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DIAGNOSIS AND CORRECTION OF SOIL NUTRIENT LIMITATIONS IN INTENSIVELY MANAGED SOUTHERN PINE FORESTS

Quarterly Report for the Period January-March 2000

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Summary of Project Status And Activities Performed During the Quarter

1. Initial error runs were finished and coding was adjusted to account for errors. A documentation manual and users manual have been written and gone through the first editing. The model was presented to the forest industry during a review meeting and adjustments were made to the model based on their input. The model has been sent to interested parties in Canada and Australia to test it and report back on any errors or modifications they feel would be necessary.

2. Based on the laboratory studies, one paper was written and submitted to the Soil and Water Science for internal review. It is currently under internal review. This paper describes a method for measuring desorption isotherms. A second paper that uses this method to investigate desorption isotherms for different soils is in progress.

3. All soil samples have been dried and sieved. All tissue samples have been ground and the ashing of the tissue samples has just begun.

4. A literature search continued focusing on root to shoot relationships of fast growing pine in order to assist our development of the nutrient demand section of the model. This is about 40% done.

An Account of Percentage Completion of each task

Task	% Completed
1. Development of Model	100%
2. Error testing of model	99%
3. Documentation of model	100%
4. Field measurement of study sites	50%
4. Laboratory characterization of soils	5%
5. Laboratory analysis of study site samples	5%
6. Specific laboratory studies on soil processes	40%

Variances to Cost or Project Schedule

Nothing unusual to report

Significant Accomplishments Expected in Next Quarter

1 We expect to have all the tissue samples ashed and the majority of nutrient analysis done
2. We expect to have a second journal article submitted for review.
3. We expect to resample the surface soil of the field sites for root length to affirm the values we had the first time were reasonable. The root laboratory measurements should also be done.