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Clearing The Air

Scare Tactics Plant Farmers In Middle of Clean Air Fight But Smokestacks—Not Plowing—Are The Main Problem

Although farming contributes little to the problem of airborne toxic particles, farmers suddenly find themselves in the middle of a heated battle over an Environmental Protection Agency (EPA) proposal to improve air quality by reducing emissions from electric utilities, chemical plants and oil companies.

Within recent weeks a coalition of farm and agribusiness groups, while affirming their support for clean air, has stepped forward in opposition to the EPA proposal. Two dozen legislators on the House Agriculture Committee have expressed concern about the air rule's potential impacts on agriculture in a letter to EPA Administrator Browner. Other farm policy leaders have expressed reservations or opposition to EPA's air rule in statements to the media or during congressional deliberations. Issues have also been raised by USDA, and by the Department's Agricultural Air Quality Task Force.

But by far the most dramatic and visible link between farming and the clean air debate has been a series of newspaper and radio advertisements in farm-belt states. The advertising blitz, produced and paid for by a nonfarm corporate front group called "Citizens for a Sound Economy," claims that the EPA has identified agriculture as a "significant cause" of fine particle air pollution. As a consequence, the ads warn, farmers may face "restrictions on when, where and how corn, wheat, beef and chicken [sic] are raised."

Previous CSE advertisements attacked EPA's clean air rule by claiming it would restrict backyard barbecues, lawnmowers and fireworks displays. These ads have been discredited by impartial observers, rejected by at least one media outlet, and in one case withdrawn by CSE itself —after the scientist who was the "source" for the allegation that EPA would restrict fireworks displays told a reporter that his warning was "a joke." CSE's ads about the impact of the air rule on farming also distort the issue.

This policy memorandum reviews the controversy over EPA's air rule and farming and reaches the following conclusions.

- **Particulate air pollution is overwhelmingly a problem of urban America, *not* rural America.**

- **Farming *does not* cause the particulate air pollution that is shortening the lives of tens of thousands of Americans who live in urban areas. Smokestack pollution from heavy industry and power plants, and (in some areas) motor vehicles are the main cause.**
- **Existing, voluntary federal conservation programs for farmers are adequate to deal with agriculture's comparatively minor share of fine particle air emissions.**
- **The advertising campaign by Citizens for a Sound Economy distorts EPA's assessment of agriculture's role in particulate air pollution and grossly exaggerates the impact of the agency's proposed rule on farming and farmers.**
- **EWG, in agreement with a number of critics of EPA's emissions inventory, urges the agency to make clear that agriculture is a minor contributor to fine particle pollution problems.**

In response to concerns expressed by the Agriculture Department, the American Farm Bureau Federation and other agriculture interests, EPA Administrator Carol Browner clarified the agency's position on the proposed clean air rules and their impact on farmers in a June 5, 1997 letter to Agriculture Secretary Dan Glickman:

"I want to make it clear that agriculture would not be the target of EPA control strategies designed to attain these new standards," Browner said [emphasis in original]. Summarizing the rule's impact on agriculture, she stated that **"agricultural sources are a very small part of the overall PM 2.5 [fine particle] problem and will actually benefit from a tightened ozone standard."**

Rural Areas Are Already in Compliance

Rural areas generally *do not* have serious problems with the microscopic airborne particles that EPA seeks to reduce in the air of many U.S. cities. In fact, monitoring data indicate that most rural areas *already are in compliance* with the tougher "fine particulate" standard that EPA has proposed (15 micrograms per cubic meter of particles less than 2.5 microns in size).

One source of such data is the "IMPROVE" program, a collaborative project by EPA, USDA, Department of Interior and other agencies that monitors air quality in order to safeguard the visibility of nationally significant landscapes, like national parks and monuments.¹ Fine particle pollution levels from IMPROVE air monitors in the rural Mid South, for instance, averaged 12.1 micrograms per cubic meter (ug/m³), and from rural Appalachia and rural areas in the Mid Atlantic states averaged 11.35 ug/m³ compared to EPA's proposed standard of 15 ug/m³ (*see Table 1*). IMPROVE monitors in other rural areas detected even lower levels of PM-2.5 particles.

¹IMPROVE stands for Interagency Monitoring of Protected Visual Environments.

PM-2.5 data from air pollution monitors tell a similar story in a number of heavily farmed areas, such as Wichita and Topeka Kansas. The long term mean (average) concentration of PM-2.5 particles in heavily farmed areas was below EPA's proposed standard (Table 1). Moreover, these same areas would already be in compliance with EPA's proposed daily threshold of 50 ug/m³ of PM-2.5.

Table 1. Rural and farming areas sampled for fine particle air pollution have been found to be well below the new standard EPA has proposed.

Proposed EPA Standard 15.0 ug/m³		<i>Other Rural Areas</i>	
<i>Agricultural Areas</i>		Location	Fine Particles (ug/m³)
Location	Fine Particles (ug/m³)	Badlands	4.5
Wichita, KS (1981-82)	13.6	Sierra Nevada	4.5
Topeka, KS (1981-82)*	11.6	Southern CA	9
Topeka, KS (1979-81)	12.9	Sonoran Desert	4.3
Clint, TX (1979-82)	13.3	Central Rockies	3.1
Portage, WI (1979-81)	12.5	Mid-South	12.1
Bismarck, ND (1995-96)	9.7	Appalachian & Mid Atlantic	11.35
		Northeast	6.4

Source: For agricultural areas: EPA. For other rural areas: IMPROVE network, 1996.

Notes

*Composition of PM-2.5 mass in Topeka, KS estimated from elemental composition: Soil comprised 9 percent, ammonium sulfate 35 percent.

**Composition of PM-2.5 in Portage, WI estimated from elemental composition: Soil comprised 4 percent, ammonium sulfate 47 percent.

Farming Is Not the Source of Fine Particulate Air Pollution Afflicting Cities

EPA's proposed tightening of the national ambient air quality standard for particulate pollution, along with other steps underway to curb acid rain, will prevent an estimated 35,000 premature deaths each year in the United States, according to the agency. The vast majority of the premature mortality that occurs under the current standard occurs in big cities, and scientific research to date indicates that the fine particles that are to blame overwhelmingly originate from sources *other than* farming.

At the national level it is clear that the primary sources of the particulate pollution that EPA seeks to reduce are power plants, steel factories, oil and gas facilities, and industrial sources, with mobile sources (cars and trucks) accounting for a significant share in some regions. According to EPA, about half of the PM-2.5 pollution takes the form of "secondary particles" that have nothing to do with farming. These are particles that form in the atmosphere when emissions of sulfur dioxide (SO₂) and oxides of nitrogen (NO_x) react with ammonia. Stationary sources—"smokestacks"—account for 96 percent and 48

percent of the SO₂ and NO_x, respectively. The main sources of SO₂ are the burning of fossil fuels in boilers at power plants and other facilities. The main sources of NO_x are industrial smokestacks or power plant boilers and vehicle exhaust.

Interestingly, in the agriculture context USDA scientists and economists reviewing the EPA air proposal noted that “emissions from agricultural equipment are decreasing as a result of EPA regulation of off-road engines....these regulations are independent of EPA’s proposed standards for PM and ozone, but their effect will be a significant reduction in PM, hydrocarbon, and nitrogen oxides (NO_x) from agriculture equipment. USDA believes that these regulations in conjunction with new farming methods and technologies are cost effective emissions control strategies that also maintain agricultural productivity and competitiveness.”¹

Analysis of the characteristics of fine particles (“speciation”) detected in the air of several cities for which data are presented in Table 1—Topeka, Kansas and Portage, Wisconsin— reveals that the “soil component” of the PM-2.5 is less than the total particulate concentration would indicate. Only about 9 percent of the PM-2.5 in Topeka and only 4 percent in Portage were identified as soil particles. It is important to note that, small as the soil fraction is, not all of the soil particles originate from farming activities. Dust from roads and construction sites account for some of the soil particles.

EPA has also recently released “speciation” data from monitors near two cities that are surrounded by farming activity. Analysis of PM-2.5 ambient air monitoring data in the San Joaquin Valley from 1988-89 found that soil contributed a total of only 7 percent of the fine particles. However, farming-related wind erosion accounted for only 5 percent of the particles, and tilling and livestock-related activity accounted for less than 1 percent (0.5 percent). Farming’s impact near Phoenix is even less, based on 1995-1996 data. The total fraction of particulate pollution that came from soil was 16 percent, but wind erosion from agriculture accounted for 0.1 percent and tilling and livestock sources accounted for 0.4 percent—much less than dust from roads (6 percent) or construction sites (9 percent).

No New Regulatory Burden on Farmers

From a regulatory standpoint, the bottom line for farmers is that existing, voluntary federal conservation programs are adequate to deal with farmers’ comparatively minor share of fine particle emissions.

In view of the minor contribution that agriculture makes to fine particle air emissions, EPA has made clear that existing voluntary agricultural conservation programs will be sufficient to deal with farm sources of fine particle air pollution. In her June 5, 1997 letter to Secretary Glickman, EPA Administrator Browner said as much: “I want to make it clear that agriculture would not be the target of EPA control strategies designed to attain these new standards.” [emphasis in original].

Unlike most other industries where environmental goals often are pursued through regulations, U.S. agriculture has a long tradition of voluntary government programs for

dealing with conservation and environmental problems. Federal technical and financial assistance for agricultural conservation problems date to the 1930s, and USDA maintains a staff and funding presence in every agricultural county in the nation. In 1985, and again in 1991 and 1996, Congress authorized a range of improvements to this “voluntary framework” that linked conservation objectives to farm assistance, and provided billions of dollars in incentive payments under several programs to help farmers deal with soil erosion, water quality, and wetlands conservation problems.

EWG has conducted a series of reviews of USDA’s conservation programs, and we have never been shy about criticizing the shortcomings of the system. Yet we agree with both the EPA and USDA that, in light of the comparatively minor contribution that agriculture makes to fine particle emissions, the suite of existing programs will be adequate to deal with farming’s share of this particular pollution problem.

So What’s The Beef on Air from Agriculture?

Given these findings—that rural air is not significantly polluted by particulates and that farming does not cause the serious problems those particles present in urban areas—why are farm groups and farm leaders expressing concern about EPA’s proposed standards, even as they affirm their support for clean air?

Part of the problem stems from the fact that from the outset of the rulemaking process, EPA has focused its attention on urban environments where particulate pollution levels are the worst, and on the major and obvious sources of airborne toxic particles—power plants, other factories, and vehicles—*not* farming activities.

Indeed, most of the agency’s monitoring data for particulate air pollution are derived from detection devices located in urban areas. Because of this focus, EPA arguably has not been prepared to respond as effectively as it might have—and should have—to concerns about the PM-2.5 rule that were expressed in the farm community. Complicating the problem was the apparent willingness of some in agriculture, and some farm policy leaders, to reflexively condemn EPA’s scientific basis for its rulemaking without having adequately reviewed that science.

A second factor has been the traditional system through which EPA has communicated information about particulate pollution problems to state air quality agencies and regulators. EPA’s air pollution “inventory” (i.e., database) for small particles includes a substantial amount of data derived from air pollution models. These models produce estimates of the soil or agricultural component of fine particle pollution, instead of direct measurement and speciation (analysis of particle characteristics). In many instances, it would appear that these models overstate the relative contribution of direct particulate (vs. secondary source SO₂ and NO_x) pollution attributable to soil, and the portion of the soil particles attributable to farming.

In at least one instance, according to EPA officials, agency staff communicated poorly in explaining farming’s “share” of the particulate pollution problem by releasing

limited, misleading data on farming's share of *direct* fine particle emissions—data that had the effect of significantly overstating the farm contribution. EPA has since repeatedly attempted to rectify the misunderstanding, but with very limited success (at least until the June 5 letter from Administrator Browner). Citizens for a Sound Economy seized on this recognized technical shortcoming, and misused it as the basis for a high profile advertising campaign to convince farmers that EPA was on the verge of mandating when they can work their fields.

EPA has unofficially acknowledged the need to update its particulate air pollution models, and to rely instead on direct monitoring data and speciation studies whenever possible. Information released recently by the agency, and Administrator Browner's June 5, 1997 letter, indicate that EPA recognizes the need to rely on better data for ascertaining farming's role in particulate air pollution. With such corrections—urged by, among others, the American Farm Bureau Federation and now by the Environmental Working Group—the air pollution inventory information that EPA supplies to state pollution control officials will correctly reflect farming's comparatively minor contribution to particulate air pollution.

Scare Tactics by Citizens for a Sound Economy

Citizens for a Sound Economy is a corporate front group that has been in the forefront of the campaign to derail EPA's proposed clean air standards. The list of CSE's board of directors makes clear that the group hardly represents farming interests; indeed, not a single member appears to come from the farm or agriculture sector (Table 2), though energy, steel and other interests are represented. Evidently, CSE's leadership has concluded that it will be easier to fight EPA's rules by putting beleaguered family farmers to the forefront—obscuring the large, wealthy power utilities, oil and chemical corporations, steel mills and other major polluters that will feel the brunt of tougher air safeguards.²

CSE has run a number of advertisements attacking both EPA and the agency's clean air proposal; ads aimed at farm audiences are only the most recent in the series. Previous anti-clean air ads by CSE have been thoroughly discredited. First CSE ran a series of radio ads in which an actor portraying a physician is told by the actor playing his son that EPA's rules "would drive up the price of cars, force people into car pooling, maybe even end up banning things like barbecue grills and lawnmowers." At least one Chicago radio station took the ad off the air waves on accuracy grounds. Then CSE produced another ad claiming that the new rule might force an end to July 4th fireworks displays. It turns out that the "science" behind this ad was nothing more than an obvious joke made by a researcher at an EPA meeting. CSE itself withdrew this ad.

The CSE farm ads on radio and in newspapers claim, falsely, that EPA has concluded that farming is a major source of airborne toxic particles. CSE further implies that the agency will begin regulating farming to deal with the problem. EPA has made clear for several months, and most recently in the June 5 letter from Administrator Browner to Agriculture Secretary Glickman, that the air pollution at issue does not arise from farming, and mostly does not afflict rural America.

Misleading Radio Advertisement from Citizens for a Sound Economy

Citizens for a Sound Economy produced misleading radio ads aimed at making farmers pawns in a fight to clean up air pollution from power plants, steel mills and other smokestack polluters – the real targets of EPA's proposed clean air rule.

Citizens for a Sound Economy

CSE Advertising

Video Spot Television Spot Radio Print

F201-T "FARMERS AS POLLUTERS" :60
3-19-97 Final

Disclaimer: This message paid for by Citizens for a Sound Economy.

Annct: Asthma attacks among children have been rising, so the government is proposing new ozone and fine particle standards it claims will improve childrens' health. It says only big polluters will bear the cost. (Music under) But are farmers big polluters? One report says raising crops and livestock are significant causes of air pollution. So will that mean restrictions on when, where and how corn, wheat, beef and chicken are raised? And since the cost of farming is ultimately paid by anyone who eats, it's not difficult to imagine higher food prices at the check-out line. Are the government's new regulations really based on sound science? Are we really sure these new regulations would deliver the promised results? Don't we deserve to get our money's worth? Call [Target Name] at [Local Telephone Number] and ask why Congress is allowing these new regulations. Call [Target Name] now, at [Local Telephone Number].

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Music: Manchester CD10 #13

Misleading Print Advertisement from Citizens for a Sound Economy

Citizens for a Sound Economy is running anti-clean air ads in farm states in an attempt to scare farmers, who in fact will not be the target of EPA proposals to cut air pollution affecting urban areas.

Old MacDonald had a farm. And that makes him a big polluter, according to the EPA.

The EPA claims too many children are at risk under current air quality standards, and it intends to impose stricter regulations in an attempt to reduce ground-level ozone and very fine particles in the air. It is proposing, among other things, new standards to control particulate matter smaller than 2.5 microns (particles so small that at least 28 of them would fit on the width of a strand of hair).



The EPA tells us not to worry, that their proposal won't cost the average citizen. Only big polluters will bear the burden of the new regulations, says the EPA.

Tell that to the State and Territorial Air Pollution Administrators and the Association of Local Air Pollution Control Officials. In July, 1996, these two little-known organizations issued a list of the primary sources of particulate matter measuring smaller than 2.5 microns. Among the sources listed were things like "crops" and "livestock." In other words, farming. Turns out planting and harvesting crops, raising cattle and swine, and processing grains would likely be considered significant causes of air pollution under the new EPA standards.

While no one is saying exactly how farming would be regulated as a result of the EPA's proposed rules, one can only imagine the result could be restrictions on when, where and how corn and wheat and beef and pork are raised (in southern California, livestock farmers are already prohibited from grinding up hay on windy days). Since the cost of farming is ultimately paid for by the consumer, it is also not difficult to imagine higher food prices at the check-out counter as a result of the EPA's regulations.

Average citizens will, in fact, face higher costs for everything, especially gasoline and electricity. Yet there is little evidence, and no guarantee, that what the EPA is proposing will actually solve the asthma problem. Only two studies even examined particulate matter as small as those that would be covered by the new standards (and the underlying data has not been released for public scrutiny). President Clinton's own Office of Management & Budget said there was a "lack of adequate research" on certain pollutants. This year, the EPA is even asking Congress for an additional \$26.4 million to further study particulate matter. The President's own budget states the funding is needed because of "the great uncertainty about PM's health effects."

Thus, on the flimsiest science, the EPA's proposed regulations would dramatically impact most Americans — not just "big polluters."

Citizens for a Sound Economy (CSE), a national grassroots advocacy organization of 250,000 Americans, is leading the fight against the EPA's proposed standards. Not because we don't want cleaner air, or healthier children. Rather, CSE believes any approach to a cleaner environment should be based on sound science and valid risk assessments. In other words, Americans ought to get what they're paying for. In this instance, the EPA's approach is the wrong prescription.

**Get involved.
Be heard.
Join CSE today.**
Call 1 (888) 564-6273

CSE invites you to join in the battle. Call 1 (888) JOIN CSE right now to learn more about what you can do

The CSE ads also leave the impression that consumer food prices will rise. “Since the cost of farming is ultimately paid by anyone who eats, it’s not difficult to imagine higher food prices at the check-out line,” says a CSE radio ad entitled “Farmers as Polluters.” USDA’s own scientists and economists pointed out in their technical comments of the EPA proposals that even though energy costs may increase if diesel fuel is reformulated to control ozone (smog), other aspects of the rule may boost yields and profits—notably by reducing the levels of ground-level ozone, which can suppress crop yields. (“USDA scientists commend EPA for their analysis of the adverse effects of ozone on plants. This data is the primary reason for positive estimates of monetary welfare benefits of the [ozone reduction alternative]...”)³ But EPA’s scientists and economists did not raise the specter of higher food costs arising as a result of the EPA proposal.

Our review of the particulate air pollution problem makes clear that the advertising campaign by Citizens for a Sound Economy distorts EPA’s assessment of agriculture’s role in particulate pollution and grossly exaggerates the impact of the agency’s proposed rule on farming and farmers.

**Table 2. Citizens for A Sound Economy Board of Directors, 1996:
Not an Aggie in the Bunch**

Gordon Cain Sterling Group Houston, TX	Tom Knudsen Thomas Publishing Co. New York, NY	Richard J Stephenson Cancer Treatment Centers of Amer. Barrington Hills, IL
Deecy Gray D.C. Stephens, Ltd. Washington, DC	James Arthur Pope Variety Wholesalers, Inc. Raleigh, NC	C. Boyden Gray, Chairman Wilmer, Cutler and Pickering Washington, DC
David H. Padden Padden & Company, Inc. Chicago, IL	Joseph G. Fogg, III J.G. Fogg & Company, Inc. Westbury, NY	Nancy L. Mitchell Koch Industries, Inc. Washington, DC
David E. Dewhurst, III Falcon Seaboard Resources Houston, TX	James C. Miller Citizens for a Sound Economy Washington, DC	Dirk Van Dongen National Association of Wholesaler-Distributors Washington, DC

Source: 1996 CSE Annual Report

Endnotes

¹United States Department of Agriculture. (undated) “Technical Comments on The Environmental Protection Agency’s Proposed National Ambient Air Quality Standards: Ozone and Particulate Matter.” p. 7

²See: Environmental Working Group. 1997. *Smokestacks and Smoke Screens: Big Polluters, Big Profits and the Fight for Cleaner Air.*

³United States Department of Agriculture. (undated) “Technical Comments on The Environmental Protection Agency’s Proposed National Ambient Air Quality Standards: Ozone and Particulate Matter.” p. 1

Attachments

Letter from EPA Administrator Browner to USDA Secretary Glickman, June 5, 1997.

EPA Chart – PM Fine Speciation, July, 1996.

EPA Chart – Analysis of Actual Ambient Air Samples in Pheonix, Arizona, 1997.

EPA Chart – Analysis of Actual Ambient Air Samples in San Joaquin Valley, Calif., 1997.

EPA Chart – Analysis of Actual Ambient Air Samples in Washington, D.C.. 1997.

