

B-1-e. Cropland, Orchard, Macadamia Guidance Document

SOILS

| Symbol | Map Unit |
|--------|--|
| NaC | Naalehu silty clay loam, 0 to 10 percent slope |
| WAC | Waiaha silt loam, 0 to 10 percent slope |

The Naalehu soils are deep or very deep and well drained. Available water capacity is moderate. The Waiaha soils are shallow to Pahoehoe and well drained. Available water capacity is very low. Permeability is moderately rapid, and sheet and rill erosion is slight to moderate for both soils. Phosphorus fixation is high for both soils. Some fields have only Naalehu or Waiaha soils; others have both.

REPRESENTATIVE RESOURCE CONCERNS

- sheet and rill erosion
- canopy shade causing interrow gullies
- very low available water capacity in Waiaha soils
- 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 | + | + or - | + | + | + | + | + & - | 0 | 0 | 0 | 0 | + |
| Contour Orchard | + | + or - | 0 | 0 | - | 0 | + | + | + | + | + | 0 | 0 | + | + |
| Cover Crop | + | + | + | + | + | 0 | + | + | + | + | + | + | + | + | + |
| Diversion | + | + | - | 0 | - | + | - | - | + | + | 0 | 0 | 0 | + | + |
| Filter Strip | + | + | + | + | 0 | 0 | - | - | + | + | 0 | + | + | + & - | + |
| Grassed Waterway | 0 | + | 0 | 0 | + | 0 | - | - | + | + | 0 | 0 | + | + & - | + |
| Irrigation Mgt. * | 0 | + | + | + | 0 | + | + | + | + | + | 0 | 0 | 0 | + | + |
| Mulching | + | + | + | + | + | + | + & - | - | + | + | + | 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 |
| Windbreak / Shelterbelt Est. | + | 0 | + | 0 | 0 | + | - | - | + & - | + & - | + | + | + | - | + |

* Needed mainly for Waiaha Soils (assume drip irrigation)