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## CASE STUDY: North Carolina State University

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Location:	Raleigh, N.C. (Wake County)
Industry:	State University (SIC code 8200)
Pollution Prevention Application:	Solid Waste Reduction and Recycling, Composting
Waste Reduction:	17,480 cubic yards of leaf and landscaping debris, 1,126 tons of recyclables
Annual Savings:	\$645,054 in disposal fees and mulch purchases
Contact:	Bill Beardall, (919) 515-9872

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### Background

N.C. State University (NCSU) is a research and teaching institution serving more than 25,000 students and employing more than 10,000 faculty and staff. The University generates solid waste in classrooms, dormitories, laboratories, offices, dining halls, and at other campus facilities.

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### Waste Reduction Activities

Since 1990, yard debris and leaves collected during campus landscaping activities have been brought to a site on the Centennial Campus to be mulched. The site, run by two full-time employees, produces 12,000 cubic yards of ground and screened wood mulch and 27,567 square feet of composted leaf mulch annually. Mulch produced at the site is used on campus flowerbeds and in new landscape installations.

In addition to recycling campus organics, the site also accepts yard debris from local landscapers and the city of Raleigh. During the 1999 Special Olympics World Games the University collaborated with the N.C. Division of Pollution Prevention and Environmental Assistance to collect and compost about seven tons of food waste from the athlete dining halls at NCSU and nearby Meredith College. The university was granted a temporary Type III compost facility permit to conduct this project.

NCSU recently upgraded and expanded its recycling program to include an estimated 400 collection areas at 140 separate campus buildings and locations. Materials collected for recycling include paper, corrugated cardboard, scrap metal, plastic bottles, aluminum and steel cans, white goods, motor oil, antifreeze, tires, asphalt and fluorescent lamps. Recyclables are collected from campus locations in 44-gallon roll carts on a weekly or biweekly basis and sorted into larger containers at a central facility operated by university staff. Employees sort paper and segregate other materials into larger containers before transporting them to recycling markets. Improvements to the pick-up schedule, employee outreach, signage and the centralized collection area have helped to enhance the University's recycling efforts.

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### Waste Reduced and Annual Savings

NCSU has been successful in reducing the amount of leaf and landscaping debris by 17,480 cubic yards. They have also increased recyclables by 1,126 tons.

NCSU's recycling program has reduced landfill disposal and costs as well as generated revenue from the sale of recyclable material and mulch. In Fiscal Year 1998-99, the university saved approximately \$106,910 in tipping fees for yard debris and \$470,668 for recyclables. Utilization of leaf and wood mulch saved \$168,000 in purchase costs for commercial soil amendments. Sales of mulch and recyclables netted approximately \$30,000 and \$23,278 in revenues respectively.