

CHECKLIST OF COMMON INSECT RELATED EVENTS - NORTHERN FRONT RANGE

Note: This is a generalized checklist of when some of the more important insect related events *tend* to occur in the Northern Front Range Area counties. Year to year variations are considerable and this should only be used as a guideline for introductory Master Gardeners to begin to anticipate and help recognize common insect occurrences. Your experiences will be invaluable to further modify and improve this to your local conditions.

Fact Sheets and Extension Bulletins are available that can supplement information on the referred events.

January/February

Household Insects

Fungus gnats: Adults commonly are observed around windows and around the soil of potted plants where they originate.

Carpet beetles: Some adults may emerge and be found in homes.

Conifer seed bugs, boxelder bugs, cluster flies: Overwintered adults become active in and around homes.

Winged termites: Winged reproductive stages begin to emerge and swarm.

Firewood insects: Bark beetles and wood borers emerge from stored wood in homes

Clover mites: Migrations of mites from lawns into buildings may begin at this time, during warm days

Ants: Field ants forage in homes for sweet materials.

Early March

Household Insects

Boxelder bugs, cluster flies: Overwintered adults become active in and around homes.

Clover mites: Migrations of mites from lawns into buildings may begin at this time, during warm days

Millipedes: Nuisance movements into homes occurs following wet weather.

Winged termites: Winged reproductive stages continue to swarm in late winter.

Firewood insects: Bark beetles and wood borers emerge from stored wood in homes.

Ants: Foraging by field ants for sweet materials intensifies in homes.

Trees/Shrubs

Poplar twiggall fly: Larvae begin to leave galls and pupate in soil at the base of trees.

Oystershell scale: Scrape scales with eggs off limbs of aspen, ash and other host plants.

Lawns

Clover mites: Mites are actively feeding on lawns near buildings and shrubs during warm days.

Nightcrawlers: Tunneling activities during spring can create lumpy lawns.

Vole injury: Tunneling injuries in lawns and girdling of shrubs may be evident as snow melts.

Late March

Household/Miscellaneous

Flickers: Males are actively drumming on buildings and defending territories during mating season.

Trees/Shrubs

Poplar twiggall fly: Larvae continue to leave galls and pupate in soil at the base of trees.

Dormant oils: Many insects that winter on plants can be controlled with dormant applications of

horticultural oils.

Ips beetles: Ips (engraver) beetles may be active during warm periods. Recently transplanted pines may need protection.

Southwestern pine tip moth: Adults begin to emerge from pupae at the base of trees.

Spider mites on juniper: *Platytranychus libocedri* populations may begin to increase on arborvitae.

Early April

Household/Miscellaneous Insects

Boxelder bugs, elm leaf beetles, cluster flies: Overwintered adults become increasingly active in and around homes during warm periods.

Carpet beetles: Early spring is often the period when adult stages are most frequently encountered in homes.

Tick season: Tick season usually has started and usually persists until high temperatures occur in early summer.

Ants: Foraging ants in homes are common until temperatures allow them to seek food outdoors.

Trees/Shrub Insects

Ips beetles: Ips beetle flights are likely to have started by this time and may threaten at-risk spruce and pines.

Aphids on fruit trees: Spray oils on dormant trees to kill overwintered aphid eggs.

Cooley spruce gall: Controls are best applied before the insects make the egg sack in late April.

Borers: Remove and destroy damaged tree limbs and canes infested with borer larvae before insects emerge.

Honeysuckle aphid: Prune out old, damaged terminals that contain eggs.

European elm bark beetle: Pruned elm wood and logs should be destroyed prior to beetle emergence.

Conifer sawflies: Larvae feed on older growth of various pines.

Lawns

Denver billbug: Overwintered larvae may damage roots of turfgrass.

Turfgrass mites: Clover mites continue and bank grass mites begin to increase in droughty areas.

Sod webworms, cutworms: Damage to lawns by webworms and cutworms begin at this time.

Nightcrawlers: Tunneling activities and associated lawn lumps continue.

Midges: Non-biting midges emerge from ponds and mating swarms may be observed over lawns.

Late April

Tree/Shrub Insects

Cooley spruce gall: Insects continue development and usually begin to produce egg sack in late April.

Lilac/ash borer: Flights of adult moths may begin.

Emerald ash borer: Soil systemic treatments can be made effectively after new leaves emerge and flowering ceases.

Poplar twiggall fly: Adults emerge and begin to lay eggs in emerging aspen shoots.

Banded elm bark beetle: Preventive sprays should be completed before adults emerge and fly.

Pinyon tip moth: Larvae remain exposed on bark and can be controlled at this time

Spider mites on pines: *Oligonychus subnudus* populations may increase rapidly on ponderosa and other susceptible pines

Spiny elm caterpillar: Small colonies of these caterpillars may be seen on willow, hackberry, aspen, elm and other trees.

Douglas-fir beetle: In forested areas, adult emergence, flights and tree attacks may begin.

Hawthorn mealybug: Overwintered stages on trunk move to twigs and feed.

Ips beetles: Flights will continue during warm days

Garden

Spinach leafminer: Egg laying and tunneling begins in older spinach foliage.

Early May

Household/Miscellaneous Insects

Miller moths: Flights into areas often begin in early May.

Tick season: The next two months are the peak season for tick activity and spread of Colorado tick fever.

Honey bee swarms: Honey bee swarming may occur during sunny afternoons

Lawns

Spider mites: Injury by Banks grass mite increases. Clover mite populations should be decreasing.

Trees/Shrub Insects

Hackberry psyllid: Adults return to trees and lay eggs on the emerging leaves.

Honeylocust podgall midge: Adults begin laying eggs on new growth. First generation begins.

Emerald ash borer: Soil systemic treatments can be made effectively after new leaves emerge and flowering ceases.

European elm flea weevil: Shotholes appear from adult feeding damage. Eggs are laid at leaf veins.

Southwestern pine tip moth: Egg-laying occurs when new needles emerge on pines.

Honeylocust plant bug: Nymphs have hatched and begin to damage new growth.

Peach tree borer: Larvae causing peak injury to bases of trees at this time

Tent caterpillars: Larvae may be seen making tents on various fruit and shade trees. Forest tent caterpillars are also active.

Slugs: Slugs may cause peak damage to seedlings during cooler weather.

Cooley spruce gall: Eggs hatch and young nymphs move to feed on new growth. Galls are initiated.

Pine needle scale: Egg hatch may begin during warm seasons.

Walnut twig beetle: Overwintered beetles initiate tunnels of first generation.

Late May

Household/Miscellaneous

Miller moths: Peak flights typically occur at this time.

Honey bee swarms: Peak period of honey bee swarming.

Tree/Shrub Insects

Pine needle scale: Crawler emergence typically begins around mid May, about the time of lilac peak bloom. Check infested plants.

Oystershell scale: Crawler emergence typically occurs in late May. Check infested plants.

Emerald ash borer: Adults should begin to emerge and move to leaves to feed. Soil and trunk injection treatments are appropriate now.

European elm flea weevil: Leaf mining occurs.

Elm leafminer: Early stages of leafmining.

Bronzed cane borer/rose stem girdler: Adults emerge from caneberreries, currant, rose.

Fruittree leafrollers: Leafrolling may begin to be observed on many trees/shrubs.

Hackberry psyllid: Current season galls begin to be visible as small eruptions on leaves.

Cooley spruce gall: Current season galls are readily visible upon close inspection. Small nymphs are present in chambers of the gall.

Rabbitbrush beetle: Peak feeding injury by larvae.

Pinyon tip moths: Larvae start to tunnel into terminals.

Douglas-fir tussock moth: Egg hatch may begin. Monitor infested trees.

Leafcurling aphids: Aphids curl the new growth of many plants at this time.

Currantworm: Larvae chew leaves of current and gooseberry. Damage starts in the interior of shrub.

European elm scale: Overwintered females feed intensively and begin to produce large amounts of honeydew.

Codling moth: Sprays after petal fall can help control the first generation. Monitor flights with pheromone traps.

Garden Insects

Seedcorn maggot: Early planted beans, corn, and melons are susceptible to seedcorn maggot damage.

Currantworm: Larvae chew leaves of current and gooseberry. Damage starts in the interior of shrub.

Strawberry injuries: Millipedes and slugs tunnel the ripening berries.

Narcissus bulb fly: Adult stages emerge and lay eggs on narcissus, daffodils, and hyacinth.

Flea beetles: Adults are present on cabbage, radish and related plants.

Early June

Household Insects

Miller moths: Moths continue to move to mountains with warm weather.

Honey bee swarms: Honey bee swarming continues

Swarming ants: Ants may swarm during sunny afternoons, usually a few days following a rain storm

Tree/Shrub Insects

Pine needle scale: Crawler emergence usually is continuing and declining during this period.

Oystershell scale: Continue to monitor emergence of crawlers. Peak crawler period often occurs in early June.

Honeysuckle aphid: Damage to new growth begins to become evident.

Douglas-fir tussock moth: Egg hatch often is peaking during this period. Monitor infested trees.

Striped pine scale: Crawler emergence typically begins in early June.

Eriophyid mites: Gall making occurs on many plants. Highest populations of leaf vagrants present.

Spruce spider mite: Populations begin to increase on spruce, juniper

Douglas-fir tussock moth: Intensify monitoring of infested sites as feeding damage increases.

Honeylocust plant bugs: Peak injury by nymphs. Damage will end soon.

European elm scale: Females swell as they begin to mature eggs. Heavy production of honeydew.

Fruittree leafrollers: Peak populations of larvae are generally present.

Emerald ash borer: Adult emergence well underway. Some egg laying may occur.

European elm flea weevil: Leaf mining period concludes and insects begin pupation.

Elm leafminer: Leafmining becomes conspicuous as larvae grow rapidly.

Elm leaf beetle: Egg laying and egg hatch often peaks at this time.

Cottonwood leaf beetle/Knabs willow leaf beetle: Egg laying begins on cottonwoods and willows.

Rose leafhoppers: Peak injury to foliage of rose.

Bronzed cane borer/rose stem girdler: Peak period of egg laying in caneberries, currant, rose.

Gambel oak borer, bronzed birch borer: Adults often emerge by mid-June. Beetles feed on leaves and then lay eggs on bark. Preventive trunk sprays and soil applied systemic insecticides can provide control.

Juniper spittlebug: Spittle masses become obvious as nymphs become fully grown.

Lawns

Spider mites: Populations should be decreasing rapidly with warm weather.

Garden Insects

Flea beetles: Several species attack garden plants. Seedlings may need protection.

Late June

Household Insects

Strawberry root weevil: Adults begin to move into homes.

Miller moths: Local activity should be ending as preferred flowering sources pass and flights to mountains progress.

Swarming ants: Ants may swarm during sunny afternoons, usually a few days following a rain storm

Tree/Shrub Insects

Cottony maple scale: Females swell and produce conspicuous egg sacks.

Spruce spider mite: Typical period of peak populations.

Striped pine scale: Crawler emergence in progress.

Pinyon spindlegall midge: Adults emerge and lay eggs at base of needles.

Japanese beetle: Adults may begin to emerge and move to plants, traps. Chemical insecticides can be applied at this time for control of larvae in lawns.

Poplar borer: Adults often begin to emerge from aspen in late June.

Douglas-fir tussock moth: Typical peak period of injury. Monitor infested trees.

Peach tree borer: Adult emergence typically begins. Monitor flights with pheromone traps.

Cooley spruce gall adelgid: First emergence from spruce galls and migration.

Honeylocust spider mite: Populations begin to build towards their midsummer peak.

Elm leaf beetle: Injury by generation one beetles become evident.

European elm scale: Eggs begin to hatch and crawlers settle on leaves.

Emerald ash borer: Adult emergence well underway. Some egg laying may occur.

Cottonwood leaf beetle/Knabs willow leaf beetle: Larvae are feed on leaves of cottonwoods and willows.

Garden Insects

Potato/tomato psyllid: Flights of migrating psyllids arrive in state and start to colonize garden plants.

Grasshoppers: Egg hatch should be well underway. Survey breeding areas to identify sources of future infestations. If high numbers of nymphs are present, this is an optimal time to treat them with insecticides or *Nosema locustae*.

Colorado potato beetle: Peak period of egg laying on potato and eggplant.

Flea beetles: Populations usually have peaked during this period.

Twospotted spider mite: Populations start to increase on a wide variety of garden plants.

Early July

Household Insects

Strawberry root weevils: Migrations into homes accelerates.

Sunspiders (windscorpions): Peak period of indoor migrations.

Tree/Shrub Insects

Emerald ash borer: Peak period of adult emergence. Egg laying is in progress and some hatch may have occurred.

European elm flea weevil: Adults emerge and peak period of adult feeding (shothole injury) begins.

Elm leafminer: Leafmining concludes and fully developed larvae drop from leaves and burrow into the soil.

Japanese beetle: Peak period for adult activity. Chemical insecticides can be applied at this time for control of larvae in lawns.

Peachtree borer: Egg laying typically begins. Preventive sprays should be made at this time to kill newly hatching larvae.

Elm leaf beetle: First generation larvae become full-grown and move down trunk to pupate.

Black vine weevil: Adult leaf notching injuries are obvious on euonymus and rhododendron.

Leafcurling aphids: Most species have departed from overwintering host trees and shrubs.

Cooley spruce gall adelgids: Peak period of emergence from galls and migration to Douglas-fir alternate host.

Leafcutter bees: Characteristic cut leaf injury begins to appear on rose, lilac and other susceptible hosts.

Garden Insects

Mexican bean beetle: Larvae begin to damage beans.

Colorado potato beetle: Peak period of larval injury. End of first generation.

Lawns

Sod webworms: Watch for damage to turf grasses by the second generation larvae.

Ants: Emergence of winged forms of pavement ants is common a few days after rainfall events

Late July

Tree/Shrub Insects

Codling moth: Second, and most damaging generation begins to lay eggs. Monitor flights with pheromone traps.

Elm leaf beetle: Second generation egg laying and hatch often occurs in late July.

Cooley spruce gall: Abandoned galls become dry and very conspicuous.

Pearslug: Larvae damage plum, cotoneaster.

Lawns

White grubs: Injury by larvae of May/June beetles often begins to be observed (eastern areas of region). In areas where Japanese beetle are present, most eggs will have hatched and larvae are feeding on grass roots. Biological insecticides (nematodes, Btg) can be applied at this time for white grub control.

Ants: Emergence of winged forms of pavement ants is common a few days after rainfall events

Garden Insects

“Tomato” hornworms: Peak damage by larvae occurs over the next month.

Potato/tomato psyllid: Symptoms may begin to appear on potatoes and tomatoes.

Mexican bean beetle: Larvae begin to damage beans.

Early August

Tree/Shrub Insects

Honeylocust spider mite: Populations increase rapidly and cause leaf bronzing.

Lawns

White grubs: Injury by larvae of May/June beetles intensifies. Egg laying and egg hatch by annual white grubs such as Japanese beetle should be almost done. Optimal treatment time for the latter.

Garden Insects

Aster yellows: Peak period of transmission by infective leafhoppers.

Whiteflies: High populations may be present if infested transplants were used in the garden.

Cane borers in raspberries: Wilting symptoms are not most evident at this time of year due to cane boring insects.

Grasshoppers: As grasshoppers mature and vegetation dries out migration into yards intensifies greatly.

Japanese beetle: Adults still present on plants but numbers in decline.

Miscellaneous

Yellowjackets: Nest size and nuisance problems greatly increase over the next month.

Late August

Household Insects

Cluster flies: Flies begin to move to buildings seeking overwintering shelter. Seal buildings to avoid

later problems.

Yellowjackets: Nest size and nuisance problems accelerate.

Tree/Shrub Insects

Elm leaf beetle: Feeding injury by the second generation becomes visible.

Honeylocust spider mite: Populations normally decline.

Io moth: Late instar larvae are present. These brightly colored caterpillars possess stinging hairs.

European elm scale: Yellowed foliage (scale flagging) symptoms begin to occur on heavily infested branches.

Japanese beetle: Adult activity is well past peak. Larvae are developing in lawns. Biological controls for larvae (insect parasitic nematodes, Btg) are best applied at this time..

Garden Insects

Corn rootworms: Adults concentrate on late planted sweet corn and clip silks.

Potato/tomato psyllid: High populations often occur on tomato in late summer.

Twospotted spider mite: Expect highest populations and greatest injury at this time.

Spotted-wing drosophila: Damage to raspberries and strawberries begins to be observed.

Early September

Household/Miscellaneous

Yellowjackets, hornets: Nest size and nuisance problems peak. Large paper nests in trees and shrubs attracting attention.

Large spiders: Cat-face and garden spiders become fully grown and attract attention.

Tree/Shrub Insects

Large caterpillars: Several species of large caterpillars (achemon sphinx, cecropia moth, polyphemus moth) wander about landscapes when fully grown and attract attention.

Peach tree borer: Rescue treatments should be applied before soil temperatures become too cool.

Pearslug: Damage by the second generation occurs during early September.

Garden Insects

Slugs: Garden injuries increase with the return of cool, wet weather.

Aster yellows: Symptoms are obvious on many garden flowers and vegetables.

Bumble flower beetles: Beetles feed on flowers and visit bacterial ooze.

Spotted-wing drosophila: Peak damage to strawberries and raspberries.

Late September

Household/Miscellaneous Insects

Millipedes: Movements into homes occurs following wet periods

Spiders, crickets: Movements into homes accelerate greatly with cool weather.

Tree/Shrub Insects

Aphids on trees: High populations of aphids may develop on several species (willow, oak, aspen) prior to frost.

Cooley spruce gall: Winged stages return to spruce and leave overwintering stage on tree.

Yellowjackets, bees: Wasps and bees may be seen visiting trees and shrubs where honeydew producing insects (e.g., aphids, soft scales) are present.

October

Household/Miscellaneous

Fruit flies: Flies develop in overripe fruit and become abundant in homes.

Wasps and hornets: Nests are abandoned at the end of the season.

Conifer seed bugs, boxelder bugs, multicolored Asian lady beetle: Invasions of homes accelerates with cool weather. Massing of boxelder bugs occurs on building sides during warm, sunny days.

Hackberry blistergall psyllids: Adults move into homes and to shelter of other overwintering sites.

Spiders, crickets: Movements into homes accelerate greatly with cool weather.

Tree/Shrub Insects

Aphids on trees: Overwintering eggs are laid as long as weather permits.

Poplar twiggall fly: Galls become obvious when aspen leaves fall.

Oak bulletgall wasp: Adults begin to emerge late in month.

Needle drop of pines: Pines naturally begin shed of third year needles in fall.

Lawns

Cranberry girdler: Damage to lawns by this sod webworm occurs in the fall.

Clover mites: Egg hatch follows cold weather and mites begin to develop on grasses and weeds around foundations.

November/December

Household Insects

Indian meal moth: Adults are most commonly observed flying about homes during early winter.

Fungus gnats: Adults begin to be observed around windows and around the soil of potted plants where they originate.

Boxelder bugs, conifer seed bugs, multicolored Asian lady beetle: Overwintering adults continue to be active in and around homes during warm days.

Fruit flies: Flies from overripe fruit continue to be present in homes.