A Tree Farm planning meeting was held on January 13, 2006. Attendees included: Larry Fox, Ken Fulgham, Chris Keyes, Susan Marshall, Peter Matzka, George Pease, George Robison, Bill Sise, Gayleen Smith, Steve Steinberg, John Stuart, and Morgan Varner. The purpose of the meeting was to review past research activities at the Tree Farm and to propose possible new projects.

Some of the previous studies discussed include: Dale Thornburgh’s thinning study, Bill Bigg’s tanoak study, hardwood thinning to favor grand fir, thinning from below near the pond, Oregon grape root extract, Shiitake mushroom project, California bay essential oils project, redwood under thinning, thinning from below to minimize poisonoak and to increase overstory growth, red tree vole study, pollen study conducted in the pond, and a long-term permanent plot growth and yield study.

New projects identified included: development of a GIS, a vegetation map, contracting with an RPF to produce an NTMP, convert broad-leaved forest to conifer, brush management, fuel management, fuel break and hazard reduction, fuel loading, contracting with an historian to write the history of the Tree Farm and to archive reports, continue the growth and yield study, remeasure the hardwood study, quantify redwood planting and release and correlate with light levels, develop a satellite imagery project that could be used as a demonstration for small landowners, and test a variety of scales of imagery to help landowners to better manage their property with technology.

New Faculty — Edgar, Stubblefield, and Han

Three new tenure track faculty have joined the Department this year. Christopher Edgar has replaced Jerry Allen and is a biometrician/mensurationist from the University of Minnesota. Chris will maintain and enhance the permanent growth plots and is developing a research proposal for the Tree Farm.

Andrew Stubblefield replaces George Robison and is a watershed management/hydrology expert most recently from Case Western Reserve. Andy did his Ph.D. work at UC Davis. Andy is working on projects in a variety of North Coast watersheds.

Han-Sup Han replaces Peter Matzka and will be investigating harvesting techniques and methods for the Tree Farm as well as developing demonstrations for Tree Farm visitors. Han has been teaching at the University of Idaho and earned his doctorate at Oregon State University. Han will be developing a coordinated comprehensive plan for the Tree Farm during summer 2007.
New Projects for 2006

A contract was signed with Guerra and McBane in March to create a history of the Tree Farm using oral histories, previously published work, academic research papers, and histories of the Tree Farm. In addition Guerra and McBane created an archive of written and computer files of Tree Farm activities and projects. Video tapes were converted to DVD format. This project is ongoing.

Hammon Jensen and Wallen were contracted to “fly” the Tree Farm and to take digital images with a resolution of 6” using color infrared and panchromatic bands (red, green, and blue). The imagery will provide a base layer for our GIS.

Ryan Coltrin, a recent HSU forestry graduate, was hired to relocate and measure permanent growth plots. All plots were found, measured, and re-marked with paint. New data were entered into the previously constructed permanent plot Excel database.

Christine West began her MS project on classifying and mapping the Tree Farm’s vegetation. She will also investigate the accuracy of remotely sensed images at different scales. The control will be a very accurate map derived from a grid network of approximately 250 plots and interpreted using the 6-inch resolution imagery. Jasper Peach was hired to assist Christine in the field. Christine should finish her project in 2007. John Stuart is Christine’s advisor.

Maintenance Activities

Maintenance not associated with the summer crew was mostly related to roads. The PG&E road experienced a major wash out last winter creating significant access issues for adjacent landowners. The Tree Farm shared in the expense for fixing the road by contributing a 60’ long by 15” diameter culvert. Henry Lambert, Leo Paulus, Bill Carlson, Al Odelberg, and Guynup Ranch were the other contributors and collectively they provided 20 cubic yards of base rock and top dressing, the use of heavy equipment, and labor. In addition, the car road was graded and locked to inhibit winter use. The Davis road was worked on.

Other significant maintenance activities include: patching the Power House roof after a large madrone had fallen on it; installing a new gasoline storage cabinet; replacing 2 windows in the Tree Farm building; installing a low limit switch for the water supply; and installing a chlorine filter.

The two off-road quads were taken into Miller Farms for maintenance along with the Tree Farm’s saws.

Summer Crew Activities

Brandon Finley and Adam Levebre were hired for the 2006 summer maintenance crew. Much of their time was spent in improving, grading, and widening the pond trail. They also brushed the Davis and Overlook Rock trails as well as applied herbicides to poison oak.

They reorganized the shop, inventoried the shop contents, cleaned the Tree Farm building, split wood, cleaned up the wood heaps that had been left from previous Tree Farm activities, and sprayed insecticides to the inside of the wood storage outbuilding.

The Tree Farm’s roads were mowed several times during the summer in order to minimize the likelihood of a catalytic converter igniting grass and other herbaceous vegetation.

The summer crew remarked the hardwood growth and yield study trees, and slashed hardwood sprouts. Gordon Schatz planted redwood seedlings that are being used to investigate the effects of pruning seedlings on survival and growth.
Anticipated Maintenance Activities for 2007

Maintenance activities identified at our December Tree Farm Committee meeting includes:

1. Produce a large format photograph of the Tree Farm similar in scale to those photos that adorn the Tree Farm building’s walls. The photo will be printed on a plotter using the 2006 imagery.
2. Obtain a water tank and pump that can be used for fire control and that can be hauled on a trailer by the Tree Farm truck.
3. Evaluate the condition of the Tree Farm’s fences and fence posts and replace as necessary.
4. Replace the main gate to the Tree Farm with an automatically closing gate.
5. Repair or replace the entryway beams to the building.
6. Clean up the Power Plant area.
7. Hire another student summer crew that will be available for maintenance and on an as-needed basis for short-term assistance on Tree Farm research projects.
8. Build a storage facility for equipment and to house research work space.

Anticipated Projects for 2007

New projects that may be initiated in 2007 include hiring a California Registered Professional Forester to create a Non-industrial Timber Management Plan, preparing a coordinated, comprehensive plan for the Tree Farm, and creating an updated GIS based on the recently acquired 6-inch resolution digital imagery.

Faculty have been encouraged to submit research proposals for Tree Farm funding. So far, Morgan Varner and Chris Keyes turned in a joint proposal and Chris Edgar’s proposal should be completed shortly. Han should also be submitting a proposal this year.

The Tree Farm Committee is encouraging faculty to consult and submit a joint, comprehensive proposal that will investigate the potential for small landowners to use forest-based biofuels either for their own use or as part of a regional strategy to produce carbon neutral energy. Possible themes include fuel productivity, harvesting techniques, and environmental impacts. The Tree Farm Committee will discuss the potential to collaborate with the Schatz Energy Lab on biofuel research in January, 2007.
The Tree Farm’s mission is to provide a demonstration tree farm operation for the benefit of the instructional and research needs of the students and faculty of Humboldt State University and as an example for owners of small timberland parcels. The Demonstration Tree Farm enables experimentation and research regarding the growing, harvesting, and replacement of trees on timberland. The Tree Farm aims to utilize as many square feet as practical for production of commercial wood crops. The Tree Farm serves as an outdoor classroom for educational purposes and also enables public educational assistance to landowners through publications, photos, lectures, symposia, and tours.