

Apple

(*Malus domestica* — includes modern cultivars, heirlooms, dwarf, semi-dwarf, espalier types)

Apples grow well in many parts of Colorado but are vulnerable to several **major pests and diseases**, especially **codling moth**, **apple scab**, **fire blight**, **powdery mildew**, and **aphids**. They require **annual pruning**, **timely sprays**, and **consistent thinning** for healthy fruit production.



Seasonal Pest & Disease Calendar

Icons: 🌸 Spring | ☀️ Summer | 🍂 Fall | ❄️ Winter

Problem	Type	Active Season	Icons
Codling moth (major issue)	Insect	Spring–Fall (multiple generations)	🌸☀️🍂
Apple scab	Fungus	Spring infection; symptoms Spring–Summer	🌸☀️
Fire blight	Bacteria	Spring—Early Summer	🌸☀️
Powdery mildew	Fungus	Spring–Fall	🌸☀️🍂
Aphids	Insect	Spring–Fall	🌸☀️🍂
Scale insects	Insect	Spring crawlers; visible year-round	🌸❄️

<u>Problem</u>	<u>Type</u>	<u>Active Season</u>	<u>Icons</u>
Leaf spot diseases	Fungus	Spring–Summer	 
Woolly apple aphid	Insect	Spring–Fall	  
Fire blight cankers (overwinter)	Bacteria	Winter	

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

<u>Problem</u>	<u>Common Symptoms</u>	<u>Treatment &amp; Management</u>
Codling Moth (Worm in the Apple)	<ul style="list-style-type: none"><li>• Small holes in fruit</li><li>• Brown frass inside apple</li><li>• Premature fruit drop</li></ul>	<ul style="list-style-type: none"><li>• Timed sprays based on degree-day models (pros or homeowner)</li><li>• Pheromone traps to monitor activity</li><li>• Pick up fallen fruit weekly</li></ul>
Apple Scab	<ul style="list-style-type: none"><li>• Olive-colored leaf spots</li><li>• Yellowing leaves</li><li>• Cracked, scabby fruit</li></ul>	<ul style="list-style-type: none"><li>• Plant resistant varieties</li><li>• Rake &amp; destroy fallen leaves</li><li>• Fungicide during bud break if needed</li></ul>
Fire Blight (Serious)	<ul style="list-style-type: none"><li>• Blackened, wilted “shepherd’s crook” shoots</li><li>• Blossom blight</li><li>• Oozing amber cankers</li></ul>	<ul style="list-style-type: none"><li>• Prune 8–12" below infected shoots (late winter preferred)</li><li>• Sanitize tools</li><li>• Pro antibiotic sprays only during bloom</li></ul>
Powdery Mildew	<ul style="list-style-type: none"><li>• White powder on new shoots</li><li>• Distorted leaves</li><li>• Reduced fruiting</li></ul>	<ul style="list-style-type: none"><li>• Prune to increase airflow</li><li>• Fungicide for severe/repeated infections</li></ul>

<b><u>Problem</u></b>	<b><u>Common Symptoms</u></b>	<b><u>Treatment &amp; Management</u></b>
<b>Aphids</b>	<ul style="list-style-type: none"> <li>• Sticky honeydew</li> <li>• Sooty mold</li> <li>• Leaf curling</li> <li>• Ants on branches</li> </ul>	<ul style="list-style-type: none"> <li>• Hose-rinse foliage</li> <li>• Encourage lady beetles</li> <li>• Systemics if population is large</li> </ul>
<b>Woolly Apple Aphid</b>	<ul style="list-style-type: none"> <li>• Cottony white masses on limbs or roots</li> <li>• Swollen cankers on twigs</li> <li>• Dieback in severe cases</li> </ul>	<ul style="list-style-type: none"> <li>• Prune infested twigs</li> <li>• Beneficial insects help naturally</li> <li>• Systemic insecticides if widespread</li> </ul>
<b>Scale</b>	<ul style="list-style-type: none"> <li>• Hard bumps on twigs</li> <li>• Yellowing canopy</li> <li>• Honeydew &amp; mold</li> </ul>	<ul style="list-style-type: none"> <li>• Dormant oil in winter</li> <li>• Treat crawler stage late spring</li> </ul>
<b>Leaf Spots (Marssonina, Frogeye)</b>	<ul style="list-style-type: none"> <li>• Brown or purple spots</li> <li>• Early leaf drop</li> </ul>	<ul style="list-style-type: none"> <li>• Sanitation—remove leaves</li> <li>• Improve airflow</li> </ul>
<b>Environmental Stress</b>	<ul style="list-style-type: none"> <li>• Fruit cracking (irregular watering)</li> <li>• Scorch in hot dry periods</li> </ul>	<ul style="list-style-type: none"> <li>• Deep water weekly in summer</li> <li>• Maintain mulch ring</li> </ul>

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

#### ● When to Worry (action recommended)

- Wormy apples every year (codling moth unmanaged)
- Blackened shoots and cankers (fire blight)
- Heavy scab causing mid-summer leaf drop
- Woolly apple aphid infestations covering limbs
- Multiple dead branches or poor annual growth
- Repeated mildew suppressing new shoot growth

These often require **professional care or a coordinated treatment plan.**

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● **Mostly Cosmetic (monitor only)**

- Small leaf spots with no early defoliation
- A few aphids in spring
- Mild powdery mildew later in season
- Superficial fruit blemishes
- Wind scar or hail marks (common in CO)

These do not typically affect long-term tree health.