

Introduction

Supporting local food producers is one way to mitigate problems of access to safe, healthy food, but consumers' lack of familiarity with locally produced foods is a challenge. Small-scale efforts to develop local food systems are scattered and isolated (Norberg-Hodge, 1996). The general public is often unaware of local agricultural programs and marketing (Brown, 2003). Marketing efforts have increased to raise awareness of local foods (Feldmann & Hamm, 2015) but despite growing interest in purchasing local foods, local food producers and consumers are not connecting (Khachatryan et al., 2017). While larger retailers can reach broader audiences to inform or persuade consumer decisions, local food producers cannot promote their brands in the same manner and must be strategic in deploying resources to reach consumers.

In recent years farmers have been encouraged to promote their business on social media (Country Living, 2020; Wright, 2021). However, given the median age of farmers and producers (57.5 years according to the USDA 2018 Census) in the United States, transitioning marketing strategies to social media can be a daunting task (USDA Economic Research Service, 2018). For local food producers to market their products to consumers, they need to know levels of consumer interest in local food, the range of prices consumers find acceptable, barriers to access, and what media channels consumers use to find information about local foods.

To find evidence for recommendations on using social media as a platform to engage consumers of local food, we conducted a survey and experiment using a nationally representative sample from the YouGov platform. The survey had two goals. First, we sought to gather data on questions of attitudes toward, access to, and perceived benefit of local foods. Second, given that social media and videos are strong tools for engagement, we sought to determine if videos with local food producers would affect purchase intentions of locally produced foods and perceptions of local food producers. Following Zawisza and Pittard (2015) and Kim and Ball (2021), we compared the effects of frames of warmth and competence. Our findings add to and reinforce previous recommendations to local producers on how to market their products to consumers.

Literature Review

The Appeal of Locally Produced Foods

The literature on consumer preferences for locally produced foods highlights factors that make local products appealing: economic impact, social impact, and freshness or quality of the food. Consumers perceive the quality of locally produced foods to be the most important reason for purchasing food from a farmer's market (Brown, 2003), associating them with short transport distances, freshness, and source trustworthiness. Additional appeals of locally produced food include taste and social appeal (Byker et al., 2012; Lowery et al., 2016). Purchasing locally produced foods is also appealing due to the perceived economic impact and support for local communities (Roininen et al., 2006). This is consistent with previous work in the U.S. (Pirog, 2003), where the most important reasons for purchasing local food were to support family farms and freshness. More recently, research indicates a continued and growing interest in locally produced foods as the risks from the COVID-19 global pandemic continue to decrease (Rossi, 2022; Rossi et al., 2021). Given these perceptions and qualities, most consumers are willing to pay more, or the same amount of money for locally produced foods given the positive factors associated with purchasing local foods.

Based on the attitudes and perceptions of local foods in the literature over the last two decades, our first research question was thus *RQ1: Based on previous literature, have consumers' current attitudes and perceptions towards local foods changed?* Given our ability to investigate a nationally representative sample, we also asked *RQ1a: How do these attitudes and perceptions differ by demographics; especially those likely to engage with social media?*

Producers and consumers need a method for engaging with each other beyond traditional channels, such as direct sales at farmer's markets and through mail. Farms conducting direct-to-consumer marketing practices grew between 1997 and 2012, with the number of farms directly marketing to consumers increasing from 111,000 to 145,000 farms over 15 years (Dimitri & Gardner, 2019). Small farmers have recognized the need for marketing their foods directly to customers and the most accessible method of doing so is through social media.

Social media offers a window into the daily lives of farmers; and in this way can be a tool to promote the offerings of local producers. There is significant heterogeneity across groups in terms of overall food choice and preferences (Lavoie, 2015). However, familiarity (either through existing awareness or learning) increases visual information processing and decision-making efficiency regarding food choices (Khachatryan et al., 2018). Message framing for Brand Communication Model (Tsai, 2007), self-construal, consumer involvement, and product knowledge determine how effective the message framing will influence brand attitudes and purchase intentions (Lavoie, 2015). Ronteltap et al. (2007) argue communication is an important means of tailoring the qualities of a product to consumer perceptions and priorities. For small producers to improve their sales and customer base, they need to brand themselves in ways that resonate with audiences, increase familiarity with their brand, inform the consumer about the products, and frame the messages to increase involvement with food choice. Using videos on social media as a method of connecting with local food producers raises several new questions.

Thus, *RQ2, "Would videos, such as the ones we produced in collaboration with local farmers, be viewed by our participants as an appropriate way for local food producers to connect with audiences?"* and *RQ2a: How do reactions to these videos differ by demographics; focusing on the demographics most likely to be engaged on social media?*

Warmth and Competence in Brand Communication

Consumers prefer transparency within the food system and interest in community-based food systems (Byker et al., 2012). A critical demonstration of this is the study on farmers "working out loud" where they share insights into their world with audiences on social media (Riley & Robertson, 2021). The concept of "working out loud" combines text and elements of talk or conversation that provides visibility to work that is often invisible (Sergi & Bonneau, 2016). When farmers and producers educate the public as to the level of expertise required to do their work and contextualize their work within the broader food system (Riley & Robertson, 2021). they can increase perceptions of farmers' competence and develop stronger ties with consumers.

Warmth and competence dimensions within social psychology are considered to have an inverse relationship (Kim & Ball, 2021). Warmth is defined as the expression and delivery of a brand's good intentions in an advertisement. Common characteristics include friendliness, sociability, caring, and communion. Competence on the other hand, especially in an advertisement, indicates a brand's capability of carrying out its intentions. However, studies on the congruence of warmth and competence of a brand indicate the level of involvement with a

product (high compared to low) mediates the overall impact warmth or competence has on purchase intentions. A low involvement product advertised with sentiments of warmth results in higher purchase intentions, a product with high involvement leads to greater purchase intention when competence is framed in the messaging (Zawisza & Pittard, 2015). However, highly successful advertisements exhibit dimensions of both warmth and competence depending on the relevance or involvement an individual has with the product (Zawisza & Pittard, 2015).

Given the appeals of purchasing locally produced foods, we compare message framing using farms in Upstate New York. One frame (warm) emphasizes community support, the local economy, and relationships with consumers. The second frame (competent) highlights the technical expertise of the producers along with the sustainable practices adopted on the farm. RQ3 was thus, *Will a framing of warmth as opposed to competence affect participants' perceptions of local farmers?* RQ3a asked, *do warmth versus competence framings subsequently modify participants' attitudes and perceptions towards local foods?* attitudes and perceptions towards local foods, and RQ3b asked, *How do reactions to warmth vs competence framing differ by demographics; focusing on the demographics most likely to be engaged on social media?*

Methods

Participants

The survey was conducted on YouGov Direct. 966 US adults 18+ were surveyed on September 27, 2021, between 09:00 AM/PM and 07:00 PM Eastern time. All procedures were approved by the institutional review board. Data is weighted on age, gender, education level, political affiliation, and ethnicity to be nationally representative of adults 18+ in the United States. The margin of error is approximately $\pm 3.2\%$ for the overall sample. The study protocol was granted exemption from IRB review according to IRB policy and under paragraph(s) 2 of the Department of Health and Human Services Code of Federal Regulations 45CFR46.104(d).

Table 1 displays the summary of demographic results. The median age of the survey participants was 49.7 (SD = 8.30). The participants were evenly split among gender and political party. Nearly one-third of respondents had a household income of less than \$50,000, and the majority of respondents lived in either a city (23.8%) or a suburb (36.3%).

Table 1
Summary of Key Sample Demographics

Demographic variable	Percentage
Age	<i>M</i> = 49.7 (<i>SD</i> = 8.30)
Gender	
Female	44.4%
Male	43.7%
Missing	11.9%

Household income

Less than \$10,000	5.2%
\$10,000 - 19,999	6.0%
\$20,000 - 29,999	5.7%
\$30,000 - 39,999	6.9%
\$40,000 - 49,999	5.6%
\$50,000 - 69,999	11.6%
\$70,000 - 99,999	14.6%
\$100,000 - 149,999	11.9%
\$150,000 or more	8.8%
<i>Missing</i>	23.7%

Education

Less than H.S.	
H.S./GED graduate	13.7%
Some college	30.2%
College graduate	24.3%
Postgraduate	19.9
<i>Missing</i>	11.9%

Political party identification

Democrat	39.4%
Republican	22.3%
Independent	26.4%
<i>Missing</i>	11.9%

Community type

Rural area	17.7%
Town	12.8%

Suburb	36.3%
City	23.8%
<i>Missing</i>	9.3%

Video Stimuli

Two different food producers were interviewed about their production practices and reasons for starting a farm. The two farms were Kingbird Farm and Plowbreak Farm, both sole proprietors, located in the Finger Lakes region of New York. Two videos were filmed on each farm, each featuring voiceovers written and narrated by the farmers. Farmers identified key problems as (un)willingness of consumers to pay the costs of local food production, and an associated lack of understanding of the expertise and time required to produce high-quality food. In order to address this issue, we collaborated with the farmers, experts in their field, to generate two scripts that represented accurate information about their farms from two frames; one demonstrating warmth (community and collectivism) and one demonstrating competence (agency and individualism) (Zawisza & Pittard, 2015). This framing was informed by concerns that stereotypes about farmers as warm and friendly country folk could actually damage the perception of their work as deserving sufficient compensation, the following work in social psychology suggests that warmth and competence dimensions can have an inverse relationship (Kim & Ball, 2021).

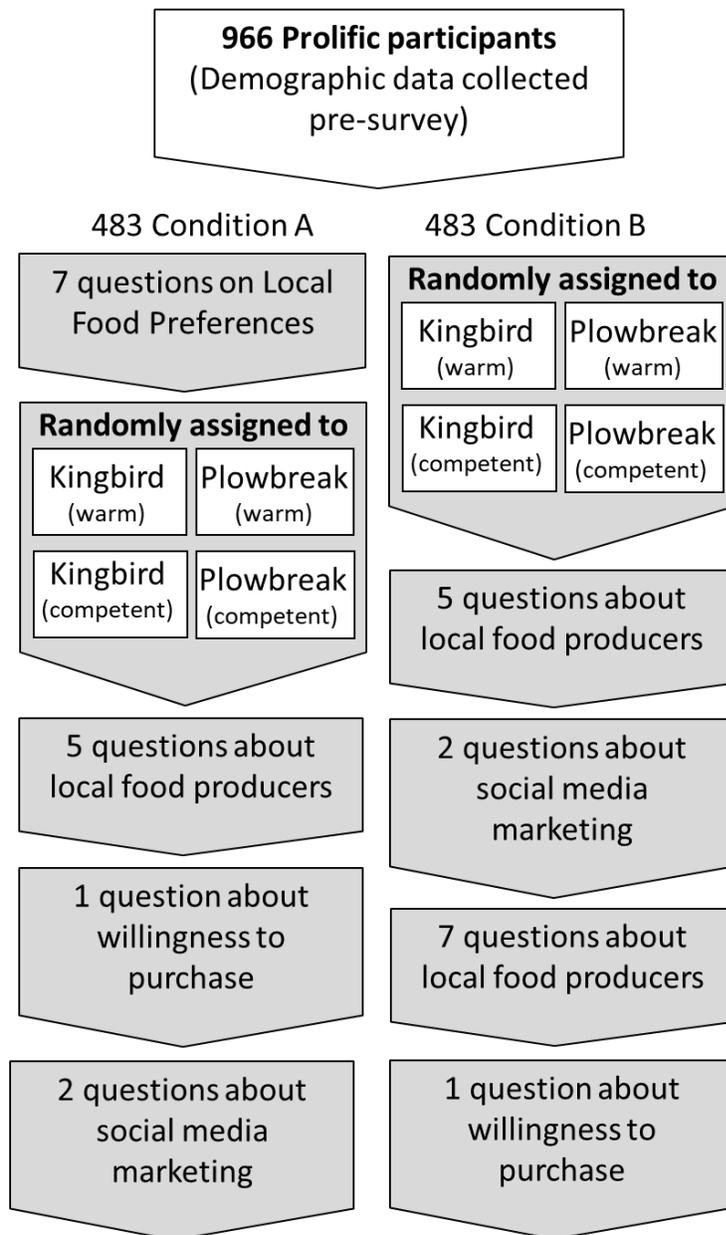
The videos evoking warmth described the relationships with customers, getting to know the community, and building strong ties with other local businesses (Judd et al., 2005; Zawisza & Pittard, 2015). The videos engendering competency described technical production practices and growing methods, such as organic farming, low-tillage or no-tillage land management, and natural pesticides or fertilizers (Judd et al., 2005; Zawisza & Pittard, 2015). Both videos were edited to be no longer than one minute and 30 seconds, similar to popular video lengths on social media (Geysler, 2021). There were thus four videos in total.

All participants answered three sets of questions. To address RQ1, all participants answered a set of questions regarding their preferences regarding local food and their perceptions of the benefits and barriers to purchasing locally grown foods. To address RQ2, all participants answered a set of questions regarding the perceived utility of social media for marketing local foods. To address RQ3, participants were randomly assigned to watch either a “warm” or “competent” video version, featuring either Kingbird Farm or Plowbreak Farm.

Because we were also interested in whether participants’ preferences and perceptions of local foods would be modified by watching the video, we arranged further randomization to allow for a between-groups comparison. Group A ($n = 483$) answered questions about their preferences for and perceptions of local food, *before* watching the videos. The second pool of participants, Group B ($n = 483$), watched one of the four videos at the beginning of the survey prior to answering any questions. The survey flow is demonstrated in Figure 1.

Figure 1.

Survey Flow



Survey Measures and Analysis

The survey questions were developed following existing literature. We provide descriptive data for RQ1: *In a nationally representative sample, what are consumers' attitudes and perceptions towards local foods?* below. We address RQ1a: *How do these attitudes and perceptions differ by demographics; focusing on the demographics most likely to be engaged on social media?* in the results section. In the results section the data is analyzed using generalized linear regression to respond to research questions 1a, 2, 2a, 3, and 3a.

Attitudes Towards Local Food

Figure 2 shows the distribution of how frequently survey respondents purchase locally grown foods, regardless of the location of the sale.

Figure 2

Survey Responses to How Often do You Purchase Local Food?



Note: This figure demonstrates the frequency of which respondents purchase local foods, ($M = 3.39$, $SD = 0.80$).

Based on results drawn from (Dunne et al. 2010) participants were asked where do (would) you typically purchase locally produced food (select one)? Farmer’s markets (46.1%) and grocery stores are the top responses (38.6%) (Table 2; $M = 3.73$, $SD = 1.26$).

Table 2

Locations Where Local Foods Are Typically Purchased

Option (coded value)	Percentage (n = 966)
From the farmer directly (1)	6.9% (n = 67)
From a CSA (2)	2.1% (n = 20)
Famer’s market (3)	46.1% (n = 445)
Local Co-op (4)	3.5% (n = 34)
Grocery store (5)	38.6% (n = 373)
Not sure/Other (6)	2.8% (n = 27)

We further asked what the level of interest is in purchasing locally produced foods, or foods grown within a limited geographic area, as defined by the USDA (2021). Participants were provided the following definition prior to answering questions about locally produced foods:

The United States Department of Agriculture provides the following definition of local food. “Local food is defined as the direct or intermediated marketing of food to consumers that is produced and distributed in a limited geographic area” (USDA, 2021). There is not a set number of miles or distance attributed to this definition, however, many organizations will use the range of 100 or 250 miles. Given this definition, please respond to the following questions. Table 3 summarizes the levels of interest in purchasing locally produced foods for the entire survey.

Table 3*What is Your Level of Interest in Purchasing Locally Produced Food?*

Very interested	Somewhat interested	Neutral	Not very interested	Not at all interested
5	4	3	2	1
44% (n = 425)	38% (n = 367)	14.6% (n = 141)	2.5% (n = 24)	0.9% (n = 9)

Benefits of Local Food

Participants were asked to check all the characteristics of locally produced foods they found appealing. The top reasons were that it benefits the local economy (77%), supports the community (75%), and offers better quality of food (63%) (n = 966). Conversely, the barriers to purchasing locally produced foods had fewer overall options selected by respondents, however, the top barriers were availability (56%), convenience (41%), and time (21%), (n = 966). The survey respondents were asked to select all of the characteristics which described how they perceive farmers and local food producers. The survey respondents mainly perceive farmers to be hard-working (70%), knowledgeable (51%), and friendly (50%) (n = 966).

Participants were asked “What, if any, do you think are the benefits of purchasing locally produced foods?” Respondents checked all the options perceived to be a benefit (Table 4). The factors selected most frequently were that purchasing locally produced foods benefit the local economy (77%), supports the community (75%), and better food quality (63%).

Table 4*Benefits of Purchasing Locally Produced Foods.*

Benefit	Percentage (n)
Benefits the local economy	77% (n = 744)
Supports the community	75% (n = 728)
Better quality of food	63% (n = 607)
More environmentally friendly/sustainable	52% (n = 506)
Better tasting	50% (n = 481)
Healthier	46% (n = 445)
More affordable	22% (n = 210)
Not sure/Other	2% (n = 19)

Most Appealing

Participants were asked among the options above, which aspect was most appealing about purchasing locally produced foods. A topical analysis conducted in Infranodus of the open text response yielded the following most influential text from both survey groups: The most appealing aspects of purchasing locally produced foods: community; quality; supporting; care; locally; and taste. The topics are the nodes (words) that tend to co-occur together in the same context (next to each other). Infranodus uses a combination of clustering and graph community detection algorithm (Blondel et al., 2008) to identify the groups of nodes are more densely connected than with the rest of the network. The Jenks elbow cutoff algorithm is used to select the top prominent nodes (words) that have significantly higher influence than the rest.

Barriers to Purchasing Locally Produced Food

Participants were asked what factors were perceived as barriers to purchasing locally produced foods (Table 5) and had to option to check all the options were applicable. Availability (56%) and convenience (41%) were the top two barriers to purchasing locally produced foods.

Table 5

Barriers to Purchasing Local Foods

Barrier	Percentage (n)
Availability	56% (n = 540)
Convenience	41% (n = 398)
Time	21% (n = 205)
Variety	18% (n = 172)
Not familiar with the farm/producer	15% (n = 148)
Not sure/Other	12% (n = 119)
Not sure what to make	6% (n = 62)

Perceptions Of Local Food Producers

Participants were asked to select all of the factors consistent with their perception of local food producers, again checking all the options that were applicable (Table 6). Hard-working (70%), knowledgeable (51%), and friendly (50%), were the most frequently selected characteristics participants chose to describe food producers.

Table 6*Perceptions of Local Food Producers*

Trait	Percentage (n)
Hard-working	70% (n = 677)
Knowledgeable	51% (n = 494)
Friendly	50% (n = 485)
Trustworthy	42% (n = 406)
Stewards of the land	39% (n = 373)
Approachable	38% (n = 365)
Traditional	35% (n = 333)
Environmentalists	25% (n = 238)
Interesting	24% (n = 228)
Engaging	19% (n = 184)
Conservative	18% (n = 178)
Expert	17% (n = 168)
Transparent	13% (n = 122)
None of the above	6% (n = 54)

Access or availability is often shown to be a significant barrier to purchasing local foods (Broad et al., 2022; DeLind, 2002; Onozaka et al., 2010). We asked participants willingness to purchase local food if these foods were provided in their local grocery store (Table 7). We further asked whether they would pay more or less money for these foods, given that studies often show that individuals are willing to pay premium prices for locally produced foods (Feldmann & Hamm, 2015). Of the respondents, 34% indicated they would purchase local foods in the grocery store if they were clearly labeled, even if slightly more expensive. If clearly labeled and from a farm they recognized, 31% indicated they would purchase these foods.

Table 7*Willingness to Purchase Foods Labeled as Locally Produced*

Labeling Option	Percentage (n)
Yes, if they were clearly labeled and only slightly more expensive than the alternative.	34% (n = 326)
Yes, if they were clearly labeled with the name of a farm I recognize.	31% (n = 302)
Yes, if they were clearly labeled and cheaper than the alternative.	26% (n = 252)
No, I would only purchase directly from a local food producer or farmer's market.	4% (n = 38)
No, I will just purchase what is most convenient and cheapest.	5% (n = 48)

Finally, survey participants were asked a series of questions after viewing one of four videos, demonstrating either warmth or competence and from either Kingbird Farm or Plowbreak Farm. The seven questions were (Table 8) began with the phrase, "after watching the video... A majority of the respondents (45% Strongly agree, 44% Agree) indicated they understood the benefits of local food to society and the environment, they felt a stronger sense of responsibility as a consumer to learn more about local foods (30% Strongly Agree, 47% Agree), and they feel as though their actions as a consumer can make a difference to the environment (33% Strongly Agree, 42% Agree). A majority of the respondents indicated they were willing to purchase food from the person(s) in the video (39% Strongly Agree, 32% Agree).

Table 8*Video Follow Up Questions*

Question	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. I understand the benefits of local food to society and the environment. (<i>M</i> = 4.31 , <i>SD</i> = 0.73)	45% (n = 432)	44% (n = 428)	9% (n = 88)	1% (n = 14)	0.4% (n = 4)
2. I feel a stronger sense of responsibility as a consumer	30% (n = 288)	47% (n = 457)	15% (n = 148)	6% (n = 58)	2% (n = 15)

Question	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
to seek out and learn more about local food. ($M = 3.98$, $SD = 0.91$)					
3. I feel my actions as a consumer can actually make a difference to the environment. ($M = 3.99$, $SD = 0.95$)	33% (n = 321)	42% (n = 408)	16% (n = 158)	7% (n = 65)	1% (n = 14)
4. My respect for local food producers has changed. ($M = 3.58$, $SD = 1.10$)	22% (n = 215)	37% (n = 356)	20% (n = 192)	18% (n = 177)	3% (n = 26)
5. After viewing the video, how willing are you to purchase food from the person in the video? ($M = 4.03$, $SD = 0.97$)	39% (n = 379)	32% (n = 310)	23% (n = 218)	5% (n = 45)	1% (n = 14)

The last set of post-video questions asked respondents about sharing these videos on social media and if they were an effective method for farmers to engage with their local community (Table 9). Sixty-two percent of the respondents indicated social media is definitely or probably a good platform for farmers to engage with local consumers. Respondents were less likely to share the videos on their personal social media accounts to help promote local food production (27% Possibly, 24% Probably not).

Table 9

Social Media Focused Questions

Question	Definitely 5	Probably 4	Possibly 3	Probably not 2	Definitely not 1
How likely are you to share a video such as the one you just watched on Instagram to help promote local food production? ($M = 2.99$, $SD = 1.28$)	16% (n = 154)	19% (n = 183)	27% (n = 263)	24% (n = 228)	14% (n = 138)

Do you think social media, such as Instagram, is a good platform for farmers to engage with local consumers? ($M = 3.81$, $SD = 1.02$)	31% (n = 297)	31% (n = 296)	30% (n = 290)	6% (n = 57)	3% (n = 26)
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Results

Based on previous literature, we examined consumers' attitudes and perceptions toward locally produced foods (RQ1). As indicated in Table 3, a majority of participants are interested in purchasing locally produced foods (82%), and the benefits or appeal of purchasing locally produced foods are that it benefits the local economy (77%) and supports the community (75%), along with the taste and freshness of the food, per the open text response. Given our ability to investigate a nationally representative sample, we further investigated how these attitudes and perceptions differ by demographics; focusing on the demographics most likely to be engaged on social media (RQ1a).

Attitudes and Perceptions of Local Foods and Producers

We examined the effects of demographics on the appeal, barriers, and perceptions of locally produced foods. Demographics, such as age, gender, politics, education, and income have more effects on the appeals, barriers, and perceptions of locally produced foods. These effects, using generalized linear regression are summarized in Tables 10, 11, and 12. Participants that identified as Republicans demonstrated significant effects on perceived appeals of purchasing locally produced foods including benefits to the economy, community, health, and environment (Table 10). The significant appeal among Republicans was perceived support for the local community ($B = 1.011$, $SE = 0.278$, $p \leq 0.001$) as more environmentally friendly or sustainable ($B = 1.076$, $SE = 0.238$, $p \leq 0.001$). Age plays a role in the perceived quality of locally produced foods, with people between the ages of 30 - 44 exhibiting significant positive effects, ($B = 0.946$, $SE = 0.248$, $p \leq 0.001$). Consumers with the most interest in purchasing locally produced foods are middle-aged women, with low to middle incomes, aligning with previous research (Byker et al., 2012). Among the barriers to purchasing local food, time and familiarity with the farm or producer have effects across multiple demographic variables, including age and education, as well as community type.

Table 10*Regression Results from Each Variable, with Predictors Regressed onto Perceived Appeal of Purchasing Local Food*

	Benefits the local economy	Supports the community	Healthier	More environmental ly-friendly /sustainable	Better quality of food	Better tasting	More affordable
Age							
18-29	0.963 (0.358)*	-		-	0.785 (0.318)*		-
30-44	0.969 (0.292)**	0.815 (0.278)*		-	0.946 (0.248)***		-
Gender (female)	-	-	-0.528 (0.169)*	-0.442 (0.172)**	-0.501 (0.172)*		
Political party							
Republican	0.611 (0.278)*	1.011 (0.278)***	0.617 (0.233)*	1.076 (0.238)***			
Democrat						0.441 (0.195)*	
Income level							
Under \$10k	1.389 (0.486)*	1.755 (0.506)***	-	-	-		-0.990 (0.469)*
\$10,000 - 19,999	0.983(0.487)*	1.586 (0.497)***	-	-	-		-

	Benefits the local economy	Supports the community	Healthier	More environmentally-friendly/sustainable	Better quality of food	Better tasting	More affordable
\$20,000 - 29,999	-	1.048 (0.505)*	-	-	-	-	-
\$40,000 - 49,999	-	-	-	-	-	0.853 (0.391)*	-
\$80,000 - 89,999	-	-	-	1.411 (0.445)***	-	0.820 (0.410)*	-
\$100,000 - 149,000	-	1.057 (0.468)*	-	-	-	-	-

Note. Values are unstandardized regression coefficients and their standard errors, B(SE). For analyses involving Party identification, Independent served as the referent group. *** $p \leq .001$, ** $p \leq .01$, * $p \leq .05$

Table 11

Regression Results from Each Variable, with Predictors Regressed onto Perceived Barriers to Purchasing Local Food

	Availability	Convenience	Not sure what to make	Time	Not familiar with the farm/producer
Age					
18-29	0.633 (0.308)*	-	-1.932 (0.629)**	-0.765 (0.370)*	-1.112 (0.408)**
30-44	-	-	-1.270 (0.599)*	-0.708 (0.296)*	-0.704 (0.353)*
Education					

	Availability	Convenience	Not sure what to make	Time	Not familiar with the farm/producer
High School or Less	-	-		0.916 (0.402)*	-
College graduate	-	-	-	0.637 (0.290)*	0.891 (0.339)**
Community type - Rural Area	-	0.544 (0.2638)*	-	-	0.749 (0.387)*
Income \$10,000 - 19,999	-	-	-1.465 (0.712)*	-	-

Note. Values are unstandardized regression coefficients and their standard errors, B(SE). For analyses involving Party identification, Independent served as the referent group. ***p ≤ .001, **p ≤ .01, *p ≤ .05

Table 12

Regression Results from Each Variable, with Predictors Regressed onto Perceptions of Local Food Producers.

	Hard-working	Knowledgeable	Traditional	Expert	Conservative	Approachable	Friendly	Interesting	Stewards of the land	Environmentalists	Trustworthy
Age											
18-29	-	0.736 (0.312)*	-	-	-0.783 (0.394)*	0.852 (0.335)* *	-	-	1.674 (0.371)* **	-	-
30-44	-	0.517 (0.236)*	-	-	-	0.935 (0.253)* **	0.678 (0.240)* *	-	1.303 (0.251)* **	-	0.535 (0.244)*
45-64	-	-	-	-0.532 (0.271)*	-	-	-	-	0.464 (0.212)*	-	-

	Hard- working	Knowled geable	Tradition -al	Expert	Conserv ative	Approac hable	Friendly	Interesti ng	Stewards of the land	Environm entalists	Trust- worthy
Educati on (HS or less	-	-	-	-	-	-	-	-	0.626 (0.324)*	-	-
Gender (female)	-	-0.377 (0.167)*	-	-	0.681 (0.226)* *	-	-	0.371 (0.191)*	-	-	-
Political party											
Republi can	-	-	-	-	-	-	-	-	-	0.529 (0.271)*	-
Democr at	-	-	-	-	0.621 (0.266)*	0.646 (0.205)* *	-	-	-	-	-
Commu nity type (rural)	-	-	-0.353 (0.262)*	-	-	-	-	-	-	-	-0.556 (0.258)*
Income											
Less than \$10k	-	0.839 (0.431)*	-	-	-	-	-	-	-	-	-
10-19k	-	-	-	-	-	-	-	-	-	-	0.812 (0.421)*

	Hard- working	Knowled geable	Tradition -al	Expert	Conserv ative	Approac hable	Friendly	Interesti ng	Stewards of the land	Environm entalists	Trust- worthy
30-39k	-	-	-0.804 (0.390)*	-	-	-	-	-	-	0.954 (0.477)*	
70-79K	-	-	-	2.447 (1.063)*	1.880 (0.803)*	-	-	-	0.951 (0.418)*	-	
100- 150k	-1.040 (0.485)*	-	-	-	-	-	-	-	-	-	

Note. Values are unstandardized regression coefficients and their standard errors, B(SE). For analyses involving Party identification, Independent served as the referent group. *** $p \leq .001$, ** $p \leq .01$, * $p \leq .05$

Effects of Watching Videos of Local Food Producers

The second research question asked whether the videos, such as the ones we produced in collaboration with local farmers, would be an appropriate way for local food producers to connect with audiences (RQ2). To determine whether watching the video before answering any survey questions had an impact on the people's perceptions of locally produced food and producers, we used generalized linear modeling to determine if the timing of the video within the survey had an effect on participant responses. Table 13 shows there was a slightly negative effect from watching the video first before answering any survey questions on certain aspects of perceived appeals of purchasing local foods, barriers to purchasing, and perceptions of local food producers. Watching the video first had a negative effect on whether the food produced locally is perceived to be healthier ($B = -0.340, SE = 0.165, p = 0.05$) or more environmentally friendly ($B = -0.432, SE = 0.168, p = 0.01$). Conversely, watching the video first before answering any questions decreased the perceived barrier of being unfamiliar with a farmer as a barrier to purchasing local foods (Table 13) ($B = -0.446, SE = 0.226, p = 0.01$). And watching the video first has a positive effect on how trustworthy people perceive farmers to be $B = 0.380, SE = 0.165, p = 0.05$, thus suggesting the videos are an effective method of connecting local food producers with audiences. Watching the video first had a negative effect on the perception of farmers as environmentalists ($B = -0.495, SE = 0.188, p = 0.01$)

Table 13

Effects of Watching the Video First in the Survey

Appeals of local foods	Video First
Healthier	-0.340 (0.165)*
More environmentally-friendly/sustainable	-0.432 (0.168)**
Barriers to local foods	
Not familiar with the farm/producer	- 0.446 (0.226)**
Perceptions of farmers	
Environmentalists	-0.495 (0.188)**
Trustworthy	0.380 (0.165)*

Note. Values are unstandardized regression coefficients and their standard errors, B(SE).

*** $p \leq .001$, ** $p \leq .01$, * $p \leq .05$

Kingbird Farm Compared to Plowbreak Farm

The videos were not only shared at different times within the survey, but the videos also contained information from two different farms, Kingbird Farm and Plowbreak Farm. Both farms are located in New York State and are family-run. The videos of Kingbird Farm were hosted by Karma Glos, one of the owners of the farm. The Plowbreak Farm videos featured Aaron Munzer and Kara Cusolito, the owners, and operators of the farm. Overall, there was very little effect of watching a video of one farm versus the other, however, the generalized linear regression did result in a slightly negative effect on the perceived appeal of local foods as more environmentally-friendly or more sustainable ($B = -0.390$, $SE = 0.167$, $p = 0.05$); possibly because environmental impact/sustainability was not a focus of these films.

Video-specific Questions

Beyond perceptions and attitudes regarding locally produced food and producers, survey participants were asked a series of follow-up questions regarding the information in the video.

The seven questions were, “after watching the video...

1. I understand the benefits of local food to society and the environment.”
2. I feel a stronger sense of responsibility as a consumer to seek out and learn more about local food.
3. I feel my actions as a consumer can actually make a difference to the environment.
4. my respect for local food producers has changed.
5. how willing are you to purchase food from the person in the video?
6. How likely are you to share a video such as the one you just watched on Instagram to help promote local food production?
7. How likely are you to share a video such as the one you just watched on Instagram to help promote local food production?

We further examined if and how reactions to these videos differ by demographics; focusing on the demographics most likely to be engaged on social media (RQ2a). The factors that had the greatest effect on participants were again related to demographics, such as age, education, political party, and gender (Table 14). Participants between the ages of 45 and 64 feel as though their actions can make a difference to the environment ($B = 0.204$, $SE = 0.095$, $p = 0.05$). For people with an education level of high school or less, their level of respect for local food producers changed after watching the video ($B = 0.325$, $SE = 0.163$, $p = 0.05$). Lastly, people that identified as Democrats ($B = 0.330$, $SE = 0.121$, $p = 0.01$) were likely to share similar videos on Instagram to help promote local foods, and people between the ages of 30 - 44 ($B = 0.221$, $SE = 0.112$, $p = 0.05$), 45 - 64 ($B = 0.203$, $SE = 0.100$, $p = 0.05$), female ($B = 0.256$, $SE = 0.079$, $p = 0.001$), and Democrat ($B = 0.223$, $SE = 0.093$, $p = 0.05$) think that Instagram is a good platform for farmers to engage with local consumers. Similar to the questions regarding the appeals, barriers, and perception of local producers, watching the video at different time points in the survey did not have an impact on the seven post-video questions.

Table 14*Univariate Regression Analysis on Questions Starting With “After Watching The Video...”*

Question	Factors	Effect size B (SE)
I feel my actions as a consumer can actually make a difference to the environment	Age 45 - 64	0.204 (0.095)*
My respect for local food producers has changed.	HS or Less	0.325 (0.163)*
How likely are you to share a video such as the one you just watched on Instagram to help promote local food production?	Democrat	0.330 (0.121)**
Do you think social media, such as Instagram is a good platform for farmers to engage with local consumers?	Age 30 - 44	0.221 (0.112)*
	Age 45 - 64	0.203 (0.100)*
	Gender - Female	0.256 (0.079)***
	Democrat	0.223 (0.093)*

Warmth Compared to Competence

The third research question asked whether or not framing of warmth as opposed to competence affect participants’ perceptions of local farmers (RQ3). The warmth-framed videos had a positive effect on the perception that farmers and local food producers are approachable ($B = 0.355$, $SE = 0.170$, $p = 0.05$) (Table 15). RQ3a asked, does warmth versus competence framings subsequently modify participants’ attitudes and perceptions towards local foods? Comparing the sentiments of the videos, the warm videos had a positive effect on the appeal of purchasing locally produced foods in terms of supporting the community ($B = 0.408$, $SE = 0.197$, $p = 0.05$), but a negative effect on the perception of locally produced foods are better tasting ($B = -0.414$, $SE = 0.163$, $p = 0.01$). Finally, RQ3b asked, how do reactions to warmth versus competence framing differ by demographics; focusing on the demographics most likely to be engaged on social media? There was no significant interaction between warmth versus competence framing amongst the demographics most likely to engage on social media, nor the five other post-video questions.

Table 15*Effects of Warmth Compared to Competence*

Appeals of local foods	Warmth
Supports the community	0.408 (0.197*)
Better tasting	-0.414 (0.163**)
<hr/>	
Perceptions of farmers	
Approachable	0.355 (0.170)*

Note. Values are unstandardized regression coefficients and their standard errors, B(SE). *** $p \leq .001$, ** $p \leq .01$, * $p \leq .05$

Discussion

Our work supports existing research demonstrating an ongoing interest in purchasing local foods across the U.S. A majority of our sample was interested in purchasing locally produced foods and had the farms been close to their location they would be inclined to purchase from the farmers in the videos. We explored dimensions of warmth and competence displayed by two different local food producers in New York State. The goal was to determine if videos could be a valuable method for connecting local food producers with consumers, and if so, does warmth or competence increase the efficacy of the message to potential consumers?

Consumers' Attitudes and Perceptions Towards Local Foods

Eighty-two percent of the respondents in our survey indicated they were very interested or somewhat interested in purchasing locally produced foods, consistent with previous research (Low et al., 2015; Rossi, 2022). While other work (Witzling & Shaw, 2019; Lu & Chi, 2018) found that providing information about a local producer did not increase purchase intentions of local foods, our results suggest familiarity with a local food producer may increase purchase intentions, especially if trying to connect with groups that tend to be more conservative. Our findings align with recent research exploring public perceptions of local food systems in the wake of the COVID-19 global pandemic. A national survey conducted in 2020 demonstrates the importance of increasing social connections between local food producers and consumers, especially post-pandemic (Rossi, Rucker, & Thilmann, 2021). Watching a video prior to answering survey questions reduced the barrier of familiarity, implying that videos like those used in this study could help in connecting with consumers.

Our participants' responses reinforce previous findings, that quality, freshness, and health are important factors in purchasing locally produced foods. The highest percentage of respondents (34%) indicated they would pay more money for locally produced foods if they were clearly labeled and available in the grocery store, reinforcing previous findings that consumers will pay a premium for items clearly labelled as locally produced (Feldmann & Hamm, 2015).

Videos as an Effective Method for Connecting with Consumers

In terms of RQ2a, among demographic variables, women between the ages of 30-64, as well as individuals that identify politically as Democrats, would enjoy or have an interest in sharing or viewing local producer videos and messages on social media. This demographic is consistent with the demographics of Instagram's heaviest users, women between the ages of 18 - 49 (PEW Research, 2021). Research indicates visuals are increasingly important in building brand-consumer relationships emotional connections with consumers (Bashir et al. 2018). However, because access to locally produced foods remains a barrier, videos promoting a particular farm or producer should also inform audiences where foods can be accessed, particularly if they are accessible in retail stores or via community-supported agriculture programs (CSAs).

Warmth and Competence

Our results demonstrate warmth does slightly affect perceptions of the approachability of local producers, and the perceived benefit of supporting the community by purchasing locally produced foods. Warmth dimensions have a negative effect on the perceived taste of locally produced food. Zawisza and Pittard (2015) argue the effectiveness of dimensions of warmth and competence in advertising is largely dependent on how relevant these two dimensions are to the advertising context. Where consumers are heterogeneous in their motivations and interests in purchasing local foods, there may be an optimal level of warmth and competence to increase actual purchasing behaviors. The resulting effects of warmth on consumer perceptions in our study further suggest low involvement with decisions to purchase locally produced food.

Promotion of Locally Produced Foods

Beyond intermediated market channels, the effectiveness of agricultural promotional campaigns has been hindered by substantial differences of consumer definitions and perceptions of local foods (Khachatryan et al., 2018). Despite the complexity of audience perceptions on local foods, our results suggest videos on social media could be a useful method for promoting and sharing information about local food producers among women between the ages of 18 and 44 as demonstrated by the results from watching the video before answering any survey questions.

Additionally, emotions can play a role in food choice (Hoek et al., 2017). Examples include feelings of guilt about food waste or attachment to meat. Hedonic motives are pivotal when people have low involvement with their food choice, particularly when facing the decision to eat less meat (Hoek et al., 2017). Although branding can be an important aspect of consumer choice, in the context of local food, emotions, warmth, and competence, and communications highlighting the quality and unique characteristics of locally produced foods could be a valuable way for producers to promote their food on social media. Additionally, local food producers may want to seek out partnerships with grocery stores, which are shown to be highly influential in the food decisions made. Offering local items as a means of overcoming barriers to purchasing from farmers would be an effective strategy for increasing local food purchases.

Food Involvement

Lastly, food involvement may be an important dimension to consider for future research and has been shown to be an important aspect of how impactful warmth and competency dimensions are (Zawisza & Pittard, 2015). Although food involvement was not measured in this study, the videos consisting of warmth qualities had a slight effect on participants, suggesting the purchase of local foods is low involvement, however, this result could be explained by the distance of the farms from the respondent. Food and people's relationships with food can waffle between high involvement and low involvement, however, decisions about purchasing local foods may be mediated by other factors such as perceived health benefits, economic benefits, and quality of food (Lu & Chi, 2018). Future research should consider food involvement, which may be mediated by income and distance from local food producers and food deserts.

Limitations

Our survey was small, (less than 1000 respondents), and did not consider food involvement as a mediator for product choice. Based on previous work, food involvement could potentially influence decisions on purchasing local food (Lu & Chi, 2018), even if messaging and communication about local foods achieve the golden quadrant of warmth and competence (Zawisza & Pittard, 2015). Additionally, the food producers in the video were all from New York, potentially creating psychological distance between some viewers and the food producers.

Conclusions and Future Research

Social media and video promotion of local foods could be an effective method for increasing purchase intentions of locally produced foods. The videos should convey warmth, along with characteristics of the quality of the food, as opposed to the individual producer. However, the lack of effect of warmth in this study suggests low involvement with locally produced foods, warranting further examination of consumer involvement with local food. Future work could develop a more consistent measure of food involvement. Finally, barriers to access to locally produced foods should be addressed either through partnerships with retail food outlets or by addressing zoning regulations for farmer's markets.

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