

Sidney Waxman, Innovator of Dwarf Pines, Dies at 81

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Sidney Waxman, a horticulturist who hunted tirelessly for the odd growths on pine trees called witches' brooms whose cones could be propagated into dwarf evergreens for the front lawns of suburbia, died on Feb. 10 at his home in Storrs, Conn. He was 81.

The cause was transitional cell carcinoma, said his wife, Florence.



As America oozed into tract housing after World War II, there was a demand for trees and shrubs that would fit in the small yards and not grow very much. Over 40 years, Dr. Waxman came up with 40 cultivars, as cultivated plant varieties are known, including the widely planted dwarf pines called Sea Urchin, Blue Shag and Sand Castle.

Todd Forrest, associate vice president for horticulture and living collections at the New York Botanical Garden, said Dr. Waxman's importance had transcended the popular plants he developed. Mr. Forrest said Dr. Waxman had "systematically established" the method of getting seeds from witches' brooms, which often appear as large, tangled clumps of branches, sometimes with miniature leaves, on full-size trees.

Some of the clumps are caused by disease, but some are sports, or natural mutations, with desirable new genetic characteristics that are worth preserving and cultivating. Dr. Waxman was amused to note how many witches' brooms he found in cemeteries.

Dr. Waxman methodically stalked his prey, marking on a map of New England the witches' brooms he found particularly tantalizing, his wife said. Each year, usually in October, he would visit them. He sometimes used a .22-caliber rifle to shoot cones from high branches, assigning his wife to scramble through groundcover to find the cones.

She remembered the startled looks of passing drivers. "What are those two nuts doing?" she imagined them saying.

Dr. Waxman, who later put down his gun and hired tree climbers, took the cones to the nursery he established at the University of Connecticut and planted them to see what the next generation of mutations would look like. If he liked what he saw, he made clippings and sent them to nurseries around the United States. He did not use seeds, because of the inherent unpredictability of cultivating something that itself began as a genetic mutation.

He was very selective, raising perhaps 200,000 seedlings to get 40 cultivars, and he was in no hurry.

"I like to grow the seedlings for three to five years to see what the plants will do," he said. "By observing a batch of seedlings for several years, I anticipate what will be a choice plant."

Dr. Waxman usually charged private plant sellers nothing, because his larger interest was getting new trees on the market. He was proud that many plant seed catalogs used his name as a mark of quality in describing offerings, his wife said.

Sidney Waxman was born in Providence, R.I., on Nov. 13, 1923. After high school, he went to work as a pipe fitter in the shipyard in New London, Conn. He then enlisted in the Navy, working as an aircraft mechanic.

He earned a bachelor's degree in horticulture from the University of Rhode Island, after he found out that enrollment for his first choice, liberal arts, was already full. He found he loved everything about plants, and went on to get a doctorate in horticulture from Cornell.

He wrote his dissertation on an experiment in which he focused short bursts of light on plants in total darkness. This confusing of night and day helped him find ways to accelerate plants' growth patterns.

He then went to the University of Connecticut, where he founded the nursery, and devoted himself mainly to research.

Last year, Dr. Waxman donated dwarf conifers to the New York Botanical Garden for display in its refurbished Benenson Ornamental Conifers collection.

"In the botanical garden's new plantings, we can now see the particular beauty of his many selected miniature forms of *Pinus strobus*, including the dense cushions of Sea Urchin or Green Shadow," *The Financial Times* reported in 2004.

Dr. Waxman is survived by his wife of 57 years, the former Florence Dix, for whom he named a low-spreading hemlock that is about 4 feet wide and about 18 inches tall. He is also survived by his sons, Howard, of Philadelphia, and Paul, of Lexington, Mass.; his daughter, Deborah, of Lexington, Mass.; and two grandchildren.

He named a tree after each of them. He named none for himself.