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A Science Service Feature

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? WHY THE WEATHER ?

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DUST

For city and suburban dwellers, winter is the dirtiest time of year. The atmosphere is frequently most sooty in the early morning when it is calm, for then it is laden with a night's accumulation of smoke particles. Prof. Kimball and Mr. Hand of the Weather Bureau have made some interesting counts of the number of dust or smoke particles present in the air near Washington, D. C. At 8 a.m. the very cleanest air examined yielded 57 dust particles per cubic centimeter while the dirtiest gave over 7,000. From about 800 to nearly 1,000 particles in every cubic centimeter are the average in the winter months, while in mid-summer the number decreases to about 350.

In summer atmospheric dust is largely finely divided inorganic matter from the ground, together with a few plant spores. In winter, the generally larger smoke particles predominate. The larger the particles the more they interfere with visibility. When other things are equal, if you can see 40 miles through air containing a certain amount of dust you can see only about 20 miles, or one-half as far, if the number of dust particles doubles.

In the winter months, the stronger the wind, the less smoke or dust there is in the air. The dustiness with different wind directions depends largely on one's position with regard to cities, but in general north and northwest winds are the cleanest and clearest, while those from the south or east are likely to be dusty and hazy.

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(Tomorrow: Freezing Above 32 Degrees Fahrenheit)  
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