



MISSOURI CORN GROWERS ASSOCIATION

WORKING TO INCREASE THE PROFITABILITY OF CORN PRODUCTION

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Gulf of Mexico Hypoxia Working Group
National Centers for Coastal Ocean Science
WS 13446 SSMC4
1305 East – West Highway
Silver Spring, MD 20910

Dear Working Group Members:

On behalf of the Missouri Corn Growers Association, I am submitting the following comments in reference to the six scientific reports regarding the hypoxia situation in the Gulf of Mexico. MCGA is a not-for-profit organization that represents the corn growers of Missouri. Our goals include protecting and improving profitability for the thousands of corn growers in the state and assisting growers in utilizing the most environmentally safe farming practices.

Our association has several concerns regarding the scientific reports and the hypoxia assessment process as a whole. I have read the reports and I attended the meeting held June 30 – July 1, 1999 in Memphis, Tennessee where the authors of the reports presented their findings. I think it is very important to clearly point out the conclusions of several of the reports. The goal of report number two was to determine the economic consequences of hypoxia. Report number two concluded, "The economic assessment based on fisheries data failed to detect effects attributable to hypoxia". Early in this debate, the issue seemed to be framed around the economics of the gulf region versus the economics of the Midwest. This report shows that no negative economic consequences or impacts from hypoxia could be detected at this time.

The mission of report number four was to report the effects of reducing nutrient loads to surface waters and the Gulf of Mexico. Much of report number four seemed to prematurely focus on the mission of group number 5 which was methods to reduce nutrient loads. However, regarding the question of effects on water quality in surface waters and in the Gulf, report four concluded that "There is not yet a complete understanding of the physical, chemical, and biological processes that influence water quality responses in the northern Gulf of Mexico." Therefore, group four could not say definitively that nutrients are the cause of hypoxia but only that "dissolved oxygen and chlorophyll concentrations appear to be responsive to reductions in nutrient loadings." Report number four fails to adequately mention other university research that has been conducted that shows freshwater flow into the gulf is a primary factor in hypoxia



development. This research shows that the level of nutrient in the freshwater is not the determining factor in hypoxia development but rather freshwater sits on top of the denser seawater and stratification prevents normal exchanges of gases between the seawater and the air.

Even with less than definitive conclusions regarding nutrient's effect on dissolved oxygen, the charge of report number five was to identify and evaluate methods to reduce nutrient loads to surface water, groundwater, and the Gulf of Mexico. Among the conclusions of group number 5 was that there should be a 20% reduction in fertilizer nitrogen application and that 24 million acres of riparian zones and wetlands should be restored or created. The authors of this report do not provide sufficient discussion in the report as to how these figures were determined. Given the caveats of the previous reports, how is it determined that there needs to be a 20% reduction in nitrogen application? It appears that the authors just feel that a 20% reduction is "do-able" and is a reasonable contribution to alleviating the "problem". The report did not provide any details as to how to determine excess or "insurance rate" application and appropriate rates.

Report number six was charged with evaluating the social and economic costs and benefits of the methods identified in topic five and to provide an assessment of various incentive programs. Report six recognizes that report number two determined that "the direct measurable dollar benefits to Gulf fisheries of reducing nitrogen loads from the Mississippi River basin are very limited at best." However, the authors still "assume that measures to reduce nitrogen losses to the Gulf will ultimately prove beneficial." There is no logical basis to make this assumption. At the very least, it would be just as logical to assume they would not ultimately prove beneficial. The economic benefits of nutrient reduction seem to be treated like a predestined outcome that is in desperate need of justification. There obviously is a conflict between the predetermined outcome and the facts as they have been determined by the reports themselves.

The recommendations given in report number six are hard to understand. They are contrary to other research, contrary to observed real-world effects, and sometimes just fail to make simple common sense. The report suggests that commodity prices and aggregate producer net returns increase at increasing levels of nitrogen loss reductions. This is because reduced production results from reduced fertilizer inputs and therefore commodity prices increase. To be blunt, this is nonsense. Reductions of U.S. grain production at these levels will not necessarily have this kind of effect on grain prices. Grain prices in the U.S. are determined by global grain supply and demand. We have serious doubts about the accuracy of the models and the analysis that the researchers used to make this determination.

It appears that the researchers primarily utilized the U.S. Mathematical Programming Model (USMP) in making these determinations. We would suggest that other models and modeling efforts be employed as well. For example, the Food and Agricultural Policy Research Institute at Iowa State University and the University of Missouri-Columbia is recognized nationally and internationally for their expertise concerning projections of the U.S. and international commodity markets. FAPRI's reports are utilized by members of Congress and the Administration for determining agricultural

policy. The January 1999 FAPRI agricultural outlook states that over the next ten years the U.S. is expected to produce 1.16 million bushels more corn by the year 2009 compared to 1999. Yet, FAPRI projects the price of corn to trend up from \$1.94 per Bu. in 1999 to \$2.50 per Bu. in the year 2009. Therefore, FAPRI projects higher prices with more U.S. production while the authors of report number six assumes that higher prices will result from less U.S. production. This demonstrates that there is more to determining the U.S. grain price than simply correlating it to U.S. grain production. The determination of crop prices involves complex calculations that integrate world supply and demand factors.

Regarding the economic impacts to individual producers, there are tremendous economic risks to an individual producer if nitrogen is limited beyond what may be determined as "excess." It appears that a major assumption is that the 20% reduction only comes from excess nitrogen. This is a risky assumption because the technology and programs to reduce excess nitrogen does not adequately exist at this time. If reductions come from nitrogen usage that is not in excess, there will be significant economic losses to those agriculture producers. Major reductions in yield would be experienced. The report itself stated that nitrogen could return tenfold its costs when nitrogen is not in excess.

To summarize our concerns with report number six, the authors do not adequately report the negative effects the recommendations would have to U.S. agriculture and the risks these recommendations convey to individual producers. Less U.S. grain production will not necessarily provide for higher world grain prices. Less U.S. grain production will provide less overall product for sale and less economic activity in the U.S. as a result. Promoting a policy of reducing "excess" nutrients should be done through research and information/education programs. The use of nutrient regulations or nutrient taxes would be devastating for U.S. producers.

As a general comment, there were several aspects of the meeting in Memphis that I found disturbing. I was concerned with the lack of understanding and expertise by some of the research teams. I already discussed the concerns of not incorporating existing expertise and research. Also during the meeting, the lead researcher for the team in charge of identifying and evaluating agricultural practices to reduce nutrient loads stated he "would not know a chisel plow from a moldboard plow." Hopefully, others on the team did know the difference because I would consider this a benchmark indicator of knowledge of the farming practices that the team was charged with evaluating.

I was also disturbed by what I considered a bias by the researchers against agricultural interests. During the meeting, researchers seemed intent upon providing various reasons other than economics to justify recommendations such as wildlife enhancement, wetland restoration, nutrient reductions because it was "the right thing to do and we need to get on with it." This editorializing is inappropriate and clouds the issue. The issue is the effect of nutrients on the Gulf. If we want to debate society's desire to reduce the agricultural industry in order to increase wildlife habitat and wetland, then let's be upfront and clear that this is the issue up for debate. There was even emotion brought to the issue. One researcher painted a verbal picture of a worm on the bottom of the Gulf of Mexico that could not breathe and said, "if you can't breathe, nothing else matters." If we are going to have an emotional spin rather than a scientific discussion, then we

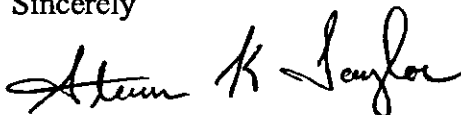
must discuss the thousands of farmers in the Midwest struggling to survive and keep the family farms given the economic crisis that currently exists in America's heartland.

During the meeting, one of the task force members discussed the merits of the "do-nothing" option given the inconclusive nature of the reports. While that may be a suggestion to consider, it should be known that the "do-nothing" option does not mean that nothing is being done. Many efforts are on going to reduce nitrogen loss from agricultural fields. There are many examples I could give from Missouri but will just mention an effort that our association is working on with our Department of Natural Resources & EPA and private industry. We are putting water monitors at the edge of farm fields, in small streams, and in the rivers of watersheds across the state. We are pulling water samples and analyzing for nutrient levels in addition to pesticides and sediment. We are working with individual farmers and collecting land use information from farmers in these watersheds in order to correlate land use and water quality analysis data. From this effort, we will be able to better determine farming practices that are economical, reduce the amount of contaminates in runoff, and thereby improve water quality.

We strongly oppose any actions on most of the alternatives analyzed in these reports such as adding 24 million acres of wetlands and riparian areas and creating a 500% nitrogen tax. We would recommend, however, that action be taken to further the research into methods to reduce "excess" nitrogen application by producers. Soil nitrogen testing procedures, corn leaf tissue testing, and precision farming techniques need to be perfected and information on these techniques disseminated to producers. Farm-scale studies on methods to most effectively reduce nitrogen entry into streams need to continue and be expanded. Data from these studies need to be obtained and analyzed. Also, I am aware that EPA is currently working on developing nutrient criteria. Once these are developed, we would recommend that the focus concerning nutrient loss reduction be maintained at the state level. States should have more involvement in the issue other than just being involved in the process through membership on the task force. We would also recommend that the task force be expanded. The current task force is made up of representatives from the state and federal government. We would encourage you to consider adding representatives from the agricultural industry. This would provide more information to the process so that the real issues can be addressed and meaningful progress can be made.

We thank you for the opportunity to comment.

Sincerely



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Program Director
Missouri Corn Growers Association