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Market and Welfare Effects of Mandatory Country-Of-Origin Labeling in the Specialty Crops Sector

Market Report	Yr Ago	4 Wks Ago	9/18/09
Livestock and Products, Weekly Average			
Nebraska Slaughter Steers, 35-65% Choice, Live Weight	$97.31	$82.47	$83.42
Nebraska Feeder Steers, Med. & Large Frame, 550-600 lb.	117.70	110.62	110.53
Nebraska Feeder Steers, Med. & Large Frame 750-800 lb.	111.74	100.39	99.49
Choice Boxed Beef, 600-750 lb. Carcass	160.67	142.15	142.04
Western Corn Belt Base Hog Price Carcass, Negotiated	68.48	46.80	50.92
Feeder Pigs, National Direct 50 lbs, FOB	42.53	*	40.00
Pork Carcass Cutout, 185 lb. Carcass, 51-52% Lean	76.53	52.31	56.91
Slaughter Lambs, Ch. & Pr., Heavy, Wooled, South Dakota, Direct	96.62	91.25	91.25
National Carcass Lamb Cutout, FOB	269.62	250.27	241.57
Crops, Daily Spot Prices			
Wheat, No. 1, H.W. Imperial, bu.	6.40	3.94	3.56
Corn, No. 2, Yellow Omaha, bu.	5.27	3.11	3.02
Soybeans, No. 1, Yellow Omaha, bu.	11.41	10.48	9.46
Grain Sorghum, No. 2, Yellow Dorchester, cwt.	7.98	5.12	4.61
Oats, No. 2, Heavy Minneapolis, MN , bu.	*	2.09	2.01
Feed			
Alfalfa, Large Square Bales, Good to Premium, RFV 160-185 Northeast Nebraska, ton.	190.00	*	*
Alfalfa, Large Rounds, Good Platte Valley, ton.	77.50	*	82.50
Grass Hay, Large Rounds, Premium Nebraska, ton.	85.00	*	*
Dried Distillers Grains, 10% Moisture, Nebraska Average.	168.50	81.00	85.00
Wet Distillers Grains, 65-70% Moisture, Nebraska Average.	59.75	32.50	35.00

*No Market

Public Law 107-171 of the U.S. Farm Security and Rural Investment Act of 2002 required country-of-origin labeling (COOL) for beef, lamb, pork, fish, perishable agricultural commodities (fresh and frozen fruits and vegetables) and peanuts. While a goal of this law was to benefit domestic consumers by allowing them to make informed consumption decisions, the effects of COOL on the interest groups involved have been the subject of a heated on-going debate.

Advocates of COOL[1] argue the existence of an "overwhelming" consumer support for country of origin information and benefits that substantially outweigh the costs of this labeling regime. Opposing groups[2] have responded by pointing out that if COOL were beneficial, the market would have provided it voluntarily. Opposing groups have also expressed concerns about the potential competitive disadvantage that non-integrated producers might face due to higher record-keeping costs, as well as about the possibility of COOL being interpreted as a non-tariff barrier to trade at the World Trade Organization (WTO). This reaction to COOL resulted in the implementation of the policy for all covered commodities, except for fish and shellfish, which was delayed until September 30, 2008.

In addition to being scrutinized by the interest groups involved, mandatory COOL (MCOOL) has received considerable attention in agricultural economics literature, with the main focus being on estimating consumers' willingness-to-pay for labeled products, and to a lesser extent, the costs associated with its implementation. Despite the understanding that the implementation of MCOOL will affect both the demand and supply sides of the regulated markets, only a few studies have focused on analyzing the system-wide economic effects of the policy.

The Agricultural Marketing Service (AMS) of the United States Department of Agriculture (USDA), using a computable general equilibrium model to analyze the effects of MCOOL on all covered commodities but peanuts, projected that MCOOL will have a negative impact on both consumer

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welfare and the domestic production and trade of covered commodities. In particular, AMS projects that production of fresh produce will decline by 0.15 to 0.49 percent, exports by 0.17 to 0.62 percent and imports by 0.2 to 0.26 percent. Prices will increase by 0.11 to 0.43 percent, relative to their 2003 values over a ten-year period, causing revenues for the fruit and vegetable industry to fall by $12 to $18 million. Two limiting assumptions of the AMS study are that the retail sector is perfectly competitive, and that MCOOL has no effect on domestic consumer demand for (labeled) U.S. grown products.

While the potential demand effects of MCOOL are explicitly considered by a few studies, no study accounts for imperfect competition among retailers. In addition, all existing studies focus on the potential market effects of MCOOL on the meat industry. Even though 23.1 percent of all covered fruits, 16.6 percent of all covered vegetables and 9.1 percent of all covered peanuts are of foreign origin, to our knowledge there is no systematic analysis of the system-wide effects of MCOOL on these crops.

Research in the Department of Agricultural Economics at the University of Nebraska has focused on developing a general, theory-consistent methodological framework and systematically analyzing the market and welfare effects of the implementation of MCOOL for specialty crops. This framework accounts for both the demand and supply effects of MCOOL discussed earlier and their ramifications for equilibrium prices, quantities and the welfare of the interest groups involved.

In analyzing the market and welfare effects of MCOOL for specialty crops, a distinct feature of our research is that it explicitly accounts for differences in consumer preferences for domestic and imported products, and differences in agricultural producer efficiency and retailer market power when buying and selling these products. Consumer and producer heterogeneity are key components of our model and are critical to understanding the co-existence of products with different attributes under a mandatory labeling regime. Finally, our study complements the applied-theoretic framework of heterogeneous consumers and producers with empirical econometric and simulation analysis for the U.S. market of fresh apples.

Our research reveals that the market and welfare effects of MCOOL are case-specific and dependent on the labeling costs at the farm and retail levels, the strength of consumer preference for domestic products, the market power of retailers, the marketing margin along the supply chain and the relative costs of imported and domestic products.

Once consumer heterogeneity is incorporated into the analysis, previous arguments that all consumers will benefit from the implementation of MCOOL are easily rejected. Our analysis shows that in most cases some consumers will benefit from the regulation, namely those with very weak and those with very strong preference for the domestic product, while others will lose. Producers are shown to benefit from the regulation when the labeling costs at the farm level are offset by a farm price increase after MCOOL introduction. Retailers are shown to gain from MCOOL when the benefits from being able to separate the markets for domestic and imported products and take advantage of an existing consumer preference for the domestic produce, outweigh the labeling and segregation costs. Our finding that the introduction of MCOOL creates winners and losers among consumers, producers and retailers provides a rationalization of the widely differing views on the desirability of MCOOL in the U.S.

Simulation results for the U.S. market of fresh apples indicates that consumers, producers and retailers are more likely to gain from the implementation of MCOOL under low labeling costs and/or a strong consumer preference for domestic apples. The minimum consumer preference for domestic apples required for consumer welfare to increase was shown to be higher than that required for producer welfare to increase, which in turn, was higher than the minimum consumer preference required for retailers' profits to increase. This indicates that retailers are more likely beneficiaries of MCOOL than producers and consumers of apples.

Before concluding this article it should be pointed out that, while our model was applied to the market of apples, the framework of analysis developed in this study is general and could be easily adapted to the idiosyncrasies of any relevant product market of interest. An appropriate calibration of our model for other specialty crops could provide policy makers and stakeholder groups with valuable insights on the potential effects of MCOOL regulation on different food product markets.

***Note*:** This article is based on the third essay of Alejandro Plastina's Ph.D. dissertation at the University of Nebraska-Lincoln.

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[1]Among the supporters of COOL are the Minnesota Apple Growers Association, Florida Tomato Exchange, California Tomato Growers Exchange, Washington Growers Clearing House, Washington State Farm Bureau, Washington Farmers Union, New York State Vegetable Growers Association, New York National Farmers Organization, Grower Shipper Association of Central California, California National Farmers Organization, California Farm Bureau Federation, Nebraska Farmers Union, Platte County Farm Bureau of Nebraska, American Corn Growers Assoc. of Nebraska, Nebraska Grange and the Nebraska Women Involved in Farm Economics.

[2]According to WalMart Watch, the top five groups with the highest lobbying expenditures against COOL are the American Farm Bureau Federation, Grocery Manufacturers of America, Cargill, Inc., Wal-Mart Stores, Inc. and National Food Processors Association.