Nevada Ranchers Attitudes Towards the Trichomoniasis Vaccine

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Selected Poster prepared for presentation at the

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Do you know where your cattle are tonight?

Source: Technical Report UCED 2013 14-02

Data and Methodology

• In an effort to better understand ranchers’ decision making process when choosing disease management practices, a survey of Nevada Ranchers was conducted by the University of Nevada Center for Economic Development during 2012 and 2013.
• The current study analyses the data collected in an attempt to find what are the factors that influence ranchers when deciding whether to adopt the vaccine or not and what are the policy issues that need to be addressed in order to enhance its adoption or the adoption of alternative public land management practices.
• Respondents were divided into three categories: Users, Potential Users and Non-Users.
• Results were compared using three estimation procedures: an ordered logit, a generalized ordered logit (gologit2) and a multinomial logit model. The parallel line assumption was tested.

Estimated coefficients- Comparison between the three models

Marginal Effects of the Estimated Probability

Concluding Remarks

• Higher income and education increase the likelihood of adopting the vaccine.
• Ranchers that have their operations located in the Northern counties are less likely to be Users or Potential Users.
• The bigger the size of the ranch, given by the number of animals, the more likely it is that the respondents are in the Nonuser category.
• The more optimistic people are about their profits, the less likely they are to vaccinate or to even consider it in the future.
• The more suspicious ranchers are of their neighbors’ cattle being exposed to Trich, the more likely they are to at least consider vaccination.
• The more familiar people are with the technology, the more likely it is that they will be in the Users or Potential Users groups. The strongest effect of this variable is to move ranchers from Potential Users to Users (same for the likelihood of exposure to other ranchers’ cattle).
• Risk averse people tend to be indecisive about vaccinating and have less extreme attitudes regarding the adoption. The biggest effect of risk aversion is to make Nonusers move into the Potential Users category.

Policy Implications

• Familiarity with the treatment is one of the most significant factors that could influence ranchers to move from potential users to adopters. Policy makers should focus their attention on the diffusion of information regarding the vaccine and increasing awareness about the risk of contracting the disease.
• The rates of adoption might be improved by making some of the management practices, such as testing of bulls, mandatory.
• Scientific work on improving the efficiency of the vaccine is needed to increase ranchers’ confidence in the technology.

References: