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TRENDS IN ENVIRONMENTAL REGULATION OF AGRICULTURE

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My goal is to review major U.S. environmental trends as they relate to agriculture, particularly how these trends will shape laws and regulations applied to food production.

Increased Public Attention to Agriculture

One development apparent to all is the increased public attention being focused on agriculture and its impact on the environment. There are several explanations. First, much of the past twenty years of environmental protection has been focused on other economic activities such as industry. Much progress has been made in reducing pollution from such sources under the Clean Air Act and the Clean Water Act (CWA), but these acts left agriculture largely unaffected. Second, recent attention to environmental quality has led people to identify remaining causes of environmental degradation and many environmentalists have come to view modern agriculture as a serious threat. Excessive soil erosion; loss of prime farmland to urban uses; draining of wetlands; conversion of fragile lands to farmland; water pollution from pesticides, fertilizers, and animal waste; destruction of wildlife habitat; loss of endangered species and genetic diversity; channelization of natural streams; and even air pollution, are all sins that have been attributed to modern agriculture. As a result many in the environmental community have come to view agriculture as "unfinished business."

Arguably, no other economic activity in our society makes such an extensive use of vast quantities of natural resources. In America, farming and ranching take place on close to one billion acres of land. But the potential to cause environmental problems does not mean resource degradation actually occurs. That depends on the attitude of farmers and landowners toward the land and on the farming methods employed. Just as agriculture can harm the environment it can be a major force to protect and preserve natural resources. As owners of most of the private land in the United States, farmers play a significant role in protecting environments ranging from woodlands to wildlife habitat. The current debate focuses on the issue of how to balance agriculture's role in producing the food and fiber society demands with its function as a steward of much of our environment.

Farmers and their organizations claim no one has a more direct or greater concern for the health of the natural environment than farmers. It is farmers who drink the water in rural areas and who handle pesticides and experience any health risks, and it is farm families who bear the impact of soil erosion and land degradation through reduced yields, higher production costs, and decreased land values. The farm community takes offense at the portrayal of agriculture as an uncaring agent of environmental destruction requiring regulation.

On the other side of the debate, the environmental community points to continued soil erosion and water pollution from nonpoint sources associated with agriculture as indicators that agriculture does threaten the environment. Environmentalists theorize farmers view some off-site environmental damage as a legitimate cost of doing business and as society's trade-off for the production of the reasonably-priced supplies of food and fiber the nation demands. In contrast, environmentalists believe some productivity must be sacrificed to maintain environmental quality and that environmental protection, not production or income, should guide decisions. Environmentalists view agriculture as locked into an economic and technological system that encourages intensive practices and environmental harm. As Zinn and Blodgett have noted, the issue is one of contrasting perspectives. The different perspectives are reflected in the current policy debate on agriculture's impact on the environment. There are at least three central questions embodied in our national environmental laws that will be influenced by this debate. These include:

1. Who should be responsible for costs of environmental protection—farmers or the public?
2. Which corrective approaches should be pursued—voluntary programs of education and financial incentives or strict regulations and enforcement of environmental standards?
3. Who should be given responsibility for implementing and enforcing the laws—environmental agencies such as the Environmental Protection Agency (EPA) and state divisions of environmental quality (DEQ's) or the departments of agriculture?

How we answer each question will play an important role in determining the shape and effectiveness of environmental laws as well as the impact on farmers.

Can Industrialized Agriculture Protect the Environment?

A second major trend is inherent in agriculture's changing structure. Society is calling for greater environmental stewardship from agriculture. This is a call that may require not just a change in producers' attitudes, but also a commitment to stewardship most likely

to happen when producers have a connection to the land. But while farmers are interested in the future productivity of the land, they also operate in a world of short-term economic pressures and farm programs that emphasize maximizing present production, forces that can compromise the commitment to stewardship. The increasing separation of ownership of farmland from its operation, as reflected in the close to 50 percent of American farmland under tenancy, adds to the potential tension.

It is clear the public expects agriculture to perform many new tasks—as environmental stewards; producers of safe, abundant, inexpensive food; preservers of rural culture; and engines of rural economic growth. In many ways these are the challenges the family farm and American agriculture have tried to meet in the past. What is new is increased public involvement and specificity in determining what tasks will be given to agriculture.

But, at a time when it is clear we expect more of farmers, the structure of agriculture, and thus its ability to fulfill public expectations, is moving the other way. We have an agriculture system that in some ways is in the last stages of industrialization with ever-larger farms and now new forms of organization in the production of food. This is especially true in livestock production wherein the development of contract feeding and ultra-large-scale confinement facilities result in an industrialized structure quite different from the family-farm-size operations that may have been the model around which environmental laws and incentive programs were written. Food production has become increasingly specialized to the point that the traditional diversified family farmer with wide knowledge of different crops and farming systems has disappeared.

The question is, can the agriculture we are building yield the harvest we desire? This issue is clearly illustrated by the current changes in the concentration and location of livestock production.

Will Larger Facilities Lead to New, Stricter Rules?

The relationship between U.S. livestock production and the application of local land-use controls, environmental regulations, and nuisance laws has grown more tense in recent years. Several factors promise to make the issue even more significant in the near future. The changes underway in the structure of the livestock industry increase the potential for conflicts between agriculture and non-farmland uses. At the same time, increased public awareness and attention to environmental concerns will place demands on agriculture as local governments consider using land-use laws to control siting of large livestock facilities. The convergence of these forces raises real challenges to livestock producers.

Consider these factors affecting the relation between the livestock sector and others:

1. Concentration of animals into larger production units, particularly confinement operations, results in larger and more concentrated waste handling and disposal problems.
2. Under contract feeding, facilities involve both producer-owned livestock and animals owned by others which, to some people, changes the nature of the operation.
3. Courts have held that confinement slurry has a peculiar and especially pungent odor and is more offensive than good old manure.
4. Changes in the size and technology of livestock production facilities increase costs of and investments in such facilities, raising the financial risk of nuisance-based injunctions or local government decisions restricting expansion or operation.
5. Environmental concerns, especially over water quality, make complying with state livestock licensing requirements more costly. Successful applicants will want more certainty that subsequent nuisance suits will not override compliance with environmental laws.
6. Local concerns for environmental protection may lead to "not in my backyard" (NIMBY) challenges to new facilities, but it is important to recognize that environmental concerns, nuisance suits or land-use controls may serve as a pretext for other social fears that underpin local "opposition" to large-scale facilities.

Factors such as these have led many states to renew attention to state laws regulating intensive animal production. These may take the form of more stringent licensing and permit approval procedures, or new guidelines for the disposal of animal wastes, such as separation distance requirements or manure storage rules. How to address concentrated livestock production and the related question of the impact of smaller, unregulated open feedlots, will likely be addressed in connection with reauthorization of the CWA.

Increased Local Regulation of Livestock Production

The factors noted above are reflected in nuisance suits and local land-use disputes involving livestock production in states throughout the country. These developments help define the legal environment in which livestock production operates and will determine where it will grow. The most important issues in local control of livestock production include: nuisance complaints and right-to-farm laws, special protection districts such as agricultural areas, and local land-use controls such as county and municipal zoning. These are important to producers because at the local level, opposition and local innovations in regulation can have the most direct effect on plans to expand or construct a new facility. There have been numerous recent examples in Iowa involving nuisance suits against swine operations or

local governmental actions to regulate or control the location and operation of livestock facilities, and this in a state producing more than 25 percent of the nation's hogs.

In many cases, the reaction to such local efforts is, "Who can blame them?" Few of us would like to wake up to learn a 2,000-sow-operation is going in across the road from our house. But the practical legal effect is to create another layer of regulatory compliance for a producer to clear before expanding an operation. The challenge will be for livestock producers, state lawmakers and local officials to develop processes that accommodate both the legitimate concerns of neighbors and the needs of producers. Questions of odor control, the scale of operations, guidelines for waste handling, and restrictions on the location of facilities in relation to existing homes will be essential ingredients in this process.

One development is that an increasing number of states are amending right-to-farm laws to make nuisance protections conditioned on compliance with state environmental rules. This will make it even more important for producers to comply. But there is one irony. While most of the environmental rules relating to livestock production are designed to protect water quality, the majority of concerns by neighbors and local governments over new facilities relate to odors, implying the need for more time and effort spent addressing odor issues. That is why national livestock organizations such as the National Pork Producers Council have made odor control and reduction a key research priority.

Will Farmers Go to Jail for Polluting?

The EPA has established guidelines for licensing large animal feeding operations under the CWA. In addition, states may establish rules that further regulate livestock feeding, such as requiring licenses for smaller operations. In most states the departments of natural resources are responsible for regulating the operation of concentrated animal-feeding facilities. As a result, the legal environment for producers is determined by the attitude the agency has toward livestock production. In most agricultural states the attitude has been one of only minimal attention. In other words, most state environmental officials are fairly lenient with livestock producers. Most states use a complaint-only basis to regulate and investigate livestock operations, meaning the state does not regularly inspect operations to determine if they have necessary permits or are operating according to the rules. But, if they receive a complaint, the state must investigate and can take action if necessary, such as requiring installation of waste handling to protect the state's waters.

But a state's attitude toward livestock production can vary depending on who is in charge of environmental enforcement and public attitudes. Violation of environmental rules are most often treated

as a civil matter, subjecting producers to penalties, but they can also be treated as crimes. That is what happened in an Iowa case in which criminal charges were filed against a swine producer for polluting a river. In *State of Iowa v. Ted B. Diehls, d/b/a Marywood Farms, Inc.*, Criminal No. 13347, charges were filed September 11, 1992, by the Iowa Attorney General's Environmental Crimes Team against a Warren County producer who violated the state's water pollution laws when wastes from his operation entered the South River. The trial resulted in conviction on four counts of negligently polluting the river and assessment of a fine of more than $25,000. The point is, if environmental problems from agriculture are seen as causing serious problems, in many jurisdictions the authority exists to treat the matters as criminal violations.

Opportunities for Dramatic Changes in Agriculture's Responsibilities

The most important trend in environmental law may be one for which we as yet do not know the content. In the next year Congress will consider a range of laws that could greatly change both the duties and obligations placed on farmers and how the nation will address environmental issues in agriculture. Legislation to be considered includes:

- The CWA reauthorization, which will involve enactment of new mechanisms for dealing with nonpoint source pollution from agriculture. This could prove to be the most significant new legislation shaping farming practices since the 1985 farm bill conservation provisions. The bill being considered would use impaired watersheds as the basis for identifying which farmers will need to adopt new methods. The program would continue to be administered by the state with greatly increased federal funding for cost-sharing of practices. The act includes reliance on best management practices (BMP's) and may require site-specific plans for some farmers to protect water quality. The law being considered would require the states to develop regulations for controlling pollution from animal feeding operations which presently are not considered point sources. In other words, all livestock producers may, in the future, need to develop plans for such things as waste management. The issue of nutrient management plans is something a number of states are already requiring under the state laws and the Coastal Zone Management Act CZMA), Pennsylvania and Maryland being good examples. Consideration of the CWA will also provide an opportunity for examination of national wetlands policy. A large segment of the farm community remains very concerned about this issue and will seek reforms on such subjects as definitions and compensation for restrictions.
- The 1995 farm bill, will address the issues of implementing soil conservation provisions and what to do with lands currently under the

Conservation Reserve Program (CRP). The future of farm programs and whether they are turned into some form of green payment system or converted to an income assurance system will be a central issue in debate. Another major question will be the future of the 36 million acres of CRP lands. What form of program we can develop and afford will be one of Congress's greatest challenges. How the CRP lands are treated will also raise important issues in the livestock sector, such as if grazing is allowed under modified contracts, and will offer opportunities for linking efforts to prevent Non Point Source (NPS) with long-term land retirement.

In addition to these laws, the Endangered Species Act and the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) are also up for reauthorization. This will provide groups opposed to the acts, including some from agriculture, the opportunity to argue for reforms especially those restricting land use.

Conservation Compliance: Path to Future or Agriculture's Failing?

It is likely the nonpoint source pollution provisions of the CWA will employ some form of site-specific planning process for farm operations located in watersheds impacted by agricultural pollution. The development of these plans, and the technical advice from the agencies assisting farmers, will no doubt bear a great similarity to the conservation planning requirements for producers who farm highly erodible land. Many feel farm level planning offers the most effective way to reduce environmental impacts while offering local control and farmer flexibility.

One possible development that could challenge this faith concerns how well the conservation compliance provisions currently in place are implemented. Some environmental and conservation groups are concerned about the willingness of the U.S. Department of Agriculture (USDA) to enforce conservation plans when 1995 arrives. Past spot checks have revealed leniency and wide variations in how conservation planning has been implemented. The challenge for the USDA is to enforce conservation plans as written while being sensitive to the financial and weather forces facing farmers. If conservation planning is seen as a failure, the environmental community will press for more aggressive use of mandates and demand that enforcement responsibility rest with the EPA and not the agricultural agencies.

Will Property Rights Movement Protect Farmers or Lead to Backlash?

One of society's most fundamental issues is the balance between private property and the power of the state to restrict the use of property to protect the public health and project societal values. The

issue has a political dimension as to the form of society we create and a constitutional dimension because of the Fifth Amendment prohibition against taking private property for public use without compensation. Use and enjoyment of private property are fundamental components of American life and a major factor in our economic freedom. But quality of life and economic success is greatly shaped by state actions—such as environmental protection, land use planning, and protecting public safety.

As society has developed, our understanding has evolved both as to what is recognized as private property and what activities are seen as potentially injurious to the public. Perhaps no better example is the dramatic shift in policies toward the use of wetlands. From the nation's earliest history wetlands were considered undeveloped swamps that should be drained for economic use, and drain them we did. But in the last twenty years the important values of wetlands, for flood protection, water purification, wildlife habitat, and aquifer recharge have been recognized. As a result, federal and state policies on draining wetlands have shifted dramatically, perhaps much faster than the public awareness of the value of wetlands. But regulations to protect remaining wetlands have unleashed a storm of controversy by owners claiming their private lands are being taken for public use and demanding compensation.

The agricultural community has a fundamental stake in this issue. First, a wide range of environmental issues involves public regulation of agricultural land. Whether it is wetland protection, disposal of animal wastes, controlling soil erosion, or preventing water pollution, important public goals cannot be achieved without affecting the actions of private landowners. Second, in recent years a growing and vocal "property rights" movement has emerged in the United States comprised primarily of politically conservative groups and individuals who argue for a strict interpretation of the taking clause. Laws such as the Endangered Species Act and wetland protection have been their prime targets. The goal of the movement is a realignment of American property law to place private desires to develop land paramount to public welfare concerns, and require compensation to landowners whenever a regulation reduces the value of the property. In recent years the movement has experienced some success in forwarding a more "conservative" view of government power relating to land issues. For example, the recent Supreme Court decision in Dolan will require local governments to make a more specific justification of the linkage between a land-use regulation and the property affected. At present, the bill to reorganize the USDA is held up in the House over a property-rights-related proposal concerning the need for USDA to provide an evaluation of the impact of proposed regulations on farmers and landowners.

Constitutional protections for private property are fundamentally important, but it appears there are risks if the farm community

stakes its response to public desires for environmental protection on a position that, in essence, is, "If the public wants me to protect the environment, pay me." One risk is that the position may be judicially incorrect and will be rejected by the courts. Many state court rulings, such as the Iowa Supreme Court's rejection of a taking claim in upholding the state soil conservation law, show considerable precedent exists, both in common law and in statutes, for regulating farming practices. Another risk is that in the clamor over "property rights" and "takings" we may fail to recognize the important public benefits agriculture receives, either in the form of public cost sharing of conservation and more direct subsidies found in farm programs or local property tax breaks such as homestead credits and special use valuations. By focusing on claims that the public cannot limit use of private property, farmers and landowners may risk a political and social backlash that could cause the public to re-examine support for agriculture.

A final risk is that by diverting the current policy debate on environmental protection to a referendum on "property rights," the agricultural community may miss important opportunities to help society develop creative alternatives that can accommodate both the public interest and landowners' desires.

Will Citizen Suits Increase the Role of Courts?

Another trend that could develop concerns the role of private litigation in establishing environmental rules for agriculture. In many ways, private nuisance suits are an example. In two Iowa cases, that state's Supreme Court has held producers must incorporate swine wastes the same day they were spread and not dispose of wastes within one-quarter mile of neighbors' homes. Iowa does not have environmental rules requiring either same day incorporation or distance separation, but the effect of the court's rulings is to establish this standard for future cases. This illustrates how private litigation to protect what people feel are their environmental rights can establish new duties for producers. One potential source for such suits is the "citizen suit" authority often found in environmental laws as the CWA. The provisions authorize private citizens to bring suit to enforce the laws if, after notice, the government does not. The citizens can recover damages and attorneys' fees. There have been few citizen suits involving agriculture but they are a potential tool.

In the one citizen suit involving a dairy and the CWA, *Concerned Residents v. Southview Farms*, a U.S. District Court Judge in New York recently overturned a jury verdict against an agricultural operation. A group of neighbors filed suit in January, 1991, complaining liquid manure had leaked from the dairy's lagoons and manure spread on local fields had polluted the ground water. The suit alleged violations of the CWA as well as negligence, trespass, nuisance and assault and battery. The suit asked for $3 million in actual dam-

ages, $1 million in punitive damages and a $150,000 civil penalty. In May, 1993, the jury found the dairy had committed five violations of the CWA but awarded a total of only $4,101 to the six families who sued. The finding left open potential penalties for the violation and the attorney fees by the plaintiffs. In October, 1993, the judge reversed the jury's finding and ruled the acts in question could not be violations of the CWA.

The opinion is important because it is one of the first to rule on how the CWA applies to waste running off farm fields. The court ruled that just because stormwater runoff from the fields contained animal wastes, it was not removed from an exception provided for agricultural runoff. The court noted, "Congress has been reluctant to attempt outright federal control of agricultural and other nonpoint source pollution, preferring instead to leave most of the responsibility in this area to the states, and to use incentives rather than compulsion."

Will Conservation Easements Be the Tool of the Future?

A final question to consider is how we can create opportunities to improve the performance of agriculture and protect the environment. In recent years the concept of sustainable agriculture has received increased attention. Sustainable agriculture is defined in various ways, but in its simplest form it means developing agricultural practices that protect the environment while preserving the profitability of farmers. By focusing on how decisions affect the "sustainability" of agriculture, decisions can be made that incorporate a concern for the environment. More importantly, by combining a concern for the environment with attention to the economics of farming, sustainable agriculture offers a way to harness the producer's natural concern for the economics of farming.

In Iowa, the results from sustainable agriculture research on how to reduce nitrogen fertilizer use rates are already being seen. Recent studies indicate the average rates of nitrogen fertilizer used per acre in Iowa have dropped from 145 pounds in 1985 to 118 pounds in 1993 without affecting yields, meaning Iowa farmers are saving millions of dollars a year in reduced fertilizer costs while reducing the potential for excess nitrates to enter water supplies. By merging economics and environmental stewardship, sustainable agriculture holds great potential for the United States. It may offer a way to reduce the tension between the environmental community and the farm sector and help preserve consumer confidence in the quality of our food. It may provide a basis for justifying continued public funding of agricultural programs. If farmers adopt new practices to protect the environment, the negative environmental effects creating public pressure to regulate agriculture should subside. If this happens, increased reliance on laws and legal institutions to limit the effects of modern farming will diminish.

Perhaps the best example of private-public compromise is the increased use of conservation easements. Conservation easements operate by having the public acquire a property right in exchange for the landowner agreeing to permanently protect the resource or environmental protection values set out in the easement. Purchasing a conservation easement on a voluntary basis is an effective compromise between regulatory approaches that force the landowner to do the same thing but without compensation, and public acquisition of the property. Using conservation easements leaves the property in private ownership and available for other compatible economic uses while placing responsibility for funding on the public which reaps most of the benefits. The potential to use conservation easements to promote environmental protection in agriculture is best illustrated by the new Wetlands Reserve Program (WRP). The level of farmer interest in the WRP has surprised many people and illustrates how such programs can be effective. Congress has provided additional funding for the WRP and an emergency WRP as part of the flood relief spending. The nation needs to continue searching for ways to accommodate economic activity on private land while protecting important resource values.

Conclusion

We have reviewed the major trends in environmental regulation and how they may affect agriculture. It is clear the future will be full of new programs and challenges unlike those we have faced. By recognizing the legitimate interest of the public in developing a sustainable agriculture system, farmers can not only use this public interest to justify substantial support for agriculture, but enable the nation to identify and address any real threats agriculture production may present. Only then will farmers and agriculture be able to claim the mantle of stewardship to which they aspire. In the process, environmental law will play an important role in allocating responsibilities and promoting the public interest.