SEASONAL CHECKLIST OF SOME COMMON INSECT RELATED EVENTS - ARAPAHOE/DOUGLAS/ELBERT COUNTIES

Note: This is a generalized checklist of when some of the more important insect related events *tend* to occur in the Arapahoe/Douglas Counties area. 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

Fungus gnats: Adults commonly are observed around windows and around the soil of potted plants where they originate.
Indian meal moth: Adult moths emerge from stored foods and can be seen flying around homes.
Carpet beetles: Some adults may emerge and be found in homes.
Boxelder bugs, cluster flies: Overwintered adults become active in and around homes.
Firewood insects: Bark beetles and wood borers emerge from stored wood in homes
Clover mites: Some clover mites may show up in homes during warm periods in February

Early March

Boxelder bugs, conifer seed bugs, cluster flies: Overwintered adults become active in and around homes.
Clover mites: Migrations of mites from lawns into buildings often begin to occurat this time, during warm days
Firewood insects: Bark beetles and wood borers emerge from stored wood in homes.
Subterranean termites: Winged adults of the aridland subterranean termite fly in late winter.
Oystershell scale: Scrape scales with eggs off limbs of aspen, ash and other host plants.

Late March

Flickers: Males are actively drumming on buildings and defending territories during mating season.
Swallow Bugs: Overwintered swallow bugs become active in anticipate of returning migrant birds and bite humans.
Millipedes: Nuisance movements into homes occurs following wet weather.
Ants: Field ants forage in homes for sweet materials.
Carpet beetles: Some species of carpet beetles are noticeable in spring when they transform to adults.
Poplar twiggall fly: Larvae begin 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 conifers: Spring activity of spider mites on junipers, pines, arborvitae and spruce increase during spring.
Turfgrass 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.

Early April

Swallow bugs: Overwintered swallow bugs become active in anticipate of returning migrant birds and bite humans.
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 typically persists until high temperatures occur in early summer.
Ants: Foraging by field ants for sweet materials intensifies in homes.
Clover mites: Clover mite migrations into homes occur during warm days
European paper wasp: Overwintered queens start to establish new nests
Ips beetles: Major *Ips* beetle flights are likely to have started by this time and may threaten at risk spruce and pines.
Poplar twiggall fly: Larvae continue to leave galls and pupate in soil at the base of trees.
Cooley spruce gall: Controls are best applied before the insects make the egg sack in late April or early May.
Borers: Remove and destroy damaged tree limbs and canes infested with borer larvae before insects emerge.
Honeysuckle witches' broom aphid: Prune out old, damaged terminals that contain eggs.
Conifer sawflies: Larvae feed on older growth of various pines.
Aphids on fruit trees: Spray oils on dormant trees to kill overwintered aphid eggs.

Late April

Ants: Foraging ants in homes are common until temperatures allow them to seek food outdoors.
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.
Poplar twiggall fly: Adults emerge and begin to lay eggs in emerging aspen shoots.
Spider mites on pines: 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.
Brownheaded ash sawfly: Adults may lay eggs during warm days following bud break.
Zimmerman pine moth: Approximate treatment timing for overwintered larvae.
Turfgrass mites: Clover mites continue to feed on lawns and enter homes in nuisance migrations.
Nightcrawlers: Tunneling activities and associated lawn lumps continue.
Midges: Non-biting midges emerge from ponds and mating swarms may be observed over lawns.
Spinach leafminer: Egg laying and tunneling begins in older spinach foliage.

Early May

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.
Spider mites: Clover mite populations should be peaking and may begin natural decline.
Sod webworms, cutworms: Damage to lawns by webworms and cutworms begin at this time.
Hackberry psyllid: Adults return to trees and lay eggs on the emerging leaves.
Brownheaded ash sawfly: Pinhole feeding wounds indicate early stage infestations.
Honeylocust plant bug: Check trees for newly emerged nymphs.
Elm leaf beetle: Adults return to trees and chew holes in leaves.
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.
Zimmerman pine moth: Period ending during which larval control is possible.

Late May

Miller moths: Peak flights typically occur at this time.
Honey bee swarms: Many honey bee colonies produce swarms during sunny days
Grasshoppers: Early hatching species should begin to appear as nymphs
Emerald ash borer: Adult emergence begins
Douglas-fir tussock moth: Egg hatch may begin. Monitor infested trees.
Brownheaded ash sawfly: Peak period of injury in most seasons.
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.
Bronzed cane borer/rose stem girdler: Adults emerge from caneberries, currant, rose.
Oak borers: Preventive treatments should be made at this time at high risk sites
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.
Leafcurling aphids: Aphids curl the new growth of many plants at this time.
Bronzed birch borer, Gambel oak borer: Adults often emerge by mid-June. This can be a good time to apply systemic insecticides. Preventive trunk sprays are best applied after adults begin to emerge.
Currantworm: Larvae chew leaves of current and gooseberry. Damage starts in the interior of shrub.
Codling moth: Sprays after petal fall can help control the first generation. Monitor flights with pheromone traps.
Honeylocust plant bug: Injury usually peaks towards end of month.
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.
Slugs: Slug injury should continue at high levels

Early June

Miller moths: Moths move to mountains with warm weather.
Honeybee swarms: Many honeybee colonies produce swarms during sunny days
Grasshoppers: Most of the grasshoppers that may later cause damage will have hatched.
Emerald ash borer: Peak period of adult activity
Brownheaded ash sawfly: Infestations should be declining rapidly, end for season.
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 witches' broom aphid: Damage to new growth begins to become evident.
Eriophyid mites: Gall making occurs on many plants. Highest populations of leaf vagrants present.
Spruce spider mite: Populations rapidly increase on spruce, juniper
Douglas-fir tussock moth: Egg hatch often is peaking during this period. Monitor infested trees.
Honeylocust plant bugs: Peak injury by nymphs and adults present. Damage will end soon.
Fruittree leafrollers: Peak populations of larvae are generally present.
Elm leaf beetle: Egg laying and egg hatch often peaks at this time.
Cottonwood leaf beetle: Egg laying begins on cottonwood.
Bronzed cane borer/rose stem girdler: Peak period of egg laying in caneberries, currant, rose.
Bronzed birch borer, Gambel oak borer: Adults often emerge by mid-June. Beetles feed on leaves and then lay eggs on bark. Bark sprays should be made at this time. Soil systemic insecticides can still be made.
Juniper spittlebug: Spittle masses become obvious as nymphs become fully grown.
Mountain pine beetle: This is a good period to begin making preventive applications
Western spruce budworm: During outbreaks in forested areas this is often optimal time to treat
Spider mites: Populations should be decreasing rapidly with warm weather.
Flea beetles: Several species attack garden plants. Seedlings may need protection.
Grasshoppers: Egg hatch may begin for many species

Late June

Miller moths: Miller moth activity should slow as most have moved to mountains and favored flowering plants become less available.
Leafcutter bees: Characteristic cut leaf injury begins to appear on rose, lilac and other susceptible hosts.
Grasshoppers: Most all of the grasshoppers that may cause problems will have hatched. Check areas where eggs were laid to determine their abundance. If large numbers are present, early treatment is best, particularly with *Nosema locustae* baits.
Ant swarms: Winged ants are forced out of colonies during warm afternoons following rainfall events
Japanese beetle: Adult emergence begins. This is a good time for applying most larval treatments (e.g., imidacloprid, chlorantraniliprole.)
Bronzed birch borer, Gambel oak borer: Adults emergence should be peaking. Beetles feed on leaves and then lay eggs on bark. Bark sprays should be made at this time. Soil systemic insecticides can still be made, but it is getting late.
Emerald ash borer: Adult activity should peak by now.
Cottony maple scale: Females swell and produce conspicuous egg sacks.
Spruce spider mite: Typical period of peak populations.
Douglas-fir tussock moth: Intensify monitoring of infested sites as feeding damage increases.
Rose leafhoppers: Peak injury to foliage of rose.
Poplar borer: Adults often begin to emerge from aspen in late June.
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.
Mountain pine beetle: Optimal treatment time for most areas.
Pinyon pitch mass borer: Adult emergence begins.
Root weevils: Leaf notching injuries produced by adult weevils start to be noticeable
Potato/tomato psyllid: Flights of migrating psyllids arrive in state and start to colonize garden plants.
Grasshoppers: Egg egg largely completed. Optimum time for treatment.
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

Strawberry root weevils: Migrations into homes accelerates.
Sunspiders/Windscorpions: Migrations into homes often peaks around this time.
Peach tree 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.
Root weevils: Adult leaf notching injuries are obvious on common hosts (lilac, euonymus, peony, etc.)
Leafcurling aphids: All species should have departed from overwintering host trees and shrubs and moved to summer hosts.
Douglas-fir tussock moth: Typical peak period of injury. Monitor infested trees.
Cooley spruce gall adelgids: Peak period of emergence from galls and migration to Douglas-fir alternate host.
Pinyon pitch mass borer: Adult emergence continues and egg laying begins.
Mountain pine beetle: Adult emergence usually begins.
Leafcutter bees: Characteristic cut leaf injury begins to appear on rose, lilac and other susceptible hosts.
Japanese beetle: Adult activity peaks. Larval treatments with insecticides can be used at this time.
Mexican bean beetle: Larvae begin to damage beans.
Tobacco budworm: Early evidence of injury to flowers may be present.
Grasshoppers: Egg hatch for most important species should be completed. Optimum time for treatment in many sites.
Sod webworms: Watch for damage to turf grasses by the second generation larvae.
Ant swarms: Winged ants are forced out of colonies during warm afternoons following rainfall events
Spotted-wing drosophila: First adult activity likely at this time; ripening berries at some risk

Late July

Japanese beetle: Adult activity remains high. Most eggs have been laid.
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.
Sawflies: *Neodiprion autumnalis* may cause damage peak in midsummer in ponderosa pine forests.
Cooley spruce gall: Abandoned galls become dry and very conspicuous.
Pearslug: Larvae damage plum, cotoneaster.
Elm aphids: Stages on leaves excrete large amounts of honeydew.
"Tomato" hornworms: Peak damage by larvae occurs over the next month.
Potato/tomato psyllid: Symptoms may begin to appear on potatoes and tomatoes.
Grasshoppers: Damage accelerates over the next month.
Mexican bean beetle: Larvae begin to damage beans.
European paper wasp: Colonies start to increase greatly in size and foraging adults are commonly seen
Spotted-wing drosophila: Adult activity increasing and ripening berries at higher risk

Early August

Japanese beetle: Adult activity declining. Most eggs should have hatched by now.
Honeylocust spider mite: Populations increase rapidly and cause leaf bronzing.
Peach tree borer: Second treatment may be of benefit if heavy flights persist. Monitor with pheromone traps.
Spotted-wing drosophila: Adult activity high and ripening berries at high risk

Aster yellows: Peak period of transmission by infective leafhoppers.
Tobacco (geranium) budworm: Damage to geraniums and petunias accelerates in August.
Whiteflies: High populations may be present if infested transplants were used in the garden.
Grasshoppers: Increased number of adults present; migrations to gardens accelerate.
Cane borers in raspberries: Wilting symptoms are not most evident at this time of year due to cane boring insects.
Yellowjackets: Nest size and nuisance problems greatly increase over the next month.

Late August

Japanese beetle: Adult numbers declining. Most eggs have hatched an larval treatments using biological controls (nematodes, Btg) can be used at this time.
Cluster flies: Flies begin to move to buildings seeking overwintering shelter. Seal buildings to avoid later problems.
Yellowjackets: Nest size and nuisance problems accelerate.
Elm leaf beetle: Feeding injury by the second generation becomes visible.
Honeylocust spider mite: Populations normally begin to decline.
Potato/tomato psyllid: High populations often occur on tomato in late summer.
Spotted-wing drosophila: Adult activity high and ripening berries at high risk
Twospotted spider mite: Expect highest populations and greatest injury at this time.
Grasshoppers: Migrations to gardens accelerate and may peak.

Early September

Yellowjackets, hornets: Nest size and nuisance problems peak. Large paper nests in trees and shrubs attracting attention.
Spotted-wing drosophila: Peak injury to fruit likely to be noticed.
Cluster flies, boxelder bugs: Migrations into homes for overwintering increase.
Spiders, crickets: Movements into homes accelerate greatly with cool weather.
Large spiders: Cat-face and garden spiders become fully grown and attract attention.
Large caterpillars: Several species of large caterpillars (achemon sphinx, cecropia 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.
Slugs: Garden injuries increase with the return of cool, wet weather.
Grasshoppers: Migrations to gardens continue, decline
Bumble flower beetles: Beetles feed on flowers and visit bacterial ooze.
Nightcrawlers: Tunneling activities increase with cool temperatures and can create lumpy lawns.

Late September

Millipedes: Movements into homes occurs following wet periods
Spiders, crickets, root weevils, conifer seed bugs: Movements into homes accelerate greatly with cool weather.
Yellowjackets: Nuisance problems with yellowjackets scavenging on sweets persist, decline.
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

Vinegar flies/Fruit flies: Flies develop in overripe fruit and may become abundant in homes.
Wasps and hornets: Nests are abandoned at the end of the season.
Boxelder bugs, conifer seed bugs: Invasions of homes accelerates with cool weather. Massing bugs occur on building sides during warm, sunny days.
Multicolored Asian lady beetle, lacewings, root weevils: Invasions of homes occurs by insects looking for overwintering shelter.
Hackberry blistergall psyllids: Adults move into homes and to shelter of other overwintering sites.
Spiders, crickets: Movements into homes accelerate greatly with cool weather.
Aphids on trees: Overwintering eggs are laid as long as weather permits.
Poplar twiggall fly: Galls become obvious when aspen leaves fall.
Needle drop of pines: Pines naturally begin shed of third year needles in fall.
Kermes scale: Typical period of crawler emergence
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 beetles: 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.