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From: pfixen@ppi-far.org%INTER2 [mailto:pfixen@ppi-far.org]
Sent: Monday, April 26, 2004 5:06 PM
To: CIG
Cc: Lander, Charles; Lemunyon, Jerry; EZillinger@tfi.org%INTER2
Subject: Comments on CIG Interim Final Rule

Dear Carl:

Attached are a few comments on the Interim Final Rule for Conservation Innovation Grants that was published in the Federal Register on March 29, 2004. Three changes are recommended and justification is included for each. Though the changes are not large in wording, we believe them to be large in importance relative to the program's ability to have the desired impact on natural resource conservation and the vitality of U.S. agriculture. We also believe them to be consistent with the NRCS desire to increase nutrient management intensity.

We appreciate the opportunity to offer these comments.

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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) have 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.