Insects as Pests and Helpers

Jacob Weber
Wildcat District Horticulture
Some insects help us...

Photo Credit: University of Minnesota Extension
Other insects cause problems!

Photo Credit: Mississippi State University Extension
Consider How Insects Eat
Some take bites (chewing)...

Photo Credit: Texas A&M AgriLife Extension
others poke (piercing-sucking).

Photo Credit: Insects in the City – Texas A&M AgriLife Extension
Some sip...
and others slash and drink (rasping).

Photo Credit: Kansas State University Entomology
How Insects Defend Themselves
They hide!

Photo Credit: Blake Layton, Mississippi State University Extension Service
They emit foul odors!

Photo Credit: Bugguide.net
They bite!

Photo Credit: Pestwiki.com
They sting!

Photo Credit: Bees – Oklahoma Cooperative Extension
Life Stages of Insects
Metamorphosis (gradual)

Credit: Wisconsin State University Extension
Wheel Bug (eggs)

Photo Credit: BugGuide.net
Wheel Bug (nymph)

Photo Credit: Ohio State University Extension
Wheel Bug (adult)

Photo Credit: Ohio State University Extension
Metamorphosis (complete)

Credit: North Carolina Extension Service
Monarch Butterfly (egg)

Photo Credit: Iowa State University Extension
Monarch Butterfly (pupae/chrysalis)

Photo Credit: Texas A&M Aggie Horticulture
Monarch Butterfly (adult)
Insects Affecting People
Mosquitos

Photo Credit: Purdue University Extension Entomology
Bed Bugs

Photo Credit: Insects in the City – Texas A&M AgriLife Extension
Cockroaches

Photo Credit: Bugwood.org
Confused Flour Beetle

Photo Credit: Main Department of Agriculture
Indian Meal Moth

Photo Credit: University of Maryland Extension
Clothes Moths

Photo Credit: Clemson University Cooperative Extension
Termites

Photo Credits: Mississippi State University Extension
Insects of Gardens, Flowers and Lawns
Aphids

Photo Credit: University of Minnesota Extension
Asparagus Beetles
Cucumber Beetles

Photo Credit: Mississippi State University Extension
Chinch Bug

Photo Credit: Kansas State University Entomology
Grasshoppers

Photo Credit: Kansas State University Extension Entomology
Japanese Beetles
Potato Beetles

Photo Credit: University of Florida Extension
Stinkbugs

Photo Credit: University of Tennessee Extension
Squash Bugs

Photo Credit: Purdue University Entomology
Squash Vine Borers
Western Flower Thrips
White Grubs (June Beetles)

Photo Credits: Forestpests.org/Maine.gov
Insects Attacking Trees and Shrubs
Bagworms

Photo Credit: Texas A&M University Extension
Catalpa Worms
Emerald Ash Borers (exotic)

Photo Credit: Ohio State University Extension
Euonymus Scale
Flat-headed Borers

Photo Credit: Bugwood.org
Pine Sawflies
Walnut Caterpillars
Woolly Aphids
Yellow-necked Caterpillars
Beneficial Insects
Preying Mantis
Braconid Wasps

Photo Credits: University of Maryland Extension/David Cappaert - Bugwood
Green Lacewing

Photo Credit: Kansas State University/North Carolina State University
Lady Beetles

Photo Credit: Purdue State University
Ichneumonid Wasps

Photo Credit: North Carolina University Extension
Wheel Bugs

Photo Credit: North Carolina State University Cooperative Extension Service
Thank You Very Much!