Flop on the beach, ferret out good places to eat, soak up local culture.

That's what vacationers do unless, maybe, they're Scottie Williams, who oversees Norman's green waste program. Much to his wife's vexation, Williams spends part of vacations — even the one to Hawaii — down in the dumps. Over the years, those side trips to landfills, recycling centers and composting facilities have given Norman's utilities superintendent ideas, and helped his sanitation-related departments avoid costly or just plain dumb mistakes. Williams confesses that when Norman became the first city in the state to start a composting operation 23 years ago, he and co-workers were greenhorns. The operation didn't begin as a roaring success. Crews did, however, end up with a few roaring fires caused by spontaneous combustion that occurred after the green waste was piled too high. That's a far cry from today, with the 10-acre site's orderly low-lying rows of composting green matter. About every 120 days new mulch is ready except during winter months. It's high quality and in high demand. How good is it? Let's just say city compost is not a dirty word. Some of the flower beds at the state Capitol contain Norman mulch along with the grounds at the University of Oklahoma and city parks. Gardeners, farmers and even commercial outfits snap it up. The compost is free but the city charges \$10 to load a three cubic yard bucket about a ton — for customers. On average, the \$1.8 million facility processed 9,000 tons of materials annually. Compare that experience with Tulsa's year-old green waste program, which really never got off the ground. Early on it became apparent that machinery couldn't separate green waste from plastic bags so what might have become mulch ended up being quietly incinerated. Only nobody clued in the public until the Tulsa World disclosed the switcharoo in August. There's no assurance that Norman's experience could become Tulsa's experience. Williams said Tulsa officials and those from other cities have visited the Norman facility. Norman has only about a fourth as many refuse customers as Tulsa. The two cities have different facilities and different equipment. Williams is quick to encourage Tulsa to

keep trying. Norman, he said, went through its share of trial and error, using biodegradable bags and paper bags, which didn't work, before settling on the present system. No tree stumps, please In Norman, six two-man crews in trucks equipped with a chute collect green waste at curb side. Waste can be bagged or in containers no larger than 35 gallons. If in bags, crews — at point of pick up — open them and dump contents into the truck chute and retain the bags for disposal. Back at the facility, leaves, lawn clippings and small branches, mixed in certain proportions, are dumped into a tub grinder. After pulverization, the contents are spread into windrows. Initially, the windrows are about six-feet high and 16-feet wide; the volume of mulch is reduced about 50 percent during the process. Heat generated by the decomposition process raises the internal windrow temperature to about 130 degrees. Grass clippings provide nitrogen and leaves the carbon. A special turning machine, flips the compost three times a week, which provides oxygen. The rows are watered, providing hydrogen. Eventually, the process produces "dark, rich soil," said Williams, who's a big believer in recycling and composting. "Over the years, I've become the No. 1 tree-hugger in Oklahoma." 'Mount Landfill' By composting, city crews avoid taking green waste to the landfill in southeast Oklahoma City. That mountain of a landfill, Williams said, has become the highest point in central Oklahoma. By composting, the city saved nearly \$160,000 in landfill costs last year. The Norman method of curbside collection allows crews to police what goes into the chute — no car parts, food scraps or tree trunks permitted. "It's a clean" product compared to the early years when we had a big mess. I went up to Missouri and learned how to do it better," Williams said. "Wood isn't that good (for composting), and before we were allowing six-foot wide tree stumps. We learned from (our) and others mistakes. "People worry about pesticides and weed seeds in the compost but those are removed, burned out in the process, and it's tested before the mulch is released to the public." The city also takes drop-off green

waste from other sources. Crews pick up green waste weekly except for winter months. In the first 19 years of operation, crews collected 160,708 tons of yard waste for compost. Every city's experience with green waste is its own. The things that work in one place might or might not transfer to another. But the Norman experience is evidence of one fact that is important for Tulsans to keep in mind as the city looks over how to remold its unsuccessful first attempt at a green waste system: It can be done. Julie DelCour, 918-581-8379