

-----Original Message-----

From: Everett Zillinger [<mailto:EZillinger@tfi.org>]

Sent: Friday, May 28, 2004 3:21 PM

To: CIG

Cc: Bill Herz; Ford West; Everett Zillinger; Harriet Wegmeyer; Pam Guffain; Rino Maddalena; southcrop@earthlink.net%INTER2

Subject: Attention: Carl Lucero/TFI CIG comments

To Whom It May Concern:

Attached please find comments submitted by The Fertilizer Institute and the Southern Crop Protection Association regarding the USDA Conservation Innovation Grants (CIG) program interim final rule. The comments are due to USDA today. Please confirm that USDA received these comments by return e-mail.

Thank you.

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The Fertilizer Institute

Nourish, Replenish, Grow

May 28, 2004

Carl Lucero
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Fax comments to (301) 504-2264 or e-mail to: cig@usda.gov
Attention: Conservation Innovation Grants Program

Re: Comments on 7 CFR Part 1466, Conservation Innovation Grants Program interim final rule, published in the *Federal Register* on March 29, 2004, (Volume 69, Number 60).

To Whom It May Concern:

The Fertilizer Institute (TFI) appreciates the opportunity to comment on the Conservation Innovation Grants Program interim final rulemaking and submits the following comments and suggestions for the interim final rule regarding the Natural Resources Conservation Service (NRCS) Conservation Innovation Grants Program (CIG).

TFI represents the nation's fertilizer industry. Producers, manufacturers, retailers, trading firms and equipment manufacturers which comprise its membership are served by a full time Washington, D.C., staff in various legislative, educational and technical areas, as well as with information and public relations programs.

TFI is committed to helping farmers apply all nutrients – whether from fertilizer, manure, sludge or other forms – to cropland at agronomically sound rates in an environmentally friendly manner. Our members, many of whom employ Certified Crop Advisers (CCA), work closely with farmers nationwide in many facets of nutrient management, application of best management practices and conservation planning. Many TFI members have developed and promote advanced fertilizer technologies such as nitrification and urease inhibitors, slow release fertilizer products, precision agriculture grid sampling and input application methods and others.

Growing Demand for Technical Services

As stated in the recent proposed rule regarding the Environmental Quality Incentives Program (EQIP), if EQIP is implemented to its fullest extent, it is estimated that 63 million acres of agricultural land will be treated with some form of conservation measure. This would include 44 million acres of cropland, of which approximately 8.5 million acres of non-waste nutrient management could be applied. The result could total \$6.8 billion in total EQIP benefits

distributed, including \$3.6 billion for animal waste treatment and \$3.2 billion for non-animal waste land treatments. Combined, the EQIP animal waste and non-animal waste nutrient management planning programs will result in the development of several thousand individual nutrient management plans in the months and years ahead.

With the addition of NRCS' new Conservation Security Program (CSP), these demands will grow even further. Given this overwhelming challenge, we strongly urge NRCS to continue to work to put in place a fair, balanced and timely Technical Service Provider (TSP) certification and payment program that will include both agribusiness retail dealers and CCAs as equal partners with NRCS and the public sector regarding TSP certification, payment process and other activities. Fertilizer retail dealer CCAs, as highly-trained field-level agronomists, are currently providing technically specialized one-on-one assistance to farmers, helping them to develop site specific nutrient management plans and other agronomic services. We believe including agribusiness retail dealers, CCAs and certified TSPs as equal partners in the CSP process will provide a valuable service to the nation's agricultural community and the environment.

The Certified Crop Adviser Program

The CCA program is a certification program of the American Society of Agronomy (ASA), which has proven to be a remarkable success story for production agriculture. Currently, there are approximately 15,000 CCAs represented by 37 local CCA boards, which cover 49 states and nine Canadian provinces. The international board and each state CCA board include representation from NRCS, departments of agriculture, natural resources and water quality, as well as university scientists, farmer groups and industry.

CCAs are the largest private sector certified group of field level crop advisers in the United States. They play a key role in assisting North American crop and livestock producers in implementing agronomically and environmentally sound conservation practices, specifically in nutrient management, pest management and residue management, as well as components of comprehensive nutrient management plans. We believe that all currently and future certified CCA's, under rigid training, testing, continuing education credits and certification standards of the CCA program, will meet or exceed NRCS TSP qualifications.

Background – Conservation Innovation Grants Program

In the Farm Security and Rural Investment Act of 2002 (Farm Bill), which became law in May 2002 (Public Law No. 107-171), Congress authorized the CIG program as a part of EQIP in an effort to expediently develop, test, implement, and transfer innovative farm and ranch conservation technologies and approaches for adoption in the largest applicable market available.

Up to \$15 million will be made available for the program in fiscal year 2004. The funds will be awarded through a nationwide competitive grants process. Applications are requested from eligible government and non-government organizations or individuals for competitive grant awards for single or multiple year projects.

The purpose of CIG is to stimulate the development and adoption of innovative conservation approaches and technologies, while leveraging environmental enhancement and protection in agriculture production. The five natural resource concerns targeted for possible funding through the CIG program include:

- 1) Water resources (including nutrient transport to surface water and groundwater);
- 2) Soil resources;
- 3) Atmospheric resources;
- 4) Grazing land and forest health; and
- 5) Wildlife habitat.

Through CIG, the Secretary of Agriculture may pay the costs of competitive grants to carry out projects that stimulate innovative approaches in environmental enhancement and protection in conjunction with agriculture production. Application for CIG funds will be requested from eligible governmental or non-governmental organizations or individuals for competitive consideration of grant awards for single or multi-year projects. Selected applicants may receive grants of up to 50 percent of the total project cost. Applicants must provide non-federal funding for at least 50 percent of the project cost, of which up to one-half (25 percent of the total project cost) may be from in-kind contributions.

The national grants competition will emphasize projects that have a goal of providing benefits over a large geographic area. These projects may be watershed-based, regional, multi-state or nationwide in scope. Additionally, NRCS may provide each state conservationist the discretion to implement a separate state component of CIG. The state conservationist will determine the funding level for the grants competition, with individual grants not to exceed \$75,000. Applicants will be reviewed and scored by the state technical committee.

In authorizing the CIG program, Congress specifically encouraged “practices that foster markets for nutrient trading” and “demonstrating innovative nutrient management technology systems for animal feeding operations.” Nutrient transport to surface water and groundwater is a key priority of the CIG program and listed as one of the CIG interim proposed rule’s resource conservation concerns.

General Comments

TFI realizes that CIG could represent both a challenge and an opportunity for the North American fertilizer distribution network. USDA’s March 22, 2004, news release announcing the CIG interim final rule stated that project proposals for the program may address “market-based pollution credit trading, agriculture conservation systems, carbon sequestration and reduction of applied nutrients.” TFI strongly urges that NRCS base EQIP and CIG program performance on data demonstrating science based, agronomically sound nutrient management and nutrient transport reduction, not solely rely on input reduction to determine the success or failure of a nutrient management plan or CIG project.

Nutrient Credit Trading

In principle we support a science-based nutrient trading program within an acceptable EQIP framework, and believe they should be geared towards minimizing the environmental impacts from working agricultural lands on surface and ground water quality. Agricultural lands provide necessary commodities and services for humans, domesticated animals and ecosystems, and are a vital resource for a large percentage of the world's food supply. In addition, many farmers also manage large volumes of irrigation water that can affect surface water quality and ground water quality. Specific best management practices (BMPs) are available for protecting surface and groundwater supplies, however, these same protections can also affect water quantity and aquifer recharge potential. Farmers must be allowed to manage their agricultural lands to be both economically viable for current farmers, as well as economically feasible to encourage the next generation of American farmers.

Trading programs should be geared towards specific environmental indicators of success and should encourage implementation of BMPs, land conservation initiatives and other habitat restoration activities that will incrementally lead towards meeting well-defined water quality goals. These goals must be site-specific and based on sound science. Nutrient trading schemes that encourage idling existing crop and grazing lands or mandating arbitrary, inflexible nutrient inputs or mandating reductions to fields and passively assume an environmental benefit would be less attractive to farmers and would not be agronomically or scientifically sound.

Participants should be held accountable for pollution reductions through post-trade monitoring and assessment, at intervals suitable for nonpoint source improvements. BMP installation is complex and may require significant time and adaptation to achieve appropriate pollution reductions, and trading programs must recognize this phenomenon. Thus, we urge NRCS to consider the following:

- A strong public effort should be made by USDA NRCS to dispel the public misperception that agriculture is an unregulated entity largely responsible for nutrient imbalances in U.S. surface waters;
- Nutrient trading programs would be preliminary and in a pilot phase after an initial launch, and thus, should reflect that agricultural lands have a variety of ecological benefits and should not disallow farmers from participation in other environmental enhancement programs nor proportionally reduce other EQIP benefits;
- Many environmental programs in which farmers participate involve long term commitments and contracts in return for cost share funding for installation of BMPs and conserving land management practices. These contracts could provide security to states of the legitimacy of long term point - nonpoint source trades. Voluntary participation in the trading program should not limit funds from the farmers' other subsidies and credit programs, such as EQIP and Clean Water Act (CWA) Section 319;

- BMPs necessary for effective trading programs often require more than one year to establish and bring to full potential the environmental benefit. Thus, farmers interested in trading are likely to install BMPs prospectively to have them fully functional at the time of trade initiation. Therefore, trading programs should offer some form of retroactive crediting for farmers that installed BMPs before trading programs began;
- The policy must account for the fact that even the most well designed BMPs can be overcome by seasonal flooding and other weather related events, and the farmer trading partners should not lose nutrient credits in the trading guidelines for these natural events; and
- It is critically important that the values or units of trade be valid, and the market for a nutrient credit should be determined through a functional trading system. Problems exist with sources of data used to estimate point source emissions. For instance, the Environmental Protection Agency's (EPA) Permit Compliance System (PCS) database used to account for point and nonpoint source loadings to water bodies should be updated, corrected and maintained. A recent report from the General Accounting Office deemed the PCS database obsolete and inaccurate. An accurate database is essential if we are to quantify the urban, atmospheric and agricultural contribution that makes up the non-point source (NPS) loadings. The current PCS database overestimates NPS contributions and thus diminishes the potential for agricultural lands to participate in trading.

Environmental Metrics

Nutrient trading schemes should be based on standards that are set for the specific nutrient in question. Although environmental indicators such as dissolved oxygen and turbidity may be appropriate to use in modeling to set nutrient Total Maximum Daily Loads (TMDL), they should not represent the regulatory endpoint. For example, turbidity is not solely a problem of nutrient application to land; therefore, establishing a trading scheme for nutrients with a goal of minimizing turbidity may not lead to the expected result. Again, we urge NRCS to consider the following:

- A realistic goal attainment schedule must be delineated, so that the trading program will not be ruled ineffective after five to 10 years, when, depending on hydrogeological characteristics and other variables, the actual goal may be met over a longer period of time;
- Nutrient trading programs must include an accurate and representative baseline from which to conduct trades and from which to measure their effectiveness. As discussed above, this includes an accurate point source database to aggregate total loads to a watershed or waterbody section;

- For nonpoint sources, better models are needed to determine load contribution by land type. Better quantification of urban, atmospheric and septic tank contributions is needed. Finally, some guidelines are required to ensure that loadings models use up-to-date land use data. For example, basing 2001 loadings on 1990 land use data will not accurately allocate loadings to sectors, as the rapid development of urban land would not be reflected;
- Guidelines should include some methodology for dealing with service interruptions, including but not limited to floods, hurricanes and other natural disasters, or other factors (e.g., pests, drought, fire) that may interrupt services or infrastructure such as riparian areas, buffers and wetlands;
- Guidelines should include some methodology for assessing progress towards the stated regulatory goal, as well as a methodology for reevaluating load allocations and the necessity of mandating further reductions from lands participating in the program; and
- Compliance tracking issues also come into play.
 - Who determines that load reductions actually happen? Who is responsible for paying for compliance monitoring to verify traded credits are valid?
 - Should the payment be for BMPs in place and already possible? Otherwise, after the payment occurs, how long does the farmer have to install the BMP and reduce the pollution load?
 - What is the basis for the trading factors – sound science must be used to determine the trading factors. In other words, how much is one pound of nutrient reduction worth and how was this figure determined?
 - Why participate as an agricultural source when conservation (CRP) funding would be greater as well as entailing substantially less paperwork and compliance monitoring?
 - Is quantification of multiple BMPs feasible; i.e. are the current models sophisticated enough to account for this?

Nutrient Credit Trading Research Needs

The research needed to support an accurate nutrient trading system is fairly extensive; and much of this research is still in early stages, and would affect the ability of NRCS to accurately determine compliance.

- Determination of accurate edge-of-field loss of nutrients to a surface water body;
- Determination of, and regression modeling of appropriate environmental indicators for nutrient enrichment models;

- Development of a database that provides some range of efficacy for BMPs by soil type, land conservation practices and other habitat creation to ensure accurate and consistent valuation of load reduction initiatives; and
- Trading program should only be implemented if it makes logical sense to all involved local stakeholders within the watershed. Each considered watershed should be independently evaluated for proposed effectiveness of a trading program.

Methodologies and Measuring Environmental Changes

We strongly urge that NRCS consider methodologies, environmental success, output measurements and data collection strategies focused solely on pollution reduction not input reduction. We urge that NRCS base EQIP program performance on factors such as the agronomic soundness and quality of plans developed, number of plans correctly implemented, number of acres covered by correctly implemented plans and most importantly the amount of pollution reduction (not input reduction) achieved.

Potash and Phosphate Institute Comments on CIG

Furthermore, TFI concurs with and supports the comments submitted to NRCS by the Potash and Phosphate Institute (PPI) and the Foundation for Agronomic Research (FAR) dated April 26, 2004, which are reiterated below:

Comments on the Interim Final Rule for Conservation Innovation Grants (CIG) from the Potash & Phosphate Institute

The CIG program appears to offer an opportunity for expanding partnerships between public and private sectors and among several stake holder groups interested in resource conservation and agricultural productivity. The Potash & Phosphate Institute (PPI) along with the Foundation for Agronomic Research (FAR) has a long history of using such partnerships to facilitate implementation of improved agronomic practices and technologies. We feel there are many nutrient related developments that should qualify for this program and contribute to accomplishment of program goals by increasing the intensity of nutrient and crop management.

We recommend the following changes in *Conservation Innovation Grants; Interim Final Rule and Notice* published in the Federal Register on March 29, 2004. Modifications are underlined and shown in red.

Proposed change:

On page 16395, in all five natural resource concerns, the phrase "... while sustaining productivity" should be changed to "... while sustaining current productivity and the potential for productivity increases in the future".

Justification: *World cereal stocks have declined for the fourth consecutive year, global corn ending stocks are at levels not seen since 1976, and global corn demand as livestock feed and for ethanol continue to grow. Such statistics, together with microeconomic considerations associated with farm profitability, are strong indications that sustaining current productivity is not an appropriate goal. Productivity must continue to increase and if practices implemented do not facilitate that increase, it is highly likely that vulnerable lands will be brought into production which is likely to undermine progress in all five of the natural resource conservation areas of concern.*

Proposed change:

On page 16395, (2) Soil Resources, the item “(ii) Accumulation of harmful constituents in soils, including nutrients, metals, salts” should be changed to “Accumulation of harmful levels of constituents in soils, including nutrients, metals, salts”.

Justification: *Accumulation of nutrients in soils up to some optimum level based on soil test calibration research and other considerations such as crop rotation, land tenure, soil properties, etc, is in fact a recommended practice. Not only is it important for agronomic and economic reasons, but it is essential for efficient use of applied inorganic or organic N and minimization of losses of N to the atmosphere or to water resources (Ambio 31(2):169-176). Optimum soil nutrient levels are also essential for maximum water use efficiency in both rain-fed and irrigated systems and thus important for water conservation as mentioned in the water resources section. Whether accumulation of nutrients, metals, or salts in soil is harmful or not is clearly dependent on the level of accumulation.*

Proposed change:

On page 16395, (2) Soil Resources, a new item (ii) should be added and current items (ii) and (iii) renumbered. The new item (ii) is “Soil fertility optimization”.

Justification: *It is not possible to “maintain, restore, or enhance soil resources associated with agricultural and forest land uses” without recognizing the role of soils in supplying nutrients to plants. Just as accumulation of excessive levels of N or P in soils can result in environmental degradation, insufficient levels of any nutrient can result in less efficient use of other nutrients and increase the potential for losses to air or water. Optimization of soil fertility is essential for soil to simultaneously function as a crop production resource and as an ecosystem resource. Optimization of all nutrients is also only a part of a bigger picture of optimizing all management practices in a systematic approach to higher productivity---leading to higher yields, higher profits, and potential for better conservation of soil and water resources.*

Considerable evidence indicates that suboptimal soil fertility is a growing problem in some of our most important agricultural regions that have been identified as significant contributors of N to the Gulf of Mexico. For example, based on new university calibration research and a 2001 PPI summary of 327,000 Iowa soil samples, 60% were

medium or below in K and 36% were low or very low in K. From these data, it appears that at least 1/3 of the agricultural land in Iowa is not receiving adequate K for optimum yields or for maximum N use efficiency. Furthermore, Iowa nutrient budget estimates show that K removal by crops exceeds K fertilizer use plus manure K available for application (as estimated by NRCS) by about 30% indicating that soil K levels will decline further in the future unless management practices change. Current soil K levels in other central or eastern Corn Belt states are similar to or lower than those in Iowa.

Therefore, grants for innovative projects that increase the quantity and quality of soil testing and the intensity of grower nutrient management follow-up would not only direct nutrient application to those situations where it is needed, but would positively impact N use efficiency and in many cases would improve productivity. Site-specific technologies coupled with improved soil testing would further advance progress in soil fertility optimization.

(End of PPI and FAR submitted comments).

Conclusion

Too often the public sector judges success of nutrient management plans or programs by the amount of fertilizer reduced in application. This simplistic approach is often not agronomically or environmentally sound. Commercial fertilizers are plant nutrients, and applied in agronomically balanced amounts at the correct time of the growing season, these commercial nutrients significantly help an agricultural crop grow to its fullest potential. In short, the nutrients go up into the crop's grain and do not stay behind in the soil. This allows for the most nutrients to be taken off the field with the harvest of the grain and leaves fewer nutrients behind to runoff or leach into groundwater. The result of an agronomically sound, correctly implemented nutrient management plan for row crop farming is higher yields and increased profit potential for the farmer, increased crop growth and organic matter in the soil, fewer nutrients left behind and reduced water quality impairment.

It is due primarily to these important facts that we strongly support a sound agronomic and viable EQIP nutrient management planning program and the CIG program. We believe the more U.S. row crop farmers that develop and implement agronomically sound nutrient management plans, the more economically and environmentally sound their farming operations will be, therefore, and the more successful the EQIP program will become.

As stated earlier, CIG could represent both a challenge and an opportunity for the North American fertilizer distribution network. As the interim final rule points out, one priority of CIG will be to focus on nutrient management and decreasing nutrient transport impacting water quality. This could be yet another attempt by USDA to create a federal program that pays farmers to reduce fertilizer applications. On the other hand, CIG could prove to be an opportunity. CIG could consider grant applications that focus on nutrient management intensity

and emerging technologies that take advantage of new developments in soil, water, nutrient and pest management. Although not stated in the interim final rule, this could include advanced fertilizer technologies such as nitrification and urease inhibitors, controlled and slow release fertilizer products, precision agriculture grid sampling and input application methods, as well as other new and emerging nutrient management technologies.

TFI Advanced Fertilizer Technology Task Force

It is with CIG and similar federal and state conservation cost-share programs in mind that TFI recently created its advance fertilizer technology task force. Federal policy makers recognize the important environmental benefits and yield improving efficiencies of advanced fertilizer products and technologies. In the 2002 Farm Bill, Congress included language encouraging (but not requiring) the U.S. Department of Agriculture (USDA) to list urease and nitrogen inhibitors as best management practices for farmers participating in the Natural Resources Conservation Service's (NRCS) nutrient management and conservation programs. The adoption and use of these advanced fertilizer technologies by farmers could be eligible for increased funding levels under the agency's Environmental Quality Incentives Program (EQIP), Conservation Security Program (CSP), Conservation Innovation Grants Program (CIG) and other federal nutrient management and conservation programs.

In 2003, NRCS re-evaluated and updated its national conservation practice standard for nutrient management (code 590) to include a tiered system of incentive payments or cost-sharing that would reward agricultural producers that go beyond the minimum NRCS requirements for basic nutrient management planning. These include but are not limited to advanced fertilizer products and technologies such as:

- Using urease and nitrification inhibitors to impact the biological and chemical processes that cause nitrogen transformation into plant and other forms that leach readily from the soil or into the atmosphere as nitrous oxide (N₂O) or ammonia (NH₃);
- Using special fertilizer formulations to cause slow release of nutrients (particularly nitrogen);
- Using precision agriculture technology to determine recommended application rates and apply nutrients;
- Using preside dress nitrogen tests for nitrogen to determine supplemental application rates for nitrogen; and
- Timing nitrogen applications to provide the maximum amount of plant availability nitrogen at a time that coincides as closely as possible to the period of rapid nitrogen uptake by plants.

NRCS has approved these enhanced nutrient management practices and is currently urging state conservationists to adopt similar tiered nutrient management programs for farmers and livestock producers in their states.

As with current NRCS conservation programs, those TFI member companies, CCAs and fertilizer distribution retail dealers that intend to take advantage of CIG federal cost-share and incentive based conservation programs, will be those who take the time to get certified at NRCS and aggressively build good working relationships with their local and state NRCS and conservation district officials. TFI urges its distribution membership and state association members to attend NRCS state meetings on CIG in order to learn more about the CIG program, and build relationships with and relay concerns and suggestions about the program directly to NRCS state and regional officials.

TFI and its members signed below appreciate the opportunity to submit these comments regarding the CIG program. Should you have any questions, please contact TFI Director of Government Relations Everett Zillinger at (202)-515-2705.

We look forward to working with NRCS to implement CSP.

Sincerely yours,

The Fertilizer Institute
Southern Crop Protection Association