

**UNITED STATES DEPARTMENT OF AGRICULTURE  
NATURAL RESOURCES CONSERVATION SERVICE**

Ecological Site Description

Site name: SEMIARID HILLY  
Site number: R-271ZY034VI  
Major Land Resource Area: 271 Semiarid Mountains and Valleys  
Interstate correlation: NONE

**Physiographic features:** This site occurs on steep mountain summits, side slopes and foot slopes in the semiarid region. It is formed in residuum and colluvium that weathered from volcanic and limestone bedrock. Elevation ranges from 30 to 1000 feet.

**Climatic features**

Frost-free period: 365 DAYS  
Freeze-free period: 365 DAYS  
Mean annual precipitation: 42.2 INCHES  
Mean annual air temperature: 79.3°F  
Mean annual soil temperature:  
Monthly moisture and temperature distribution:

	<b>Mean Precipitation (inches)</b>	<b>Percent Precipitation (%)</b>	<b>Mean Temperature (°F)</b>
January	2.30	5.45	77
February	1.50	3.55	77
March	1.70	4.02	77
April	2.30	5.45	78
May	4.20	9.95	79
June	2.70	6.39	81
July	3.00	7.10	81
August	4.40	10.42	82
September	5.20	12.32	81
October	5.30	12.55	81
November	6.00	14.21	80
December	3.60	8.53	78
<b>Mean annual</b>	<b>42.2</b>		<b>79.3</b>

**Other climatic features:** A rainy season prevails from July to November and a pronounced dry season occurs during the remainder of the year. Hurricanes are most likely to occur from August to November, and are characterized by strong winds and torrential rains.

**Associated water features:** Some intermittent rivers and creeks.

**Elevation Aspect:** 5 to 2000 ft.

**Percent Slope:** 2 to 90

**Soils:** Soils on this site are shallow to very deep to volcanic bedrock, well drained, slowly to moderate permeable, and have a loamy to clayey texture in the fine earth fraction. The site occurs on gently to very steep sloping summits and side slopes of volcanic hills and mountains.

Major Soil Taxonomic Units correlated to this site include:

Annaberg-Cramer Complex, AcD, AcE, AcF, AcG  
Cramer-Victory Complex, CvC, CvD, CvE, CvF  
Dorothea-Susannaberg Complex, DoE, DoF, DoG  
Frederiksdal-Susannaberg, FsD, FsE, FsF, FsG  
Annaberg-Maho Bay, AmD, AmE, AmF, AmG

**Plant communities:** This site consists primarily of tufted perennial vegetation that are drought tolerant. The site occurs in the foothills and sideslopes of semiarid volcanic hills and mountains.

**Major plant species composition:** Grasses constitute by 57%, forbs 4%, shrubs 23% and trees 16% of the vegetative composition.

#### GRASSES AND GRASSLIKES

Scientific Symbol	Common Name	Group	Pounds per Acre	Percent by Weight	Percent Allowed For Group
ARAD	Three awn grass	1			
ARPO	Triple awned grass	1			
AXCO	Carpet grass	1			
BOPE2	Hurricane grass	1			
BORE2	Slender gramagrass				
BRPU5	Para grass	1			
CEEC	Southern sandbur	1			
CHIN4	Mexican bluegrass	1			
DAAE	Egyptian grass	1			
DIAN	Kleberg	1			

DISA	Crabgrass	1			
ELIN3	Goosegrass	1			
ERCI2	Love grass	1			
ICPA	Ichantus	1			
PAFI5	Pata de conejo	1			
PALA12	Coconut paspalum	1			
PARE3	Sprawling panic	1			
PECI	Buffel grass	1			
SEGE	Knotroot bristlegrass	1			
SOHA	Johnson grass	1			
SPIN4	Whorled dropseed	1			
TRRE8	Natal grass	1			
URMA4	Guinea	1			

### FORBS

Scientific Symbol	Common Name	Group	Pounds per Acre	Percent by Weight	Percent Allowed For group
AGAM	Century plant	2			
BROME	Bromeliads	2			
CEPU5	Butterfly pea	2			
CODO	Cok's spur	2			
JAGO	Tautaba	2			
LENE	Leonotis	2			
MACA5	Mallow	2			
OPUNT	White button	2			
POOL	Purslane	2			
PORTU	Purslane	2			
SIAG	Sensitive plant	2			
SUMA2	Suriana	2			

### Shrubs and Trees

Scientific Symbol	Common Name	Group	Pounds per Acre	Percent by Weight	Percent Allowed For group
LELE10	Leucaena	3			
CAPR	Milkweed	3			
COAN11	Basora	3			
CROTA	Rattlebox	3			
CROTO	Croton, maran	3			

DEVI	Wild tan tan	3			
GOHI	Upland cotton	3			
PLUME	Frangipani	3			
RAMI4	Christmas tree	3			
TEST	Tecoma stans	3			
URLO2	Cadillo	3			

### Ground Cover and Structure

	Height Above the Ground												
	Not applicable		6 to 12 inches		12 to 24 inches		24 to 60 inches		60 to 80 inches		180 to 240 inches		
	% Ground cover	% Canopy cover	% Ground cover	% Canopy cover	% Ground cover	% Canopy cover	% Ground cover	% Canopy cover	% Ground cover	% Canopy cover	% Ground cover	% Canopy cover	
Trees												3	10
Shrubs													
Grasses and grasslikes				7	35	30	30	20					
Forbs				1									
Cryptogams													
Coarse fragments													
Bare ground													
Litter													

**Transition Pathways:** The native climax community is generally replaced by such introduced species as guinea, buffel, hurricane and kleberg. Guinea, buffel and leucaena may replace native species and can provide a high level of forage production. However, if these species are severely grazed, the site is subject to invasion by hurricane and kleberg. If abusive grazing continues kleberg is replaced by a pure stand of hurricane and invaded by brushy species such as leucaena, acasia, croton aroma and mesquit. If the site is abandoned, a higher composition of trees and shrubs will dominate.

**Total annual production:** 3000 lbs/acre

#### Plant Growth Curves:

**Growth curve number:**

**Growth curve name:** PR PLANT GROWTH CURVE

**Growth curve description:** Native and naturalized grasslands.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
6	5	4	7	12	10	9	10	11	10	9	7

### **Animal Community:**

This site is important for several wildlife species. Major species using the site include:

Adelaide's Warbler  
Barn swallow  
Caribbean Elaenia  
Cattle egret  
Helmeted guinea fowl  
Heron  
Iguana iguana  
Lesser antillian pewee  
Lizards  
Mangrove cuckoo  
Mourning dove  
Northern mockingbird  
Ovenbird  
Pearly eyed thrasher  
Prairie warbler  
Puerto Rican flycatcher  
Puerto Rican nighthawk  
Red Tailed Hawk  
Sparrow Hawk  
Yellow faced grassquit

### **Associated sites:**

#### **Similar sites**

Plant communities, production, and vigor of this site is not similar enough to other sites in the region to cause a problem or concern.

### **Site documentation**

**Author:** M. Montes, E. Más, C. Santiago

**Revised:** 05/2002, E. Más, J. Lugo, S. Ríos

**Supporting data for site development:** Supporting data include clipping studies, and historical writing of the area. More documentation and study are needed to fully understand this site and the transitions that occur.

**Sampling techniques**

SCS-Range 417

**Type locality:** Annaly, Bourdeaux Mtn., Dorothea, Bethesda Hill, Cannell Bay

**Field Offices:** St. Croix

**References:**

**USDA, NRCS.** 1997. National Range and Pasture Handbook.

**USDA, SCS.** Soil Survey's

**Site Approval:**

This site has been reviewed and approved for use:

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USDA NRCS Resource Conservationist

Date