Extension Education Methods

Creating a Sense of Belonging for Hispanic Farmers and Farmworkers in Agricultural Programming

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Summary. Hispanics residing in the United States are playing a larger role in agriculture. For example, in Pennsylvania, this group comprises the largest increase in new farmers, according to the 2012 Census of Agriculture. Efforts to connect with this population can be improved. Hispanic farmers and farmworkers face access barriers to agricultural programming that need to be addressed to more effectively "reach and teach." Over a 1-year period, 22 to 25 agricultural educators attended a three-workshop training series focused on increasing knowledge and skills for planning, designing, advertising, and delivering agricultural programs inviting to Hispanic farmers and farmworkers. The workshop series included an expert on the science of inclusion, a specialist in Latino community studies, and several representatives from organizations with long histories of connecting with Hispanic farming audiences. Through guided activities and facilitated discussion, participants developed strategies for creating programming welcoming to the Hispanic farming community. This workshop series was highly rated by participants. After the first workshop, one participant stated that it was the best diversity workshop he had attended in his 22-year career. In a follow-up survey 1 year after the final workshop, the majority of respondents had made efforts to build relationships through agricultural programming for Hispanic farmers and farmworkers. Here, we are providing the methods we employed to serve as a model for others working to connect with this or other underserved or nontraditional farming audiences.

The terms Hispanic and Latinx have distinct meanings. Hispanic refers to people whose origin is in Spanish-speaking countries, whereas Latinx is a term inclusive of all genders and referring to people whose origin is in Latin American countries. Some people identify in both groups, and others only identify in one. Despite different meanings, these terms often are used interchangeably. Here, Hispanic is used to include both Hispanic and Latinx people.

Extension programs have a long history of successfully connecting with traditional farmers. As the United States increasingly becomes more multicultural, extension must expand its ability to serve culturally diverse groups. With 57.5 million members, Hispanics outnumber all other minority groups in the United States (U.S. Census Bureau, 2017). A growing number of Hispanic people are turning to farming as a profession. The number of new farmers overall has decreased between 2007 and 2012 [U.S. Department of Agriculture (USDA), 2014]. However, during this same period, the number of Hispanic operated farms increased 17% (USDA, 2012a). Texas, New Mexico, and California are the states in which most Hispanic farmers reside, but many Hispanics are farming in other states as well. For example, in Pennsylvania 652 Hispanics operate 550 farms (USDA, 2012b). For comparison, 581 farms are certified organic in Pennsylvania (USDA, 2012c).

Connection with Hispanic farmers through extension programming can improve. In a 2014 survey of 24 Penn State Extension educators and specialists, only 8 (33%) indicated that Hispanic farmers are well represented at extension events they host or attend. The majority, 22 (92%), indicated that they wanted to upgrade their skills for working with Hispanic farmers and would attend a training program with that goal.

Hispanic culture is vibrant and diverse: it is not homogenous (Escott et al., 1996). This also applies to the Hispanic farming community. As an example, one extension educator describes two Hispanic farmers in the area he serves like this, "one is a former doctor at [a regional medical center] and the other farms on the side, but also works as a migrant crew leader in the area."

Generalizations can limit the effectiveness of training programs. For example, Hispanic farmers are U.S.-born and immigrants. Where individuals are born, along with how many generations their families have been in the United States, affects the degree of acculturalization or biculturalism (Escott et al., 1996; Schauber and Castania, 2001). In total, 37.8 million, or 65.8%, of Hispanics are U.S.-born (U.S. Census Bureau, 2017), and many Hispanic families have roots in the United States going back numerous generations. Among foreign-born Hispanics, 40% use English or both English and Spanish. Among U.S.-born Hispanics, 95% use English or both English and Spanish (Krogstad and Gonzalez-Barrera, 2015). For Hispanics who solely or mostly communicate in Spanish, use of Spanish language is important to provide access to agricultural programming and to avoid marginalization. However, simply translating existing programming materials from English to Spanish will not be effective for creating a sense of belonging for most Hispanics. Indeed, to successfully engage minority

audiences, programs must be culturally responsive. They must reflect the cultural traditions, beliefs, and values of the people (Koss-Chioino and Vargas, 1999).

We engaged 25 agricultural educators in an in-person, three-workshop training series aimed at gaining knowledge and skills needed to plan, design, advertise, and deliver agricultural programs welcoming to Hispanic farmers and farmworkers. During the training sessions we 1) identified barriers that interfere with participation of Hispanic farmers and farmworkers, 2) upgraded skills needed to work with this underserved audience, and 3) used this new skill set in program planning.

Materials and methods

First workshop: The science of inclusion. Twenty-two Penn State Extension educators attended the first workshop on 13 July 2016. Goals of the workshop were to gain a better understanding of the science of inclusion and relate it to the Hispanic agricultural community. It began with a social psychologist presenting insights on the science of inclusion focusing on how social cues can influence an individual's feelings of support and value in a setting. Participants then developed a list of possible concerns about inclusion or psychological safety that may prevent Hispanic farmers and/or farmworkers from participating in agricultural programming. Themes of 1) recognizing and understanding the benefits of attending programming, 2) cultural barriers, and 3) programming logistics emerged. Participants discussed the possibility that Pennsylvania Hispanic farmers and/or farmworkers are unaware of extension or other agricultural programming (Theme 1). Conversely, a misperception that agricultural programming is focused only on traditional farming may exist (1). For farmworkers, their employers may not see value in connecting employees to programming (1). While most Hispanics in the United States speak English, there is a segment that either only speaks or prefers communicating in Spanish (2). Also, although most Hispanics in the United States were born here, some may have a fear of government and/or authority based on past experiences or, for some, their immigration status (2). Settings for programming events may be uncomfortable to some because of cultural standards and expectations (2, 3). Lastly, the timing of these events may not be conducive to attendance due to other responsibilities at home or work (3).

Participants also discussed aspects of agricultural programming that may signal to Hispanic farmers and/or farmworkers that they do not belong, as well as, strategies to promote belonging. Participants mentioned that including pictures of diverse speakers and attendees on advertisements for events can signal belonging. Developing registration systems not requiring Internet access, e-mail addresses, credit cards, etc., may be helpful for people who are reluctant to share this information. Using multiple options for events, including changing timings to better facilitate involvement, was discussed. The use of presentations rich in graphics vs. in text was also discussed.

The group also determined that regular needs assessments would help to better understand the needs and motivation of this community. This was also a recommendation by Brasier et al. (2009) for connecting with women farmers. Hispanic farmers and farmworkers can be more motivated to attend educational events when they are involved in the development of programming as was reported for beginning farmers (Nelson and Trede, 2004). Hispanics encompass a very diverse group owing in part to countries of origins, duration in the United States, and degree of acculturation. It will be important to include several members in needs assessments to have meaningful programs for the wider population, rather than a subset.

Increasing cultural representation among extension educators and staff was voiced as a significant way to signal belonging. As an example of how hiring practices can serve as a signal to belonging, hiring educators focused on organic production in Iowa and Washington greatly improved outreach to the organic farming community by building trust and demonstrating commitment to connecting with this audience (Delate and DeWitt, 2004; Miles, 2000).

A barrier discussed was that, as a group, we were unable to identify many members of the Hispanic farmer/farmworker community. This presented a significant impediment to establishing relationships. The idea of using snowball recruitment, using current relationships to recruit further participants, was presented to overcome this barrier. We also attempted to address this barrier in other ways throughout the workshop series.

After this discussion, the demographics of Hispanic farmers and farmworkers in the United States and Pennsylvania were presented. This was followed by small group discussions on incorporating information learned during the workshop into educational programming. It became apparent that Hispanic farmers and farmworkers are different groups. Owing to the power differential between these groups, different approaches may be needed to create welcoming educational spaces and avoid marginalizing interests, knowledge, and experiences of either group. Recognizing inequalities between groups, as well as, differences in techniques audiences prefer for learning is important in developing meaningful educational events as has been reported in efforts connecting with women farmers and organic farmers (Egri, 1999; Trauger et al., 2008).

Second workshop: "Why don't they come?" Twenty-one participants attended the second workshop on 20 Oct. 2016. Most participants had also attended the first

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workshop; however, a few were new to the project, including personnel from the USDA, Natural Resources Conservation Services (NRCS) office in Pennsylvania.

Goals of the workshop were to learn effective methods for working with Hispanic farmers and farmworkers and to acquire strategies to overcome challenges and pitfalls to connecting with this community. A community sustainable development specialist delivered a program focused on challenges and solutions for increasing Hispanic participation in programs and services called "Why Don't They Come?"

Participants were led through a series of activities. These included completing personal and institutional self-assessments and discussing results. A panel of agricultural educators who work with Hispanic communities shared their best practices for engaging Hispanics. The culture and values of Hispanic farmers was presented. For the final activity, participants worked in small groups to address dilemmas in reaching out to Hispanic farmers and farmworkers and planned an educational activity.

Participants left the workshop with ideas for involving Hispanic farmers and farmworkers in educational programming, including building trust and personal relationships to improve the comfort level of Hispanic farmers and farmworkers; contacting community groups to help identify and work with farmers and farmworkers; providing transportation and involving families; providing childcare or an activity for children attending events with caregivers; using translators; and learning Spanish, even if fluency is not attained.

Many of these ideas have precedent in engaging other segments of the agricultural community. For example, the success of extension reaching traditional famers is built on a foundation of developing trusting relationships. Extension educators work with produce auctions to connect with Mennonite and Amish farmers. Programs have been developed for beginning farmers and veteran farmers. Educators also work with other agricultural organizations to provide educational events for organic and other farmers. Finally, translation of extension materials to Spanish is already done on a limited scale throughout the United States.

At the end of the workshop, participants were asked to identify and visit a Hispanic farmer or farmworker before the third workshop. This visit was intended to build or expand relationships with the Hispanic agricultural community and determine educational needs that educators may be able to provide. Participants were provided open-ended questions in English and Spanish to facilitate discussions.

Third workshop: Insights for success. Twenty-five participants attended the third workshop on 4 May 2017. Most participants had attended the first and/or second workshop; however, two graduate students from The Pennsylvania State University also joined the group.

The goal of the third workshop was to gain insights for success in building relationships with Hispanic farmers and farmworkers by hearing from people who successfully engage with this audience. As a group, participants also visited with a Hispanic farmer at his farm.

The workshop began with a discussion of participant's visits with Hispanic farmers and farmworkers that occurred between workshops two and three. Most participants were not able to accomplish this activity. Many were not able to identify someone to visit. A few identified a farmer or farmworker; however, felt uncomfortable interviewing the person before developing a relationship. This activity emphasized the barrier of largely not knowing the Hispanic farmer and farmworker community.

Next, people working with organizations serving the Hispanic farming community shared their insights for connecting with this audience. The Beginning Farmer Program Manager for GrowNYC shared what her organization had learned from 17 years working with Hispanic farmers. She included many keys to success for building trusting relationships, including encouraging the sharing of information through activities or over a meal, arriving early and staying late at events, discussing information other than class topics with participants, and valuing participant's knowledge and their time. She also shared steps taken to surpass barriers encountered such as using English–Spanish interpreters or hosting bilingual events, creating a social learning environment including activities and sharing of participant's experiences, and encouraging attendees to share their experiences attending events with others.

The Hispanic and Historically Underserved Outreach Technician with the USDA-NRCS discussed her efforts in improving awareness of agricultural programming and locating Hispanic farmers. She discussed advertising events with businesses connected with the Hispanic community in Spanish or in English and Spanish. Being aware of what other agencies and organizations offer for the Hispanic community and working with them was another avenue used for locating Hispanic farmers and building trust. She also discussed the importance of following up with every contact or potential contact in the Hispanic community for locating Hispanic farmers.

An independent consultant in food safety spoke about programs she developed for Hispanic audiences as a consultant. She talked about how she established trust with Hispanic farmers by connecting with them before events to discuss what they could learn as a result of attending. Through this approach, her programs had high attendance.

All speakers stressed the importance of building trust with this community. The importance of not just sharing information, but valuing people as individuals was a theme. This theme was also highlighted by Trauger et al. (2008) in their framework for agricultural education for women.

A need to locate Hispanic farmers and farmworkers was determined to be a next step. Once Hispanic farmers and farmworkers are identified, work on building trusting relationships can begin. Ideas for locating Hispanic farmers and farmworkers included networking with businesses that hire this group, working with employers of Hispanic farmworkers so they see the value in connecting farmworkers to agricultural programming, hiring a bilingual (English–Spanish fluency) person whose role is to develop relationships with the Hispanic agricultural community, and offering programs, articles, and videos in Spanish.

Finally, as a group, participants visited with a local Hispanic farmer who spoke about how he became

a farmer, his goals for the future, and how he learned about extension and NRCS services. He provided a tour of his farm and answered questions.

Impact. Pre- and post-workshop surveys were administered to participants at the first and third workshops to determine the impact of this project. These data were analyzed using the Mann Whitney U procedure in SAS (version 9.4; SAS Institute, Cary, NC). When two-sided probability values were less than or equal to 0.05, means were considered significantly different. In addition, ≈1 year after the workshop series ended, participants were asked to complete a final survey.

Feedback from all three workshops was overwhelmingly positive. In fact, at the end of the third workshop, when participants were asked if the entire workshop series met their expectations, 11 stated "yes" and 9 indicated that it exceeded their expectations (n = 20).

Participants rated the usefulness of the first workshop an average of 4.4 [five-point scale where 5 = best (n = 17, data not shown)]. Their ability to assist Hispanic farmers significantly increased from 2.6 to 3.3, and to assist Hispanic farmworkers significantly increased from 2.4 to 3.2, from before to after the workshop (Table 1). At the third workshop, participant's ability to assist Hispanic farmers significantly increased from 3.1 to 3.9, and to assist Hispanic farmworkers it significantly increased from 2.9 to 3.8, from before to after the workshop. One year after the workshop, their ability to assist Hispanic farmers and farmworkers, averaged 3.5 for farmers and 3.3 for farmworkers.

One year after the workshop series ended, all respondents indicated they learned skills and gained tools useful for building relationships with the Hispanic farmer and farmworker community (Table 2). For example, 94% of respondents supported the statement "I learned more about the demographics of Hispanic farmers and farmworkers."

Twelve of 16 (75%) respondents connected with Hispanic farmers, with most interacting with one to five people over the last 2 years (Table 2). Nine of 16 (56%) had connected with Hispanic farmworkers. The significance of these connections is amplified when considering the difficulty in locating Hispanic farmers and farmworkers during the workshop series.

Participants used a variety of approaches to connect with Hispanic farmers and farmworkers, including organizing or co-organizing educational events either designed for Hispanic farmers and/or farmworkers [6 of 16 respondents (Table 2)] or designed for traditional audiences with efforts to invite Hispanic farmers and/or farmworkers (5 of 16). Many interacted individually with a Hispanic farmer and/or farmworker through one-on-one meetings (7 of 16) or through conversations at educational events (11 of 16). Some developed educational materials in Spanish (4 of 16) or translated existing materials to Spanish (5 of 16). Only three participants indicated they were not yet able to reach out to Hispanic farmers and/or farmworkers.

Here are a few examples that highlight the efforts participants used to connect with the Hispanic farming community. Spanish–English dictionaries were distributed to Hispanic farmworkers attending the Spanish session of an agricultural convention to facilitate communication. A group of graduate students, educators, and faculty was formed at The Pennsylvania State University to bring connection to individual efforts in meeting the needs of this community. Local meetings were held in Spanish to relay services offered by attending agricultural programming and determine educational needs of attendees.

Table 1. Responses of participants attending a three-series workshop on creating a sense of belonging for Hispanic farmers and farmworkers in agricultural programming in 2016–17 to the survey statements "please rate your ability to assist Hispanic/Latino farmers" and "please rate your ability to assist Hispanic/Latino farmworkers" before and after the first and third training workshops and 1 year after the third workshop.

		Please rate your ability to assist Hispanic/Latino farmers		Please rate your ability to assist Hispanic/Latino farmworkers	
	Statement	Before	After	Before	After
	Response	Responses (no.)			
First workshop	5 - Very able	1	1	1	1
	4 - Able	1	6	0	4
	3 - Somewhat able	7	10	6	12
	2 - Not able (need more training)	8	3	8	3
	1 - Not sure	1	0	2	0
	Mean	2.6	3.3	2.4	3.2
	P^z	0.0175		0.0046	
Third workshop	5 - Very able	4	6	3	4
	4 - Able	4	6	3	7
	3 - Somewhat able	6	8	6	7
	2 - Not able (need more training)	7	0	9	0
	1 - Not sure	1	0	1	0
	Mean	3.1	3.9	2.9	3.8
	P	0.0283		0.0051	
1 year after third workshop	5 - Very able	–	2	–	3
	4 - Able	–	6	–	3
	3 - Somewhat able	–	7	–	8
	2 - Not able (need more training)	–	0	–	0
	1 - Not sure	–	1	–	2
	Mean	–	3.5		3.3

[z]Before and after responses for each workshop and for each group (farmers or farmworkers) were analyzed using the Mann–Whitney *U* procedure.

Table 2. Results from a survey administered to participants attending a three-series workshop on creating a sense of belonging for Hispanic farmers and farmworkers in agricultural programming in 2016–17, 1 year after attending one or more workshops (n = 16).

Question	Answer choices	Responses (no.)
What did you learn as a result of attending one or more of these workshops that has helped you reach out to Hispanic farmers and farmworkers?[z]	More about the demographics of Hispanic farmers and farmworkers.	15
	Through the science of inclusion how subtle cues can make an environment more welcoming or biased toward individuals.	13
	Some of the cultural values and beliefs of the Hispanic community.	12
	Practical techniques for reaching out to Hispanic farmers and farmworkers, such as including families in programming and contacting employers of Hispanic farmworkers.	13
	About the importance of building trust with this community to creating a welcoming educational space.	13
	About reaching out to community partners that support the Hispanic community as a way to find Hispanic farmers and farmworkers in my area.	13
	How community partners are successfully reaching out to the Hispanic farming community.	12
About how many Hispanic **farmers** have you connected with over the past 2 years (July 2016 to present)?[y]	0	4
	1–5	9
	6–10	1
	11–20	1
	21–50	0
	51–100	1
	More than 100	0
About how many Hispanic **farmworkers** have you connected with over the past 2 years (July 2016 to present)?[y]	0	7
	1–5	2
	6–10	2
	11–20	0
	21–50	2
	51–100	1
	More than 100	2
Over the last 2 years (July 2016 to present) how have you reached out to Hispanic farmers/farmworkers?[z]	I organized or co-organized an educational program targeted to Hispanic farmers and/or farmworkers.	6
	I organized or co-organized a traditional educational program but made an effort to invite Hispanic farmers and/or farmworkers.	5
	I met one-on-one with a Hispanic farmer and/or farmworker.	7
	I introduced myself or had a conversation with a Hispanic farmer and/or farmworker attending an educational program.	11
	I wrote or cowrote a publication or video in Spanish.	4
	I translated or had an educational publication or video translated to Spanish.	5
	I have not been able to do this yet.	3

[z]Respondents were instructed to select all answer choices that applied to their situation.
[y]Respondents were instructed to select only one answer choice.

Articles for electronic newsletters were made available in English and Spanish.

These results demonstrate that the goals of the project were met. Participants made large strides in advancing connections with Hispanic farmers and farmworkers and with time, we anticipate more success.

Keys to the success of the program included inviting expert speakers who shared information that was largely new to participants. Participants also responded positively to the science- and evidence-based information presented by the speakers. Feedback from participants indicated they appreciated including ample

time for discussion in the workshops. Discussion and activities were facilitated by having a small group size or breaking up into smaller groups. In addition, a group of coworkers was created who felt comfortable contacting each other outside of this program to discuss, for example, how to implement what they were learning in their current program planning. Importantly, allowing participants to self-select their attendance at the workshop series created an environment of individuals open to engaging in the topic.

Methods used here can serve as a model for others offering educational programming not just for Hispanic farmers and farmworkers, but for other groups as well. One participant indicated the training helped them work better with the Amish and Mennonite farming community in their county providing evidence that these methods can have positive implications for other underrepresented or non-traditional farming audiences.

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