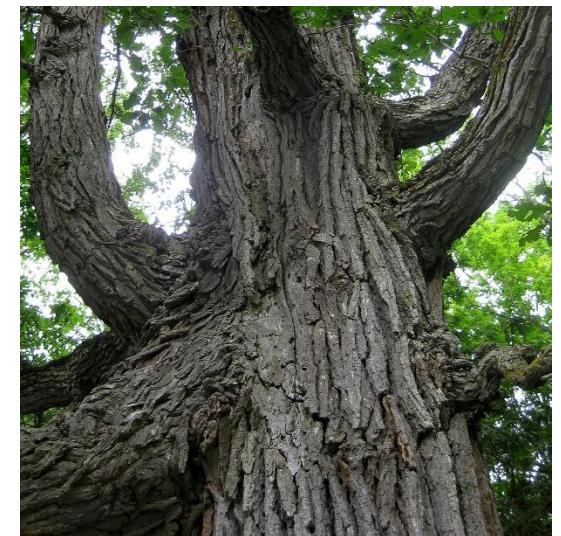


## Bur Oak

(*Quercus macrocarpa*)

Bur Oak is one of the toughest and most adaptable oaks for Colorado. It tolerates drought, alkaline soils, pollution, and harsh winters better than most other oak species. While generally resilient, it can experience issues with **Kermes scale**, **gall wasps**, **two-lined chestnut borer**, **oak wilt (rare)**, and **chlorosis** in extreme soil conditions.



### Seasonal Pest & Disease Calendar

Icons:  Spring |  Summer |  Fall |  Winter

<u>Problem</u>	<u>Type</u>	<u>Active Season</u>	<u>Icons</u>
<b>Kermes scale</b>	Insect/scale	Spring crawlers; visible year-round	 
<b>Gall wasps (various)</b>	Insect	Spring–Summer	 

<u>Problem</u>	<u>Type</u>	<u>Active Season</u>	<u>Icons</u>
<b>Two-lined chestnut borer</b>	Insect/borer	Summer	
<b>Oak lace bug (less common)</b>	Insect	Summer	
<b>Anthracnose / leaf spot</b>	Fungus	Spring–Summer	 
<b>Oak wilt (rare in Colorado)</b>	Fungus	Spring–Summer	 
<b>Chlorosis (nutrient stress)</b>	Abiotic	Spring–Summer	 
<b>Environmental drought stress</b>	Abiotic	Summer–Fall	 

### Pest & Disease Guide (Homeowner-Friendly)

<u>Problem</u>	<u>Common Symptoms</u>	<u>Treatment &amp; Management</u>
<b>Kermes Scale</b>	<ul style="list-style-type: none"> <li>• Sticky honeydew &amp; sooty mold</li> <li>• Yellowing foliage</li> <li>• Round brown scale bumps on twigs</li> <li>• Twig dieback</li> </ul>	<ul style="list-style-type: none"> <li>• Treat crawlers in late spring (pros)</li> <li>• Horticultural oil in late winter</li> <li>• Prune out heavily infested twigs</li> </ul>
<b>Gall Wasps</b>	<ul style="list-style-type: none"> <li>• Round, spiny, or irregular galls on leaves or stems</li> <li>• Leaves may distort or drop early</li> <li>• Usually cosmetic</li> </ul>	<ul style="list-style-type: none"> <li>• Do <b>not</b> treat unless extremely severe</li> <li>• Rake and remove fallen leaves</li> </ul>

**Problem****Common Symptoms****Treatment & Management****Two-Lined Chestnut Borer**

- Thinning canopy
- D-shaped exit holes
- Branches die back from top downward

**Oak Lace Bug**

- Speckled, stippled leaves
- Tiny insects on undersides of leaves
- Premature browning in late summer

**Anthracnose / Leaf Spot**

- Brown patches along veins
- Distorted or curled leaves
- Early defoliation during wet springs

**Oak Wilt (Rare in CO)**

- Sudden leaf wilt
- Brown margins moving inward
- Dieback progresses over weeks

**Chlorosis (Iron Deficiency)**

- Yellow leaves with green veins
- Poor growth
- Sparse canopy

- Promote tree vigor through watering & mulch

- Water deeply during drought
- Reduce stress (borers attack weakened trees)
- Preventive trunk sprays during outbreak years

- Hose-rinse leaves
- Encourage natural predators
- Pro treatment for severe cases

- Usually cosmetic
- Clean up fallen leaves
- Improve airflow; avoid overhead irrigation

- Immediate professional evaluation
- Preventive fungicide injections may help
- Avoid pruning April–July

- Soil iron treatments or trunk injections
- Reduce overwatering & improve aeration
- Mulch to protect feeder roots

<u>Problem</u>	<u>Common Symptoms</u>	<u>Treatment &amp; Management</u>
<b>Environmental Drought Stress</b>	<ul style="list-style-type: none"> <li>• Leaf scorch</li> <li>• Early fall color</li> <li>• Tip dieback</li> </ul>	<ul style="list-style-type: none"> <li>• Deep watering every 3–4 weeks in summer</li> <li>• Maintain mulch ring</li> <li>• Avoid compacting soil above roots</li> </ul>

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## When to Worry vs. When It's Cosmetic

### ● When to Worry (action recommended)

- D-shaped exit holes or top-down dieback (possible **borer**)
- Heavy scale infestation causing twig death
- Rapid leaf wilt in mid-summer (possible oak wilt; rare but serious)
- Severe chlorosis leading to branch decline
- Repeated early leaf drop year after year

These issues call for **professional evaluation and timely intervention.**

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### ● Mostly Cosmetic (monitor only)

- Light gall formation (very common and usually harmless)
- Mild anthracnose in wet springs
- Minor stippling from lace bugs
- Occasional scorch during drought
- Slight yellowing in early summer that resolves with watering

These typically resolve with **seasonal changes and proper watering**.