

**Elements of Pineapple IPM in Hawaii  
For 1999 Growing Season**

**MAJOR PEST**

**Insects/Nematodes**

Ants  
Mealybugs  
Reniform Nematodes  
Root knot Nematodes

**Diseases**

Phytophthora  
Chalara  
Pythium

**Weeds**

Grasses  
Broad leaves  
Vines

**A. SITE PREPARATION**

( 1999 TOTAL PLANTED ACRES )

- 1) Soil test for analysis once per cycle.  
Maintain records and fertilize according to test results.  
(Pre-Plant Fertilizer Application)
  
- 2) When soil fumigation is performed, site preparation and application technique maximize efficacy while minimizing rate, volatile losses, ground water contamination and worker hazard. (Evaluation of optimum soil moisture level)
  
- 3) Use plastic mulch to optimize efficacy of pre-plant soil fumigant and minimize herbicide use.

1999 Acreage Goals	Points
90%	5
80%	15
100%	10

**B. PLANTING**

( 1999 TOTAL PLANTED ACRES )

- 1) Use recommended fungicide seed treatment.
  
- 2) Minimize compaction to minimize root rot & optimize root growth.

90%	10
80%	10

**C. PEST MONITORING AND MANAGEMENT**

**1) Mealybug Wilt Management**

( 1999 TOTAL PLANTED ACRES )

A ) Monitor ants on a regular basis and apply ant bait as needed.

30%	10
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**2) Nematode Management**

( 1999 TOTAL PLANTED ACRES )

A) Determine plant-parasitic nematode control strategy using field history and (knockdown/current) nematode population densities.  
(Preventative Split Application and/or Treatment Threshold)

50%	10
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B) Monitor nematodes on a regular basis during plant crop vegetative growth cycle. (3-9 months post-plant and pre-knockdown)

90%	10
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**3) Root Rot**

( 1999 TOTAL PLANTED ACRES )

A) Use raised bed/ridge to reduce root rot in sensitive areas.

50%	10
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**4) Weed Management**

( 1999 TOTAL PLANTED ACRES )

A) Apply pre-emergence herbicides in critical areas and before canopy closure.

90%	10
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B) Monitor and establish weed maps to determine which weeds are dominant in specific sites. (experimental) ( weed map conducted during fallow period )

100%	N/A
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C) Use of cover crops to minimize weeds that could be host to pineapple pest, or to depress nematode population, or to increase nitrogen levels. (experimental)

0.10%	N/A
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**5) Sprayer Calibration**

A) Calibrate sprayers.

100%	5
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**D. POST- HARVEST**

( 1999 TOTAL PLANTED ACRES )

1) Crop residue turned under and incorporated after last harvest.

90%	10
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2) Maintain a bare fallow period or cover crop period of at least 3 months between crop cycles.

100%	10
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<b>Total Points</b>	125
<b>To Qualify (80%):</b>	100