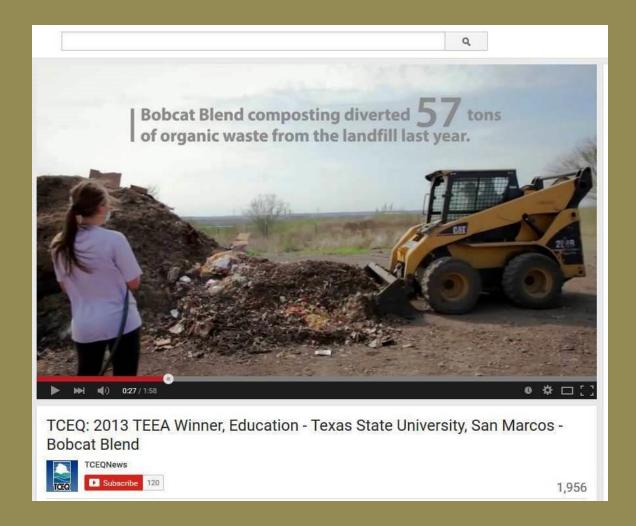
Bobcat Blend-Composting for a Greener Campus



Overview video



https://www.youtube.com/watch?v=b25f1F82PY0

Mission

Bobcat Blend is a faculty managed, student-run and grant-supported research and teaching-oriented waste management campus composting and education program at Texas State University.

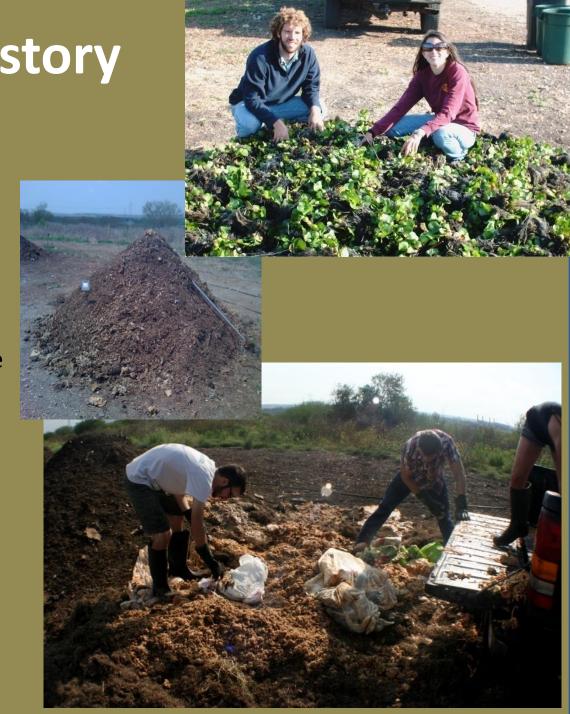






History

- 300 tons of food waste from Texas State University was deposited into the sewer system or landfill each year.
- 2006 Search for grant funding
- 2008 EPA grant obtained (to work with invasive species), site constructed, permits obtained
- 2009 Composting began on campus with Commons & LBJ
- 2012-2015 Campus expansion, increased volunteer support



Compost Site

- Located ten miles away from campus due to environmental sensitivity
- 5 acres
 - (~ 2.5 acres for composting area and ~2.5 acres for catchment pond)
 - Sloped and bermed to catchment pond
 - Fenced, water and electricity sources
 - 50' easement for fire department access
- Fully functioning municipal solid waste (MSW) site according to TCEQ standards





Campus collections

- Past and current collections include:
 - Dining halls, kitchens
 - Student Center
 - FCS Nutrition labs
 - Honors Coffee House
 - Agriculture gardens and greenhouses
 - Grounds waste
 - Invasive species from Meadows
 Center for Water and the
 Environment
 - Biology research projects on invasive fish species
 - Special campus events
 - Seasonal collections of leaves, pumpkins at city drop off points.





Green Bucket program

- Departments and individuals requested pick-up of organic waste from home or office.
- Issued a bucket with a map of existing pick-up sites
 - Allowed efficient use of labor and containers.



Compost Equipment

- Truck, bobcat, trailers
 - (pediporter)
- Screener constructed by Ag Mech students
 - Sustainability at the site: Coming full circle with screening successes





Research

- Large-scale composting as a means to manage invasive river species (water hyacinth, water lettuce, wild taro, hydrilla and sargassum)
- The economic feasibility of a campus compost collection and education program at Texas State University
- Large-scale composting as a means of managing sheep waste products in Texas
- Vermicomposting food waste at Texas
 State University
- Compost specialty blend studies
- Compost tea studies in progress...



Teaching

- Field trips to site
 - Students from Agriculture,
 Family Consumer Science,
 Sustainability studies courses
 - Texas Organic Farm and Garden Association
 - CAPCOG Solid Waste group
 - Edible/Sustainable San Marcos
 - City of San Marcos Parks and Recreation
 - Elementary and middle school students
 - Other university representatives looking to model program
- On campus vermicomposting shed



Teaching

- "Worm shed"
- Value-added product
- Organic gardening class
- Living Library campus gardens
- Efficient use of space
- Popular in sales





Outreach

- Master Composter classes
 - Collaboration with city where students instruct
- Farmer's Market
 - Monthly compost tea and vermicastings sales
- Field trips and guest lectures
 - On and off campus
 - Schools, garden clubs



- 6-8 students on staff (1 graduate student manager)
- Cafeteria waste collected
 - 2010/2011 -- 26.4 tons
 - 2011/2012 57 tons
 - 2012/2013 80.7 tons
 - 2013/2014 140.5 tons
 - 2014/2015 81.1 tons
 - And 150 yards Grounds waste, 160 yards City leaf waste, 90 yards river waste
 - Waste weighed at local/city recycling center, on a truck scale
- Bobcat Blend increased recycling rate on campus.
 - Bins for recycling were not in place in some collection sites until Bobcat Blend project initiated



- Research
 - Hands-on experiences
 - Development of new compost products using waste materials
 - Documentation of efforts
 - Reflection and improvement of program



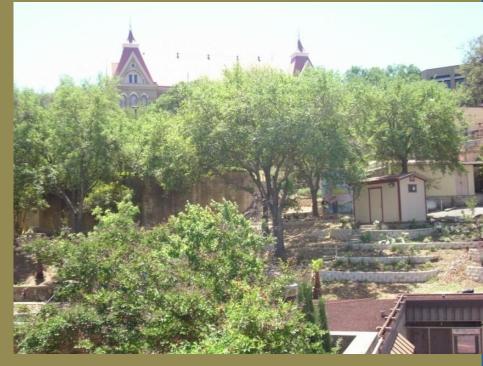


- Campus, Local and Regional Awards
 - 2012 --Texas Commission for Environmental Excellence in Education Pollution Prevention Award Finalist
 - 2013 Texas Commission for Environmental Excellence in Education Pollution Prevention Award, , Texas State University Boko Student Service Award
 - 2014 Texas Solid Waste
 Association of North America
 (TX SWANA award), San Marcos
 Chamber of Commerce Green
 Business Award
- Positive publicity for department and university



- Compost used in the Agriculture campus greenhouses and gardens.
 - Reducing costs for classes and labs.
 - Reduces irrigation, fertilizer, pesticide needs
- 140 yards of compost sold to local community gardens, the city, faculty and staff and recently to local industry.
- Funds used to support the program.





- Industry demand for students
 - Texas is 2nd largest producer of compost in the U.S.
 - Texas Disposal Service, City of Austin, Texas Commission for Environmental Quality, post-graduate studies
 - Beyond composting/waste management knowledge and skills, students develop leadership, teamwork, public speaking, managerial, small engine skills.





- Program includes whole campus society.
 - Faculty, students and staff
 - All across campus
 - Every day, all year long
 - All majors







Biggest Challenges

- Inconsistent funding
- Equipment failure & maintenance
 - Dump trailer, bobcat & truck
 - Extremely costly
- Continuity of student labor
 - Dependent on funding availability
- Kitchen staff/managers changes periodically
- Student turnover requires regular reeducation
- Contamination in bins frustrates cafeteria managers especially



Considerations in Funding

- Overall program costs ~ \$43,650/year
 - Faculty manager no cost
 - Graduate student manager
 - Sometimes funded by department or college
 - Compare to Recycling Program
 - Includes fuel, maintenance costs which can vary
 - Includes donations, grants, built and scavenged items



Thank you

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