

HAITI AGROFORESTRY RESEARCH PROJECT

SOUTH EAST CONSORTIUM FOR INTERNATIONAL DEVELOPMENT/
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A GEOGRAPHIC INFORMATION SYSTEM (GIS) APPROACH
TO LOCATING POTENTIAL PLANTING SITES FOR THE
CATALPA LONGISSIMA SPECIES (CHENE)
IN HAITI

by
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SECID/AUBURN AGROFORESTRY REPORT No. 23

The views expressed herein are the views of the contractor and not necessarily those of the U.S. Agency for International Development.

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to Locating Potential Planting Sites for the
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Executive Summary

This paper reports the results of a preliminary study of the use of a Geographic Information System (GIS) approach to locating potentially superior sites for the cultivation of Catalpa Longissima species in Haiti. A total of 75 selected yokewood (chêne) phenotypes throughout the country were employed in the study. The following characteristics of the areas in which the trees were located were examined: (1) agro-ecological zones using Holdridge Life Zone classifications (1963); (2) soil potential; and (3) annual rainfall. Most of the trees were found to have come from three agro-ecological zones: Fth-S; Fs-S and Fh-S. Each zone respectively corresponds to the categories of "sub-tropical rain forest," "sub-tropical humid forest" and "sub-tropical dry forest." The analysis showed that soil type apparently had little effect on the morphology of the yokewood, which was found in mediocre to alluvial types of soils. Rocky or saline soils provided few specimens. Nearly 90% of the trees selected grew in regions where rainfall varies between 800 to 2000 mm per year. The remaining 10% were found in areas of scarce rainfall (400 to 800 mm per year) as well as in those in which rainfall was abundant (2000 to 3200 mm per year). The results of the analysis of the sites of the trees were used to indicate other places in Haiti with similar characteristics and which, accordingly, are potentially good sites for the cultivation of yokewood. This paper includes a map showing the relative suitability of zones for the cultivation of the species, as well as field measurements and other data used in the study.

REZIME

Nan mwa janvie ki sot pase-a, te gen yon pratik sou itilizasyon sistem enfomasyon jeografik (GIS) peyi dayiti-a pou nou te ka tou dabo :we ki sa sistem sa-a ye; dezyem man, we nesesite'l nan pratik agwosilvikol yo.

Aprè preske you semen antrennman kote nou te chwazi 75 pye bwa'd Chen ki te seleksyone nan maje pati peyi dayiti. Nou te detemine nan ki zo'n Agwo-Ekolojik plis bwa'd Chen te seleksyone dapre jan Holdridge te fe clasificasyon an pou peyi-a (1963); nan ki kalte te pye bwa ki seleksyone yo bay pi bel bwa; e an denye lye we ki kantite la pli ki tombe chak lane nan zo'n kot pyé bwa sa-yo kanpé. Rezilta nou te jwen'n montre nou ke:maje pati pye bwa'd Chen ki seleksyone yo, kanpe plis nan 3 zo'n Agwo-Ekolojik Holdridge:Fth-S, Fs-S e Fh-s; ki korespon'n e fore tre zimid sou-twopikal, a fore sesh sou-twopikal e a fore imid sou twopikal respektivman.

Rezilta yo montre nou tou ke nenpot ki te ka bay bel bwa'd Chen, depi sou te ki medyok ale sou bon te alivyon; men li tre difisil pou'm pa di enposib jwen bel bwa'd Chen byen fome nan te ki gen roch ak te ki sale.

Nou remake anko ke pi fo pye bwa'd Chen yo, se ta di 89.6% ,te seleksyone nan rejyon kote gen yon kantite la pli de 800 a 2000 mm.ki tonbe chak lane, lot 10.4% te nan zo'n kote pa gen ase la pli(400 a 800 mm pa an) ak kote ki gen twop la pli(2000 a 3200 mm pa an) respektivman.

1. INTRODUCTION

The purpose of this study is to examine the use of a Geographic Information System (GIS) approach in determining which locations in Haiti have the best potential for the growth of trees. The yokewood tree (chêne) was selected as the target species because of its importance in the USAID-funded Agroforestry II Project (AF II) in Haiti, and because of the availability of recent field data about its growth and condition in different sites. Judgements about the relative suitability of various types of sites were made by examining the distribution and performance of yokewood trees in various localities.

The yokewood tree is one of the 12 indigenous species which are included in the genetic species improvement program initiated by the International Resource Group, Ltd., program in 1988-89. The improvement effort continues as part of the SECID/Auburn Haiti Agroforestry Research Project, a component of the AF II. This species, which is already known for its agrosilvicultural properties and for the outstanding quality of its wood, is found scattered in many places throughout the country. It therefore offers a wide adaptation range in terms of soil type, agro-ecological region and precipitation. Our task in this study was to determine which characteristics are associated with the growth of these trees, and to indicate where sites with the desired characteristics are found in Haiti.

2. Objectives

The main objectives of this study are to:

1. Examine the potential for the use of GIS systems for agroforestry projects in Haiti and elsewhere;
2. Determine and map the physiogeographical zones of Catalpa longissima in Haiti.

II. METHODS AND MATERIALS

Methodology

To conduct this study, measurements and other data previously collected from 75 mother-trees, representing yokewood trees from all around the country, were used. (Table 1)

Our work included several phases. These were:

1. Selection of 1:50000 topographical maps of Haiti for the study;
2. Determining the location of the 75 mother trees employed in the study using UTM coordinates;
3. Use of the GIS HAITI computer software program and subroutines (use GIS ANALYSIS, then GROUP, and then ATTRGROUP) to create a file for yokewood trees, followed by the placement of points using pre-registered coordinates (use SCRNEDIT);
4. Determination of Agro-Ecological classification of all the points (using HLRHZ, described in Appendix A)
5. Determination of soil types where yokewood trees are located (by HLRSP, Appendix B).
6. Determination of the precipitation in each of the tree sites selected (by HLRPLUV, Appendix C).
7. Re-evaluation and modification, when needed, of the correlations existing between points 4, 5 and 6, by elaborating an adaptability map for the most superior yokewood tree phenotypes found in the country.

Table 1 lists the plot names, the locations and the altitudes of the yokewood tree families used in this study.

III. RESULTS AND DISCUSSION

1. Holdridge Agro-Ecological Classification.

The results obtained indicate that the selected yokewood trees are located in three main agro-ecological zones according to Holdridge classification scheme (1963): Fth-S, Fs-S, and Fh-S (Table 3). As is shown below, the great majority of the yokewood selected is located in the Fh-S zone.

Fth-S:	very humid, sub-tropical forest representing 6.52% of the total.
Fh-S:	humid, sub-tropical forest representing 77.09%.
Fs-S:	dry, sub-tropical forest representing 16.67%.total.

2. Soil Potential

As shown in greater detail in Table 4, soil type appears to have no effect on the distribution of yokewood tree phenotypes. The results show that the total number of trees are distributed among various soil types.

The distribution is as follows:

4.17%	Excellent soils (swamps)
4.17%	Excellent soils (Plains)
6.25%	Very Limited soils (Forests)
14.59%	Limited soils (Erodible)
14.59%	Weak soils (Eroded)
4.17%	Mediocre soils
10.42%	Average soils
10.42%	Good soils
22.92%	Very Good soils
8.34%	Excellent soils

In interpreting these results, however, it should be noted that although the highest percentage can be found in the Very Good soils category, the frequencies of the two neighboring categories, Good soils and Excellent soils, are considerably less. This pattern may be due to the cultivation practices used on such soils. Yokewood trees in good soils grow relatively fast and produce such desirable wood that the farmer may frequently harvest his trees. Once the tree has been cut, the owner then uses his land to grow his annual crops. Trees on poorer quality soils may not be harvested as often and the field may be less frequently used for seasonal crops. Accordingly, the frequencies shown for good soils and excellent soils may be depressed by the harvesting of trees and the subsequent cultivation of annual crops on such plots.

3. Pluviometry

The pluviometric data indicate that:

68.76% of the selected trees are located in areas with a 1200mm to 2000mm/year precipitation;

20.84% of the selected trees are found in areas with an 800mm to 1200mm/year precipitation;

6.27% are found in areas with a 2000mm to 3200/year precipitation; and

4.18% are located in areas with 400mm to 800mm/year. (See Table 5).

In Haiti, yokewood grows in areas receiving from 500 to 2000 mm mean annual precipitation (Jenkins, 1988; Tasaico, 1966). Although yokewood grows slowly on dry upland sites (Fougere, 1978), plantations have been established with success in areas receiving less than 1000 mm mean annual precipitation (Swabey, 1945).

4. Adaptability Map

Based on the information available to us, areas which are hypothetically superior for yokewood tree growth in Haiti can be identified. Our method is to combine Haiti's pluviometric classification data with Holdridge Agro-Ecological classifications (Table 2). Combining these data enables us to identify the areas best suited for yokewood tree growth across the country (Table 6). We have not combined soil potentiality with Holdridge classification because the effect of soil type on the yokewood phenotype has not been determined for all of our yokewood tree phenotypes.

Table 1. Location of Catalpa longissima plus tree candidates.

SPECIES CODE	NEW NO.	OLD NO.	PADF REGION	LOCALITY	ALTITUDE ALT 2	LANDOWNER
KOD ESPES	NOUVO NO.	ANSIEN NO.	REJON PADF	LOKALITE	ALTITID	MET TE-A
CALO	101	1	2	CHABIN (KM72) DE JACMEL	280	RN3
CALO	102	2	2	km 70 DE JACMEL	360	RN3
CALO	103	3	2	DIKLO (Km50) DE LEOGANE	440	RN3
CALO	104	4	2	DIKLO (Km50) DE LEOGANE	440	RN3
CALO	105	5	2	LACUL (Km42) DE LEOGANE	25	FATRA
CALO	106		2	LACUL (Km42) DE LEOGANE	25	FATRA
CALO	107	7	2	LACUL (Km42) DE LEOGANE	25	FATRA
CALO	108	8	2	BAS TAPION DE GRAND-GOAVE	75	RN2
CALO	109	9	2	FONTABI DE Pt-GOAVE	50	SENEK
CALO	110	10	2	DLO RELE DE GRAND-GOAVE	100	OJIVI St-AIME
CALO	111	11	2	TI PARADIS (Km 53) DE Gd-GOAVE	20	FILOUA
CALO	112	ELI	2	BONDIN DE BAINET	800	DIEU FORT
CALO	112	112	2	GESOM DE Pt-GOAVE	50	ANDRE St-PRE
CALO	113	13	2	BONDIN DE BAINET	850	DIEU FORT
CALO	114	14	2	VINIER DE ARCAHAIE	25	ANONS
CALO	115	15	2	GIYAM DE ARCAHAIE	16	LOUIS ZAMOR
CALO	116	ELI	2	GIYAM DE ARCAHAIE	25	
CALO	116	116	3	BAND DU NORD DU CAP-HAITIEN	60	JOHN CASONI
CALO	117	17	2	VINIER DE ARCAHAIE	100	LENE
CALO	118	18	3	VAUDREUIL DU CAP-HAITIEN	35	4 VEH
CALO	119		3	MODIEU DE LIMBE	20	CONSTANT RODOLPH
CALO	120	120	4	THOMONDE DE HINCHE	300	ALL. WES.
CALO	121	21	3	DEKLERO DE QUARTIER MORIN	25	SERGE LUKESSI
CALO	122	22	3	DEKLERO DE QUARTIER MORIN	25	SERGE LUKESSI
CALO	123		2	LABORDETTE DE Pt-GOAVE	420	
CALO	124	24	1	CHARLIER DE Pte RIVIERE DE NIPPES	25	IDELSON
CALO	125	25	1	CHARLIER DE Pte RIVIERE DE NIPPES	25	
CALO	127	27	1	ANONS DE JEREMIE	100	45 TADIEU RAYMOND
CALO	128		3	BAND DU NORD DU CAP-HAITIEN	50	JOHN LAROCHE
CALO	129		3	GAMEL DE CAP-HAITIEN	50	VECIUS REVERT
CALO	131	31	5	BAKE DE MIREBALAIS	200	CLOVER
CALO	132	32	2	MANZE MARIE DE JACMEL	240	ROYAL
CALO	133	33	2	MUSAC DE JACMEL	525	NESTER
CALO	134	134	4	THOMONDE DE HINCHE	280	GLORIA LAFALEZ
CALO	136	36	5	KAS DE LASCAHOBAS	210	LOUIS JEAN
CALO	137	37	5	SAVANNE KALBAS DE LASCAHOBAS	205	LESCOT VINCENT
CALO	138	138	3	LIMBE	40	HOP.B.SAMARITAIN
CALO	139	139	3	SAVANNE LONGUE DE OUANAMINTHE	90	OSMAN Jn-PIERRE

Table 1. Cont.

SPECIES CODE	NEW NO.	OLD NO.	PADF REGION	LOCALITY	ALTITUDE ALT 2	LANDOWNER
CALO	140	138	3	SAVANNE LONGUE DE OUANAMINTHE	90	EGLISE CATHOL
CALO	141	141	3	MORNE BOIS PIN DE LIMBE	8	RON SMITH
CALO	142	142	3	FAUCHE DE PORT-MAGOT	60	HOP.FAUCHE
CALO	143	143	3	FAUCHE DE PORT-MAGOT	55	HOP.FAUCHE
CALO	144	144		KABONETTE DE Jn RABEL	160	MINOCAL FLEURIMD
CALO	145	145		ROCHE CONTRE DE Jn RABEL	140	DENIVE METILUS
CALO	146	146	2	LACUL DE LEOGANE	5	FATRA
CALO	147	147	1	SEMA DE Pte RIVIERE DE NIPPES	40	JEAN FRANTZ
CALO	148	148	1	KACHAYE DE CHARLIER	15	BRIYE
CALO	149	149	5	FELICIAN DE LASCAHOBAS	200	DUARIS FENELA
CALO	150	150	2	FONTABI DE Pt-GOAVE	40	BOSS PRESOIRE
CALO	151	151	2	FONTABI DE Pt-GOAVE	40	BOSS PRESOIRE
CALO	153	153	2	BAZILBAS DE Pt-GOAVE	45	Mme SAGESSE
CALO	154	154	2	RAVIN PACK DE Pt-GOAVE	180	Mme BAPTISTE
CALO	155	155	2	RAVIN PACK DE Pt-GOAVE	165	Mme BAPTISTE
CALO	158	158	2	KALONPRE DE TROUIN	650	DIEUDONNE ARTIS
CALO	159		4	THOMONDE DE HINCHE	280	INNOCENT BAZIL
CALO	160	160	2	DANPIS DE Gd-GOAVE	65	LECLERC XAVIER
CALO	161	161	5	FELICIAN DE LASCAHOBAS	190	PETRONISE
CALO	163	163	2	DEUXIEME PLAINE DE Pt-GOAVE	55	ORELIO
CALO	164	164		GUILBO DE GUINAUDEE	220	JULNISTE
CALO	165	165		GUINAUDEE DE Jn RABEL	245	DISPENSAIRE
CALO	166	166		GUINAUDEE DE Jn RABEL	235	N.MELIDOR
CALO	168	168		NAN DIJE Jn RABEL	460	SYLVA JANVIER
CALO	169		2	LABORDETTE DE Pt-GOAVE	450	LUDES GUSTAL
CALO	170	170		NAN DIJE Jn RABEL	460	ELISIE VALES
CALO	171	171		NAN GENS (BASSIN BLEU) DE Jn RA	170	St. NILIEN DORVIL
CALO	172	172		NAN GENS (BASSIN BLEU) DE Jn RA	175	St MADIEU SILA
CALO	173	173		KAN PANYOL DE JN RABEL	175	St MADIEU SILA
CALO	174	174		BOURG DE JN RABEL	65	LEGLIS CATHOLIC
CALO	175	173		KAN PANYOL DE JN RABEL	175	LOISILIERE
CALO	176	176		VIDI DE Jn RABEL	395	EDILIE FLEURIDON
CALO	177	177		VALOI DE Jn RABEL	240	FRANCOEUR
CALO	178	178		FOND BEGLE DE BOMBARD	465	ENOK HENRI
CALO	180	180		RIVIE DE HENNE	35	HORACIUS MADEUS
CALO	181		2	BOYER DE LABORDETTE	575	LUDES ESTANIZ
CALO	182		2	TERRE ROUGE DE Pt-GOAVE	100	BRISSON
CALO	186	176		FOND BEGLE DE BOMBARD	455	FILOYA ANISTAL
CALO	196	176		JEAN RABEL	50	ABNO JOSEPH

Table 2. Ideal Yokewood Tree Localization Matrix
Holdridge's Agro-Ecological Classification

		Fth-S	Fh-S	Fs-S
Haiti's Pluviometry (mm/year)	400-600mm	3	2	3
	600-800mm	3	2	3
	800-1000mm	2	2	1
	1000-1200mm	2	2	1
	1200-1400mm	2	1	2
	1400-1600mm	2	1	2
	1600-2000mm	2	1	2
	2000-2400mm	3	2	3
	2400-2800mm	3	2	3
	2800-3200mm	3	2	3

Where: 1 = High Growth Potential
2 = Medium High Growth Potential
3 = Medium Growth Potential

As the final part of our study, we used the GIS (i. e., the MATCH procedure) to elaborate the data from Holdridge Agro-Ecological classification and the pluviometry maps. The data were superimposed in order to create an ideal yokewood tree distribution map for Haiti (Figure 1). The areas of Haiti which are most suitable for yokewood cultivation are readily indicated on the map.

CONCLUSIONS AND RECOMMENDATIONS

The results of our efforts provide some useful conclusions and recommendations.

1. The yokewood trees examined are found to be located in three Agro-Ecological zones according to Holdridge's classification: Fth-S, Fh-S and Fs-S, with the highest concentration being in Fh-S, or the humid, sub-tropical forest category.
2. The soil type does not significantly affect the distribution of yokewood trees; good phenotypes are found in a wide range of soil types except those which are rocky or salty.
3. The pluviometry data provides good parameters to determine the best locations for the yokewood tree population in Haiti. Yokewoods grow better in areas categorized as Dry Sub-Tropical Forests with precipitation in the 1000 to 2000mm/year range, and in those labeled as Humid Sub-Tropical Forests with 1200 to 2000mm/year in precipitation. These zones are most suitable for the cultivation of yokewood trees in Haiti and should be given priority in planting efforts.
4. The study presented here is preliminary in nature. The AF II project could benefit from its elaboration. An expanded study should:
 - a. make simultaneous use of Holdridge (1963) as well as the Buffum/Campbell (1984) classifications to obtain specific data on existing physio-geographical areas; and
 - b. expand the analyses by adding such variables as elevation, slope, and other physical measurements for the country as a whole.
5. A GIS approach to agroforestry research and implementation efforts to Haiti can be valuable and make unique contributions. It should be expanded and routinely incorporated into the AF II Project efforts. Additional studies of other species important to the AF II should be conducted.

APPENDIX A: Holdridge Haiti Agro-Ecological Classification
(HLRHZ.RAS).*

1. Fth-M
2. Fp-Mb
3. Fth-Mb
4. Fh-Mb
5. Fp-S
6. Fth-S
7. Fh-S
8. Fs-S
9. Fe-S

Holdridge's Classification

Fth-M: High altitude, mountainous, very humid region. More than 2000 meters, pine forests.

Fp-Mb: Low altitude, mountainous, forested, rainy region.

Fth-Mb: Low altitude, mountainous, forested, very humid region, 800 to 2000 meters.

Fh-Mb: Low altitude, mountainous, humid, forested region between 800 and 2000 meters.

Fp-S: Forested, rainy, sub-tropical region.

Fth-S: Very humid, forested, sub-tropical region.

Fh-S: Humid, forested, sub-tropical region.

Fs-S: Dry forest, sub-tropical, low altitude, generally below 400 meters. Different varieties of cactus.

Fe-S: Sub-tropical forested region. Very limited area and the driest in the country. Near Gonaïves.

*

Brown C. Douglas. 1987. ADS-11. Agricultural Development Support Project. Report No. 45

Table 3 Percentage of oak selected according to the different Agro-Ecological areas of Haiti

Attribute ----- hircalol.ras		Attribute ----- hrrhz.ras			
		Description: hircalol			
		Row Totals	Atr Val ----- 6	Atr Val ----- 7	Atr Val ----- 8
Atr Val		9	0	9	0
-----		2.09	0.01	2.71	0.01
121		100.00	0.01	100.00	0.01
		2.09	0.01	2.09	0.01
Atr Val		9	9	0	0
-----		2.09	33.34	0.01	0.01
127		100.00	100.00	0.01	0.01
		2.09	2.09	0.01	0.01
Atr Val		9	0	9	0
-----		2.09	0.01	2.71	0.01
129		100.00	0.01	100.00	0.01
		2.09	0.01	2.09	0.01
Atr Val		9	9	0	0
-----		2.09	33.34	0.01	0.01
131		100.00	100.00	0.01	0.01
		2.09	2.09	0.01	0.01
Atr Val		9	0	9	0
-----		2.09	0.01	2.71	0.01
132		100.00	0.01	100.00	0.01
		2.09	0.01	2.09	0.01
Atr Val		9	0	9	0
-----		2.09	0.01	2.71	0.01
133		100.00	0.01	100.00	0.01
		2.09	0.01	2.09	0.01
Atr Val		9	0	9	0
-----		2.09	0.01	2.71	0.01
134		100.00	0.01	100.00	0.01
		2.09	0.01	2.09	0.01
Atr Val		9	0	9	0
-----		2.09	0.01	2.71	0.01
136		100.00	0.01	100.00	0.01
		2.09	0.01	2.09	0.01

Table 3 Cont

		Attribute ----- hlrhz.ras		Description: hlrcalol	
Attribute ----- hlrcalol.ras		Atr Val	Atr Val	Atr Val	
Row Totals		6	7	8	
Atr Val	9	0	9	0	
-----	2.09	0.01	2.71	0.01	
137	100.00	0.01	100.00	0.01	
	2.09	0.01	2.09	0.01	
Atr Val	9	0	9	0	
-----	2.09	0.01	2.71	0.01	
138	100.00	0.01	100.00	0.01	
	2.09	0.01	2.09	0.01	
Atr Val	9	0	9	0	
-----	2.09	0.01	2.71	0.01	
141	100.00	0.01	100.00	0.01	
	2.09	0.01	2.09	0.01	
Atr Val	9	0	9	0	
-----	2.09	0.01	2.71	0.01	
142	100.00	0.01	100.00	0.01	
	2.09	0.01	2.09	0.01	
Atr Val	9	0	9	0	
-----	2.09	0.01	2.71	0.01	
146	100.00	0.01	100.00	0.01	
	2.09	0.01	2.09	0.01	
Atr Val	9	0	9	0	
-----	2.09	0.01	2.71	0.01	
147	100.00	0.01	100.00	0.01	
	2.09	0.01	2.09	0.01	
Atr Val	9	0	9	0	
-----	2.09	0.01	2.71	0.01	
148	100.00	0.01	100.00	0.01	
	2.09	0.01	2.09	0.01	
Atr Val	9	0	9	0	
-----	2.09	0.01	2.71	0.01	
150	100.00	0.01	100.00	0.01	
	2.09	0.01	2.09	0.01	

Table 3 Cont

----- Attribute ----- hlrcalol.ras		Description: hlrcalol		
		Atr Val	Atr Val	Atr Val
Row Totals		6	7	8
Atr Val	9	0	9	0
-----	-----	-----	-----	-----
163	2.09	0.01	2.71	0.01
	100.00	0.01	100.00	0.01
	2.09	0.01	2.09	0.01
Atr Val	9	0	9	0
-----	-----	-----	-----	-----
164	2.09	0.01	2.71	0.01
	100.00	0.01	100.00	0.01
	2.09	0.01	2.09	0.01
Atr Val	9	0	9	0
-----	-----	-----	-----	-----
168	2.09	0.01	2.71	0.01
	100.00	0.01	100.00	0.01
	2.09	0.01	2.09	0.01
Atr Val	9	0	9	0
-----	-----	-----	-----	-----
169	2.09	0.01	2.71	0.01
	100.00	0.01	100.00	0.01
	2.09	0.01	2.09	0.01
Atr Val	9	0	0	9
-----	-----	-----	-----	-----
160	2.09	0.01	0.01	12.51
	100.00	0.01	0.01	100.00
	2.09	0.01	0.01	2.09
Atr Val	9	0	9	0
-----	-----	-----	-----	-----
161	2.09	0.01	2.71	0.01
	100.00	0.01	100.00	0.01
	2.09	0.01	2.09	0.01
Atr Val	9	0	9	0
-----	-----	-----	-----	-----
163	2.09	0.01	2.71	0.01
	100.00	0.01	100.00	0.01
	2.09	0.01	2.09	0.01
Atr Val	9	0	9	0
-----	-----	-----	-----	-----
164	2.09	0.01	2.71	0.01
	100.00	0.01	100.00	0.01
	2.09	0.01	2.09	0.01

Table 3 Cont

Attribute		Description: hlrcalol		
hlrcalol.ras		hlrhz.ras		
Atr Val	Row	Atr Val	Atr Val	Atr Val
	Totals	6	7	8
	9	9	0	0
Atr Val	2.09	33.34	0.01	0.01
188	100.00	100.00	0.01	0.01
	2.09	2.09	0.01	0.01
	9	0	9	0
Atr Val	2.09	0.01	2.71	0.01
189	100.00	0.01	100.00	0.01
	2.09	0.01	2.09	0.01
	9	0	9	0
Atr Val	2.09	0.01	2.71	0.01
171	100.00	0.01	100.00	0.01
	2.09	0.01	2.09	0.01
	9	0	0	9
Atr Val	2.09	0.01	0.01	12.51
174	100.00	0.01	0.01	100.00
	2.09	0.01	0.01	2.09
	9	0	9	0
Atr Val	2.09	0.01	2.71	0.01
176	100.00	0.01	100.00	0.01
	2.09	0.01	2.09	0.01
	9	0	9	0
Atr Val	2.09	0.01	2.71	0.01
177	100.00	0.01	100.00	0.01
	2.09	0.01	2.09	0.01
	9	0	9	0
Atr Val	2.09	0.01	2.71	0.01
178	100.00	0.01	100.00	0.01
	2.09	0.01	2.09	0.01
	9	0	0	9
Atr Val	2.09	0.01	0.01	12.51
180	100.00	0.01	0.01	100.00
	2.09	0.01	0.01	2.09

Table 3 Cont

		Description: hlrcal01			
Attribute ----- hlrcal01.ras		Attribute ----- hlrhz.ras	Atr Val ----- 6	Atr Val ----- 7	Atr Val ----- 8
Row Totals		9	0	0	9
Atr Val ----- 198	2.09	0.01	0.01	12.61	
	100.00	0.01	0.01	100.00	
	2.09	0.01	0.01	2.09	

APPENDIX B: SOIL POTENTIAL CLASSIFICATIONS IN HAITI (HLRSP RAS)*

- 1 Lakes and rivers
- 2 Excellent
- 3 Very Good
- 4 Good
- 5 Medium
- 6 Mediocre
- 7 Weak (eroded)
- 8 Weak (subject to flooding)
- 9 Limited (prone to erosion)
- 10 Limited (saline soil)
- 11 Very Limited (forested)
- 12 Very Limited (saline soil)
- 13 Very Limited (rocky)
- 14 Excellent (plains)
- 15 Medium (swamps)
- 16 Excellent (swamps)
- 17 Very Good (hilly)
- 18 Urban
- 19 Unclassified

*

Brown C. Douglas. 1987. ADS-11. Agricultural Development Support Project. Report No. 45

Table 4 Percentage of selected oak identified in different types of Haitian soil.

Attribute		Description										
hirsap.ras												
Attribute												
hircalol.ras												
Row Totals		Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	
		2	3	4	5	6	7	8	9	10	11	
Column	Totals	432	36	99	45	45	18	63	63	27	18	18
		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
		100.00	8.34	22.92	10.42	10.42	4.17	14.59	14.59	6.25	4.17	4.17
		100.00	8.34	22.92	10.42	10.42	4.17	14.59	14.59	6.25	4.17	4.17
Atr Val		9	0	0	0	0	0	0	0	9	0	0
101		2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	33.34	0.01	0.01
		100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01
		2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01
Atr Val		9	0	0	0	0	0	0	9	0	0	0
102		2.09	0.01	0.01	0.01	0.01	0.01	0.01	14.29	0.01	0.01	0.01
		100.00	0.01	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01
		2.09	0.01	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01
Atr Val		9	0	0	0	0	0	0	9	0	0	0
103		2.09	0.01	0.01	0.01	0.01	0.01	0.01	14.29	0.01	0.01	0.01
		100.00	0.01	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01
		2.09	0.01	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01
Atr Val		9	0	0	0	0	0	0	0	0	0	9
107		2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	50.01
		100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	100.00
		2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	2.09
Atr Val		9	0	9	0	0	0	0	0	0	0	0
108		2.09	0.01	9.10	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
		100.00	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
		2.09	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Atr Val		9	0	0	0	0	0	9	0	0	0	0
110		2.09	0.01	0.01	0.01	0.01	0.01	14.29	0.01	0.01	0.01	0.01
		100.00	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01
		2.09	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01
Atr Val		9	0	0	0	9	0	0	0	0	0	0
111		2.09	0.01	0.01	0.01	20.00	0.01	0.01	0.01	0.01	0.01	0.01
		100.00	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01
		2.09	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01

Table 4 Cont.

Attribute		hlrcalol.res										
		Row Totals	Atr Val 2	Atr Val 3	Atr Val 4	Atr Val 5	Atr Val 6	Atr Val 7	Atr Val 9	Atr Val 11	Atr Val 14	Atr Val 16
Atr Val	9	0	0	0	0	0	0	0	0	0	9	0
-----	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	50.01	0.01
121	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	100.00	0.01
	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	2.09	0.01
Atr Val	9	0	9	0	0	0	0	0	0	0	0	0
-----	2.09	0.01	9.10	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
127	100.00	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	9	0	0	0	0	0	0
-----	2.09	0.01	0.01	0.01	0.01	50.01	0.01	0.01	0.01	0.01	0.01	0.01
129	100.00	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	9	0	0	0	0	0	0	0	0	0
-----	2.09	0.01	9.10	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
131	100.00	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	0	9	0	0	0	0	0
-----	2.09	0.01	0.01	0.01	0.01	0.01	14.29	0.01	0.01	0.01	0.01	0.01
132	100.00	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	9	0	0	0	0	0	0	0	0	0
-----	2.09	0.01	9.10	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
133	100.00	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	0	9	0	0	0	0	0	0	0	0
-----	2.09	0.01	0.01	20.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
134	100.00	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	0	9	0	0	0	0	0	0	0	0
-----	2.09	0.01	0.01	20.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
136	100.00	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

Table 4 Cont.

Attribute

hircalol.ras

	Row Totals	Atr Val 2	Atr Val 3	Atr Val 4	Atr Val 5	Atr Val 6	Atr Val 7	Atr Val 9	Atr Val 11	Atr Val 14	Atr Val 16
Atr Val	9	0	0	0	0	0	0	0	0	0	0
-----	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	33.34	0.01	0.01
137	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01
Atr Val	9	9	0	0	0	0	0	0	0	0	0
-----	2.09	25.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
138	100.00	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	2.09	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	0	0	9	0	0	0
-----	2.09	0.01	0.01	0.01	0.01	0.01	0.01	14.29	0.01	0.01	0.01
141	100.00	0.01	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01
Atr Val	9	9	0	0	0	0	0	0	0	0	0
-----	2.09	25.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
142	100.00	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	2.09	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	0	0	0	0	0	9
-----	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	50.01
146	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	100.00
	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	2.09
Atr Val	9	0	0	0	9	0	0	0	0	0	0
-----	2.09	0.01	0.01	0.01	20.00	0.01	0.01	0.01	0.01	0.01	0.01
147	100.00	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	9	0	0	0	0	0	0
-----	2.09	0.01	0.01	0.01	20.00	0.01	0.01	0.01	0.01	0.01	0.01
148	100.00	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	0	0	0	0	9	0
-----	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	50.01	0.01
150	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	100.00	0.01
	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	2.09	0.01

Table 4 Cont.

		hirspp.ras										
Attribute		hircalol.ras										
		Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val
Now		2	3	4	5	6	7	9	11	14	16	
Totals		2	3	4	5	6	7	9	11	14	16	
Atr Val	9	0	9	0	0	0	0	0	0	0	0	
-----	2.09	0.01	9.10	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
153	100.00	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
	2.09	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Atr Val	9	0	0	0	0	0	9	0	0	0	0	
-----	2.09	0.01	0.01	0.01	0.01	0.01	14.29	0.01	0.01	0.01	0.01	
154	100.00	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	
	2.09	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	
Atr Val	9	0	0	0	0	0	9	0	0	0	0	
-----	2.09	0.01	0.01	0.01	0.01	0.01	14.29	0.01	0.01	0.01	0.01	
155	100.00	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	
	2.09	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	
Atr Val	9	0	9	0	0	0	0	0	0	0	0	
-----	2.09	0.01	9.10	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
159	100.00	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
	2.09	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Atr Val	9	0	9	0	0	0	0	0	0	0	0	
-----	2.09	0.01	9.10	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
160	100.00	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
	2.09	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Atr Val	9	0	0	0	0	0	9	0	0	0	0	
-----	2.09	0.01	0.01	0.01	0.01	0.01	14.29	0.01	0.01	0.01	0.01	
161	100.00	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	
	2.09	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	
Atr Val	9	0	9	0	0	0	0	0	0	0	0	
-----	2.09	0.01	9.10	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
163	100.00	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
	2.09	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Atr Val	9	0	0	0	0	0	9	0	0	0	0	
-----	2.09	0.01	0.01	0.01	0.01	0.01	14.29	0.01	0.01	0.01	0.01	
164	100.00	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	
	2.09	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	

Table 4 Cont.

		Description:										
Attribute		hlrsp.ras										
hlrcalol.ras												
		Now	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val
		Totals	2	3	4	5	6	7	9	11	14	16
Atr Val		9	0	0	0	0	0	0	0	9	0	0
168		2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	33.34	0.01	0.01
		100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01
		2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01
Atr Val		9	0	0	0	0	0	0	9	0	0	0
169		2.09	0.01	0.01	0.01	0.01	0.01	0.01	14.29	0.01	0.01	0.01
		100.00	0.01	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01
		2.09	0.01	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01
Atr Val		9	0	9	0	0	0	0	0	0	0	0
171		2.09	0.01	9.10	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
		100.00	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
		2.09	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Atr Val		9	9	0	0	0	0	0	0	0	0	0
174		2.09	25.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
		100.00	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
		2.09	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Atr Val		9	0	0	0	0	0	0	9	0	0	0
176		2.09	0.01	0.01	0.01	0.01	0.01	0.01	14.29	0.01	0.01	0.01
		100.00	0.01	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01
		2.09	0.01	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01
Atr Val		9	0	0	0	0	0	9	0	0	0	0
177		2.09	0.01	0.01	0.01	0.01	0.01	14.29	0.01	0.01	0.01	0.01
		100.00	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01
		2.09	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01
Atr Val		9	0	0	9	0	0	0	0	0	0	0
178		2.09	0.01	0.01	20.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
		100.00	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
		2.09	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Atr Val		9	0	9	0	0	0	0	0	0	0	0
180		2.09	0.01	9.10	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
		100.00	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
		2.09	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01

APPENDIX C: Rainfall Classifications of Haiti in mm/year
(HLRPLUV.RAS)*

1.	200	to	400	mm.
2.	400	to	600	mm.
3.	600	to	800	mm.
4.	800	to	1000	mm.
5.	1000	to	1200	mm.
6.	1200	to	1400	mm.
7.	1400	to	1600	mm.
8.	1600	to	2000	mm.
9.	2000	to	2400	mm.
10.	2400	to	2800	mm.
11.	2800	to	3200	mm.
12.	3200	to	3600	mm.
13.	3600	to	3800	mm.

*

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Project. Report No. 45

Table 5 Annual Rainfall Found in the Areas where SECID Has Selected Oak

Attribute		hircalol.ras										
hircalol.ras		Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val
Row Totals		2	3	4	5	6	7	8	9	10	11	
Column Totals	432	9	9	45	45	117	99	81	9	9	9	
	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	100.00	2.09	2.09	10.42	10.42	27.09	22.92	18.75	2.09	2.09	2.09	2.09
	100.00	2.09	2.09	10.42	10.42	27.09	22.92	18.75	2.09	2.09	2.09	2.09
Atr Val	9	0	0	0	0	9	0	0	0	0	0	0
101	2.09	0.01	0.01	0.01	0.01	7.70	0.01	0.01	0.01	0.01	0.01	0.01
	100.00	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	9	0	0	0	0	0	0
102	2.09	0.01	0.01	0.01	0.01	7.70	0.01	0.01	0.01	0.01	0.01	0.01
	100.00	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	0	9	0	0	0	0	0
103	2.09	0.01	0.01	0.01	0.01	0.01	9.10	0.01	0.01	0.01	0.01	0.01
	100.00	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	9	0	0	0	0	0	0
107	2.09	0.01	0.01	0.01	0.01	7.70	0.01	0.01	0.01	0.01	0.01	0.01
	100.00	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	9	0	0	0	0	0	0
108	2.09	0.01	0.01	0.01	0.01	7.70	0.01	0.01	0.01	0.01	0.01	0.01
	100.00	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	9	0	0	0	0	0	0
110	2.09	0.01	0.01	0.01	0.01	7.70	0.01	0.01	0.01	0.01	0.01	0.01
	100.00	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	9	0	0	0	0	0	0
111	2.09	0.01	0.01	0.01	0.01	7.70	0.01	0.01	0.01	0.01	0.01	0.01
	100.00	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01

Table 5 Cont.

		Description: hircalol X plus									
Attribute		hircalol.ras									
hircalol.ras		Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val
Row	Totals	2	3	4	5	6	7	8	9	10	11
Atr Val	9	0	0	0	0	0	0	0	9	0	0
-----	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01
113	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01
-----	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01
Atr Val	9	0	0	0	9	0	0	0	0	0	0
-----	2.09	0.01	0.01	0.01	20.00	0.01	0.01	0.01	0.01	0.01	0.01
114	100.00	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01
-----	2.09	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	0	9	0	0	0	0	0	0	0
-----	2.09	0.01	0.01	20.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
115	100.00	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
-----	2.09	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	0	9	0	0	0	0
-----	2.09	0.01	0.01	0.01	0.01	0.01	9.10	0.01	0.01	0.01	0.01
116	100.00	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01
-----	2.09	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	9	0	0	0	0	0	0
-----	2.09	0.01	0.01	0.01	20.00	0.01	0.01	0.01	0.01	0.01	0.01
117	100.00	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01
-----	2.09	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	0	9	0	0	0	0
-----	2.09	0.01	0.01	0.01	0.01	0.01	9.10	0.01	0.01	0.01	0.01
118	100.00	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01
-----	2.09	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	0	0	9	0	0	0
-----	2.09	0.01	0.01	0.01	0.01	0.01	0.01	11.12	0.01	0.01	0.01
119	100.00	0.01	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01
-----	2.09	0.01	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01
Atr Val	9	0	0	0	0	0	9	0	0	0	0
-----	2.09	0.01	0.01	0.01	0.01	0.01	9.10	0.01	0.01	0.01	0.01
120	100.00	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01
-----	2.09	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01

Table 5 Cont.

		hirpluv.ras										
Attribute		-----										
hircalol.ras		-----										
Row Totals		Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val
		2	3	4	5	6	7	8	9	10	11	
Atr Val	9	0	0	0	0	9	0	0	0	0	0	
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
121	2.09	0.01	0.01	0.01	0.01	7.70	0.01	0.01	0.01	0.01	0.01	0.01
	100.00	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	0	0	0	0	0	0	9
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
127	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	100.00
	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	100.00
	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	2.09
Atr Val	9	0	0	0	0	0	0	9	0	0	0	0
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
129	2.09	0.01	0.01	0.01	0.01	0.01	0.01	11.12	0.01	0.01	0.01	0.01
	100.00	0.01	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	0	0	0	0	9	0	0
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
131	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01
	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01
Atr Val	9	0	0	0	0	9	0	0	0	0	0	0
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
132	2.09	0.01	0.01	0.01	0.01	7.70	0.01	0.01	0.01	0.01	0.01	0.01
	100.00	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	0	0	9	0	0	0	0
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
133	2.09	0.01	0.01	0.01	0.01	0.01	0.01	11.12	0.01	0.01	0.01	0.01
	100.00	0.01	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	0	9	0	0	0	0	0
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
134	2.09	0.01	0.01	0.01	0.01	0.01	9.10	0.01	0.01	0.01	0.01	0.01
	100.00	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	0	9	0	0	0	0	0
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
136	2.09	0.01	0.01	0.01	0.01	0.01	9.10	0.01	0.01	0.01	0.01	0.01
	100.00	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01

Table 5 Cont.

		hirpiuv.ras										
Attribute		-----										
hircajol.ras		-----										
		Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val
Row Totals		2	3	4	5	6	7	8	9	10	11	
Atr Val	9	0	0	0	0	0	0	9	0	0	0	
137	2.09	0.01	0.01	0.01	0.01	0.01	0.01	11.12	0.01	0.01	0.01	
	100.00	0.01	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	
	2.09	0.01	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	
Atr Val	9	0	0	0	0	0	0	9	0	0	0	
138	2.09	0.01	0.01	0.01	0.01	0.01	0.01	11.12	0.01	0.01	0.01	
	100.00	0.01	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	
	2.09	0.01	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	
Atr Val	9	0	0	0	0	0	0	9	0	0	0	
141	2.09	0.01	0.01	0.01	0.01	0.01	0.01	11.12	0.01	0.01	0.01	
	100.00	0.01	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	
	2.09	0.01	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	
Atr Val	9	0	0	0	0	0	0	9	0	0	0	
142	2.09	0.01	0.01	0.01	0.01	0.01	0.01	11.12	0.01	0.01	0.01	
	100.00	0.01	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	
	2.09	0.01	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	
Atr Val	9	0	0	0	0	9	0	0	0	0	0	
146	2.09	0.01	0.01	0.01	0.01	7.70	0.01	0.01	0.01	0.01	0.01	
	100.00	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	
	2.09	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	
Atr Val	9	0	0	0	0	9	0	0	0	0	0	
147	2.09	0.01	0.01	0.01	0.01	7.70	0.01	0.01	0.01	0.01	0.01	
	100.00	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	
	2.09	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	
Atr Val	9	0	0	0	0	9	0	0	0	0	0	
148	2.09	0.01	0.01	0.01	0.01	7.70	0.01	0.01	0.01	0.01	0.01	
	100.00	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	
	2.09	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	
Atr Val	9	0	0	0	0	0	9	0	0	0	0	
150	2.09	0.01	0.01	0.01	0.01	0.01	9.10	0.01	0.01	0.01	0.01	
	100.00	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	
	2.09	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	

Table 5 Cont.

		Description: hircalol A plus									
Attribute		hirpluv.ras									
hircalol.ras											
Now Totals		Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val
		2	3	4	5	6	7	8	9	10	11
Atr Val	9	0	0	0	0	0	9	0	0	0	0
-----	2.09	0.01	0.01	0.01	0.01	0.01	9.10	0.01	0.01	0.01	0.01
153	100.00	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	9	0	0	0	0	0
-----	2.09	0.01	0.01	0.01	0.01	7.70	0.01	0.01	0.01	0.01	0.01
154	100.00	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	0	9	0	0	0	0
-----	2.09	0.01	0.01	0.01	0.01	0.01	9.10	0.01	0.01	0.01	0.01
158	100.00	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	0	9	0	0	0	0
-----	2.09	0.01	0.01	0.01	0.01	0.01	9.10	0.01	0.01	0.01	0.01
159	100.00	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	9	0	0	0	0	0
-----	2.09	0.01	0.01	0.01	0.01	7.70	0.01	0.01	0.01	0.01	0.01
160	100.00	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01
Atr Val	9	0	0	0	0	0	0	9	0	0	0
-----	2.09	0.01	0.01	0.01	0.01	0.01	0.01	11.12	0.01	0.01	0.01
161	100.00	0.01	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01
Atr Val	9	0	0	0	0	0	9	0	0	0	0
-----	2.09	0.01	0.01	0.01	0.01	0.01	9.10	0.01	0.01	0.01	0.01
163	100.00	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01
Atr Val	9	0	0	9	0	0	0	0	0	0	0
-----	2.09	0.01	0.01	20.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
164	100.00	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01

Table 5 Cont.

		hirpluv.ras										
Attribute		hircalol.ras										
		Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val
Row Totals		2	3	4	5	6	7	8	9	10	11	
Atr Val	9	0	0	0	9	0	0	0	0	0	0	
168	2.09	0.01	0.01	0.01	20.00	0.01	0.01	0.01	0.01	0.01	0.01	
	100.00	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01	
	2.09	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01	
Atr Val	9	0	0	0	0	0	0	9	0	0	0	
169	2.09	0.01	0.01	0.01	0.01	0.01	0.01	11.12	0.01	0.01	0.01	
	100.00	0.01	0.01	0.01	0.01	0.01	0.01	100.00	0.01	0.01	0.01	
	2.09	0.01	0.01	0.01	0.01	0.01	0.01	2.09	0.01	0.01	0.01	
Atr Val	9	0	0	0	9	0	0	0	0	0	0	
171	2.09	0.01	0.01	0.01	20.00	0.01	0.01	0.01	0.01	0.01	0.01	
	100.00	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01	
	2.09	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01	
Atr Val	9	0	0	9	0	0	0	0	0	0	0	
174	2.09	0.01	0.01	20.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
	100.00	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
	2.09	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Atr Val	9	0	0	0	9	0	0	0	0	0	0	
176	2.09	0.01	0.01	0.01	20.00	0.01	0.01	0.01	0.01	0.01	0.01	
	100.00	0.01	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01	
	2.09	0.01	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01	
Atr Val	9	0	0	9	0	0	0	0	0	0	0	
177	2.09	0.01	0.01	20.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
	100.00	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
	2.09	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Atr Val	9	0	9	0	0	0	0	0	0	0	0	
178	2.09	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
	100.00	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
	2.09	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
Atr Val	9	9	0	0	0	0	0	0	0	0	0	
180	2.09	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
	100.00	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
	2.09	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	

Table 5 Cont.

		Description: hlrca101 X pluv									
Attribute		hlrpluv.ras									
Attribute		hlrca101.ras									
Row		Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val
Totals		2	3	4	5	6	7	8	9	10	11
Atr Val	9	0	0	9	0	0	0	0	0	0	0
	2.09	0.01	0.01	20.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
196	100.00	0.01	0.01	100.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	2.09	0.01	0.01	2.09	0.01	0.01	0.01	0.01	0.01	0.01	0.01

Table 6 Percentage of suitable areas for the growth of oak depending on the rainfall based upon Holridge's Agro-Ecological classifications.

Attribute ----- hlrh5.ras		Description: hlrpluv.ras					
		Row Totals	Atr Val ----- 1	Atr Val ----- 2	Atr Val ----- 3	Atr Val ----- 4	Atr Val ----- 5
Column Totals		2893952	35001	72684	114966	299382	329958
		100.00	100.00	100.00	100.00	100.00	100.00
		100.00	1.30	2.70	4.27	8.89	12.25
		100.00	1.30	2.70	4.27	8.89	12.25
Atr Val ----- 1		8316	0	0	0	0	0
		0.31	0.01	0.01	0.01	0.01	0.01
		100.00	0.01	0.01	0.01	0.01	0.01
		0.31	0.01	0.01	0.01	0.01	0.01
Atr Val ----- 2		12951	0	0	0	0	0
		0.49	0.01	0.01	0.01	0.01	0.01
		100.00	0.01	0.01	0.01	0.01	0.01
		0.49	0.01	0.01	0.01	0.01	0.01
Atr Val ----- 3		211032	0	0	0	108	5670
		7.84	0.01	0.01	0.01	0.05	1.72
		100.00	0.01	0.01	0.01	0.06	2.69
		7.84	0.01	0.01	0.01	0.01	0.22
Atr Val ----- 4		152865	0	0	0	1026	6003
		5.68	0.01	0.01	0.01	0.43	1.82
		100.00	0.01	0.01	0.01	0.68	3.93
		5.68	0.01	0.01	0.01	0.04	0.23
Atr Val ----- 5		5004	0	0	0	0	0
		0.19	0.01	0.01	0.01	0.01	0.01
		100.00	0.01	0.01	0.01	0.01	0.01
		0.19	0.01	0.01	0.01	0.01	0.01
Atr Val ----- 6		435807	0	0	0	5607	19044
		16.18	0.01	0.01	0.01	2.35	5.78
		100.00	0.01	0.01	0.01	1.29	4.37
		16.18	0.01	0.01	0.01	0.21	0.71
Atr Val ----- 7		1354419	252	4239	15948	85068	198693
		50.28	0.72	5.84	13.88	35.54	60.22
		100.00	0.02	0.32	1.18	6.29	14.67
		50.28	0.01	0.16	0.60	3.16	7.38

Table 6 Cont.

Attribute ----- hlrhrs.ras	Attribute ----- hlrpluv.ras					
	Description: hlrcalol					
	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val	Atr Val
	6	7	8	9	10	11
Column Totals	337302	392751	477063	419886	145620	55323
	100.00	100.00	100.00	100.00	100.00	100.00
	12.53	14.58	17.71	15.59	5.41	2.06
	12.53	14.58	17.71	15.59	5.41	2.06
Atr Val	0	0	414	6876	288	450
1	0.01	0.01	0.09	1.64	0.20	0.82
	0.01	0.01	4.98	82.69	3.47	5.42
	0.01	0.01	0.02	0.26	0.02	0.02
Atr Val	0	0	0	0	72	1602
2	0.01	0.01	0.01	0.01	0.05	2.90
	0.01	0.01	0.01	0.01	0.56	12.37
	0.01	0.01	0.01	0.01	0.01	0.06
Atr Val	10737	22887	47520	76698	26082	10368
3	3.19	5.83	9.97	18.27	17.92	18.75
	5.09	10.85	22.52	36.35	12.36	4.92
	0.40	0.85	1.77	2.86	0.97	0.39
Atr Val	15894	29484	34992	56439	4716	4311
4	4.72	7.51	7.34	13.45	3.24	7.80
	10.40	19.29	22.90	36.93	3.09	2.83
	0.59	1.10	1.30	2.10	0.18	0.17
Atr Val	0	0	0	36	810	2052
5	0.01	0.01	0.01	0.01	0.56	3.71
	0.01	0.01	0.01	0.72	16.19	41.01
	0.01	0.01	0.01	0.01	0.04	0.08
Atr Val	23238	32373	90000	144927	77634	21708
6	6.89	8.25	18.87	34.52	53.32	39.24
	5.34	7.43	20.66	33.26	17.82	4.99
	0.87	1.21	3.35	5.38	2.89	0.81
Atr Val	243216	294003	302265	134910	36018	14832
7	72.11	74.86	63.36	32.14	24.74	26.81
	17.96	21.71	22.32	9.97	2.66	1.10
	9.03	10.92	11.23	5.01	1.34	0.56

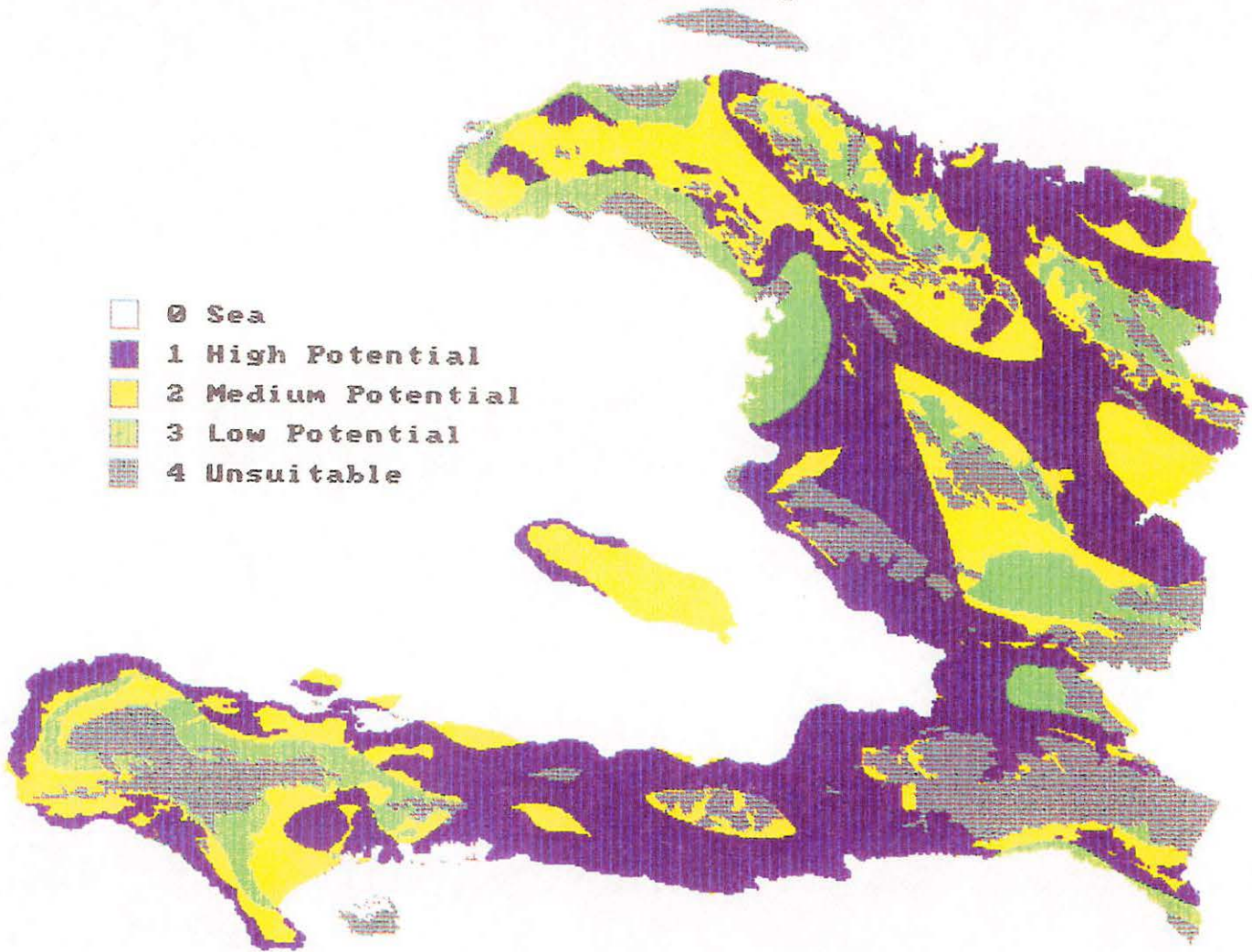
Table 6 Cont.

Attribute ----- hlrhg.ras		Attribute ----- hlrpluv.ras		
		Description: hlrcalol		
		Atr Val	Atr Val	Atr Val
		-----	-----	-----
		12	13	14
Column		29160	19962	24894
Totals		100.00	100.00	100.00
		1.09	0.75	0.93
		1.09	0.75	0.93
Atr Val		288	0	0
-----		0.99	0.01	0.01
1		3.47	0.01	0.01
		0.02	0.01	0.01
Atr Val		6498	4779	0
-----		22.29	23.95	0.01
2		50.18	36.91	0.01
		0.25	0.18	0.01
Atr Val		6345	4617	0
-----		21.76	23.13	0.01
3		3.01	2.19	0.01
		0.24	0.18	0.01
Atr Val		0	0	0
-----		0.01	0.01	0.01
4		0.01	0.01	0.01
		0.01	0.01	0.01
Atr Val		2061	45	0
-----		7.07	0.23	0.01
5		41.19	0.90	0.01
		0.08	0.01	0.01
Atr Val		10998	10278	0
-----		37.72	51.49	0.01
6		2.53	2.36	0.01
		0.41	0.39	0.01
Atr Val		2970	243	21762
-----		10.19	1.22	87.42
7		0.22	0.02	1.61
		0.12	0.01	0.81

Table 6 Cont.

Attribute ----- hlrpluv.ras		Description: hlrca1e1		
		Atr Val ----- 12	Atr Val ----- 13	Atr Val ----- 14
Atr Val ----- 8	0 0.01 0.01 0.01	0 0.01 0.01 0.01	3132 12.59 0.62 0.12	
Atr Val ----- 9	0 0.01 0.01 0.01	0 0.01 0.01 0.01	0 0.01 0.01 0.01	

chene suitability zones



- 0 Sea
- 1 High Potential
- 2 Medium Potential
- 3 Low Potential
- 4 Unsuitable

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