ABSTRACT The Hispanic population is rising in most states in the United States, not only as an absolute value but as a proportion of the overall population of each state. Consequently, various poultry-related jobs have been increasingly filled by Hispanic personnel. However, although few problems have risen from lack of performance from these employees, in some cases, the language barrier has hindered professional development and production efficiency. As a result, various broiler integrators have suggested that we equip our undergraduate student body with some basic skills that would enable these future professionals of our industry to better communicate with Hispanic employees, both in casual conversational as well as at the technical poultry level. For that purpose, a course was recently developed and provided to our students and the results seem promising. Acceptance by our students of the technical information being conveyed was, for the most part, satisfactory and it was concluded that finding a common ground as a starting point was the most challenged area.

Key words: poultry industry, language barrier, Hispanic population

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MISSISSIPPI’S PERSPECTIVE

Industrialized countries have typically seen an increase in immigration from adjacent developing countries. In the case of the United States, some citizens in the southern countries that comprise Central and South America have migrated north to the United States in search of labor opportunities. These Latin-American countries are Spanish speaking, and their working class has received little or no written or verbal English education. According to the US Census Bureau, the Hispanic population has increased in the state of Mississippi from 0.6% in 1990 to 1.4% in 2000. It was reported in the latest census from 2006 that the Hispanic population in the state is now up to 1.8%. Figure 1 shows that various counties in the state of Mississippi with significant broiler production also happen to have a Hispanic population similar to or higher than the state’s average. For example, Scott County, which is the largest broiler-producing county in Mississippi with more than 111 million broilers produced in 2000, has a Hispanic population of 7.3%. In the state of Mississippi, the poultry industry is responsible for approximately 43% of the state’s agricultural income (MAFES, 2007) and is currently the largest source of revenue for the state. Because chicken meat and eggs are important to the state’s financial well-being, it can therefore be deduced that fulfillment of various poultry-related jobs will continue to be aided by the Hispanic work force.

THE UNITED STATES’ PERSPECTIVE

This increase in total Hispanic population and its proportion of the overall state population has occurred in almost every state in the United States. Mississippi is a state whose Hispanic population has increased at a lower rate compared with other states.

Other important poultry-producing states such as Alabama have seen an increase in the Hispanic population, but not at the extent witnessed in states such as Arkansas, California, Georgia, North Carolina, Oklahoma, and particularly Texas. Figure 2 displays the Hispanic population (as a percentage of the overall state’s population) of the 6 largest broiler-producing states in the United States for 2007 (US Census Bureau, 2006; National Agricultural Statistics Service, 2007). Additionally, the most significant broiler-producing counties in each state are listed. As it can be observed, Mississippi has the smallest proportion of Hispanic population of all the mentioned states, but its highest broiler-producing county (Scott) has a Hispanic population 4 times higher than the state’s average. Such a trend is
shared by top-ranking broiler-producing counties in Arkansas: Benton and Washington.

THE PROBLEM

Because of education level and language barriers, Hispanics often form part of the workforce of manual jobs such as landscaping or hospitality, where communication and technical skills needed to complete such tasks are not complex. Within the poultry industry, we find the Hispanic workforce forming part of various jobs associated with processing plants, feed mills, and hatcheries. Unfortunately, communication can become a problem, particularly when an English-speaking supervisor or coworker cannot communicate with the Hispanic workforce at the most basic of levels. This can lead to job inefficiency, among other problems. Some poultry industry personnel may have undergone a certain amount of Spanish-language education in high school, and others may have had Spanish classes forming part of the college curriculum. However, this is not necessarily the case for most poultry industry employees. Even those possessing a certain level of Spanish communication ability seldom have a grasp on technical poultry issues in the Spanish language.

Some poultry companies in Mississippi expressed a need for some assistance with this matter and requested that Mississippi State University try to bridge this language barrier. Means to fulfilling this need were discussed, and propositions consisted of poultry science undergraduates taking Spanish courses in foreign language departments, whereas others suggested that the poultry science faculty themselves could assist with this matter. Based on our experience, it is likely that other poultry science departments may have received similar input or requests from their local poultry industry.

PROPOSED COURSE OF ACTION

The faculty of the Department of Poultry Science at Mississippi State University initiated discussion concerning implementation of Spanish terms in the poultry curriculum. Several factors were considered while attempting to address this issue, considering that our department alone could not address the problem in its entirety and that to effectively address this problem,

Figure 1. Hispanic population in major broiler-producing counties in Mississippi. Values are displayed as a percentage of their population (US Census Bureau, 2006).

Figure 2. Leading broiler-producing states (and their corresponding leading counties) in the United States and their overall Hispanic population. State and county values are expressed as a percentage of their population (US Census Bureau, 2006).
some modifications may be needed earlier in a student’s educational career. Because this change may need to take place as far back as middle or high school education, several theories were outlined on how to best assist the students and industry with this language barrier on a short-term basis. The faculty decided that the most effective way to approach this problem in the short term would be to create an undergraduate course. This course would be divided into 2 phases; the first phase would cover the most basic concepts of Spanish grammar, phonetics, and vocabulary and then would be followed by exposing the students to any relevant poultry technical terminology.

An attempt was made to create such a course, and therefore, the appropriate paperwork was filed with the appropriate university curriculum offices. Even though the proposal was looked upon favorably by several academic sectors, it suffered some resistance from others, particularly some departments that felt that there would be some conflict of interest and duplication of course contents if such a course were to be offered. After the poultry science faculty considered all points of view, if our department were to address the problem in an immediate fashion, it was concluded that an impasse would be reached.

It was concluded that this language dilemma facing our industry had to be immediately addressed, and therefore, the aforementioned course would be offered to our undergraduate students as either a seminar or as directed individual study, known in other academic institutions as special problems or special projects.

INITIAL ENDEAVOR

During the fall semester of 2008, the first attempt at conveying poultry technical information in Spanish to our undergraduate student body was made. The class met once a week for a 50-min period and was taught by a member of the poultry science faculty whose first language was Spanish. Time spent on each chapter varied depending on the length of the material for each particular chapter. Chapters or segments covered in this class were:

1. Basic Spanish grammar, phonetics, and vocabulary
2. Broiler production
3. Breeder production
4. Commercial layer production
5. Turkey production
6. Feed mill production
7. Hatchery and incubation
8. Processing and further processing

The biggest emphasis was made on the first chapter, conveying the principles of the Spanish language to the students. For those students who had taken Spanish in high school or college, this was a simplistic and at times redundant task. Duplication or redundancy of the material was unavoidable if we were to begin the exposure to the technical poultry Spanish terminology on a common level for all of the enrolled students. As the

Figure 3. Student evaluations of the course. Grading was on a 1-to-5 scale where 1 = strongly disagree and 5 = strongly agree.
above topics were addressed, students were exposed to the most common terms in each of these areas of poultry production. At first, students were given the term in Spanish, and then it was followed by a PowerPoint (Microsoft Corp., Redmond, WA) presentation and animation, which displayed its translation to English. For each Spanish word or concept covered, students were asked to repeat after the instructor so they could practice pronunciation. Furthermore, sentences were created around a specific topic covered.

**OUTCOME**

As a whole, students in the class were enthusiastic throughout the class. As expected, some students who had received Spanish language exposure via classes or tourism to Latin America were more prone to participate in pronunciation exercises or wording of phrases. Surprisingly, students showed great interest in becoming more familiar with the beginning lectures in which some Hispanic traditions and culture were discussed. At the end of the course, students were evaluated by being asked to read from a selection of poultry-related sentences in Spanish, and then they were asked to translate their meaning into English. The material asked during the evaluation process had all been covered during class lectures.

Student evaluations of the course were for the most part satisfactory. In some evaluations, students implied that the course did not serve its purpose primarily because in order for this information to be properly assimilated, a better Spanish background would be needed. It is likely that these last comments came from students who had received little or no Spanish language exposure before this course. However, all students did recognize the importance of the information being conveyed. Figure 3 shows the response by the students to questions asked during the student evaluations held at the end of the course. Student evaluations are mostly focused on evaluating the instructor. Therefore, only those questions related to the students' recognition of the importance of the material taught and the method used to deliver it are displayed in Figure 3.

Although we feel very optimistic about the effect that this course could have on our industry, it remains to be seen whether it served its purpose in an effective manner by improving the communication between our poultry science graduates and the Hispanic workforce.

**REFERENCES**

