

# PLANT HEALTH CARE REPORT



## Monterey Pine

Monterey pine (*Pinus radiata*) is the most widely planted pine in the world. This species has become important for lumber and paper in Australia, New Zealand, Spain, and large areas in Africa and South America. Rapid growth (six feet per year on good sites) and adaptability to poor soils are Monterey pine's key characteristics. The native range of Monterey pine is limited to small areas of California within seven miles of the coast.

While Monterey pine is an adaptable tree, it does have specific cultural requirements. Temperatures below freezing for only a few hours damage this species and temperatures above 100°F cause needle scorch and damage to new shoots. In the summer, Monterey pine is adapted to cool, foggy conditions. The needles collect fog, dripping as much as one-half inch per week to the root system. Monterey pine is susceptible to air pollution, particularly ozone injury. It grows best in acidic, well-drained soils. A four inch layer of organic matter, such as wood chips, is very beneficial. This species does not thrive on



Photo courtesy of [SelecTree](#)



Photo courtesy of the [Gymnosperm Database](#)

shallow soils and is prone to whole tree failure on such sites.

Monterey pine is susceptible to a wide range of pests, of which root rots and bark beetles are the most serious. A total of 18 diseases and 56 species of insects are listed as attacking Monterey pine. The following is a partial listing of the most important diseases:

**1. Pitch canker:** *Fusarium circinatum*

**2. Rust:** *Endocronartium harknessii*

(Western gall) and *Coleosporium* spp.  
(needle)

**3. Root rots:** *Heterobasidion* and many others

**4. Needlecast disease:** *Cyclaneusma* spp.

These are the most important non-disease pests:

**1. Red turpentine beetle:**

*Dendroctonus valens*



Red turpentine beetle

Photo courtesy of  
[Whitney Cranshaw, Colorado State University, Bugwood.org](http://WhitneyCranshaw.ColoradoStateUniversity.Bugwood.org)

**2. Monterey pine**

**needleminer:** *Argyresthia pilatella*

## Monitoring and Treatment Considerations for Monterey Pine

### Early to mid-winter

Monitor for mites, scale, aphids, and other pests; treat as needed. Expose and inspect root collar for problems. Add mulch as necessary. Remove dead, dying, diseased, and broken branches. Sample soil for nutrient and pH analysis.

### Late winter

Apply dormant treatment to suppress overwintering insects. Monitor for mites, scale, aphids, and other pests; treat as needed. Prune to remove rust galls and reduce inoculum in winter when beetles are not active.

### Early spring

Monitor for tip and shoot moths, needleminer, weevils, and mites; treat as needed.

### Mid-spring

Apply bark treatment to prevent turpentine beetles. Monitor for mites and other pests; treat as needed.

### Late spring

Monitor for scales, midges, moths, mites, and other pests; treat as needed.

### 3. Monterey pine midge:

*Thecodiplosis piniradiatae*

### 4. Monterey pine shoot moth:

*Exoteleia burkei*

### 5. Monterey pine weevil: *Pissodes*

*radiatae*

### 6. Monterey pine tip moth:

*Rhyacionia pasadenana*

**7. Scales:** *Chionaspis pinifoliae* (pine needle), *Toumeyella pinicola* (irregular pine) *Physokermes insignicola* (Monterey pine)

### 8. Spider mites: *Oligonychus* spp.

#### Early summer

Repeat bark treatment to prevent turpentine beetles. Monitor for scales, midges, moths, and other pests; treat as needed. Monitor irrigation and soil moisture to minimize water stress and prevent root disease.

#### Midsummer

Monitor for scales, midges, moths, and other pests; treat as needed. Inspect area for dying pines and remove them.

#### Late summer

Repeat bark treatment to prevent turpentine beetles. Monitor for scales, midges, moths, and other pests; treat as needed.

#### Fall

Monitor for scales, midges, moths, and other pests; treat as needed. Fertilize, adjust pH, and amend soil according to soil analysis. Expose and inspect root collar for problems. Inspect mulch levels and adjust to 4" depth.

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