Journal of Extension
www.joe.org

June 2012
Volume 50 Number 3
Article Number 3FEA7

Return to Current Issue

In Vermont, *Se Habla Español*: Using Occupational Spanish to Help Dairy Farmers Manage a Changing Workforce

Daniel Baker
Assistant Professor
Daniel.Baker@uvm.edu

David Chappelle
Research Specialist
David.Chappelle@uvm.edu

University of Vermont
Burlington, Vermont

Abstract: *Hispanic workers are an important part of the agricultural labor force in the United States. In the past decade the geographical range of this largely Spanish-speaking workforce has expanded into areas, such as the state of Vermont, where few farmers speak Spanish. In order to safely and productively manage these new workers, methods to teach farmers how to communicate with this changing labor force are needed. This article reports on the use of an intensive occupational Spanish program designed to efficiently improve communication between Vermont dairy farmers and their Hispanic workers.*

Introduction

The words "*Ordeñe esta vaca*" were not heard on many dairy farms in Vermont 10 years ago. Today, however, that phrase (Spanish for "milk this cow") can be heard on many of the state's 1,007 dairy operations (Vermont Agency of Agriculture, 2010). As in many dairy regions in the United States, Hispanic workers have become a larger and more important part of agricultural workforce. A study by the National Milk Producers Association found that nearly half of more than 5,000 farms they surveyed in 47 U.S. States employed immigrant labor and produced more than 60% of the nation's milk. Ninety-eight percent of these foreign workers were from Mexico (Rosson, Adcock, Susanto, & Anderson, 2009). This reflects a substantial demographic trend in the U.S.; between 2000 and 2010 nine states and 912 counties saw their Hispanic populations double in size (Ennis, Rios-Vargas, & Albert, 2011).

Being familiar with basic Spanish has become part of the management skill-set needed by many successful farmers—one that most don't possess. The economic crisis affecting farming, as well as pressure on employers from immigration and other authorities, increases demand for this skill. This article presents a method for rapidly developing and implementing a regionally oriented, intensive occupational Spanish language program for dairy farmers. The data and occupational Spanish training model should be of interest to Extension personnel and agencies assisting farmers adapt to the realities of a changing, and often foreign-born, labor force.

Why Teach Dairy Farmers Spanish?

Until recently Hispanic farm labor was primarily employed in crop agriculture. In recent years the trend has expanded to dairy farming (Jenkins, Stack, May, & Earle-Richardson 2009). Particularly in regions where there has not been a long history of Hispanic agricultural labor, the influx of Spanish-speaking workers presents significant challenges. The majority of foreign-born workers are native Spanish speakers, and only 30% considered themselves able to speak "some English." (Carroll, Samardick, Bernard, Gabbard, & Hernandez, 2005). A study in Vermont found that only 4% of Hispanic dairy workers said they spoke English well and 64% said they had little

to no English language ability (n=50). In the same study, when asked about how well their farm employers spoke Spanish, 68% of workers said that no one on the farm spoke Spanish (Baker & Chappelle, 2012). It is not surprising that language and cultural differences are significant challenges faced by farmers hiring Hispanic labor (Maloney, 1999; Maloney & Grusenmeyer, 2005).

While foreign labor has been a relief for farm owners struggling to find local help, the language barrier associated with hiring foreign-born workers is one of the most significant challenges for farm managers, affecting the productivity, safety, and effective management of Hispanic workers (Smith & Ramos, 2001; Ona, 2007; Stack, Jenkins, Earle-Richardson, Ackerman, & May, 2006).

Poor communication due to language issues also negatively affects worker health. This includes cultural/linguistic isolation, inability of workers to communicate health or safety problems to their employer, and difficulty accessing bilingual medical staff according to a health needs assessment for migrant farm-workers in Vermont (Ona, 2007). A study in Wisconsin by Opatik & Novak (2010) found that two-thirds of the farmers they interviewed were concerned about safety issues related to their Hispanic workers' inability to understand English.

One strategy for addressing these issues is for farm managers to invest in language and cultural training (Maloney, 2001). Farmers and Extension agents can encourage workers to learn English. Research shows a positive relationship between English language proficiency and employment prospects and higher earnings (Dustmann & Fabbri, 2003). In response educational institutions and non-profit organizations have begun to provide Spanish language agricultural safety and milker training courses (Ford, 2004; Dalton & Jensen, 2006). Extension agents have also sought to increase the availability of Spanish-language written materials by locating and adapting existing Spanish-language publications, developing new materials in Spanish, or translating existing documents (Watson, 2001).

While focusing on improving English language skills of workers is an important initiative to improve the human capital of foreign workers, it also has significant limitations. The degree to which farmers can encourage workers to study English is limited, and to that extent it is outside the farm managers' ability to control. Hispanic farmworkers often have very low levels of formal education (Farner, Rhoads, Cutz, & Farner, 2005; Kandel, 2008). High turnover among foreign labor makes it risky for farmers to depend on workers to provide translation services (Smith & Ramos, 2001). Developing strategies that focus on teaching farmers basic Spanish language skills enables producers to gain greater control and improve management by ensuring their ability to communicate with the burgeoning Hispanic labor force.

In the Northeast, state Extension programs in New York and Pennsylvania have provided traditional Spanish language instruction for Dairymen (Stup, 2003; Maloney, 2001). Within the USDA National Institute of Food and Agriculture (NIFA), the Extension en Español program seeks to provide Spanish language resources to Extension professionals working with a Hispanic audience. The Extension en Español clearinghouse provides Extension publications, reports, and other literature translated into Spanish (CSREES, 2010). A number of Extension programs have developed pocket dictionaries specifically for the dairy industry, for example the *Dairy Farmer's Pocket Spanish Dictionary* produced by the University of Minnesota Extension Service (Haskell, Gonzales, Gross, Fernandez & Lopez 2002) and the *English-Spanish Pocket Dictionaries for Dairies* by the Pennsylvania State Cooperative Extension (Estrada, n.d.).

Agriculture can benefit by considering how other industries have adopted to similar changes in their labor force. One approach that has proved useful in many industries domestically and internationally is occupational language training. In Canada, the national Human Resources and Skills Development Canada (HRSDC) identified nine "essential skills" for the workplace and used these to develop industry-specific occupational language assessments (Center for Canadian Language Benchmarks, 2009). In Costa Rica an occupational language program was tested in seven multinational corporations, beginning with an analysis of "critical job performance tasks." The project found that the use of "authentic" materials and job-related tasks increased the motivation and involvement of students (Rodriguez, 2006). Commercial publications for occupational Spanish are available for many major industries. For example, Pearson Publishing produces occupational Spanish guides for six industries, although agricultural business is not

among them.

Occupational language training differs from conventional Spanish courses typically taught in schools. Occupational language programs are typically:

- Short-term and intensive
- De-emphasize grammar
- Orient training towards words and phrases students are likely to use in the work place
- Strongly focus on a smaller number of words

Learning emphasizes the use of psychomotor skills through repetition rather than through cognition (Command Spanish, n.d.; Dakota County Technical College, n.d.). There are numerous occupational language courses offered through college programs, private industry and on-line.

The Vermont Dairy Spanish Program

In Vermont the shift to Hispanic dairy labor has been profound as the labor force transitioned from one nearly entirely made up of domestic workers to one where, in 2005, the Vermont Farm Bureau estimated that one of every three dairy farm employees was Hispanic (Busky, 2005). This change occurred over less than 10 years and challenged dairy farmers and the Extension system to keep pace with this shift. Persistent shortages of labor on dairy farms, particularly milkers, suggest that demand for Hispanic labor will continue.

In 2005, the Vermont Farm Bureau completed a survey of dairy farm owners that indicated that, of the 239 respondents, 47% believed there was a domestic labor shortage and 28% indicated they sought more information about how to employ Hispanic workers on their farms (Buskey, 2005). The authors surveyed 61 farmers in 2010, and the majority of respondents (75%) believed there was a shortage of domestic farm labor in Vermont. In response, Vermont farmers who employ non-family labor have been hiring greater numbers of workers during the past 5 years.

The need for intensive language training for farmers in Vermont, and the lack of such programs targeted to dairy farmers led to the Vermont Dairy Spanish Project (VDSP). The occupational language training concept was adapted to provide an intensive program dedicated to helping dairy producers become familiar with the Spanish language. Existing public and private resources were combined with research into the specific needs of producers to quickly implement a program to assist the state's farmers communicate with their Hispanic workers. Descriptions of how the program was developed and implemented and its results are included in the following sections.

Between 2007 and 2010 a short, intensive pilot occupational Spanish language training program was provided to farmers through the Vermont Agency of Agriculture. The objective of the program is to give farmers basic, work-oriented Spanish language skills. The design of the course modified an existing occupational training program by incorporating regional and sector-specific phrases into the program. Over the course of 3 years the program expanded to include four sites in Vermont during the winter season. When funding for the program ended in 2010, 91 farmers had received training in occupational Spanish.

The course was designed to teach dairy-specific Spanish vocabulary and phrases which would be:

- Memorized for daily use in the dairy farming business
- Taught in a non-traditional, non-intimidating learning environment, i.e. no tests
- Focused on communication rather than grammar
- Simple enough to be learned quickly, yet sufficient to convey critical meaning

Development of the Vermont Dairy Spanish Project

The VDSP initially sought to identify the key phrases Vermont dairy farmers wanted to learn when working with Hispanic labor. This list of words and phrases was developed through a partnership with a service-learning course at the University of Vermont. Students in the course interviewed dairy farmers in Vermont about the specific things they wanted to be able to communicate to their workers. Over time this initial phrase list was amended through feedback from participating farmers. A commercial occupational language program was selected by the Vermont Agency of Agriculture to integrate this list into their general occupational language program materials to produce an intensive Spanish course for Vermont dairy farmers. The program also provided a standard method and materials for delivering the program.

The programs were offered to farmers in the winter months, when the dairy farm workload is reduced, and financial incentives were provided by the Vermont Agency of Agriculture. Of the total cost of the initial course ($260), 80% ($210) was reimbursed to participants who attended at least three quarters of classes. A short "refresher" course was offered to participants the following year. The cost was $100, with $80 reimbursed upon completion of the refresher.

Organization and Methodology of the Intensive Language Training Program

The courses were taught by bi-lingual instructors, including one of the authors. Each program provided a total of 24 contact hours over 3 weeks. The teaching methodology heavily emphasized in-class repetition and memorization of key words and phrases, supported with paired and group practice exercises. Class discussion revolved around how farmers could communicate their ideas to their workers using all means available to them. Class size was kept small, typically 8-10 students, and instructors adapted the pace and orientation of the class to the needs of participants.

Course participants were provided a text that included all material presented in the class, as well as an accompanying audio CD for home use, a poster for use in the milking parlor, and a glossary of dairy terms developed from the interviews of local farmers augmented by standard terms from the commercial occupational language program.

In addition to the introductory courses, "refresher" courses were offered for those students who wanted to revisit some of the material taught in the introductory course or who wanted to explore new material. These courses were "advanced" and built on the participants' pre-existing knowledge and provided more customized instruction (i.e., phrases not included in the book or modified phrases better suited to their on-farm language needs). "Refresher" courses were held each year between 2008 and 2010.

Of the 106 students who enrolled, 72 were dairy producers, managers, or agribusiness representatives; individual participants; plus 34 who enrolled for the refresher course (Table 1).

Table 1.
Vermont Dairy Spanish—Enrollments

Year	Number of Courses	Course Type	Students Enrolled
2007	2	Full	31
2008	1	Refresher	7
2009	4	Full	40
2009	2	Refresher	13
2010	2	Refresher	15
Total Students			106

Demographic Profile of Participants

In the initial pilot program in 2007 the 29 participants were primarily farm owners or managers. The pilot program also included a number of non-farmers such as DHIA milk testers and children of farm owners. The majority of participants had a high school degree, and 32% of participants had an associate's degree or higher. The median participant age was 39 years; 65% were male. The median farm size was 400 milking cows. All farms represented in the course hired at least one Hispanic worker, and the average farm had seven year-round employees, of which three were native Spanish speakers.

Results and Effectiveness of the Occupational Spanish Program

During the first year of the VDSP pre- and post-interviews were conducted with 29 of the 31 participants. In open-ended questions, participants responded favorably regarding the course content and organization. One concern in particular was how farmers would view the sustained emphasis on repetition to aid memorization. Among the 29 farmers surveyed, all reported that repetition was very helpful or extremely helpful. For example, in open-ended questions participants responded that "At first I thought it was redundant, but it REALLY [sic] helped with speaking and remembering" and "[Repetition] is key. Important to adult learning."

The pre-post interviews included questions that asked participants to assess the utility of the course. Before and after the course participants were asked "On a scale of 1 to 10, please describe the effectiveness of your current level of communication with your Spanish speaking employees?" To evaluate the change in self-perception along this ordinal scale, a non-parametric Wilcoxon Independent Samples Signed Ranks test was employed using PASW Version 17 (formerly SPSS). This test is appropriate when researchers want to compare magnitudes of differences in ordinal rankings, such as in pre-post tests (Zikmund, 2003). Of the 29 students in the course, 25 answered both the pre- and post-survey and were included in the analysis. The results showed a significant difference in participants' self-assessment, $p<.001$. The average response on the pre-test was 3.7, compared to an average response of 6.0 in the post-course interview. We concluded that immediately following the course participants perceived a significant benefit.

Of the 72 individuals who enrolled in the VDSP course over the 4-year period, 34 (47%) enrolled in a subsequent refresher course. Given that the initial course requires an outlay of 24 in-class hours, investing an additional 7.5 to 11 hours in a follow-up course supports the conclusion that many participants saw value in this program.

From an institutional perspective, the Vermont Agency of Agriculture has received positive feedback sufficient for the agency to continue to sponsor the course for 4 years. In 2009, six courses were offered in four different regions of the state, including four full courses and two refresher courses. The Agency of Agriculture offered refresher courses to 15 former participants in 2010.

Limitations of the Study

A limitation of the study is that the evaluation of the program took place during the initial 2 years of the program, during which time 93.5% of participants were surveyed before and after the course. Subsequent participants were not surveyed pre-post, and their response of the program was not assessed. The second limitation is that the program was evaluated immediately before and after the class. The pre-post survey method does not evaluate the impact of the program over time, and follow-up after a longer period of time would be useful.

Conclusion

Occupational Spanish courses are a useful and accessible tool for Extension and other professionals to assist farmers adapting to a foreign labor force. Our study found that there was a significant improvement in participants' self-assessed understanding of Spanish following the course. There was sustained interest by participants following the initial course, with nearly half of all participants returning for subsequent refresher courses.

Currently, there are many occupational language programs available, but few, if any, oriented toward specific agricultural sectors such as dairy. Adapting these programs to meet the needs of local agriculture can be done relatively quickly through key informant interviews to identify

critical words and phrases, contracting with existing occupational language programs to incorporate the local terms into learning materials, and then hiring bi-lingual instructors to run short courses.

Some key points to consider when developing occupational language programs are the following.

- Prioritize phrase lists by those farmers use most commonly or consider most important, e.g. "Shut the gate" or "Don't milk that cow" rather than those that might be taught first in a more conventional language course.

- Be prepared to address cultural barriers to communication as well as language. Particularly in regions like Vermont, where a Hispanic workforce has recently established, farm managers may have limited knowledge of their employees' culture with respect to food, religion, and personal hygiene. Discussing these areas of practical importance to farmers balances the significant amount of time spent on memorization and makes the class more interesting. Understanding cultural issues also improves farmers' ability to manage their Hispanic workforce.

- Don't be scared to emphasize repetition and memorization. If the word and phrase list is targeted appropriately, farmers appreciate the focus and the "memory burn."

- If your agency does not have bi-lingual instructors, contract from outside. Bi-lingual instructors are likely available locally. Sources may include former Peace-Corps volunteers and local colleges and universities. Native Spanish speakers are extremely valuable, as the primary instructor if qualified, or in a supporting role by helping with pronunciation. Native speakers may be workers themselves, Latinos in the community, or Hispanic students at local colleges and universities.

- Finally, be flexible in course content and design. Be prepared to modify the phrases taught depending on feedback farmers provide during the workshop itself. Occupational Spanish is basic. The model is simple enough that "stock" phrases can be replaced "on-the-fly" depending on the interests of the farmers in the training program.

References

Baker, D. & Chappelle, D. (2012) Health status and needs of migrant farm workers in Vermont. *Journal of Agromedicine* 17(3)

Buskey, T. (2005). *Vermont farm bureau dairy industry labor survey: Final results*. Richmond, VT: Vermont Farm Bureau.

Command Spanish (n.d.) *What is occupational Spanish?* Retrieved from: http://www.commandspanish.com/materials/compare.html

Carroll, D., Samardick, R. M., Bernard, S., Gabbard, S., & Hernandez, T. (2005). *Findings from the National Agricultural Workers Survey (NAWS) 2001-2002*. Washington, D.C.: U.S. Department of Labor.

Center for Canadian Language Benchmarks. (2009). *Essential skills in the workplace*. Retrieved from: http://www.itsessential.ca/itsessential/display_page.asp?page_id=322

National Institute of Food and Agriculture (NIFA). (2010). *Extensión en español.* Retrieved from: http://extensionenespanol.net

Dalton, J. C., & Jensen, K. S. (2006). A Spanish language milker's school for Idaho dairy employees. *Journal of Extension* [On-line], 44(4) Article 4IAW1. Available at: http://www.joe.org/joe/2006august/iw1.php

Dakota Technical College (n.d.) *Occupational Spanish overview*. Retrieved from: http://www.dctc.edu/continuing-education/business-management/occupational-spanish/index.cfm

Dustmann, C., & Fabbri, F. (2003). Language proficiency and labour market performance of

immigrants in the UK. *The Economic Journal,* 113, 695-717.

Ennis S. R., Rios-Vargas M., & Albert N. G. (2011) *The Hispanic population*: 2010. Washington D.C.: U.S. Census Bureau. Contract No.: C2010BR-04.

Estrada, J. (n.d.). *English - Spanish pocket dictionary for dairies*. University Park, PA: Pennsylvania State University Cooperative Extension, Latin Agricultural Resource Center.

Farner, S., Rhoads, E. M., Cutz, G., & Farner, B. (2005). Assessing the educational needs and interests of the Hispanic population: The role of extension. *Journal of Extension* [On-line], 43(4) Article 4RIB2. Available at: http://www.joe.org/joe/2005august/rb2.php

Ford, L. (October 2004). Work effectively with Hispanic employees. *Northeast Dairy Business, Quality Milk Production Service News,* 34-35.

Haskell, S., Gonzales, S., Gross, L., Fernandez, M., & Lopez, M. (2002). *Dairy farmers pocket Spanish dictionary*. St. Paul, MN: University of Minnesota Extension Service.

Jenkins, P. L., Stack, S. G., May, J. J., & Earle-Richardson, G. (2009). Growth of the Spanish-speaking workforce in the northeast dairy industry. *Journal of Agromedicine, 14*, 58-65.

Kandell W. (2008) *A profile of hired farmworkers: A 2008 update*. United States Department of Agriculture. Economic Research Service.

Maloney, T. R. (1999). *Management of Hispanic employees on New York dairy farms: A survey of farm managers* (Rep. No. EB 99-19). Ithaca, NY: Cornell University, Department of Applied Economics and Management.

Maloney, T. R. (2001). *Successful multicultural management: Managing a Hispanic workforce*. Ithaca, NY: Cornell University, Department of Applied Economics and Management.

Maloney, T. R., & Grusenmeyer, D. C. (2005). *Survey of Hispanic dairy workers in New York State* (Rep. No. 2005 RB-02). Ithaca, NY: Cornell University, Department of Applied Economics and Management.

Ona, F. (2007). *Assessing the health status, health care needs, and barriers to care for migrant farm labor in Franklin, Addison and Grand Isle counties 2006*. Burlington, VT: Vermont Department of Health.

Opatik, A., & Novak, M. (2010). Latinos safety behavior related to English literacy as reported by dairy producers in Kewaunee county, WI. *Journal of Extension* [On-line], 48(4) Article 4FEA4. Available at: http://www.joe.org/joe/2010august/a4.php

Passell, J. F., & Cohn, D. V. (2010). US unauthorized migration flows are down sharply since mid-decade. Washington, DC: Pew Hispanic Research Center. Retrieved from: http://pewresearch.org/pubs/1714/annual-inflow-unauthorized-immigrants-united-states-decline

Rosson, P., Adcock, F., Susanto, D., & Anderson, D. (2009). *The economic impacts of immigration on US dairy farms*. College Station, TX: Center for North American Studies, National Milk Producers Federation, and Texas AgriLife Research.

Rodriguez, X. (2006). Impact: An English for occupational purpose model designed for workplace training in Costa Rica. *Comunicación, 15*(001), 26-36.

Smith, V. E., & Ramos, R. (2001). *Communicating with Hispanic workers: Managing a Hispanic work force*. University Park, PA: Pennsylvania State University Cooperative Extension.

Stack, S. G., Jenkins, P. L., Earle-Richardson, G., Ackerman, S., & May, J. J. (2006). Spanish-speaking dairy workers in New York, Pennsylvania, and Vermont: Results from a survey of farm owners. *Journal of Agromedicine, 11*, 37-44.

Stup, R. E., & Maloney, T. R. (2003). *Managing Hispanic workers: Perceptions of agricultural managers.* University Park: PA: Pennsylvania State University, Dairy Alliance.

Vermont Agency of Agriculture, Foods, and Markets. (2010). [Vermont dairy farm statistics]. Unpublished raw data.

Watson, W. S. (2001). Translating Extension publications into Spanish: Practical hints for extension. *Journal of Extension* [On-line], 39(6) Article 6T0T2. Available at: http://www.joe.org/joe/2001december/tt2.php

Zikmund, W. G. (2003). *Business research methods (7th ed)*. Mason, OH: Thompson Learning/South-western.
