

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

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

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.**

● **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.