



ILLINOIS FERTILIZER & CHEMICAL ASSOCIATION

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Gulf of Mexico Hypoxia Working Group
National Centers for Coastal Ocean Science
WS 13446 SSMC4
1305 East-West Hwy.
Silver Springs, MD 20910

RE: Comments on CENR Hypoxia Reports

On behalf of the Illinois Fertilizer & Chemical Association (IFCA) please accept the following comments regarding the reports of the Committee on Environmental and Natural Resources on the Gulf of Mexico Hypoxia issue.

IFCA's membership consists of owners, managers and employees of retail agrichemical facilities located in Illinois, as well as representatives of pesticide, fertilizer and agricultural equipment manufacturers. The majority of IFCA's 1000+ members are directly responsible for serving the needs of Illinois' agricultural producers. IFCA is committed to developing and helping implement programs that upgrade and enhance the safe handling and efficient use of agricultural chemicals and commercial fertilizers.

Science vs. Political Science

"If our vision is narrowed by a preconceived theory as to what will happen, we are almost certain to misinterpret the facts and to misjudge the issue." - T.C. Chamberlin, University of Illinois Geology Professor, in a statement made in the late 1800's.

Regarding the hypoxia issue in the Gulf of Mexico, it seems that from the beginning the attempts to address this phenomena have been rooted in politics rather than science. The federal government has chosen to address this issue from a one-dimensional level: namely, that agricultural nutrients are the sole cause of hypoxia and that only by reducing nutrient use will the phenomena diminish. The government, through taxpayer funding, has directed the scientific community to study and prove that the single hypothesis of nutrients = hypoxia is true and that no other causes exist.

Most of us learn in middle school that the fundamental principle of problem solving is to look at multiple possible causes of the problem and then gather data to prove or disprove them, thus narrowing the scope of the cause-effect relationship. Were all of our teachers wrong? Are

centuries old scientific practices no longer accepted as we approach the year 2000? Has political science replaced all other forms of scientific research? To the dismay of the agricultural community, the CENR reports appear to have cast aside scientific fundamentals in favor of money and politics.

Please note that we do not outright dismiss the possibility that nutrients may play a role in the formation of the hypoxic zone. However, we are very frustrated that no other factors have been considered in this study. Overemphasis of a single, dominant hypothesis is likely to guarantee that the overall assessment will not be comprehensive, that scientific credibility will not be attained, and that key stakeholders will not embrace the preconceived solution to the problem. From agriculture's perspective, this is exactly what has happened. By refusing to look at other causes for hypoxia, the CENR has alienated our industry and forced us to challenge the very basis of this effort. We would prefer to submit comments on a study that used good scientific principles as its basis. If such a study indicated that nutrients could be the only cause of hypoxia after disproving all other theories, we could accept that fact and work honestly with producers on a solution. Instead, we find ourselves focusing our efforts on defending good science and discounting the political science that is the basis of the CENR reports.

Science that has been Ignored

Because the CENR refuses to consider factual data in its attempts to prove its nutrients = hypoxia hypothesis, it is left to the stakeholders to provide this information. Some facts as we know are:

1. The Gulf hypoxia zone shrank to 4,800 square miles in 1998, a reduction of 31% from its peak.
2. The nitrate load in the Mississippi River has been declining since 1983.
3. The amount of nitrogen that producers are using to grow corn has declined steadily from a peak of 1.31 pounds of N per bushel of corn in 1984 to 1.02 pounds of N per bushel of corn in 1998—a significant reduction of 22%.
4. Evidence exists to show that oxygen stress, hypoxia, and ecosystem changes may have been progressing for at least 200 years—this is not a new phenomena and therefore can not be solely blamed on today's agricultural production practices.
5. A 1993 satellite photo taken during the peak of the flood shows a plume from the Mississippi river flowing eastward toward the Florida Keys, not westward into the Louisiana hypoxic zone. A photograph is worth a thousand words, they say. No one in the CENR group can seem to explain away this evidence, so they merely ignore it.

Even the CENR Group #2 could not find any direct measurable benefits to the Gulf fisheries from reducing nitrogen loads in the Mississippi River basin. There has been no observable decline in the commercial catch of shrimp and fish in the northern Gulf of Mexico due to hypoxia or anything else. Again, this fact is ignored since it does not contribute to the overall goal of proving that nutrients are to blame and that fisheries are suffering as a result.

By failing to address these facts and refusing to research other possible causes of the hypoxic zone in the Gulf, the CENR committee reports are not scientifically acceptable to the agricultural community. We view them largely as an inflammatory advocacy piece against nitrogen usage and against production agriculture in general. In a time when producers and agricultural suppliers are struggling in a world economy that cannot afford to buy grain to feed its citizens, it is incomprehensible that our government would fund a study that discounts science in favor of a political agenda and that strikes at one of the U.S.'s most coveted institutions: its safe, plentiful and affordable food supply.

Economic Impacts

Reducing nitrogen loads does not directly correlate to nitrogen fertilizer reduction. In CENR report #6, the authors suggest that nitrogen fertilization must be reduced by 45% to achieve a 20% nitrogen load reduction in the Mississippi River. To achieve this 45% reduction in use, the authors estimate that a 500% increase in the fertilizer tax would be necessary to discourage nitrogen use.

We take offense to this line of thinking. Producers in Illinois do not apply agricultural inputs of any kind in amounts or manners that are not based upon agronomic recommendations and years of data. Why would any farmer—particularly with commodity prices at a 50-year low—apply anything more than is absolutely necessary to produce a profitable crop? Despite what anti-agriculture groups purport, farmers in the U.S. would not continue to pursue farming as an occupation if it were not profitable, and there is no shame in attempting to make a living in agriculture. With families and communities to support, farmers and agricultural dealers, like other members of the working public, have a constitutional right to pursue life, liberty and happiness. Agriculture is a business and those who choose it as their profession deserve to operate their businesses free from government regulations that are steeped in myth and political agendas rather than science, data and field research.

Although report #6 does not discuss the subject, the efficient utilization of nitrogen in corn production has increased markedly since the mid 1980's. At that time, approximately 1.3 pounds of nitrogen was applied for every bushel of corn produced based on a five-year yield average. In 1998, that number is estimated to be 1.02 pounds of nitrogen per bushel of corn, a 27% increase in plant uptake efficiency. The CENR study totally misses the point: farmers are continuing to reduce the amount of N they use per unit of output produced, and yet they have and continue to increase their efficiency! This fact should be applauded, not criticized.

In addition, research at the University of Illinois indicates that our soils are at a negative phosphorus balance, meaning plant uptake of P is more than what is being applied by producers via commercial or organic P sources.

If producers are forced to significantly reduce nitrogen applications either through exorbitant product taxes or other regulatory means, the authors of this report believe that production will decline and therefore prices for the commodities will increase, benefiting producers. This analysis is based on the failed idea of international supply management and the assumption that the U.S. can unilaterally cut production. Will South America cut production in a show of

support for Midwest producers? No! Other countries will only pick up the slack and continue to produce bountiful crops without government intervention. U.S. farmers will experience a significant deterioration in their competitive position, lose export sales and experience a overall decline in farm income (as if it could get any worse than it is today.)

Agricultural Practices & Success Stories

The CENR reports paint a bleak picture of agriculture. How unfortunate that they choose to ignore so many successes that this industry demonstrates every day: Conservation tillage, conservation buffers, soil testing, crop scouting, integrated pest management, variable rate technology, global positioning, precision agriculture, biotechnology, and the list goes on.

Producers and agribusinesses are constantly striving to become more efficient, to preserve and enhance the soil and water upon which they rely and to protect the environment and the wildlife that is dependent upon it. Most of the practices mentioned above are purely voluntary and the result of both technological advances and educational efforts. Other are being accomplished in partnership with federal, state and local governments. These cooperative approaches are likely to be more effective in achieving further gains in environmental improvements than even the most complex regulatory program.

IFCA urges the Working Group to distance itself from "solutions" to the hypoxia issue that impede the progress that agriculture has made and continues to make in its efforts to become more efficient and environmentally friendly. Micro-management, regulations and taxes that are touted as "solutions" to one perceived problem will only deter producers and agribusinesses from becoming proactively involved in these issues.

True scientific research that is driven by science alone and not by political agendas is desperately needed in this arena. American agriculture deserves to be judged by its merits and its accomplishments. Our crop input and management practices deserve fair assessment and treatment by the scientific community, and by our government which chooses to fund scientific research with public dollars. The CENR report on the Gulf of Mexico Hypoxia issue fulfills none of these objectives and offers no constructive solutions. We recommend a complete about-face and a return to the basic question: What factors could be contributing to the Gulf of Mexico Hypoxia Zone, and what impact does the zone have on the ecology of the Gulf? Start over, and let impartial scientists alone do the work this time.

Kind regards,

The Illinois Fertilizer & Chemical Association



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