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Green Air Purifiers vs. Ground Zero

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By ANNE RAVER

ON Tuesday, a tractor-trailer loaded with 1,000 houseplants rumbled to a stop at Stuyvesant High School, a few blocks from ground zero. That was after Howard Bader, an environmental engineer hired by the school's parents association, had reported high levels of airborne particles.

"Let's face it, they have some serious air pollution problems," said Eric Keil, a wholesale nurseryman who manages Otto Keil Florist in Huntington, N.Y. He helped arrange the delivery. "I don't know how much the plants can do - but it's got to help some."

In the 1980's, Dr. William Wolverton, an environmental scientist then at the National Aeronautics and Space Administration, measured the abilities of certain common houseplants to remove chemicals like formaldehyde, benzene, xylene and ammonia from the air.

"People in the industry were excited about it for a while," Mr. Keil said. "Then it got to be old news."

But two weeks ago, Annette Arroyo, an assistant to the principal at Stuyvesant, called Mr. Keil to order one plant for each classroom, 150 in all. "She said their biology teacher was aware of Wolverton's work and that the school was concerned about air quality," Mr. Keil said. "But I knew one plant to a classroom was not going to do the job."

The 1,000 plants, worth about \$15,000, were donated by about 20 members of the Florida Nursery and Growers Association. The parents welcome the plants. "The ventilation system has not been cleaned," said Peggy Sarlin, whose son is a junior at the school. "The windows are open to all the dust. Trucks are coming and going all day, dumping debris on a barge that sits out there about 100 yards from the school."

All this is a big job for a philodendron. "But it's a nice idea," Ms. Sarlin said. "At least the kids will have something nicer to look at than ground zero."

When Mr. Keil, who orders 80,000 to 100,000 plants a year from Florida, called the growers there, they were eager to help. "I thought it was a great idea," said Chet Peckett, the president of Peckett's Inc., wholesale foliage growers in Apopka, Fla. "We're all sitting around down here watching TV and feeling our despair and helplessness. We're more than happy to make a tiny contribution."

Mr. Peckett donated his loading dock as a staging area, then faxed his trucking company, DTL Transportation, in Sanford, Fla. "Within 20 minutes," he said, "I got a fax back: 'No problem. We'll ship for free.' "

Because Tuesday was Election Day, no teachers, students or principal greeted the plants. But Ms. Arroyo and a handful of sturdy helpers carried the palms, philodendrons and peace lilies - top air cleaners, according to the Wolverton study - into the school.

"It took hours, but we all did it," Ms. Arroyo said. Yesterday morning, students arrived to find their classrooms alive with greenery.

"They are absolutely beautiful," said Stanley Teitel, Stuyvesant's principal and a former science teacher, envisioning a research project. "We can start monitoring rooms to see which varieties are best at lowering carbon dioxide," he said.

Just how much the plants will help remains to be seen. Even Dr. Wolverton, who now runs Wolverton Environmental Services, a consulting firm in Picayune, Miss., cautioned that plants "can't solve a major pollution problem."

"I don't want to mislead people," he said.

To purify indoor air, he added, plants have to be grouped in a planter that draws air through a filter of clay and activated carbon, and the beneficial micro-organisms around the roots have to feast continually on pollutants. "A planter system can increase air purification by 200 to 300 percent," Dr. Wolverton said. He has licensed his system design to a Japanese company, the Actree Corporation, but there is no market yet for it in the United States.

Mr. Peckett stands ready to send more plants, if needed. "You could put air purifiers in," he said, "but you won't get the emotional comfort of having live plants around."

The New York Botanical Garden has posted a list of Dr. Wolverton's top air-cleaning plants on the Web at www.nybg.org/plants. Questions may also be sent to pltinfo@nybg.org or asked by phone at (718) 817-8681, Monday through Friday from 9:30 a.m. to 12:30 p.m.