

B-1-b. Cropland, Sugarcane (Irrigated) Guidance Document

SOILS

Symbol	Map Unit
WaB	Wahiawa silty clay, 3 to 8 percent slope
LeB	Leilehua silty clay, 2 to 6 percent slope
LaB	Lahaina silty clay, 3 to 7 percent slope
KyB	Kunia silty clay, 3 to 8 percent slope

These are deep well-drained soils on gently sloping uplands. The soil layers are very dusky red to reddish brown silty clay. Permeability ranges from moderate to moderately rapid. Soil reaction ranges from extremely acid through neutral depending on the soil, the layer, and liming and fertilizing practices. Manganese levels are high in these soils and may be toxic in highly acid layers. Roots typically can penetrate to a depth of 5 feet or more. Runoff is slow and erosion hazard is slight. When soil is tilled, plowpans form and restrict root growth. A combination of several conservation practices is needed on cultivated fields to control erosion and provide for proper runoff management.

REPRESENTATIVE RESOURCE CONCERNS

- poor soil tilth
- plow pan
- sheet and rill erosion
- ephemeral gully erosion
- plant productivity
- inadequate outlets
- soil moisture management for irrigated cropland
- pesticide & nutrient surface water contaminants
- pesticide & nutrient ground water contaminants

EFFECTS: (+) = Beneficial effect (0) = No effect (-) = Negative effect

Resource:	SOIL				WATER						AIR		PLANTS		ANIMALS
Considerations:	Erosion		Condition		Quantity		Quality				Quality	Condition	Suitability	Condition	Management
Concern Practice	Sheet & Rill	Ephemeral Gully	Soil Tilth	Compaction	Inadequate Outlets	Water Mgt.	Ground Water Contaminants		Surface Water Contaminants		Airborne Sediment & Smoke Particles – Onsite & Offsite	Air Movement	Plants Unsuitable for Intended Use	Productivity (kind and distribution)	Population & Resource Balance
							Pesticide	Nutrient	Pesticide	Nutrient					
Access Road	0	+	0	+	+ & -	+	+	+	+	+ & -	0	0	0	0	+
Deep Tillage	+	+	+	+	+	+	-	-	+	+	+	0	0	+	0
Diversion	+	+	-	0	-	+	-	-	+	+	0	0	0	+	+
Grassed Waterway	0	+	0	0	+	0	-	-	+	+	0	0	+	+ & -	+
Irrigation System	+	+	-	+	+	-	+ & -	+ & -	+	+	+	0	0	+	-
Irrigation Water Conveyance	0	0	0	0	0	+	0	0	+	0	0	0	0	+	-
Irrigation Water Mgt.	0	+	+	+	0	+	+	+	+	+	0	0	0	+	+
Nutrient Mgt.	0	0	0	0	0	0	0	+	0	+	0	0	0	+	+
Pest Mgt.	+	0	0	0	0	+	+	0	+	0	+	0	0	+	-
Terraces (gradient)	+	+	-	0	+	0	-	-	+	+	+	0	+	+	0