

Treatment Option Case Study - Hawaii

(proposed management system)

Conservation Effects Worksheet

Orchard - Macadamia

(land use and crop)

Resource Setting: Pahala, Hawaii

Shallow soils over pahohoe.

Moderate to steep sloes.

Highly erodible.

Conservation Treatment:

Field Windbreaks (392)

Permanent Vegetative Cover (340)

Diversion (362)

Mulching (484)

Terrace system (600)

Filter Strips (393)

Grassed Waterways (412)

Pest Management (595)

Irrigation System (441)

Nutrient Management (590)

Sediment Basin (350)

Resource Problems Before Treatment:

Sheet and rill erosion

Orchard trees planted in waterways

Gully erosion

Close tree spacing (orchard)

Nutrient and pesticide in runoff

Terraces not maintained

No vegetative cover within orchard

| <p style="text-align: center;">ACTIONS (Kinds, Amounts, Timing)</p> | <p style="text-align: center;">EFFECTS (Effects of Continuing Bench System)</p> |
|--|--|
| <p>Field Windbreaks (392) Diversions (362) Terraces (600) Irrigation (441, 449) Grassed Waterway (412) Cover Crop (340) Filter Strips (393) Pest Management (595) Mulching (484) Biological Control Sediment Basin (350)</p> | <p>Reduce wind damage, provides Wildlife habitat Reduce gully Wildlife habitat Reduce sheet and rill and ephemeral gully Increase yields Outlet for terraces Wildlife habitat Reduce gully Reduce tree/acre Reduce sheet and rill and ephemeral gully Wildlife habitat Increases maintenance Reduce sheet and rill and ephemeral gully Wildlife habitat Increases maintenance Reduce tree/acre Reduces crop damage Increases yield Mechanical harvest Reduces soil loss Conserves moisture Reduces pesticide use Collects sediment</p> |
| <p>Comments:</p> | |