



New Study Addresses Handling GM/Non-GM Grain

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A new study released by North Dakota State University, "Marketing Mechanisms to Facilitate Co-existence of GM and Non-GM Crops"¹ analyzes data collected from a survey of grain elevators in the Upper Midwest, looking at the practices, time requirements, and costs of segregating genetically-modified grain from non GM grain. Authors are Benjamin Henry, William Wilson, and Bruce Dahl of the NDSU Department of Agricultural Economics. They say that the development of GM and specialty crops has had a great impact on the grain handling industry during recent years, and that added costs associated with handling these crops have become an important issue for grain handlers.

Some key points from their summary:

Grain segregation practices are already being used at most country elevators, and additional segregation or testing practices for handling GM/non-GM grain content, for example, should not be too difficult to implement at these facilities, i.e., the costs associated with these practices should not be too high.



Results revealed that the cost of modifying systems to handle GM is of major importance, and that the cost of modification is a major constraint to actual segregation. The average per bushel cost of segregation is 8 cents/bu, assuming no modification, and 22 cents/bu if some modifications have to be done.

The volume of grain handled and tested also impacts the total segregation cost per bushel, and it seems it is easier for large elevators to segregate than for elevators of smaller size. The estimated cost of segregation for small elevators is 12 cents/bu and only 6 cents/bu for large elevators.

Still, these estimated costs of segregation are substantially lower than what is found in the literature. Miranowski et al.² obtained a cost equal to 31 to 34 cents/bu. Maltsbarger and Kalaitzandonakes³ estimated the cost of segregation between 13.4 and 36.6 cents/bu.

Gross elevator margin and the premium for quality seem to be large enough to offset the increase in handling costs due to these new segregation practices. Failure or success of segregation and testing systems is dependent upon the ability of elevators to implement such systems at the lowest costs. However important these costs are, they will always be considered as additional costs of production for the elevator. Unless premiums attributed for grain quality are high enough to offset these extra expenses, very few elevators will decide to segregate and

test, even though it is clear that for most elevators, implementing segregation and testing would not be very costly.

The entire report can be found online as a PDF at <http://agecon.lib.umn.edu/cgi-bin/detailview.pl?paperid=23903>.

Sources

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2. Miranowski J et al. (2004) Product Differentiation and Segregation in Agricultural Systems: Non-Genetically Modified and Specialty Corn and Soybean Crops in Iowa. *Staff General Research Papers* 11433, Iowa State University, Department of Economics. http://www.econ.iastate.edu/research/webpapers/paper_11433.pdf
3. Maltzbarger R and Kalaitzandokes N. (2000) Direct and hidden costs in identity preserved supply chains. *AgBioForum* 3(4), 236-242. Available: <http://www.agbioforum.org>.

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