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FLORICULTURE PEST ALERT

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OLIVE PSYLLID,
EUPHYLLURA SPP.

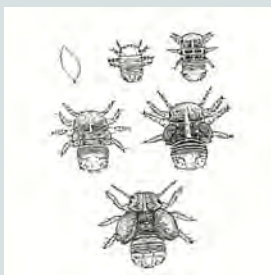


FIGURE 1. EGG
AND NYMPHS

OLIVE PSYLLID ON OLIVE TREES

OLIVE PSYLLID, *EUPHYLLURA OLIVINE* OR *EUPHYLLURA* SPP.: THE OLIVE PSYLLID HAS BEEN FOUND IN SAN DIEGO AND ORANGE COUNTIES ON ORNAMENTAL OLIVE TREES IN THE LANDSCAPE. THIS IS THE FIRST DETECTION OF THIS SPECIES IN THE US. IT'S COMMONLY FOUND IN EUROPE THROUGH THE MEDITERRANEAN AND INTO IRAN.

THE INFESTATION IS COASTAL AND RATHER WIDE SPREAD AT THE MOMENT, FROM OLD TOWN SAN DIEGO TO NEWPORT BEACH IN ORANGE COUNTY, AND IT CAN BE FOUND ON OLD MATURE TREES AND NEW PLANTINGS.

DR. DAVID KELLUM SAYS, "I MET WITH THE LANDSCAPERS AT A NEW DEVELOPMENT CALLED PIAZZA D'ORO HOMES ON VISTA WAY IN OCEANSIDE WHERE I FOUND YOUNG OLIVE TREES INFESTED WITH THE PSYLLID. THEY GOT THEIR OLIVE TREES FROM SWAN HILL NURSERIES IN ARIZONA. ORANGE COUNTY REPORTS RECEIVING OLIVE TREES FROM THIS NURSERY AS WELL." HOW OFTEN DO YOU SEE WHERE WE GET PLANTS FROM ARIZONA THAT HAVE Q RATED PESTS ON THEM?

THE IMPORTANT THING TO NOTE IS THAT IT CAME FROM AND CAN BE FOUND IN THE NURSERY. HENCE, I THOUGHT IT WOULD BE IMPORTANT TO GET THIS NOTE OUT FOR YOUR INFORMATION. IF YOU DEAL WITH

OLIVE, BE AWARE.

UNFORTUNATELY, THIS PEST IS CONSIDERED A Q RATED PEST. ALTHOUGH THERE IS NOT MUCH OLIVE PRODUCTION IN THE WHOLE OF SOUTHERN CALIFORNIA (SEE [HTTP://WWW.OLIVEOILSOURCE.COM/](http://www.oliveoilsource.com/)), THERE IS A SIGNIFICANT AMOUNT OF PRODUCTION IN THE REST OF THE STATE, WHICH MAY CAUSE GREAT CONCERN ON HOW WE DEAL WITH THIS PEST. BECAUSE IT IS LOCATED IN SOUTHERN CALIFORNIA AND AWAY FROM PRODUCTION AREAS, THIS MAY BE A VERY GOOD CASE FOR THE ESTABLISHMENT AND USE OF A BIOLOGICAL CONTROL AGENT. NURSERIES WANTING TO SHIP NORTH MAY BE REQUIRED TO MAKE ERADICATION TREATMENTS. THERE IS A LOT TO BE DETERMINED YET, SO DON'T TAKE ANY OF THIS AS FACT.

THE INFORMATION BELOW AND THE PHOTOS ARE PROVIDED BY NICK NISSON (ORANGE COUNTY ENTOMOLOGIST), DAVE KELLUM (SAN DIEGO COUNTY ENTOMOLOGIST), AND EXCERPTED FROM THE FOLLOWING WEB SITE: [HTTP://WWW.INRA.FR/HYPPZ/RAVAGEUR/6EUPOLI.HTM](http://www.inra.fr/hyppz/RAVAGEUR/6EUPOLI.HTM).

DESCRIPTION

ADULTS ARE SMALL, ABOUT 2.5 MM LONG, BULKY IN PROFILE AND ROBUST. THEY JUMP RAPIDLY BEFORE FLYING, AND HAVE STRONG WINGS. ADULTS ARE GREENISH TO PALE COLORED, WITH LIGHT BROWNISH SHADOWS ON THE FORE WINGS. EGGS ARE VERY SMALL, 0.3 MM LONG, AND PALE YELLOWISH IN COLOR. THERE ARE FIVE NYMPHAL INSTARS VARYING FROM 0.4 MM LONG IN THE FIRST TO 1.5 MM IN THE FINAL INSTAR. THE FIRST NYMPHAL INSTAR HAS NO VISIBLE TRACES OF WINGS, WHILE THE LAST TWO INSTARS HAVE CLEARLY VISIBLE WING BUDS (SEE ILLUSTRATION ABOVE). IN ALL INSTARS THE BODY IS COVERED WITH WHITISH WAXY SECRETED BY THE INSECT.

DISTRIBUTION

THE OLIVE PSYLLID OCCURS IN EUROPE AND EASTWARD TO IRAN.

HOSTS

THIS PSYLLID FEEDS ONLY ON OLIVE.

BIOLOGY

ADULTS PASS THE WINTER PERIOD IN CREVICES OR HOLES ON OLIVE TRUNKS, RESUMING ACTIVITY AND MATING AS SOON AS SPRING BEGINS. FEMALES FREQUENTLY LAY ONE OR MORE EGGS ON THE NEW SHOOTS. EACH FEMALE CAN LAY MORE THAN 1,000 EGGS. ADULTS CAN LIVE 2 TO 3 MONTHS. EGGS HATCH AFTER AN INCUBATION PERIOD OF 8 TO 12 DAYS. NYMPHS FEED BY RUPTURING CELLS AND IMBIBING THE SAP, THEREBY DAMAGING THE ATTACKED TISSUE AND AT THE SAME TIME EXCRETING HONEYDEW UPON WHICH SOOTY MOLDS DEVELOP. NYMPHAL DEVELOPMENT CAN TAKE 24 TO 35 DAYS.

LIFE CYCLE

THE FIRST GENERATION OCCURS DURING MARCH-APRIL WHILE THE SECOND GENERATION IN MAY TO JUNE ON INFLORESCENCES AND FLOWER BUDS. THIS SECOND GENERATION AESTIVATES IN SUMMER WHEN TEMPERATURES EXCEED 80°F. AS SOON AS THE WEATHER BECOMES MORE FAVORABLE, USUALLY AFTER THE FIRST SEPTEMBER RAINS, THE ADULTS RESTART THEIR ACTIVITY AND GIVE RISE TO THE THIRD GENERATION. THE HIBERNATING ADULTS WILL RESULT FROM THIS LAST GENERATION.

DAMAGE

THE SECOND GENERATION, BEING ASSOCIATED WITH THE NEW FLOWERING AND FRUITING OLIVE BRANCHES, IS THE MOST HARMFUL NOT ONLY BECAUSE THE DIRECT FEEDING ACTIVITY AFFECTS YIELD BUT ALSO BECAUSE INDIRECT ACTION BY PRODUCING WAXY SECRETIONS INDUCES MANY OF THE FLOWERS TO ABORT, EVEN THOSE NOT ATTACKED DIRECTLY (FIG. 2). THE PRESENCE OF HONEY-DEW AND SOOTY MOLDS AGGRAVATE THE LATTER SITUATION.

CONTROL

CONTROL MEASURES DURING THE SECOND GENERATION ARE LESS EFFICIENT BECAUSE OF THE WAXY COATING OVER THE INSECTS. THEREFORE, IT IS PREFERABLE TO REDUCE *E. OLIVINA* POPULATIONS DURING THE FIRST GENERATION RATHER THAN LATER IN THE SEASON.

