APPENDIX B

SOIL PROFILE DESCRIPTIONS

1. Cape Fear Loam

   Tidewater Research Station, Plymouth, N.C.

   Field: M-3 (near center of field)

   Soil Family Name: Typic Umbraquult, clayey, mixed, thermic

   Profile Description

Depth, M	Description
0 - .25	Very dark brown (10 YR 2/2) loam or very fine sandy loam; clear boundary -
0.25 - 0.9	Dark grayish brown (10 YR 4/2; 5/2 and 5/6) smooth stiff clay with common fine yellowish red (5 YR 4/8) mottles; common fine mica; grades -
0.9 - 1.3	Very pale to pale brown (10 YR 7/3 - 6/3) with brownish yellow (10 YR 6/6) mottles; sandy clay loam; bedded clayey and sandy material grading to light sandy loam at 1.1 to 1.3 m; grades -
1.3 - 2.6	Gray (10 YR 6/1) medium sandy loam - loamy sand; grading to gray (5 Y 5/1).
2.6 - 5.2	Gray (5 Y 5/1) fine light sandy loam grading to gray (10 Y 5/1) at about 4 m; few grits to 4 mm in lower .3 m.
	Base of Pamlico
	Begin small
5.2 - 10.4 m	5 GY 5/1 mealy feeling light loam grades gradually to 5 GY 4/1 tough stiff clay loam; fossil fragments became common and coarser.

2. Goldsboro Sandy Loam

   Lower Coastal Plains Tobacco Research Station, Lenoir County, near Kinston, N.C.

   Described by: R. D. Daniels and E. E. Gamble

   Attitude: About 21 m MSL

   Soil Family Name: Aquic Paleudult, fine-loamy, siliceous, thermic.

Profile Description

Depth, m	Description
0 - 0.3	Ap horizon -- sandy loam -
0.3 - 1.1	B horizon -- brownish yellow (10 YR 6/6) fine clay loam to sandy clay loam; clear -
1.1 - 2.6	Mottled light red (2.5 YR 6/6), reddish yellow (5 YR 6/8), and very pale brown (10 YR 7/3) tough medium fine clay loam; gradual -
2.6 - 3.0	Light yellowish brown (10 YR 6/4) medium sandy loam; clear -
3.0 - 3.8	Reddish yellow (7.5 YR 6/6) very coarse sand to loamy sand; abrupt -
	Base of Wicomico MSU.
	Begin Cretaceous Pee Dee.
3.8 - 4.4	Reddish yellow (5 YR 6/8 and 7.5 YR 7/8) medium to medium fine loam to sandy loam; abrupt -
4.4 - 5.2	Dark greenish gray (10 Y 4/1) fine loam; one 3 cm angular phosphate pebble; gradual -
5.2 - 8.5	Dark gray (5 Y 4/1) medium coarse loam to sandy clay loam; grades to very dark greenish gray (darker than 5 G 4/1) tough calcareous light loam.
	Base of hole at 8.5 m.

3. Tomotly Sandy Loam (referred to as Lumbee s.l. in text)*

H. C. Austin Farm near Aurora, N.C.

Soil Family Name: Typic Ochraquult, fine loamy, silicebus, thermic.

Profile Description

Depth, m	Description
0 - 0.25	Gray to dark gray friable sandy loam, abrupt boundary -
0.25-0.4	Gray sandy loam mottled with dark brown, grades to
0.4 - 1.0	Gray mottled with yellow friable to firm sandy clay or sandy clay loam, some small pockets of medium sand or loamy sand intermixed, grades to
1.0 - 1.6	Gray sandy loam to loamy sand, sometimes light gray, bottom of this layer at 1.35 m for lower surface elevations, 1.6 m for higher surface elevations.

*This soil was referred to as a Lumbee sandy loam (actually a mixed mineral taxajunt of Lumbee) in the original research report (Skaggs, 1978b). A recent more detailed examination by SCS soil scientists indicates that it should have been classified as a Tomotly sandy loam.

1.6 - 2.5	Dark gray loamy sand or sandy loam with shell fragments to 5 mm mixed in marl like material with some clay, density increase with depth,
2.5 - 2.8	Dark gray, hard, tight fine sand with some clay, doesn't appear saturated.

4. Coxville Loam (referred to as Ogeechee loam in text)*

McArne Bay, McNair Seed Co. Farm near Laurinburg, N.C.

Soil Family Name: Typic Ochraquult over sandy, siliceous, thermic.

Profile Description

Depth, m	Description
0 - 0.20	Gray, friable loam or sandy loam -
0.2 - 1.2	Clay loam or sandy clay, abrupt to -
1.2 - 2.4	Light gray loamy sand with bodies of sandy loam Depth of top of this layer varies from 1 to 2 m, thickness varies from 0.5 to 1.2 m depending on location -
2.4 -	Sandy clay sediments, tight, massive structure, firm consistence. Thickness of this layer was not determined.

*This soil was called Ogeechee loam in the original research report (Skaggs 1978b) with some areas of Coxville and Lumbee. More detailed examination of the original soil survey data indicates that it should have been classified as a Coxville loam.