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[You Can't Drag Them Away: An Economic Analysis of the Wild Horse and Burro Program](#)

Vanessa Elizondo, Timothy Fitzgerald, and Randal R. Rucker

Since 1971 wild horses and burros living on federal land have been legally protected, limiting removal from the range and stipulating restrictive conditions for transfer to private ownership. Periodic gathers prevent overpopulation, though we find both political and biological influences on the probability and size of gathers. Attempts to convey removed horses to private owners are often unsuccessful because of the relatively low quality of some animals and contractual restrictions. We consider alternative policy regimes promoting the transfer of additional animals; such reforms could have reduced program costs by as much as \$452 million over the past twenty-five years.

[Forecasting a Moving Target: The Roles of Quality and Timing for Determining Northern U.S. Wheat Basis](#)

Anton Bekkerman, Gary W. Brester, and Mykel Taylor

While nearly instantaneous commodity futures price information provides price forecasts for national markets, many market participants are interested in forecasts of local cash prices. Expected basis estimates are often used to convert futures prices into local price forecasts. This study considers basis patterns in the northern U.S. hard red spring and hard red winter wheat markets. Using data on basis values across 215 grain-handling facilities, we empirically test the forecasting capabilities of numerous basis models. Contrary to basis models developed for other U.S. regions, we show that recent futures prices, protein content, and harvest information are more important for accurate basis forecasts than historical basis averages. The preferred basis models are used to develop an automated web-based basis forecasting tool, available at <http://wheatbasis.montana.edu>.



Quantifying Adoption Intensity for Weed-Resistance Management Practices and Its Determinants among U.S. Soybean, Corn, and Cotton Farmers

Fengxia Dong, Paul D. Mitchell, Terrance M. Hurley, and George B. Frisvold

Using data envelopment analysis with principal components, we calculate an adoption-intensity index for herbicide-resistance best management practices (BMPs). Empirical results for over 1,100 farmers in twenty-two U.S. states suggest that many farmers could improve their herbicide-resistance BMP adoption. Two-limit truncated regression results show that higher yields and a greater proportion of acres planted with Roundup Ready™ seeds motivate weed BMP adoption. While soybean and corn farmers have lower adoption intensity than cotton farmers, farmer educational attainment and greater concern for herbicide effectiveness and for human and environmental safety are found to help increase the adoption of weed BMPs.

Do Pesticide Sellers Make Farmers Sick? Health, Information, and Adoption of Technology in Bangladesh

Shamma Adeeb Alam and Hendrik Wolff

We study the impact of supply-side and demand-side pesticide regulations on the adoption of health technologies and health outcomes in Bangladesh. We use a unique dataset that spans the chain from where farmers obtain information and which precautionary tools (i.e., masks, gloves) they use to subsequent health outcomes after spraying. In contrast to previous studies, we find that information from pesticide sellers increases the adoption of precautionary tools and subsequently improves health outcomes. We also find that there is substantial social learning from peers that act as key knowledge multipliers.

Cotton Producer Awareness and Participation in Cost-Sharing Programs for Precision Nutrient-Management Technology

Christopher N. Boyer, Dayton M. Lambert, Margarita Velandia, Burton C. English, Roland K. Roberts, James A. Larson, Sherry L. Larkin, Krishna P. Paudel, and Jeanne M. Reeves

Factors influencing adoption of variable-rate nutrient management (VRM) and georeferenced precision soil sampling (PSS) for fertilizer management among cotton producers and the factors affecting awareness of and participation in cost-share programs encouraging the adoption of nutrient-management practices were analyzed using multivariate probit regression with sample selection. Data were collected from a fourteen-state cotton producer survey. Factors including farm size, operator age, and farm location were correlated with the adoption of VRM and PSS, awareness of cost-sharing programs, and program participation. The results may help agencies target farms with the specific attributes most likely to participate in cost-share programs.



[Sequential Adoption and Cost Savings from Precision Agriculture](#) David Schimmelpfennig and Robert Ebel

Precision agricultural (PA) technologies can decrease input costs by providing farmers with more detailed information and application control, but adoption has been sluggish, especially for variable-rate technologies (VRT). Is it possible that farmers have difficulty realizing these cost savings? Combinations of PA technologies are considered as complements, testing several patterns of PA technology adoption that may show different levels of costs. The USDA's Agricultural Resource Management Survey of corn producers is used to estimate a treatment-effects model that allows for selection bias. VRT contributes additional production cost savings when added to soil mapping, but not when done with yield mapping alone.

[Consumer Demand for Potato Products and Willingness-to-Pay for Low-Acrylamide, Sulfite-Free Fresh Potatoes and Dices: Evidence from Lab Auctions](#)

Katie Lacy and Wallace E. Huffman

We assess consumer demand for traditional fresh potatoes and processed potato products and willingness to pay for new experimental low-acrylamide and sulfite-free potato products. Demand for fresh potatoes, potato chips, and fries is unaffected by household income or education, but demand for chips and fries is affected by consumer age and exercise habits. Subjects display increased willingness to pay for new potato products after receiving a private company perspective about the technology and risks associated with exposure to acrylamide, a carcinogen, in fried conventional potatoes and a new product, potato dices. We find that consumers are willing to pay for enhanced food safety in fresh potato products achieved using biotechnology.

[U.S. and Mexican Tomatoes: Perceptions and Implications of the Renegotiated Suspension Agreement](#)

Serhat Ascii, James L. Seale, Jr., Gulcan Onel, and John J. VanSickle

The 2013 antidumping investigation suspension agreement introduced new categories of tomatoes and raised reference prices of Mexican field-grown and greenhouse tomatoes by 43% and 89%. We analyze the substitution and complementary relationships among different categories of tomatoes grown in the United States, Mexico, and other countries and measure substitution and income effects of reference price increases. Findings indicate that the new agreement may decrease demand for U.S. field-grown tomatoes in favor of Mexican field-grown and Mexican greenhouse tomatoes. Policies to increase overall U.S. tomato expenditures may be more favorable for U.S. tomato producers than the new reference prices.

