Beauty is in the Eye of the Tree Holder: Indiana Christmas Tree Consumer Survey

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INTRODUCTION

While Christmas trees take seven to nine years to reach maturity, consumer preferences change rapidly. Keeping tree farms current with contemporary Christmas tree consumer culture is critical for attracting tree shoppers, supplying the product they seek, and maximizing the return on investment. This report details a recent survey of Indiana residents that requested their opinions on Christmas tree usage, shopping, and consumption.

Over the past 16 years Indiana has witnessed a dramatic decrease in the number of Christmas tree farms, resulting in consolidation of the industry to fewer and sometimes larger producers. This decrease also limits the options for those seeking a real tree from a farm in their community. The number of Indiana Christmas tree farms declined by 40 percent between 2002 and 2012 and then again by 21 percent between 2012 and 2017 (USDA Ag Census, 2019). However, the number of Christmas trees harvested in Indiana increased between 2012 and 2017.

To investigate the changes in Christmas tree purchasing and the potential implications of consumer behavior for tree farmers, we distributed 1,500 surveys to randomly selected Indiana residents from across the Hoosier state. We received 334 surveys from these consumers and

this report is based on survey results. The proceeding pages detail descriptive results of the Indiana consumer survey, shedding light on past behaviors, current trends and consumer preferences, and considerations for the industry's future.
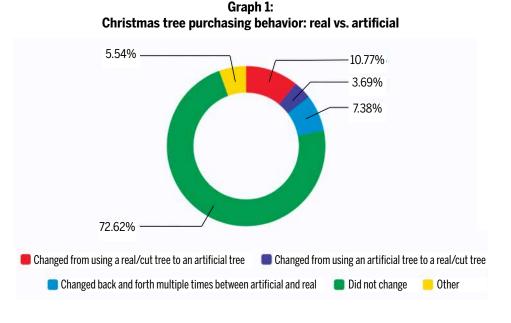
PARTICIPANT PROFILE

Of the Indiana residents who responded to our survey, 53.70 percent were adults within the range of 51 to 74 years of age, with an average age of 58 years of age. The income level of survey respondents varied widely. Almost 30 percent of respondents had an income of less than $49,999, nearly 25 percent of respondents had an income between $50,000 to $74,999, 18.62 percent were at $75,000 to $99,999, and another 18.62 percent were at $100,000 to $149,999. Table 1, presents the differences between people buying real versus artificial trees, and those who do not purchase trees. Demographically speaking, little difference existed between those buying real trees versus those buying artificial trees. The only differences were between people who buy a tree versus those that do not put up a tree at all. Average household size and type of housing were both significantly different between those not buying a tree versus the other two groups. Those not putting up a tree generally had fewer people in their household and were less likely to live in a single-family residence.

Table 1. Demographic comparison between those buying real trees, artificial trees, or not having a Christmas tree.		Real Tree Buyers (n=96)	Artificial Tree Buyers (n=187)	No Tree (n=39)
Age		54.53	57.65	64.12
Average Household Size		2.61	2.59	2.15
Income	Less than $29,999	12.99%	13.07%	22.86%
	$30,000-$49,999	6.49%	18.18%	17.14%
	$50,000-$74,999	35.06%	22.16%	14.29%
	$75,000 to 99,999	15.58%	19.32%	22.86%
	$100,000+	29.87%	27.27%	22.86%
Identify as Christian (culturally/religiously)		86.32%	90.86%	89.47%
Housing Type	Single Family Home	94.79%	85.03%	82.05%
	Apartment	3.13%	11.76%	5.13%
	Mobile Home	2.08%	3.21%	5.13%
	Other	0.00%	0.00%	7.69%

Nearly 80 percent of consumers reported that they planned to put up a Christmas tree in 2018. To understand consumer relationships with the Christmas holiday, we asked them what their personal history was with Christmas. Consumer responses were greatest at 90.85 percent stating they celebrated Christmas as a child and continue to do so as an adult. This corresponds with the demographic response from consumers stating that 89.44 percent identify as Christian. The majority of respondents indicated that "all Christmas trees in the house were artificial," in 2017. Just 10.88 percent of surveyed consumers stated they had real Christmas trees in their homes. Overall, 72.48 percent said the type of tree they used in their home had not changed within the past five years, indicating little change in their behavior once the pattern was established (Graph 1). Those that had changed mostly switched from purchasing a real tree to an artificial tree (10.8 percent), with far fewer switching from artificial to real (3.98 percent); 7.40 percent of respondents noted they switch back and forth from year to year.

Graph 1:
Christmas tree purchasing behavior: real vs. artificial

5.54% 10.77% 3.69% 7.38% 72.62%

🔴 Changed from using a real/cut tree to an artificial tree 🟣 Changed from using an artificial tree to a real/cut tree
🔵 Changed back and forth multiple times between artificial and real 🟢 Did not change 🟡 Other

INFLUENTIAL VIEWPOINTS

Our survey also measured consumer knowledge and viewpoints to learn whether these might shape tree purchasing behavior. We created three statements about Christmas trees and local farmers, local economies, and climate change. Each survey contained one of three statements concerning the aforementioned topics, followed by asking if the information affected their interest in purchasing a specific type of tree. Among the three issues, supporting the local economy garnered the strongest support, with 19.61 percent noting it as a **very important** issue and 24.51 percent noting it as an **important** issue influencing their decision. 51 percent were **neutral** on the topic and 17.64 percent indicated the issue was either **unimportant or very unimportant**. Results on the statement on supporting local farmers indicated that 32 percent of respondents found this as an **important** (24 percent) or **very important** (8 percent). Finally, climate change was rated as a **very important** issue by 11.01 percent of participants responding to the statement on climate change issues and Christmas trees, and 24.00 percent noting it as **important**; 21.10 percent found climate change to be **unimportant** at some level with 51 percent being **neutral** on the issue.

ARTIFICIAL CHRISTMAS TREE USERS: FACTORS AFFECTING CONSUMERS' TREE CHOICES

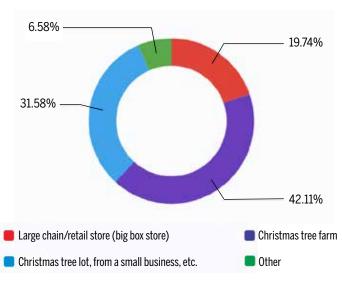Of all the respondents to our survey 62.04 percent thought that buying an artificial tree and using it for multiple years was better for the environment; 84.39 percent of artificial tree owners stated that they will keep the tree or have kept the tree for four or more years. In a life cycle analysis, researchers found that the annual environmental impact is reduced the longer artificial trees are kept, based on the life cycle of artificial trees (Americas 2010). Key drivers affecting the purchase of artificial trees were price and convenience (Table 2). Artificial tree owners' top two responses for tree disposal were to "give it away" with 41.43 percent and "recycle" at 24.70 percent.

Table 2. Comparison of motives and barriers between those buying real versus artificial trees.			
	Real	**Artificial**	**p value**
Beauty	4.37	3.98	.003
Supporting a local business	3.84	3.17	.000
Price	3.61	3.96	.018
Convenience	3.54	3.96	.002
Safety	2.05	2.61	.001
Cleanliness	2.03	2.65	.000
Transportation barrier	2.02	1.63	.015
Proximity to tree farm	1.79	1.79	1.000
Allergies	1.15	1.34	.120

REAL CHRISTMAS TREE USERS:
FACTORS AFFECTING CONSUMER TREE CHOICES

We first asked participants if they knew where to purchase real Christmas trees and 84.89 percent responded that they did. Real tree consumers were found to prioritize beauty, supporting a local business, price, and convenience when choosing their Christmas tree (Table 2): 42.86 percent of real Christmas tree consumers purchased their tree(s) at a Christmas tree farm, followed by 31.17 percent of consumers purchasing their trees at a Christmas tree lot (Graph 2). Those purchasing real trees prioritized beauty and supporting local businesses over common barriers such as cleanliness and convenience: 38.5 percent of respondents indicated they prefer short needle trees (spruces and firs), while 24.4 percent prefer medium needle trees (scotch pines), and only 11.5 percent preferred long needle pines (white pines) (Graph 3). Nearly a quarter of respondents indicated they have no preference in tree variety. Additionally, 36.8 percent of real tree users primarily disposed of trees via recycling (curbside pickup and mulching of tree), while 25.0 percent compost their trees. Finally, real tree buyers indicated services such as wrapping/baling, staff help, needle removal, etc., were higher priorities than the recreational services provided by the Christmas tree farm (Table 3).

Graph 2:
Business type for purchasing real Christmas trees.

6.58%
19.74%
31.58%
42.11%

■ Large chain/retail store (big box store)   ■ Christmas tree farm
■ Christmas tree lot, from a small business, etc.   ■ Other

COMPARING REAL VS. ARTIFICIAL TREE BUYER MOTIVES AND BARRIERS

Important differences were found between the two sets of buyers. Table 2 details nine important variables that affect tree purchasing. As indicated by the p values, the scores between those buying real versus artificial trees were statistically significant on seven key factors. A p value between .05 and .000 denotes a statistically significant difference, with the closer the number is to .000 the more significant it is. Real tree buyers were more influenced by beauty and supporting a local business, while artificial tree buyers were more persuaded by price, convenience, cleanliness, and safety perceptions. Proximity to a tree farm and household allergies were not statistically different between the two groups.

TAKE-HOME POINTS

The consumer survey has several interesting results and takeaway points for Christmas tree farmers. When considering the data, it is important to note that most respondents were older adults. This may have some influence on the survey results given that older adults have fewer children at home and may have changed their Christmas tree traditions. The following take-home points provide important insights for understanding Christmas tree consumers.

- Though the majority of surveyed Indiana residents did have a Christmas tree custom in their household, most respondents use an artificial Christmas tree.

- Interestingly, most respondents hold the belief that artificial trees are quantitatively better for the environment (if the artificial tree is kept for multiple years). This aligns with life cycle analysis that shows a similar result (Americas 2010). That said, the authors of the life cycle analysis conclude that in the overall picture of behaviors, the choice of a real versus artificial Christmas tree is miniscule in one's overall environmental footprint.

- There are significant differences in motives, values, and barriers between those buying real versus artificial trees. Generally, these differences include notions of beauty, the desire to support local businesses, price, convenience, cleanliness, and perceptions of safety. Based on our data, it is unlikely that people will change their customs once they are established. Nearly 73 percent of our respondents had not changed their tree choice in the past five years.

- Though the data are a little unclear, the trend of people aging, household size decreasing, and the move from real to artificial to no tree is apparent and seems logical. Written comments from respondents indicated they switched after their children left home, as they started to spend winters elsewhere, or as they had no assistance in erecting a tree.

- When considering marketing strategies, Christmas tree growers should consider how they can leverage the "buy local" and "local agriculture" movements as means to draw people to their tree farm. Our results point to the utility and influence that this concept has as a motive and value for Indiana residents.

Graph 3: Christmas tree species/variety type.

- Short needle (e.g., fir or spruce) — 38.46%
- Medium needle (e.g, Scotch pine) — 24.36%
- Long needle (e.g., white pine) — 11.54%
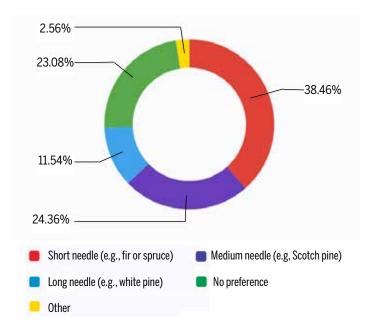- No preference — 23.08%
- Other — 2.56%

Table 3. Services offered at Christmas tree farms. Participants were asked to rate the level of importance for each of the below items. 1= very unimportant, 2= unimportant, 3= neutral, 4= important, 5= very important.

Topic	Mean
Overall experience	4.05
Wrapping/baling of the tree	3.74
Availability of staff to help	3.56
Shaking out needles	3.56
Help putting the tree on the car	3.38
Activities/fun for families	3.29
Wait times	3.24
Gift shop items (e.g., greenery, wreath)	2.75
Hay or sleigh rides	2.71
Petting zoo	2.21

- Finally, beauty is in the eye of the tree holder. Buyers of real trees tend to purchase the varieties (short and medium needle trees) that have stronger limbs and needles (possibly for decorating reasons). These varieties also tend to have limbs going upwards, not outwards (white pines). The results also show a contrast between real and artificial tree buyers, with real tree buyers scoring this attribute significantly higher in overall importance. However, Indiana farmers might find it challenging to produce the most desired varieties (short needle) due to soil and climate conditions. This mismatch between desired tree varieties and the varieties that grow well in Indiana will continue to challenge farmers as climate change will likely make it even more difficult to produce these varieties as summer temperatures increase and rainfall becomes more erratic. Researchers at Purdue University's Climate Change Research Center predict that "Indiana has already warmed 1.2°F since 1895. Temperatures are projected to rise about 5°F to 6°F by mid-century, with significantly more warming by century's end" (Widhalm et al., p. 1).

In sum, this consumer survey provides important insights into what Indiana consumers want and the choices they make when selecting a Christmas tree. The results strongly point to the need to attract people to Christmas tree farms when their behaviors are being formed and set, and therefore perhaps targeting young families who may be creating new customs, in marketing efforts. In addition, tapping into the "buy local" concept and local food and farm market networks could be an effective approach, as well as providing varieties as close as possible to what people want, even if it entails outsourcing one's supply of spruce and fir trees. Furthermore, the survey provides useful information regarding the auxiliary activities that visitors to tree farms are seeking. Understanding these trends now and into the future are vital for ensuring the long-term success of Indiana's remaining and future Christmas tree operations.

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