Leaf Blowing Matters

Leaf Blowers can be cost-effective for professional gardeners and landscapers, government maintenance crews, and homeowners by reducing the time and labor required to remove leaves and debris from property.

Leaf blowers, however, are also health hazards, they impact neighbors' quality of life, and create a noisy controversy. In 1999, Pima County exceeded the Environmental Protection Agency's national air quality health standards. In order to avoid non-attainment and prescriptive regulations, we need to keep particulate matter air pollution levels low. Avoiding using leaf blowers, or using them properly, can help Pima County maintain acceptable air quality levels and protect human health.

Leaf Blowers and Air Quality

Leaf blowers:

- generate as much tailpipe emissions from their engines (two-stroke) in one hour as a newer automobile does in driving over 350 miles. While a car will emit that pollution over a long stretch of road, the leaf blower may concentrate it all in one yard;
- emit dense clouds of oily smoke (two-stroke engines);
- kick up more than just leaves. Swirling clouds of airborne debris, including soil or dust, and possibly fragments of pollen or mold spores, pollute the air;
- produce a high grinding whine that disturbs residential neighborhoods and employees in commercial and office buildings; and
- oftentimes displaces trash and debris from private property onto public rights of way, creating problems for the community and government maintenance crews.

How Can Particulates Affect Your Health?

The smoke and airborne debris from leaf blowers contribute to **Particulate Matter** pollution. Particles of smoke and dust are suspended in the air, and can be inhaled. Particles less than 10 micrometers in size (one seventh the thickness of a human hair) can be deposited in the airways or reach deep into the lungs where they may accumulate, or be absorbed into the underlying tissues.

People with respiratory or heart disease, diabetics, older adults, and children are at a greater risk when breathing **Particulate Matter**. When exposed to high levels of particulates, these individuals have increased:

- admissions to hospitals and visits to emergency rooms;
- death from heart or lung diseases;
- aggravation of lung diseases (asthma attacks, acute bronchitis);
- susceptibility to respiratory infections; and
- heart attacks and irregular hearth rhythms (in people with heart disease).

In healthy people, short-term exposure to elevated particle levels may cause minor irritations and temporary symptoms such as irritation of the eyes, nose, and throat; coughing; phlegm; chest tightness; shortness of breath; wheezing; and fatigue. Most will recover quickly and are unlikely to experience long-term consequences. Long-term exposure, even in healthy adults however, has been associated with lasting consequences including:

- reduced lung function; and
- development of chronic bronchitis.

Taking Reasonable Precautions

The use of leaf blowers can cause a violation of the Pima County Title 17 regulations. Responsible parties can be held accountable if reasonable precautions are not taken to prevent excessive amounts of dust or particulates from becoming airborne.

What Are Reasonable Precautions?

Reasonable precautions are actions taken that control dust and particulate matter effectively in order to protect human health and quality of life. Effective options vary depending upon each specific situation under current conditions.

Effective options *may* include the use of:

- manual rakes and brooms;
- vacuum type equipment with dust collection device attachments;
- water or other wetting agents;
- dust suppressants;
- limiting the power or air speed to keep dirt from blowing;
- refraining from using commercial sized blowers that are employed for blowing off large areas;
- temporarily ceasing the activity or operation; or
- electric vacuum blowers to help reduce volatile organic compound (VOC) emissions.

If you choose to use a two-stroke engine, measure the oil-gas mixture accurately – too much oil produces excess smoke and reduces engine life.

Your Choices Affect Our Community

Leaf blowers are hazards to health, affect our standard of living, disrupt neighborhoods, and can lead to violations of Pima County regulations. Taking reasonable precautions to eliminate excessive airborne dust, particulates, and emissions will help maintain a healthy community.

Questions? Want more information? Contact:
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