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# Groundwater Protection Through Farm Legislation In the 101st Congress

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Groundwater contamination from chemicals commonly used in agriculture, such as pesticides and nitrates from fertilizers and other nutrients, is generating congressional concern. Recent findings by the Environmental Protection Agency (EPA) verified contamination by 46 pesticides in drinking water wells in 26 states. The 1990 farm bill, reauthorizing federal farm programs, represents a significant opportunity to address this contamination. These programs require intensive agricultural chemical use which can lead to water pollution.

Several bills introduced in the first session of the 101st Congress would change farm programs to enable and encourage farmers to reduce their chemical use while maintaining profits. Conventional wisdom in Washington is that groundwater protection concerns will be a driving force in the preparation of the 1990 farm bill.

This update on legislation will describe current federal farm policies and their relationship to pesticide and fertilizer use. It will then summarize proposals for revising those policies in bills introduced to date and look at the schedules for action on them.

## *Current Farm Policy*

Under federal commodity programs, the federal government provides subsidy payments to farmers who grow particular commodity crops. These include feed grains (corn, barley, rye), wheat, oats, sorghum, cotton, rice, peanuts, sugar, honey, mohair, wool and tobacco. Payments are determined by the average number of acres a farmer planted with a specific commodity crop over a five year period (base acres) multiplied by his average yield (bushels per acre). Because the yields each farmer can claim on his or her base acres were frozen in 1986, the effect of the commodity program is to tie the amount of the payment to the number of acres planted. Therefore, farmers plant the same commodity crops, year after year, on the same lands

to keep their base acres and receive the highest subsidy payments available to them. This cropping pattern requires intensive chemical use to control pests and to provide nutrients.

This policy, tying payments to production of the same crop year after year, presents economic barriers to farmers wanting to rotate crops and plant non-commodity program crops. With crop rotation, farmers can alternate nitrogen-fixing legumes and small grains with commodity crops to provide nutrients without use of synthetic commercial fertilizers. Farmers also can interrupt pest life cycles by planting different crops instead of relying exclusively on pesticides. Thus, crop rotation, as well as other farming practices such as integrated pest management, increased chemical efficiency, reduced chemical applications and application rates, strip cropping, conservation tillage and alternative crops which are commonly referred to as "low-input" or "sustainable agriculture," may help reduce dependence on agricultural chemicals and help protect farm resources, particularly groundwater.

Commodity program participation requires farmers to take out of production, or "set-aside," a small percentage of their croppable lands each year to limit total U.S. crop production. Because the percentage set-aside is determined on an annual basis and because crop rotation requires longer term planning, farmers cannot use their set-aside land as part of a rotational cropping system.

The 1985 farm bill established the Conservation Reserve Program (CRP) to protect farm resources. Under the CRP, farmers who retire highly erodible lands (as determined by the U.S. Department of Agriculture) from production are paid annual rental payments by the government. The CRP was set up to protect soil and surface water quality, and it does not directly address groundwater protection. However, taking land out of production likely reduces the amount of chemicals used and thus, potentially benefits groundwater.

### *Senate Farm Bill Proposals*

Three bills, introduced in the Senate as part of the development of the 1990 farm bill, will protect groundwater through revised farm policies and programs. They address the impediments to crop rotation in the current commodities programs; incentives for practices that lessen chemical use; the protection of rural drinking water supplies, and the extension of the CRP to protect groundwater.

Senator Wyche Fowler, Jr. (D-Ga.), chairperson of the Senate Agriculture Subcommittee on Conservation and Forestry, has introduced the "Farm Conservation and Water Protection Act of 1989" (S. 970). This was the

first piece of federal legislation designed to encourage low input agricultural practices and include them in current farm programs.

First, S. 970 would remove impediments in the current programs to crop rotation. Specifically, it would allow all farmers to plant up to 40 percent of their land with non-commodity program crops that are resource-conserving, such as legumes and small grains, and keep their base acreage. Farmers would not receive commodity payments on this portion of their land, but, because their base acres would be preserved, future subsidy payments would be protected should they return to commodity crop production on those lands. Further, the bill would set up a multi-year (3 to 5 years) set-aside requirement to make it feasible for farmers to establish crop rotations on these lands.

Second, the Fowler bill would establish special incentive programs for farmers to shift to low input agricultural production systems. To participate, farmers must develop a five-year farm management plan designed to optimize the use of on-farm resources and reduce the use of inputs. Farmers could plant 40 percent of their current crop base with resource-conserving crop rotations, while keeping their base acres. They would receive subsidy payments on their crop base for the five-year period. The proposal would provide four additional incentives to farmers in this program. Subsidy payments would be based on the federal support level for 1989 or the current year, whichever is higher. If actual production fell to or below levels to be achieved through set-aside requirements of the commodity programs, those requirements would be waived. Farmers would be offered reduced premiums on federal crop insurance. Finally, to protect against the risk of lower yields with low input practices, yield figures for calculating payments would not be reduced, even if actual yields fell during the five years.

The third was part of the Fowler bill would require farmers to allow the USDA to test drinking water wells as a condition of farm program participation. If two or more wells in a watershed or conservation district were contaminated by pesticides at 25 percent or more of the federal health advisory, all producers in that area would be eligible for technical aid to develop a groundwater protection plan. This plan could include integrated pest and nutrient management strategies and other low input agricultural production practices to reduce the transport of identified pollutants.

Senator Richard Lugar (R-Ind.), ranking Republican on the Senate Agriculture Committee, has introduced legislation that also addresses base flexibility. The "Agricultural Competitiveness and Planting Flexibility Act of 1990" (S. 1926) is primarily intended to provide farmers the flexibility to make market-based planting decisions. The sponsors believe this would

preserve the country's competitive position in world markets for particular commodities. In addition, Lugar intends the bill to give farmers the flexibility to rotate crops, apply conservation practices and try to reduce pesticide applications. The bill would set up a normal crop acreage farm base (NCA) for each farm. The NCA would be the five-year average of the total acreage planted with program crops plus soybeans and a few other oil seed and industrial crops. Farmers would be able to plant any amount or combination of these crops as long as the total acres did not exceed the normal crop acreage farm base. Subsidy payments would be based on the number of acres planted with each commodity crop in previous years.

A second bill introduced by Senator Lugar, the "Conservation Enhancement and Improvement Act of 1989" (S. 1063), focuses primarily on the CRP. This bill would expand eligibility of land for the CRP to include "critical groundwater contamination sites," such as sinkholes, regardless of the likelihood of soil erosion. It also includes a voluntary drinking water well testing program in which the federal government would provide 50 percent of testing costs.

All these proposals represent steps toward protecting groundwater. They differ in approach and potential impact. Their base flexibility sections show an understanding of the links between the current commodity programs and intensive chemical use, and their well testing provisions show congressional awareness of the growing concern of farmers about groundwater contamination.

The most significant difference between the Fowler and Lugar bills is that the Fowler proposal not only removes impediments in the farm programs to reducing chemical inputs, but also offers incentives for adopting alternative farming practices.

### *House Farm Bill Proposals*

Legislation also has been introduced in the House giving farmers flexibility in planting decisions and providing incentives for farmers to reduce chemical use.

House Agriculture Committee members Charles Stenholm (D-Texas) and Pat Roberts (R-Kan.) have jointly introduced a bill, the "Farm Crop Acreage Base Flexibility Act of 1989" (H.R. 2294), which would increase from 10 to 20 percent the amount of base acreage that may be transferred among the program crops. The proposal gives farmers the flexibility to make market-based planting decisions among program crops, primarily wheat and corn. It would not allow planting with non-program crops, such as legumes. For this reason, the bill does not appear to have great environmental benefits. Representative Jim Slattery (D-Kan.) has introduced a

bill (HR. 873) which would allow producers to substitute non-program crops for planting on any number of commodity crop base acres and still keep their subsidy payments as if they had grown commodity crops.

A bill introduced by Representative Jim Jontz (D-Ind.) would establish a separate program to help farmers in adopting sustainable agricultural practices. Under the "Sustainable Agricultural Adjustment Act of 1989" (H.R. 3552), participating farmers would develop and carry out five-year farm management plans. Participating farmers would be able to use commodity or non-commodity crop rotations on any amount of their land while retaining base acreage and receiving subsidy payments. Like the Fowler bill, the Jontz bill would protect subsidy payments from any loss of yield and would adjust set-aside requirements as a result of any reduction in crop production. The Jontz bill also would increase the base acres for farmers who have low commodity bases due to their historical use of sustainable farming practices. Without this provision, he says, farmers who used sustainable practices, and thus, were unable to participate fully in the commodities programs, would be penalized by this new program designed to encourage sustainable agriculture.

The Jontz bill also would set up an educational program within USDA's Extension Service to help farmers in the adoption of sustainable agricultural systems. A state coordinator for sustainable agricultural programs and several regional specialists would be placed in each state to aid in the demonstration and dissemination of information on such farming practices.

### *Administration Proposal*

In February, Secretary of Agriculture Clayton Yeutter outlined the Bush Administration's proposal for the 1990 farm legislation. While no legislative language was presented at the time, Senator Lugar is expected to introduce legislation incorporating these ideas. The proposal seems similar to the Lugar bills.

According to Yeutter, this proposal would reduce the rigidity of current commodity programs. It would allow farmers more flexibility to make planting decisions in response to market incentives, to rotate crops, and to reduce agricultural chemical use. Each farm would be assigned a normal crop acreage equal to the farm's commodity crop bases plus the number of acres planted with soybeans, sunflowers, rapeseed and other oilseeds in previous years. Farmers could then plant any variety or amount of these crops and keep their crop bases and subsidy payments.

Also, the Administration's proposal recommends extending the CRP through 1995 for areas with water quality concerns. Under this proposal, the land eligible for the CRP after 1990 would include cropland in areas with sinkholes, cropland within 1000 feet of a state-approved wellhead

protection area and in areas where agricultural production is determined a nonpoint source of ground or surface water pollution.

### *Related Groundwater Protection Proposals*

Other legislation has been introduced in both the House and Senate to deal with agricultural groundwater contamination. These bills may move as part of the 1990 farm bill or as part of more generic groundwater research and technical assistance legislation.

The "Agricultural Nitrogen Education and Management Act of 1989" (S. 779), introduced by Senators David Pryor (D-Ark.), Thad Cochran (R-Miss.), and Kent Conrad (D-N.D.), addresses the issue of increasing contamination of groundwater by nitrates. The bill would establish a task force, consisting of representatives from the various services within USDA, the EPA, Tennessee Valley Authority, the fertilizer industry and farmers to develop best management practices (BMP's) for the use of nitrogen sources, including commercial fertilizer and manure, in agricultural production. Designed to protect ground and surface water and soil quality, the BMP's listed in the bill include conservation tillage, no-till, ridge planting, strip tillage, crop rotation, irrigation water management, judicious fertilizer application, slow release fertilizers, soil and tissue testing and vegetative buffer strips. The task force would also help the transfer of information and technology assistance on BMP's to farmers.

The House version, the "Agricultural Nitrogen Management Act of 1989" (H.R. 2258), introduced by Representative Arlan Strangeland (R-Minn.), would also establish a task force to develop best management practices for agricultural nitrogen management, but would expand the task force described in the Senate bill to include the U.S. Geological Survey (USGS), state representatives and citizens with farming experience. In the last Congress, this bill was incorporated into H.R. 791, the groundwater research and technical assistance bill which passed the House but died with the close of Congress. It is included in groundwater research legislation reintroduced this year as H.R. 37.

On a separate track, Representative Fred Grandy (R-Iowa) has introduced the "Agriculture and Ground Water Policy Coordination Act of 1989" (H.R. 3574). Designed to elevate groundwater protection issues within USDA, this bill would establish a department of groundwater policy coordination within USDA responsible for developing and implementing a three-year groundwater quality plan for the department's actions on groundwater. The office also would be responsible for coordinating agency and state groundwater plans and activities through state groundwater co-

ordination committees and a groundwater coordinator in each state extension service. The bill would further mandate the Soil Conservation Service to incorporate management practices to protect groundwater during the next round of farm conservation plans. These plans are required of all farmers participating in the commodities program.

### *Legislative Outlook*

Although generic groundwater research and technical assistance legislation passed each body in the 100th Congress, a compromise could not be reached in its final days, and the legislation died. Similar bills were introduced in the first session of this Congress. The House Science and Technology subcommittee chaired by Representative James Scheuer (D-N.Y.) reported his version of the legislation to the full committee at the end of the session, but there is little current interest in passage of this or other proposals. Other relevant House committees are looking for the Senate to act first, and Senate leaders have given generic groundwater low priority.

Deliberations on the 1990 farm bill are beginning in earnest. The House Agriculture Committee plans to have its bill ready for a floor vote this spring to avoid consideration close to the upcoming November elections. The Senate will move soon also. Both House and Senate committees are holding hearings on conservation and water quality issues in preparation for committee action. The Administration supports the passage of farm legislation in 1990. This despite previous statements that it prefers to delay farm bill deliberations until after the General Agreement on Tariffs and Trade (GATT) negotiations conclude in December.

So, the farm bill is where the action is. Prospects for proposals to revise farm programs are good. They could help achieve the popular goal of protecting groundwater by allowing farmers to reduce their chemical inputs while maintaining profits. In addition, they could help achieve two other popular goals: allow farmers the option to make market-based planting decisions and cut federal spending.