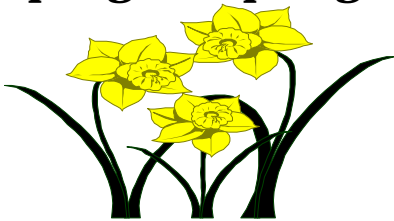


# Ground Facts

Volume 1, Issue 1  
April 1999

*Parvis e glandibus quercus --Latin saying*  
*Translation: Tall oaks from little acorns grow.*

## Spring has sprung



The Land Use Team recently surveyed the landscaped team member entrances for weed control, seedling germination, root sprouting, and tree/shrub vigor. The same was done at environmental test sites. Seedling germination and root sprouting was of particular interest to determine how planted and volunteer (invading) tree seedlings might affect future appearances. Less maintenance should be required as the landscaping matures and evolves into natural but attractive habitat.

The mulched areas contained plentiful seedlings of hackberry (invading) and buckeye. Oak seedlings were not yet apparent. The growth of sumac (not poison sumac) resprouts was both abundant in number and vigorous in growth. Last month existing sumac shrubs were cut back to the ground to encourage root sprouting and to keep the sumac from crowding important young shade trees. By mid-summer sumac will have formed large, dense, medium height clumps of dark green vegetation that will fill in holes in the landscaped areas. By fall, dramatic color, wildlife food, and wildlife cover will be provided by these plantings.

Behind the walls in the landscaped areas, planted trees and shrubs showed variable vigor. Hawthorn (white flowers), redbud (pink flowers), eastern red cedar, hickory, red maple, sweetgum, Virginia pine, and coralberry (also called Indian current) generally looked vigorous. Dogwood survival has been low and is believed to be due to soil qualities (high soil pH) and bark damage during pre-mulched weed control efforts. From an ecological perspective, the pioneer species (native plants known to start in old fields) are the only ones worth working with in initial native landscaping efforts on disturbed soils. Pruning of limb dieback will be conducted in April and May.

In the environmental test areas, seedling numbers were not as plentiful but much more diverse in species. Wild black cherry, various oaks, sumac, eastern red cedar, hackberry, coralberry, elm and broomsedge were the main desired invading species. This is because aggressive turfgrass crowds out many seedlings while growing conditions are much more variable. The Land Use Team is checking with the US Fish and Wildlife Service about their financial and technical help in replacing non-native turfgrasses with native warm season grasses and trees under the Partners for Fish and Wildlife Program. Privet, honeysuckle, multiflora rose, ailanthus, and thistle were the most undesired species found. These undesired species are all on Tennessee's most severe threatening plant list. Premier and the Land Use Team are working to control these.

## Too steep? Too wet? Too much time?

Three areas were examined this month to find cost-effective solutions to areas that were specified by Premier as problem maintenance areas or areas that demand more attention (=time=money) in maintaining them. These areas include the grassy slope at the new SSPO entrances, the gully at the North Sanchez Gate, and the wet area below the bluff near PT-1. The Land Use Team prepared an evaluation for each area that follows the general outline of 1) justification, 2) objective/scope, 3) prescription, and 4) steps and costs. Details will be discussed with Allen Smith of Premier and the Saturn Advisory Group to determine what actions to move ahead on or modify. The recommendations are as follows.

### SSPO Slope

The slope at SSPO is very steep, so weedeating is Premier's present safest option in maintaining this area. The general prescription for this area is to re-establish the slope with native switchgrass. This option greatly reduces maintenance costs. (cont. on page 2)

*Ground Facts is a monthly update on the application of new ideas to reduce grounds maintenance costs, improve aesthetics, and increase environmental benefits at the Saturn site. Work is sponsored by Facilities Maintenance at Saturn and the University of Tennessee in a partnership agreement.*

(cont. from page 1)

### Wet Area

There is a continuous natural seep from the rock wall near PT-1 which has created a perpetually wet area that is a maintenance problem. Since wet areas such as this offer special environmental opportunities, the recommendation is to convert the area to a constructed mini-wetland. The area would not have to be mowed and the Land Use Team, along with Premier, could construct it at almost



no cost. Plants from other wetlands (e.g. cattails) on-site would be transplanted to the area. Construction would involve minor drainage changes. Maintenance would involve annual trimming. The area would be identified with signs as a constructed mini-wetland.

### North Sanchez Gulley

A large gulley has formed near the North Sanchez gate due to the concentration of storm water runoff from the concrete apron of the guard gate. The steepness of the slope stabilized by only turf grass is another factor. A possible solution involves the construction of a shallow concrete channel the length of the slope to handle the concentrated runoff. Repairs now would avoid greater repairs in the future, especially to the white fence. Passive solutions were not deemed amenable because of the severity of the storm water runoff problem.

### Picture this...

The Land Use Team has been working with Allen Smith in collecting photographs, both past and present, for use in the ServiceMaster Grounds Contest.

## It's for the birds

### Purple Martins

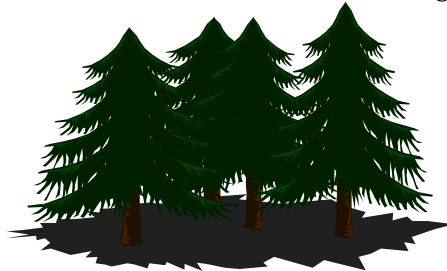
The purple martins have once again traveled all the way from South America to make Saturn their home for the summer. A special thank you goes to Premier for maintaining the castle during the winter and opening the doors this month to allow the martins to make their nests for the breeding season.

### Spring Bird Count

A spring bird count has been scheduled for May 1-2. The purpose of the study is to inventory the avian bird species that reside on Saturn's property during the spring season. Efforts will focus around the proposed new sanctuary. An article was sent to the Newline about the survey to allow anyone interested to participate in this study. Jeff Brown, a biologist from 3DE will be leading the group. Results of the study will appear in future reports, as well as the Newline. This will be the fourth bird survey that has been conducted at Saturn by the UT Land Use Team.

### Mower or Less

Areas designated as no-mow zones were flagged and measured as accurately as possible. The areas included are around Ponds 6 and 7, the median in front of the Saturn Resource Building, and the wet-weather conveyance between the computer-modeled hills, and a draw close to the Saturn Resource Building.



These areas total approximately 17 acres of land that will be taken out of mowing. Maps of these areas were drawn up to help plan and record future management activities. Initial observations were recorded which described the area's current established vegetation, cited possible weed issues that would need to be carefully monitored, and detailed the prescriptions associated with each particular area. A file was developed for cost records and monitoring efforts. Brief conversations were held with Ray Woods, Ed Killgore, and Allen Smith to discuss the ways in which these areas will develop.

## In the public's eye

There are a few different projects in the works concerning the area of public outreach and education. The most recent is a display set up at the Welcome Center on Thursday, April 22, a.k.a. Earth Day. The simple display will consist of pictures and brief descriptions of topics such as native landscaping, exotic pest plants, and the proposed sanctuary. A copy of the Earth Day poster will also be on display at the University Center and the University of Tennessee during Earth Day events.

**Be sure to look for Bill Dolsen and Karen Lorino in the Saturn Automobile brochure for the Fall 2000 model line-up. They were recently photographed by Saturn's advertising company and will be shown planting a tree together symbolizing the Saturn/UT Partnership.**

Signs are being made for the team member entrances which will detail a specific action taking place at that site and will help to educate team members and visitors about the cutting edge native landscaping efforts at Saturn. We are also putting together a brochure to hand out to visitors at the Welcome Center and during Homecoming. The brochure will give a clear description of the Saturn/UT Land Use Project.