



MYTHS vs. FACTS

Coarse Particulate Matter in the United States

National Cattlemen's Beef Association ~ March 2006

The MYTHS	The FACTS:
<p><i>“Regulating coarse PM would control dust in the wind.”</i></p>	<ul style="list-style-type: none"> • You manage fugitive dust with proactive dust control measures, not by unscientific, unempirical regulatory standards. It is impossible for ‘Dust in the Wind’ to be regulated in this manner. • The amount of ‘Dust in the Wind’ remaining after using Best Management Practices from farm, ranch and cattle operations has never been demonstrated to have adverse impacts on health at ambient levels.
<p><i>“There is an adequate basis for the adoption of a coarse PM standard.”</i></p>	<ul style="list-style-type: none"> • Under the National Ambient Air Quality Standards (NAAQS), regulations regarding air quality must be about protecting public health. These standards cannot be arbitrarily imposed without scientific backing. • For more than 30 years the EPA has excluded fugitive dusts in making determinations of ambient compliance because there is not sufficient evidence to support regulation.
<p><i>“Studies support strict regulations for coarse PM to protect consumers against adverse health effects.”</i></p>	<ul style="list-style-type: none"> • Leading scientists have conducted a review of the existing science on coarse PM and say evidence is weak, limited, uncertain and not sufficient to support a risk assessment. • For details, check out NCBA’s extensive report and comments submitted to the EPA on this issue, which gives a scientific review of EPA studies. Go to: http://hill.beef.org/coarseparticulatematter • Dr. Jonathan Borak of Yale University School of Medicine, a leading expert in toxicology, epidemiology and occupational health exposure to pollutants, reviewed the science in the Criteria Document and Staff Paper and found a lack of scientific support for a proposal. For the FULL REPORT from Dr. Borak, go to: http://hill.beef.org/coarseparticulatematter • Many other scientists have said that health effects associated with coarse fraction at the levels considered by EPA do not reach statistical significance. Therefore regulation would not provide any substantial health benefit. • EPA employees themselves and the Clean Air Scientific Advisory Committee (CASAC) that makes recommendations to EPA admitted that the evidence is weak, limited and uncertain.

The MYTHS	The FACTS:
<p><i>“Farmers and ranchers don’t care about pollution issues or land conservation”</i></p>	<ul style="list-style-type: none"> • Controlling ambient dust has been a priority land management practice for America’s farm and ranch families for generations. • We utilize environmentally-friendly practices to manage ‘Dust in the Wind,’ including: windbreaks, watering down dirt roads and using sprinklers to reduce dirt in cattle pens. Many of these activities are mandated and/or monitored by clean air permits/committees. • Farmers and ranchers by nature are hard-working conservationists. We have a vested interest in managing the dust generated through normal agricultural activity. After all, we’re talking about the environment our families live and work in. • Everyday we continue to work and improve Best Management Practices and technology-based fugitive dust control measures as the basis for controlling dust from farm, ranch, and cattle-feeding operations.
<p><i>“The EPA and CASAC agree that regulating coarse PM in the air is scientifically justified.”</i></p>	<ul style="list-style-type: none"> • Both the EPA and CASAC members have stated that the science on coarse particulate matter is not clear, consistent or complete. • In fact, EPA’s final staff paper on the PM National Ambient Air Quality Standard states that even though EPA recommends a coarse PM standard for urban areas, the studies and data on which it is based are weak, uncertain, limited and not even adequate to support a health risk assessment.
<p><i>“The types of particulate matter generated through rural activities like agriculture are damaging to consumer health.”</i></p>	<ul style="list-style-type: none"> • For more than 30 years, health experts have agreed that the level of coarse particulate matter in the air, or fugitive dust, remaining after most agriculture operations apply dust-minimizing best practices does not present health concerns. • Agricultural dust has traditionally been excluded from regulation because it is generally considered harmless.
<p><i>“Okay well, we should just regulate coarse PM to provide ‘equivalent’ protection to the current PM10 standard”</i></p>	<ul style="list-style-type: none"> • The 1997 coarse PM10 standard was vacated by the D.C. Circuit Court of Appeals and set aside as confounded, because it included both fine and coarse PM. This means PM10 is an invalid standard. The fact is there has never been a valid coarse PM standard based on coarse PM evidence. • Right now, EPA’s proposed air quality standard for Dust in the Wind is based on FINE Particulate Matter measurements from British Smoke from the 1950s. • It is not based on Coarse PM data and cannot scientifically be used as a metric for determining the concentration at which Dust in the Wind may be harmful. • None of the air quality standards adopted prior to 1997 recognized the fundamental distinction between fine and coarse Particulate Matter.

The MYTHS	The FACTS:
<p><i>“Okay well, we should just regulate coarse PM to provide ‘equivalent’ protection to the current PM10 standard” (cont.)</i></p>	<ul style="list-style-type: none"> • In 1997, the EPA created a fine PM2.5 standard in recognition of the difference. While EPA initially proposed not to adopt a 24-hour coarse PM standard, in the final rule it did adopt such a standard. That coarse PM10 standard was set at 150 µg/m³, a concentration level derived from fine PM and not coarse data. • The only concentration data discussed as the basis for this standard was at concentration levels well above 1000 µg/m³ and included both fine and coarse PM. • Ambient air in the Eastern U.S. includes large amounts of fine PM and little coarse PM. Ambient air in the Western U.S. contains large amounts of coarse PM and little fine PM. Therefore, saying 70 µg/m³ is equivalent to 150 µg/m³ in the arid West is simply misleading and wrong.
<p><i>“Leading scientists, the EPA, and the Clean Air Scientific Advisory Committee (CASAC) overwhelmingly agree upon regulations of coarse particulate matter.”</i></p>	<ul style="list-style-type: none"> • Unprecedented problems within EPA and its Advisory Committee regarding this issue Must Be Brought to Attention. • The Clean Air Scientific Advisory Committee's review of the coarse PM standard over the last three years has been marked by controversy and abrupt, unexplained changes of position. • The Committee made last-minute changes in possible theoretical bases for such a standard. • In April 2005, CASAC suggested a potential new rationale for a coarse PM Standard that EPA might substitute for its past, unsuccessful efforts to provide a basis for a coarse PM standard. This new concept was based not on the health effects of coarse PM, but possible contact with urban contaminants that might be absorbed and carried by coarse PM in urban areas. • After several years of review and deliberation, several members of CASAC, including its then Chair and its leading health scientists, expressed the view that EPA's Criteria Document and drafts of its Staff Paper did not provide an adequate basis for a coarse PM standard. • Indeed, CASAC's May 11, 2005 draft letter to the Administrator stated “the setting of this [coarse PM] standard be set aside until further deliberations on the appropriate metric can be made.” • In an unprecedented failure, the Committee failed to even review the EPA's Final Staff Paper and reach “closure” on its scientific basis for the coarse PM standard before that document and its recommendations to the EPA Administrator were finalized and released. Attached to the final CASAC “consensus letter” to the administrator were “individual views” of individual members many of which expressed great concern about EPA's proposal.
<p><i>“There exists strong science to support EPA's recommended urban coarse particulate matter standard.”</i></p>	<ul style="list-style-type: none"> • In its own final Staff Paper in June 2005, the EPA noted the studies and data on which it based its proposal were weak, uncertain, limited, and not even adequate to support a health risk assessment, since they did not fulfill the minimum requirements for such assessments. That remains the case. An “urban” coarse PM standard is not founded in science.

The MYTHS	The FACTS:
<p><i>“There exists strong science to support EPA’s recommended urban coarse particulate matter standard.” (cont.)</i></p>	<ul style="list-style-type: none"> • EPA also stated that a coarse PM standard might be based on providing protection somehow “equivalent” to the 1987 24-hour PM10 standard, whose concentration term was based on fine PM, not coarse PM. That approach is plainly unsound legally, practically and scientifically.
<p><i>“But in its report, the EPA cites at least four studies to support regulating ‘Urban Dust in the Wind.’”</i></p>	<ul style="list-style-type: none"> • The EPA acknowledges fatal flaws in the four studies suggested as its basis for the proposed coarse PM standard. • Unfortunately, the severe problems that negate any reliance on these four studies are not discussed in EPA’s initial review but only mentioned in a later discussion of a possible “alternative interpretation” of the health evidence. • This discussion makes it clear that the rationale for the proposed urban coarse PM standard is not at all supported by the four studies. • In addition, in an egregious failure to guard against the appearance of any unfair and unsound scientific weighing of the evidence on coarse PM, the EPA failed to consider and weigh the far larger number of studies with much larger and more powerful databases and longer duration that specifically considered PM10-2.5, but did not find statistically significant associations. • Yale University’s Dr. Jonathan Borak reviewed the science in the Criteria Document and Staff Paper and found a lack of scientific support for the proposals. • The EPA clearly acknowledges the uncertainties associated with the scientific data, by stating they are soliciting comments on “not adopting a thoracic coarse particle standard at this time, and taking into account any new relevant research that becomes available as a basis for considering a more targeted standard for thoracic coarse particles in the next periodic review of the PM NAAQS.” This is the correct ultimate outcome.

For even more detailed information on Coarse Particulate Matter check out:

<http://hill.beef.org/coarseparticulatematter>