

# Assessment of CTCSS Encoders as a Tool for Real Time Translation in Outreach Programs for Beginning Farmers and Ranchers

Department of Agricultural Sciences, Texas A&M University-Commerce  
K. Rojas, J. Lopez, M. Villarino and &. R. Williams



## Introduction

The primary barriers to increasing Hispanic farm ownership in Texas include lack of awareness of agricultural agencies and programs, inability to obtain loans or financial assistance, lack of knowledge of crop or production systems, lack of understanding of marketing, and inadequate support from extension programs when English is not the primary language.

Texas A&M University-Commerce is collaborating with the Hopkins County agricultural extension agent to provide focused outreach to beginning Hispanic farmers and ranchers. The main objective of this project is to provide Hispanic farmers and ranchers, who are seeking to establish their own farm or ranch operation, with relevant agricultural training programs.

## Need for Innovation

- ❑ The outreach team is primarily composed of bilingual speakers in Spanish and English.
- ❑ The Spanish speaking audience cannot communicate with the English speakers and vice versa.
- ❑ Real time translation solves this problem by instantly translating English into Spanish and vice versa.
- ❑ Real time translation increases the human sources available for providing training sessions.

## Purposes

- ❑ To break down the language as a barrier for Hispanic beginning farmers and ranchers who are not fully bilingual in English and Spanish.
- ❑ To provide a low cost technology that allows real time English-Spanish translation in agricultural extension programs.

## Methods

- ❑ Continuous Tone-Coded Squelch System (CTCSS) encoders may be used to generate an audible interference protected channel capable allowing for a real time English-Spanish translation in Hispanic outreach programs.
- ❑ The use of CTCSS encoders will be evaluated through observations about the farmers' ability to use them, face-to-face interviews, and surveys conducted at the end of the seminars period.
- ❑ In telecommunications, CTCSS is a circuit that is used to reduce the annoyance of listening to other users on a shared two-way radio communications channel.



## Cost

The radios include: microphones for voice-activated (VOX) hands free transmission, rechargeable batteries and a "Y" wall charger.

Table 1. CTCSS Equipment.

Item	Brand	Model	Price (\$)
Radio	Cobra	CXT225	60
Headphones	Koss	KPH5	5
Adapters	Belkin	F8Z359tt06INCHP	5
Total/receiver			\$ 70

Source: Amazon.com. Retrieved January 15, 2012.



## Results

- ❑ This technology has been used in extension programs in Hopkins County where bilingual program audiences have occurred.
- ❑ It has been especially useful with traditional programs that were presented in English yet speakers of another language (most frequently Spanish) were included in the audience.
- ❑ It has increased the Spanish audience participation in English seminars.
- ❑ It saved money compared to other technologies with sophisticated equipment.

## Future plans

- ❑ This technology will allow targeted outreach and traditional extension programming to reach more Hispanic clientele.
- ❑ Because the equipment for this technology is easy to transport it will be used in field trips and workshops.
- ❑ The combination of "Learning by doing" and real time translation on field trips will add a new facet in outreach programs.
- ❑ It cannot replace translation but can enable a translator to reach intended audiences in a real-time, traditional extension or outreach setting.
- ❑ It has the potential to be used in other outreach/extension programs across the nation.

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