. True of neither	71	13.6%
Is used for medical purposes	A. True only of marijuana	164	31.2%
	B. True only of hemp	56	10.7%
	C. True of both	287	54.8%
	D. True of neither	17	3.3%
Is harvested commercially for its flowers	A. True only of marijuana	109	20.8%
	B. True only of hemp	86	16.5%
	C. True of both	156	29.7%
	D. True of neither	173	33.0%
Is harvested commercially for its fibers and grain	A. True only of marijuana	27	5.1%
	B. True only of hemp	274	52.2%
	C. True of both	132	25.3%
	D. True of neither	91	17.4%
Is currently illegal in all US states	A. True only of marijuana	85	16.2%
	B. True only of hemp	68	13.0%
	C. True of both	77	14.6%
	D. True of neither	294	56.2%
Is currently grown commercially in Florida	A. True only of marijuana	63	12.0%
	B. True only of hemp	173	32.9%
	C. True of both	181	34.6%
	D. True of neither	107	20.5%
Which of the following definitions best describes what <i>tetrahydrocannabinol (THC)</i> is?	A. THC is a non-psychoactive chemical compound artificially added to cannabis plants for medical use.	58	11.0%
	B. THC is a non-psychoactive chemical compound naturally occurring in cannabis plants.	111	21.2%
	C. THC is a psychoactive chemical compound artificially added to cannabis plants for recreational use.	39	7.5%
	D. THC is a psychoactive chemical compound naturally found in cannabis plants.	316	60.3%



Question	Answers	<i>f</i>	%
Which of the following definitions best describes what <i>cannabidiol (CBD)</i> is?	A. CBD is a psychoactive chemical compound naturally found in cannabis plants.	136	26.0%
	B. CBD is a psychoactive chemical compound artificially added to cannabis plants for recreational use.	53	10.1%
	C. CBD is a non-psychoactive chemical compound naturally occurring in cannabis plants.	289	55.2%
	D. CBD is a non-psychoactive chemical compound artificially added to cannabis plants for medical use.	45	8.7%

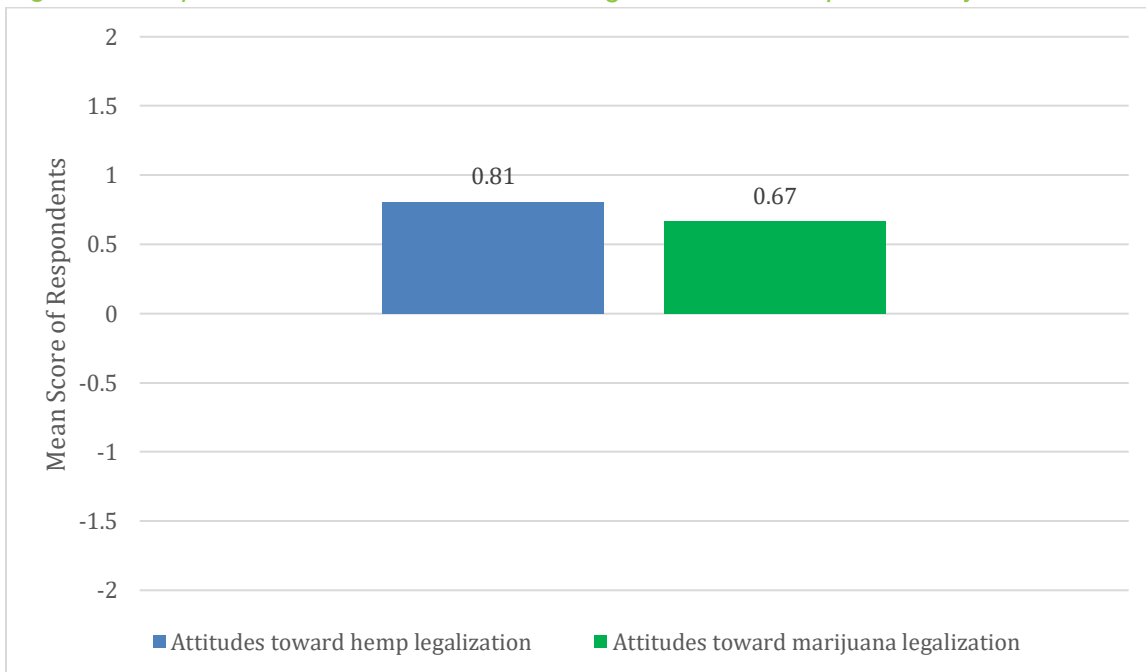
Note. Correct answers to each question are bolded.

Attitudes Toward the Legalization of Hemp and Marijuana.

Attitudes toward the legalization of hemp in the United States was measured using a 5-point semantic differential scale between 12 sets of bipolar descriptors (e.g., good/bad, harmful/beneficial). The same scale was used to measure respondents’ attitudes toward the legalization of marijuana in the United States. Responses were coded from -2 to +2, and construct means were computed for each scale to represent respondents’ overall attitudes. The internal consistency reliability estimate for both scales was $\alpha = .94$.

Overall, respondents had only slightly positive attitudes toward both the legalization of hemp ($M = .81$; $SD = .98$) and marijuana ($M = .67$; $SD = 1.02$; see Figure 1). Further analysis of individual items revealed respondents perceived the legalization of hemp as good for the economy ($M = 1.15$; $SD = 1.09$) and good for farmers ($M = 1.15$; $SD = 1.23$), but were relatively less convinced that it is a wise ($M = .74$; $SD = 1.31$) and low-risk ($M = -.27$; $SD = 1.48$). Similar results were observed for marijuana attitudes.

Figure 1. Respondents’ attitudes toward the legalization of hemp and marijuana in the United States

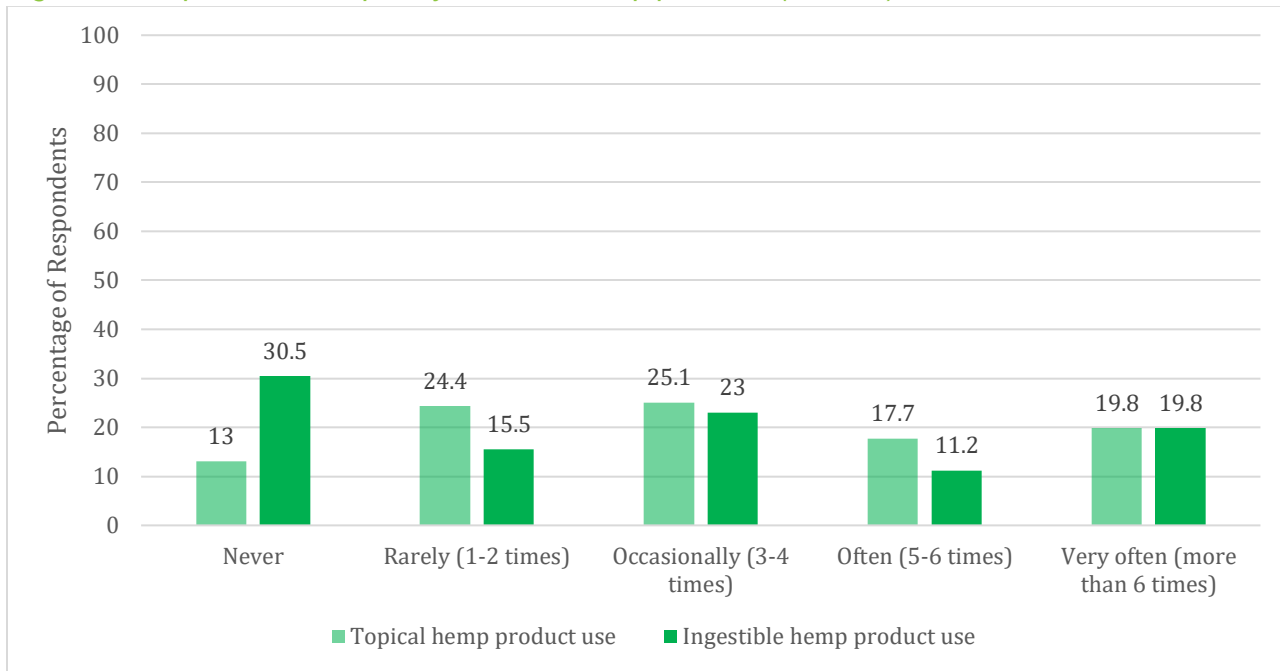


Personal Relevance

Use of Hemp Products

Respondents were asked about their personal use of hemp products. The majority of respondents did not use topical or ingestible hemp products ($f = 353$; 67.3%), 123 (23%) did use hemp products, and 48 (9.1%) were unsure if they did or not. Respondents who indicated they used hemp products were then asked to indicate how often they used topical hemp products and how often they used ingestible hemp products. Results are displayed in Figure 2.

Figure 2. Respondents' frequency of use of hemp products ($n = 123$)



Personal Relevance of the Legalization of Hemp

To better understand the public's perceived personal connection to the legalization of hemp, respondents were asked to indicate their degree of agreement with eight items pertaining to the relevance of hemp legalization. Responses were collected using a 5-point scale (1 = strongly disagree; 5 = strongly agree), and a construct mean was computed to represent respondents' overall perceived personal relevance. The internal consistency reliability estimate for this scale was $\alpha = .93$.

Overall, respondents neither agreed nor disagreed that the legalization of hemp in the United States was relevant to them ($M = 3.17$; $SD = 1.21$). Of the items listed, respondents agreed most that the legalization of hemp impacts the state of Florida ($M = 3.89$; $SD = 1.21$) and the legalization of hemp is a topic they want to know more about ($M = 3.44$; $SD = 1.45$). Respondents agreed least that the legalization of hemp impacts their friends/family ($M = 2.89$; $SD = 1.51$) and impacts them personally ($M = 2.67$; $SD = 1.52$; see Table 4)

Table 4. Respondents' perceived personal relevance of the legalization of hemp

Item	<i>M</i>	<i>SD</i>	Interpretation
The legalization of hemp impacts the state of Florida.	3.89	1.21	Agree
The legalization of hemp is a topic I want to know more about.	3.44	1.49	Neither agree nor disagree



Item	<i>M</i>	<i>SD</i>	Interpretation
The legalization of hemp impacts my local community.	3.35	1.35	Neither agree nor disagree
The legalization of hemp is something I care about.	3.03	1.51	Neither agree nor disagree
The legalization of hemp is important to me personally.	2.94	1.56	Neither agree nor disagree
The legalization of hemp impacts my friends/family.	2.89	1.51	Neither agree nor disagree
The legalization of hemp impacts me personally.	2.67	1.52	Neither agree nor disagree

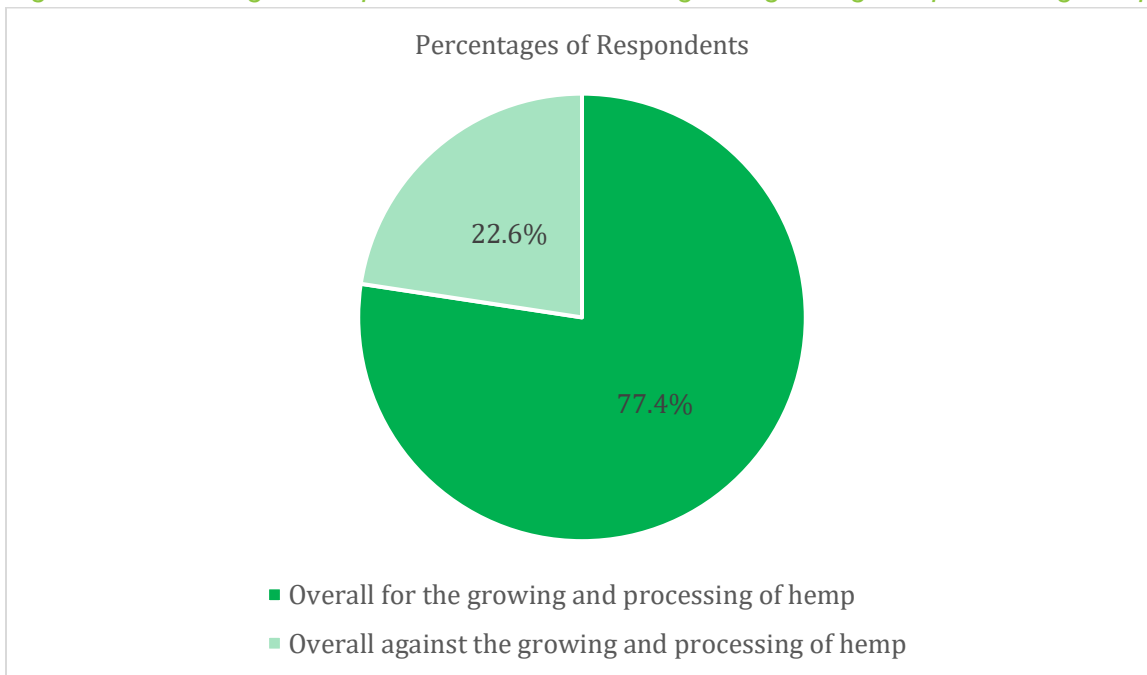
Note. Real limits: 1.00 to 1.49 = *strongly disagree*; 1.50 to 2.49 = *disagree*; 2.50 to 3.49 = *neither agree nor disagree*; 3.50 to 4.49 = *agree*; 4.50 to 5.00 = *strongly agree*

Support for Legalizing Hemp

Overall Stance

Respondents were asked, if they had to pick a stance, would they say they were overall “for” or “against” the decision to legalize the growing and processing of hemp in the United States. More respondents indicated they were overall “for” than “against” (see Figure 3).

Figure 3. Percentage of respondents overall for or against growing and processing hemp



Reasons for Being Overall “For” Legalizing Hemp

Respondents who indicated they were overall “for” legalizing the growing and processing of hemp were then asked to provide the top three reasons why they chose this stance. Open-ended responses were assessed to identify key emerging themes that represent respondents’ rationale for being overall “for” hemp legalization. Key themes for the “pro-hemp” stance are listed and described below.

- **Medical/health Benefits.** Medical and health benefits emerged as the top reason why respondents were overall “for” the growing and processing of hemp. The specific medical benefits described by



respondents included moderate to severe pain relief, alternative to pain medications, anxiety and stress relief, cancer treatment, CBD oil products, and overall ability to “help people.”

- **Diversity of Use.** The second theme that emerged from the “pro-hemp” responses was the diversity of uses of hemp. Some respondents merely noted that “hemp can be used for many things,” and others listed specific uses of hemp, including paper, rope, building materials, clothing and fabrics, CBD oil, and food/nutrition.
- **Economic Benefits.** Another key theme that emerged was the economic benefits of hemp. Specifically, this included boosts to the economy, job creation, and new sources of tax revenue for the state. Economic benefits for farmers emerged as a subtheme, and included the potential of a new cash crop and crop diversification for farmers.
- **Relative Advantage.** Respondents’ “pro-hemp” rationales also indicated perceived relative advantage of hemp compared to other products or production processes. Respondents noted that hemp provides a more environmentally friendly and sustainable alternative to paper, plastic, and fiber products. Many respondents also identified hemp as a more natural product.
- **Why Not?** Another theme that emerged was support for hemp due to respondents’ seeing no reason not to. This finding suggests that many respondents may not have strong “pro-hemp” views; rather, they merely see no reason to be “anti-hemp.” For example, some respondents noted, “well, I’m not against it,” “I see no reason not to,” and “it’s not dangerous.” Other views represented in this theme were that hemp should be legal simply “because I like it.”
- **Crime Reduction.** This emerging theme may hold implications regarding the misperceptions held by the public regarding hemp and marijuana. Respondents perceived legalizing the growing and processing of hemp as a means of reducing crime overall, as well as a means of reducing the discrimination and incarceration of marginalized groups. For example, some respondents noted, “legalization would mean less arrests for nonviolent offenders,” and “it would cut down crime if regulated.” One respondent maintained, “it was stupid and racist to make it illegal in the first place.”
- **Civil Liberties and Freedom.** A final theme that emerged captured respondents’ views that people should not be told what they can or cannot grow. Such responses covered topics of government control, American freedom, and personal rights to do what they want.

Reasons for Being Overall “Against” Legalizing Hemp

Respondents who indicated they were overall “against” legalizing the growing and processing of hemp were then asked to provide the top three reasons why they chose this stance. Open-ended responses were assessed to identify key emerging themes that represent respondents’ rationale for being overall “against” hemp legalization. Key themes for the “anti-hemp” stance are listed and described below.

- **Dangerous Abuse and Misuse.** A prominent theme among anti-hemp respondents was the potential dangers of misuse and abuse. Some responses clearly reflected the use of hemp to get “stoned,” and may imply respondents are unclear of the differences between hemp and marijuana. For example, respondents noted that “we don’t need more potheads,” noted the dangers of “driving while stoned,” that “we don’t know the effects of pot on individuals,” and that “we already have enough drugs in the U.S. due to the Mexican cartel.” Other responses reflected concerns about the misuse or dangers of hemp, but were unclear as to whether the concern was related to confusion between hemp and marijuana or strictly regarding misuse of hemp products such as CBD oils. Examples of such responses included, “people misusing the product,” “can be harmful to one’s health,” “it is addictive,” and “it should be under a doctor’s care.” Respondents appeared to be particularly concerned about misuse and dangerous effects among youth.



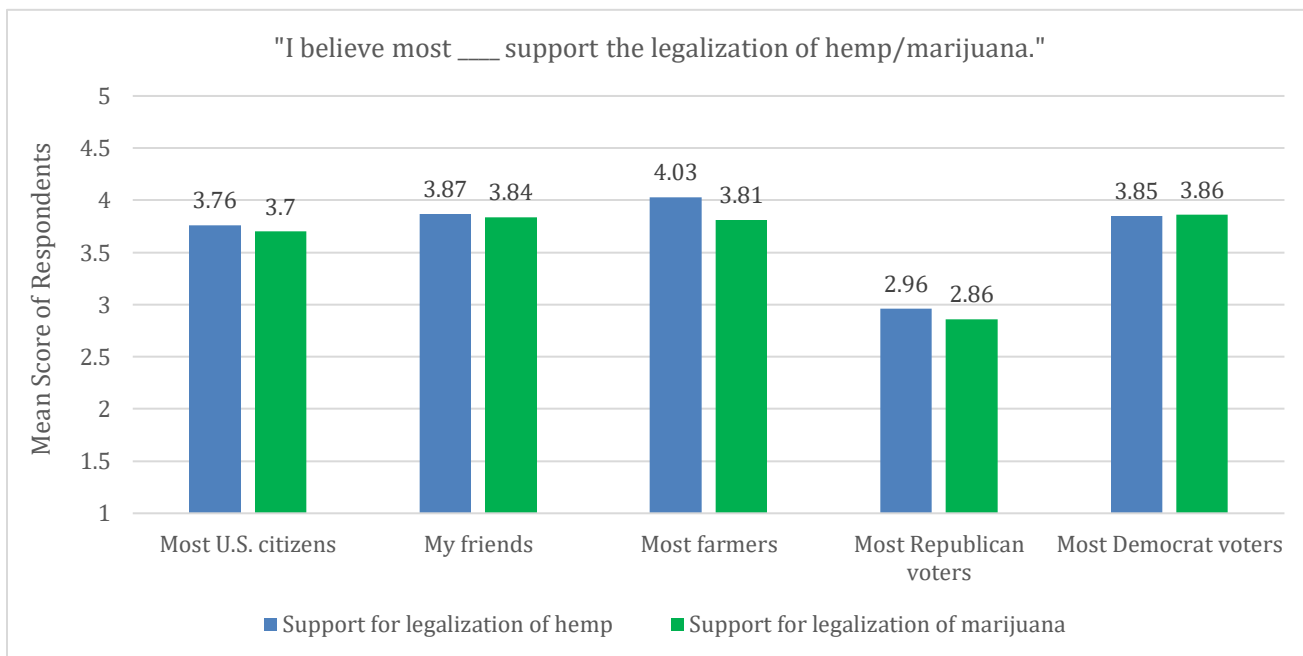
- **Lack of Knowledge.** A second key theme was lack of knowledge needed to take a stance. Many respondents maintained they do not know enough about hemp in general, about the benefits or side effects, or the difference between hemp and marijuana to make a decision and, therefore, deferred to the “anti-hemp” stance.
- **Lack of Strong Opinion.** With the exception of drug use/abuse, the collective responses of the anti-hemp” group indicated many respondents do not hold strong opinions about their stance. Rather, respondents do not know enough about the topic to actively support it, or “don’t care enough to have an opinion.”
- **Legalization of Marijuana.** While not a primary theme, some respondents noted their concerns about the potential of legalizing the growing and processing of hemp as a gateway to the legalization of marijuana, as well as concerns about using hemp as a cover plant to sell marijuana.

Perceived Support of Others

Respondents were also asked their perceptions of how much they believe select others support the legalization of hemp and marijuana in the United States. Perceived support of others was measured using 10 items phrased as “I believe ____ support the legalization of hemp in the United States” and “I believe ____ support the legalization of marijuana in the United States.” Responses were collected using a 5-point scale (1 = strongly disagree; 5 = strongly agree). Real limits were set for the interpretation of responses: 1.00 to 1.49 = *strongly disagree*; 1.50 to 2.49 = *disagree*; 2.50 to 3.49 = *neither agree nor disagree*; 3.50 to 4.49 = *agree*; 4.50 to 5.00 = *strongly agree*. The internal consistency reliability estimate for this scale was $\alpha = .79$ for hemp and $\alpha = .76$ for marijuana.

Respondents’ agreed that most U.S. citizens, most of their friends, most farmers, and most Democrat voters support the legalization of hemp and marijuana (see Figure 4). Respondents agreed less that Republican voters support the legalization of hemp and marijuana.

Figure 4. Respondents’ perceptions of others’ support for the legalization of hemp and marijuana

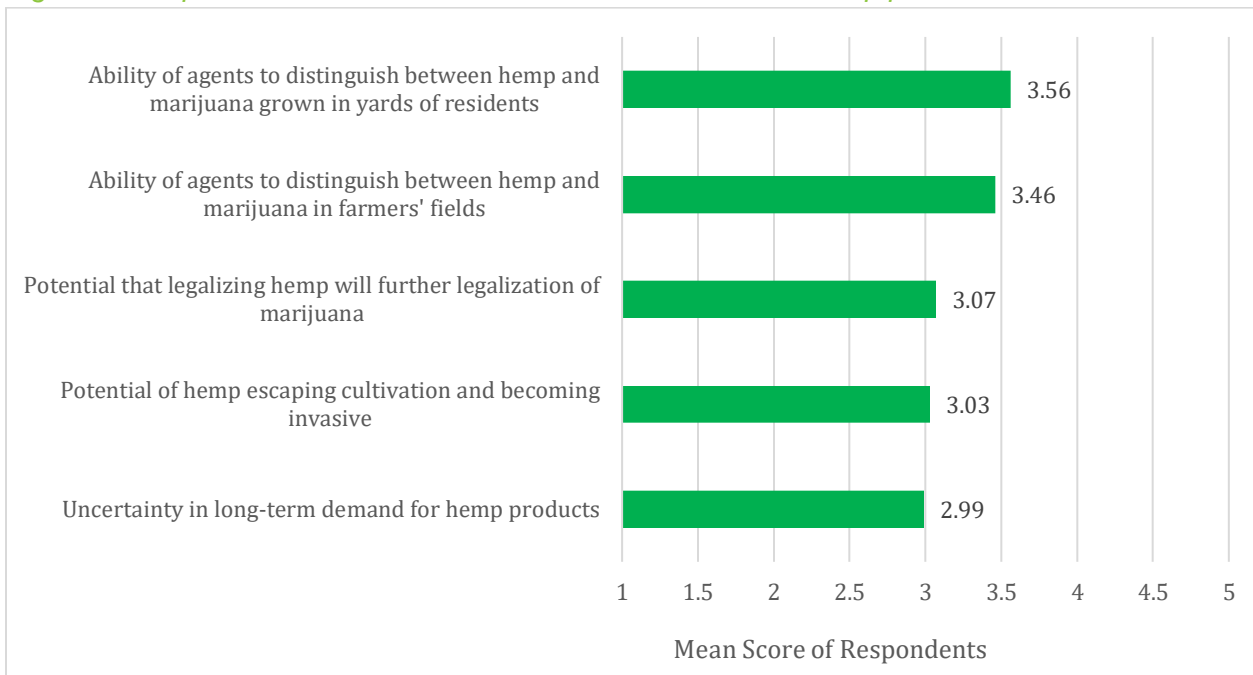


Perceived Risks of Hemp Production

Respondents were asked to indicate their degree of concern about potential risks associated with growing and processing hemp in the United States. Responses were collected using a 5-point scale (1 = not at all concerned; 5 = extremely concerned), and a construct mean was computed to represent overall concern of risks. Real limits were set for the interpretation of responses: 1.00 to 1.49 = *not at all concerned*; 1.50 to 2.49 = *slightly concerned*; 2.50 to 3.49 = *moderately concerned*; 3.50 to 4.49 = *very concerned*; 4.50 to 5.00 = *extremely concerned*. The internal consistency reliability estimate for this scale was $\alpha = .85$.

Overall, respondents were moderately concerned about the associated risks of hemp production ($M = 3.22$; $SD = 1.11$). Respondents were more concerned about the ability of federal or local agents to distinguish between hemp and marijuana plants grown in the yards of local residents ($M = 3.56$; $SD = 1.36$) and in farmers' fields ($M = 3.46$; $SD = 1.32$) than any other risk (see Figure 5).

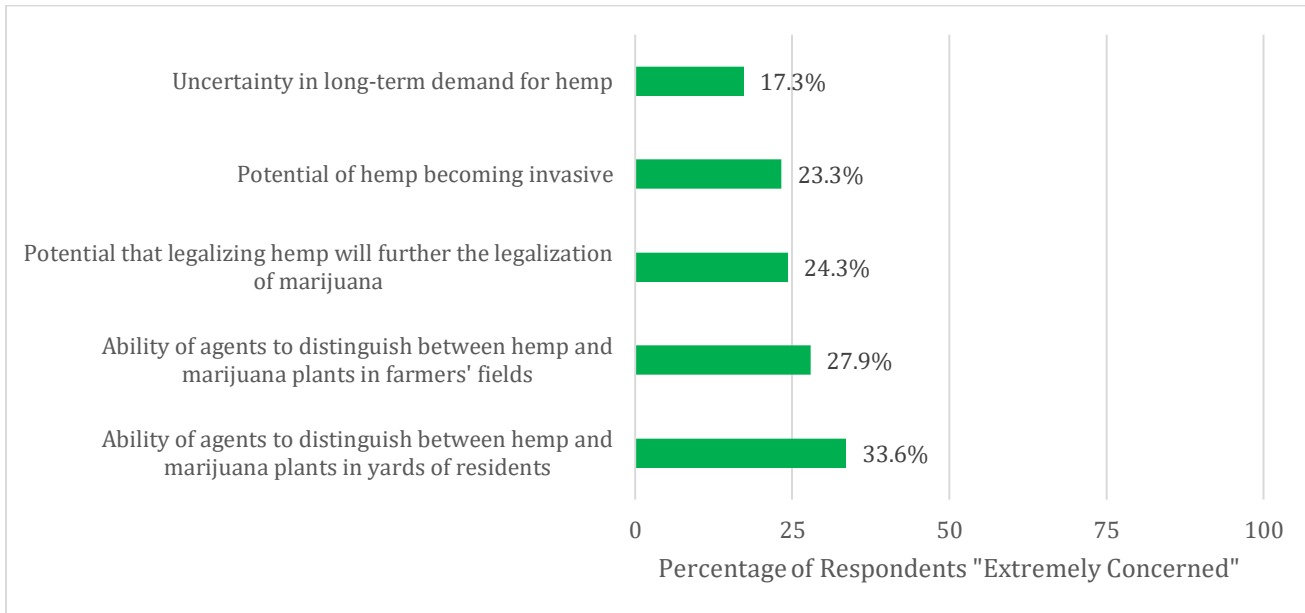
Figure 5. Respondents' overall level of concern about risks of hemp production



While respondents were only moderately concerned about risks associated with hemp production, some respondent did indicate being extremely concerned about each. Further analysis was conducted to identify the percentage of respondents who were “extremely concerned” about each risk (see Figure 6).



Figure 6. Percentage of respondents who were “extremely concerned” about risks of hemp production

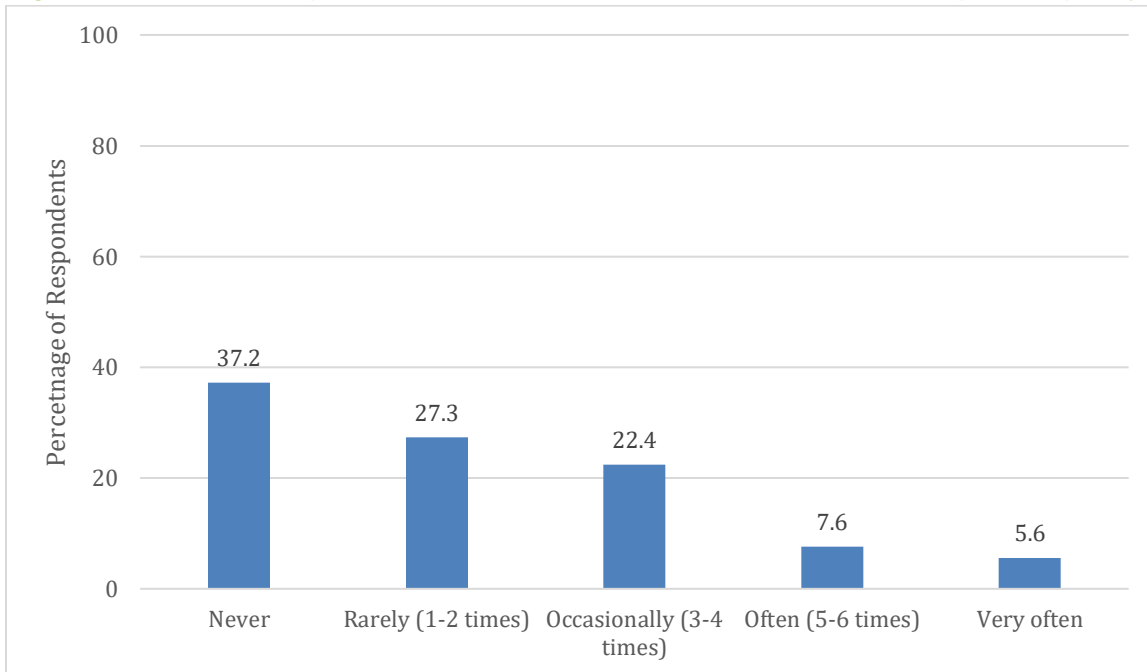


Information Search Behaviors

Search Frequency

Respondents were asked to indicate how often in the past year they had sought information about hemp topics? More than two-thirds indicated they sought information on hemp topics “never” or “rarely (one to two times)” in the past year. The full results are displayed in Figure 7.

Figure 7. How often respondents had searched for information about hemp in the past year

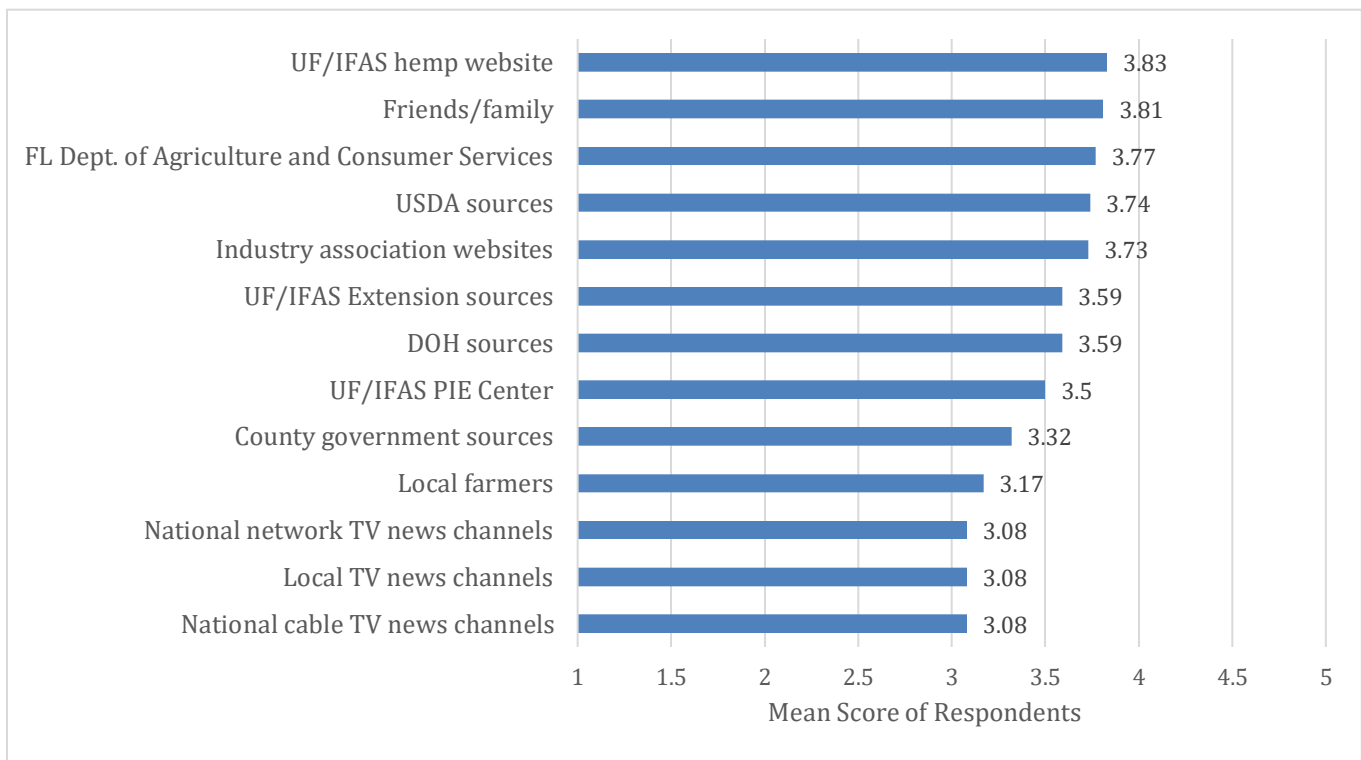


Information Source use

Information source use was measured using 13 items to assess the sources respondents would most likely use if they were to seek information about hemp. Responses were collected using a 5-point scale (1 = very unlikely; 5 = very likely). Respondents were also given the option to select “I am not familiar with this source,” which was treated as a missing value.

If respondents were to seek information about hemp topics, they were more likely to do so from the UF/IFAS Industrial Hemp Pilot Project website ($M = 3.83$; $SD = 1.10$) or through communication with friends or family who have knowledge of the topic ($M = 3.81$; $SD = 1.13$; see Figure 8). They were least likely to do so from local TV news channels ($M = 3.08$; $SD = 1.38$) or national cable TV news channels ($M = 3.08$; $SD = 1.14$). It should also be noted that 25% of respondents were not familiar with the UF/IFAS website (<https://programs.ifas.ufl.edu/hemp/>).

Figure 8. Respondents’ likeliness of sources used to gather information about hemp topics

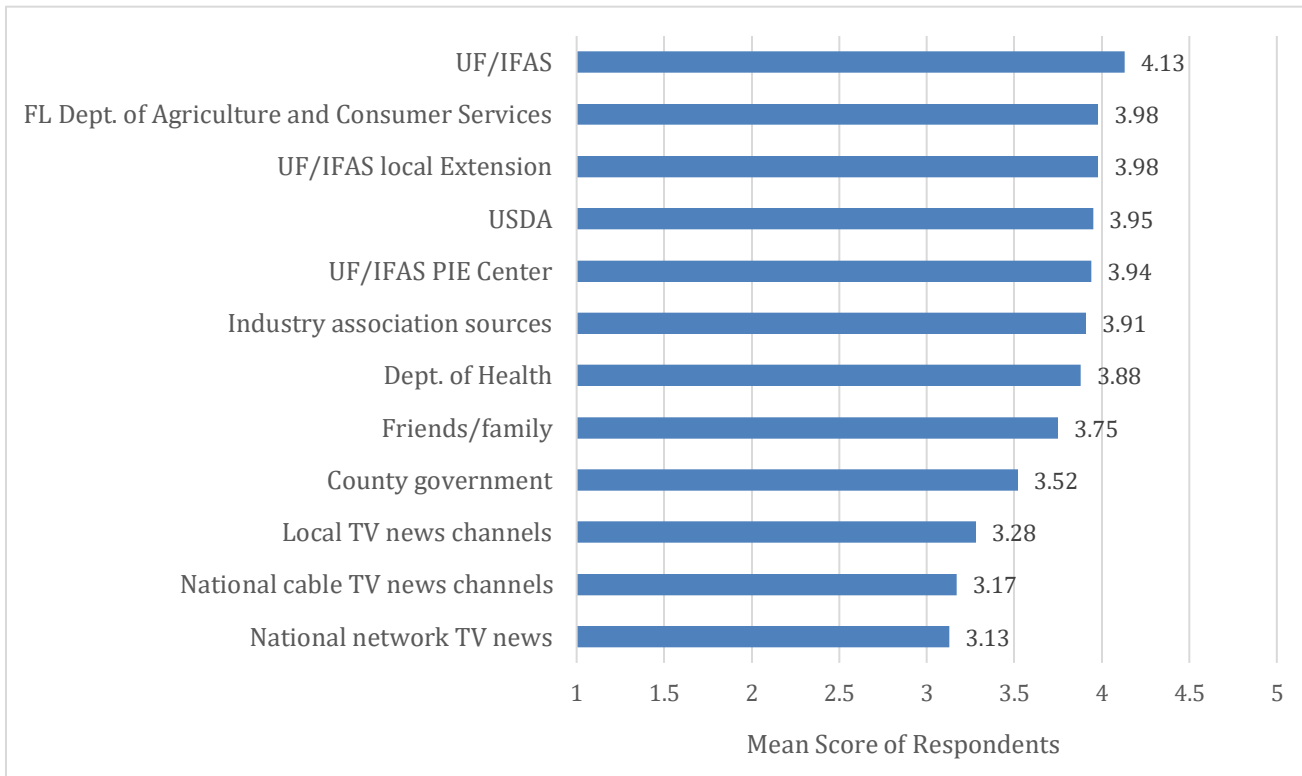


Information Source Trustworthiness

Respondents indicated their perceived level of trustworthiness of 12 sources using a 5-point scale (1 = very untrustworthy; 5 = very trustworthy). The option “I am not familiar with this source” was also provided, which was treated as a missing value. Of the sources listed, respondents identified UF/IFAS ($M = 4.13$; $SD = .85$), Florida Department of Agriculture and Consumer Services ($M = 3.98$; $SD = .90$), and UF/IFAS local Extension ($M = 3.98$; $SD = .85$) as the most trustworthy (see Figure 9).



Figure 9. Respondents' perceived trustworthiness of sources of information about hemp



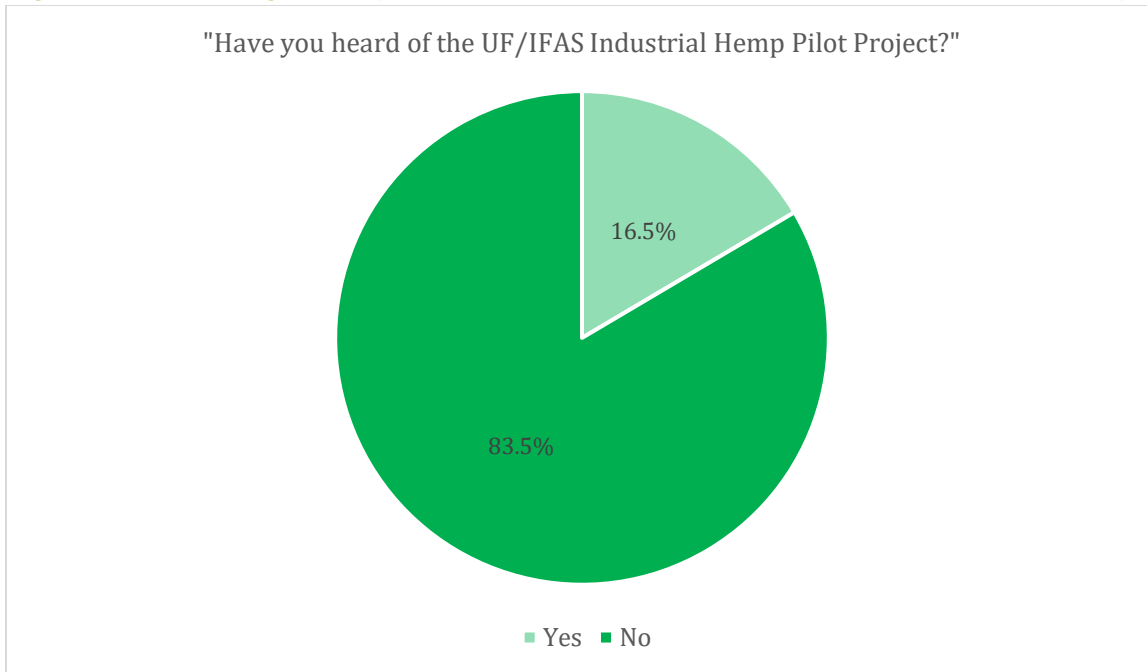
UF/IFAS Industrial Hemp Pilot Project

Awareness of Industrial Hemp Pilot Project

The majority of respondents ($f = 438$; 83.5%) were not aware of the UF/IFAS Industrial Hemp Pilot Project (see Figure 10).



Figure 10. Percentage of respondents who were aware of the UF/IFAS Industrial Hemp Pilot Project



Where They Heard About the Industrial Hemp Pilot Project

Respondents who indicated they were familiar with the project were given a text-entry option to indicate where they heard about the project. The following sources were identified by respondents (ordered from most to least frequently mentioned):

- Friends/word of mouth
- Online article (nonspecific)
- Social media platforms
- Child, friend, or colleague who is currently studying/working at UF
- News article
- Other (single mention)
 - UF/IFAS Industrial Hemp Pilot Project website
 - UF/IFAS blog
 - Local TV coverage
 - Someone at their gym

Attitudes toward the Industrial Hemp Pilot Project

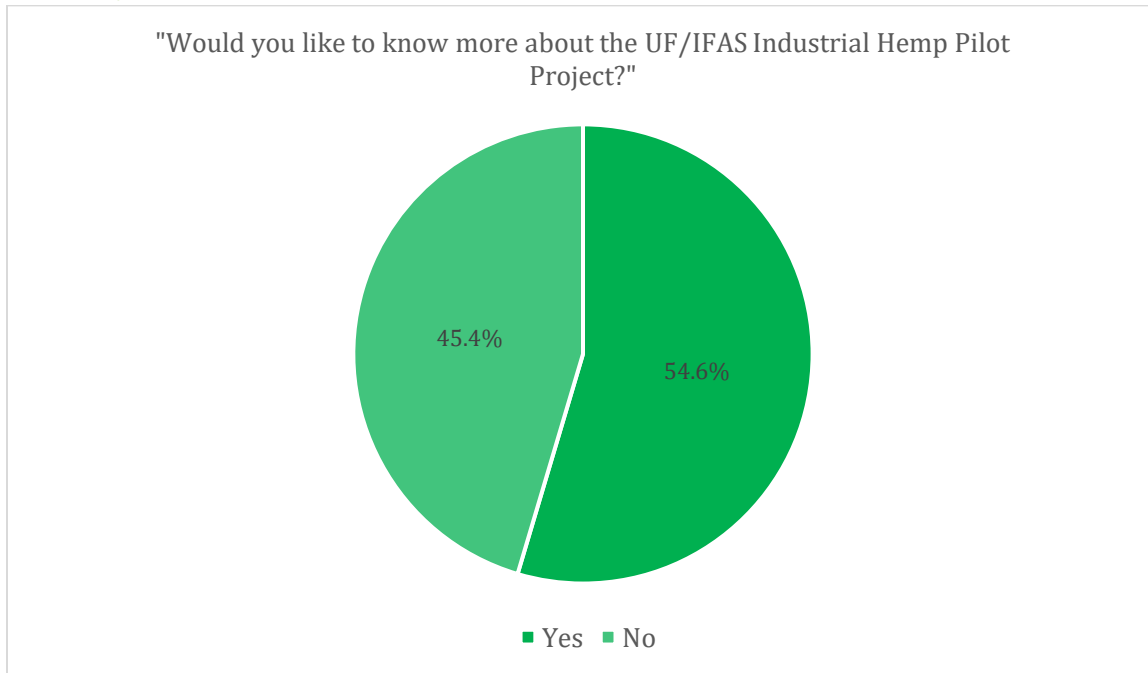
Those who had heard of the project ($f = 86$; 16.5%) were asked to rate their attitudes toward the project. Attitudes were measured using a 5-point semantic differential scale between 11 sets of bipolar descriptors. Responses were coded -2 to +2, and a construct mean was computed to represent overall attitudes. The internal consistency reliability estimate for this scale was $\alpha = .92$. Overall, respondents held slightly positive attitudes toward the Industrial Hemp Pilot Project ($M = 1.09$; $SD = .81$).



Information Wanted About the Industrial Hemp Pilot Project

Respondents were then asked if they would be interested in receiving more information about the UF/IFAS Industrial Hemp Pilot project, and what type of information they want to know more about. Slightly more than half of the respondents (54%) indicated an interest in wanting to know more about the hemp pilot project (see Figure 12).

Figure 11. Percentage of respondents who would like more information about the UF/IFAS Industrial Hemp Pilot Project



When asked to list the top three topics they would like to know more about regarding the UF/IFAS Industrial Hemp Pilot Project, informational topics/questions emerged that were directly related to the pilot project and about hemp in general.

The informational topics/questions directly related to the UF/IFAS Industrial Hemp Pilot Project included:

- What is the overall purpose of the project?
- What are the main goals of the project?
- How did the project get started?
- Who is conducting the project?
- What are the benefits of the project/why is it significant (e.g. economic benefits, environmental benefits, benefits for farmers)?
- Where is the project being conducted?
- Who are the participants of the project?
- What is the legal oversight involved in the project?
- Are different strains being used?
- How to invest in the project?
- Is the project taking interns or volunteers?
- How can I get involved in the project?
- What is the current progress of the project?



- Why hasn't the project been in the news?

Other informational topics pertaining to hemp in general included:

- Benefits of hemp (economic, health, and social)
- Risks associated with hemp (economic risks, long-term sustainability, environmental risks, invasive species risk)
- Uses of hemp (medical/health uses, plastic replacement, other uses)
- Cultivation/growing process of hemp
- Farmers' opinions of hemp
- Information on the legal status of hemp
- Differences between hemp and marijuana
- How to grow hemp (i.e., how they can personally grow hemp)



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