



FIRST PRESS

NEWSLETTER OF OLIVE OIL PRODUCTION AND EVALUATION

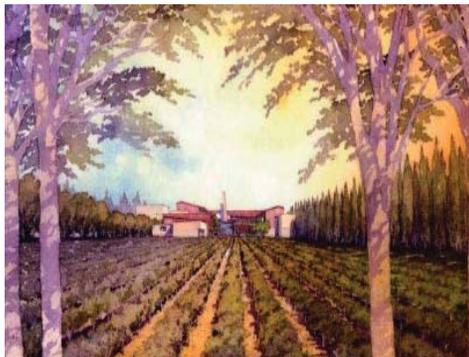
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UC DAVIS ESTABLISHES OLIVE CENTER by Dan Flynn

North America's first academic center dedicated olive oil and table olives will be launched in January 2008 at the University of California, Davis. The new UC Davis Olive Center promises to give a boost to California's burgeoning olive oil industry and to seek options to strengthen the state's table olive sector.

The UC Davis Olive Center will be part of the Robert Mondavi Institute for Wine and Food Science (RMI). The RMI will be housed in a stunning complex of buildings now under construction that will provide state-of-the-art facilities for the university's food science and wine programs. The new buildings will be dedicated in fall 2008.



"My hope is that the Olive Center will do for the olive industry what UC Davis has done for California wine," said Clare Hasler, executive director of the RMI.

University officials established the center due to the olive industry's need for academic research and UC Davis' long history in the development of the olive crop

in California. The Olive Center continues a partnership between the University of California and the olive industry that began more than a century ago.

The Olive Center will bring together more than 25 academics, farm advisors and extension specialists from a variety of disciplines, including food science, plant sciences, agricultural economics, food safety, sensory evaluation and health. Co-chairs of the Center will be two senior professors, Charles Shoemaker of the Department of Food Science & Technology and Vito Polito of the Department of Plant Sciences. The Olive Center's executive director will be Dan Flynn, who has managed the UC Davis Olive Oil program for the past two years.

The center will include a number of features that will benefit olive producers in California, such as:

- Providing technical support on state legislation sponsored by the California Olive Oil Council to prevent fraudulent olive oil labeling practices (SB 634 by Senator Patricia Wiggins);
- An olive oil mill that will allow for the production of UC Davis Olive Oil as well as research into olive oil processing variables;
- A research taste panel to provide feedback to California olive producers submitting samples, under the guidance of Professor Jean-Xavier Guinard;
- Planting an experimental super-high-density olive grove and certified organic olive orchard on the UC Davis campus;
- Short courses on olive oil production and sensory evaluation;

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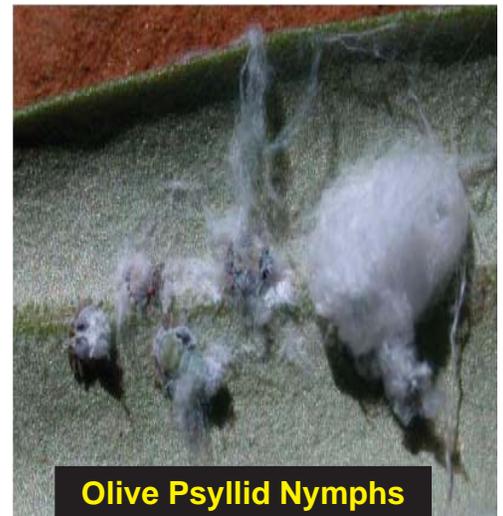
ANOTHER NEW PEST OF OLIVES IN CALIFORNIA

Name: *Euphyllura olivina* (Costa). Olive psyllid in English (algodón del olivo - Spanish, psylle de l'olivier - French, cotonello dell' olivo - Italian).

Description

The adults are small (2.5 mm long) greenish colored insects with light brown folded wings that make them look roof-like. The eyes are red and the third pair of legs is longer and adapted for jumping. They jump before flying. The eggs are elliptical, very small, 0.3 mm long, and pale yellowish in color. Eggs are attached to the plant with a pedicel. The larvae are light yellow with antennae and two bright red eyes. This insect has five nymphal instars varying from 0.4 mm to 1.5 mm long in the final instar. The first instar has no visible

(Psyllid cont. on p.2)

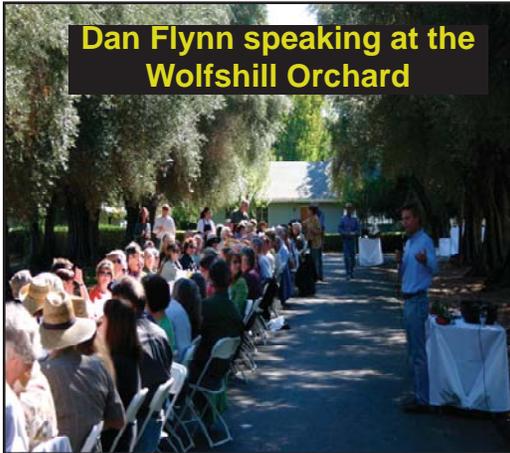


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- Research aimed at resolving industry challenges such as olive mill waste management;
- Research to examine the health benefits of olives; and
- Curing specialty olives and updating UC Davis guidelines on safe olive-curing practices.

Donations from olive oil and table olive producers will be essential in funding Olive Center capital costs and research activities. The university has supplied seed funding to defray some operating costs for the first three years, UC Davis Olive Oil will purchase the processing equipment based on revenue from olive oil sales and the RMI will supply some administrative support. Some industry sources have already made cash or in-kind donations to the center.

The RMI's Clare Hasler says the future for the university's partnership with the industry looks promising and that "the Olive Center is a perfect fit for UC Davis."

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(Psyllid cont. from p. 1)

traces of wings, while the last two instars have clearly visible wing buds. In all instars the body is covered with whitish, cottony wax secreted by the insect, that also covers the entire larval colony.

Distribution and Hosts

The olive psyllid was found for the first time in July, 2007 in Southern California infesting olive trees in Orange and San Diego Counties. It is a very common pest of all the Mediterranean countries. Populations are higher in cooler coastal climates. The only known host is the olive tree (*Olea europaea*).

Biology - Life Cycle - Damage

This insect usually has three generations per year. It overwinters as an adult on small branches and leaves. Mating occurs as soon as new shoot tip growth begins in the spring (March and April), followed by egg laying on the flower buds. Each female can lay more than 1,000 eggs. Nymphs develop over a 24 to 35 day period covering themselves and surrounding plant tissue with a thin cottony mass. The second generation immediately follows the first (May and June) feeding on the flowers, leaves, and small fruits. The adults then go into a resting stage during the summer when temperatures exceed 80°F (27°C). As fall temperatures cool, an almost unnoticed third generation develops. The feeding and waxy excretions can interfere with normal flower development and fruit set causing significant flower and small fruit drop. Highly infested trees have shown up to a 30% loss of yield.

Control

Control measures are not necessary in most cases, because olives can tolerate a light population of insects without much real damage. Presence – absence monitoring starts in March and lasts through May. When insect numbers are below 6 per flower cluster little to no damage occurs to the crop or trees. If numbers exceed 6-8 per flower cluster in low production years with lower anticipated set – treatment may be beneficial. In heavy set years it does not require any treatment unless the population exceeds 10 insects per flower cluster. Treating heavy infestations can improve crop set.

(Psyllid cont. on p. 5)

THE ART AND SCIENCE OF OLIVE OIL BLENDING

Most producers blend their oils to achieve a better balance, to produce a specific style of oil, and to ensure consistency from year to year. For producers with big enough orchards, it is highly recommended to harvest each variety at its peak of maturity within the desired style range. Then, for the early release oil - to blend using a larger percentage of the later harvested components or compose an oil with a higher percentage of more mellow varieties. For the subsequent releases, the blends should contain increasingly more of the earlier harvested component oils and or oils from varieties that are stronger flavored. This is done to create a product that is more consistent in flavor throughout the year, since all of the component oils will mellow out over time. A single blend made in March and sold over 10-12 months will change quite a bit over that time period, which can confuse consumers.

Blending Procedures

- Bring together representative samples by quantity for each of the oils produced and available for blending
- Taste the oils in a quiet comfortable and clean location midday before lunch. Do not hastily taste the cold oils standing next to the tanks in the storage room
- Carefully taste each oil making detailed notes about each one. Note the intensity levels of fruitiness, bitterness, and pungency. Also write down any specific flavor characteristics. It is good to do this twice and to get the opinion of at least one other person about the oils. Refer to Richard Gawel's tasting wheel, which can be purchased at www.aromadictionary.com
- Summarise each component oil in a few words and indicate the strengths and weaknesses of each
- Know what styles of oils are the desired outcomes. Review each component oil and indicate how it might influence the desired style/outcome.

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other odor you can think of, should not be allowed to contaminate the oil.

- **Cleanliness:** The storage receptacle must be completely clean of any residue that might alter the flavor of the oil. This includes tanks that were used to purge the oil during the first two months of sedimentation. For long-term storage, oil should not be kept in those tanks, but moved into a completely clean tank.

- **Time:** The real longevity of most oils is about a year and less if it is bottled. Oil keeps much better in bulk storage, so consider just-in-time-blending-and-bottling to fill orders, so that quality is optimized and a more consistent product can be sold.



Storage Tank Materials

The overall best material for storing olive oil is stainless steel. It is sturdy, opaque, easy to clean, and does not impart any flavor into the oil. It is what any olive oil processor interested in the highest quality would use. A close second is fiberglass, but it is not as opaque. Steel or iron has been used in the past and is still used to some extent, because some old tanks are still available. It is an excellent material and inexpensive, except that it can impart a metallic flavor to oil, therefore most producers use steel tanks only for their lesser quality oils. Food grade plastics are used to some extent for storage and for transport in bulk (barrels). Unfortunately, most plastic is not completely opaque or completely neutral, imparting flavors into the oil and transmitting oxygen through to the oil. Light entering into plastic containers can change green oil to golden or brown very quickly (within a few weeks). Short-term storage in plastic is usually not a problem. Other materials such as clay tile and grout have been used to line underground tanks for centuries. The grout is difficult to clean and once defective odors are present they can almost never be removed. Around the Mediterranean Basin, some producers who still use underground ceramic storage have painted epoxy or fiberglass over the tiles or have them lined with stainless steel. They are still difficult to clean and purge because they are usually flat bottomed and access is limited.



UPCOMING EDUCATIONAL EVENTS

- Fruit Tree Pruning Course--January 25, 2008 at UC Davis
For info or to register: www.extension.ucdavis.edu or call 800-752-0881
- Sensory Evaluation Short Course--Apr. 4 & 5, 2008 at UC Davis
For info or to register: www.extension.ucdavis.edu or call 800-752-0881
- Olive Oil Production Short Course in Lodi—Apr. 18 & 19, 2008
For information or to register contact: Judy Sams - jmsams@ucdavis.edu
- Olive Production in the Sierra Foothills (Amador - El Dorado)—Apr. 29 or 30, 2008
Contact Lynn Wunderlich: lwunderlich@ucdavis.edu
- Tre-E Beyond Extra Virgin Olive Oil Conference (Sienna Italy)—CANCELLED

(Psyllid cont. from p. 3)

Any treatment should be applied early when the nymphs are still exposed and less densely covered with cottony wax; therefore, it is preferable to reduce populations during the first generation rather than later in the season. In Europe, North Africa, and the Middle East they use registered organophosphate insecticides. In California we have nothing registered on olives to control this new pest. According to the California Department of Food and Agriculture (CDFA), nursery shipments are being inspected to prevent its spread to other counties; otherwise no action is being taken. Lets hope it does not spread.

Sources

Civantos López-Villalta, Manuel. 1999. "Olive Pest and Disease Management", International Olive Council (IOC). "CDFA Pest Exclusion Advisory No. 20-2007". "Olive psyllid" l'Institut national de la recherche agronomique, HYPP. <http://www.inra.fr/hyppz/RAVAGEUR/6eupoli.htm>.
Photos courtesy of Manuel Alvarado.



Olive Psyllid Damage



**PRODUCTION – CONSUMPTION – IMPORTS – EXPORTS OF
OLIVE OIL FROM EACH MAJOR WORLD COUNTRY 04/05 and 05/06 (metric tons)**

Nation	Production		Imports		Consumption		Exports	
	04/05	05/06	04/05	05/06	04/05	05/06	04/05	05/06
Algeria	33,500	47,500	0.0	0.0	35,000	44,000	0.0	0.0
Argentina	10,000	25,000	0.0	0.0	5,000	5,500	5,000	15,000
Australia	4,500	5,000	28,500	29,000	32,500	32,500	1,000	1,500
Austria	0.0	--	6,000	--	5,900	--	100	--
Belgium	0.0	--	16,700	--	12,300	--	4,400	--
Brazil	0.0	0.0	25,500	28,000	25,500	28,000	0.0	0.0
Canada	0.0	0.0	26,000	26,000	26,000	26,000	0.0	0.0
Chile	1,000	--	0.0	--	500	--	500	--
Croatia	5,000	5,500	500	500	4,500	5,000	500	500
Cyprus	7,500	8,100	100	--	7,500	--	100	--
Czech Republic	0.0	--	3,000	--	2,800	--	200	--
Denmark	0.0	--	2,800	--	2,700	--	100	--
Egypt	2,500	--	0.0	--	2,500	--	0.0	--
Estonia	0.0	--	100	--	100	--	0.0	--
Finland	0.0	--	1,200	--	1,200	--	0.0	--
France	4,700	5,000	97,300	--	9,800	--	3,700	--
Germany	0.0	--	45,300	--	43,400	--	1,900	--
Greece	435,000	424,000	5,000	--	238,000	--	150,000	--
Holland	0.0	--	13,300	--	12,700	--	600	--
Hungary	0.0	--	1,300	--	1,200	--	100	--
Iran	4,000	4,000	2,000	1,000	6,000	5,500	0.0	0.0
Iraq	0.0	--	0.0	--	0.0	--	0.0	--
Ireland	0.0	--	2,600	--	2,600	--	0.0	--
Israel	9,500	4,000	8,000	12,000	17,000	16,500	500	0.0
Italy	879,000	600,000	480,000	--	837,100	--	330,000	--
Japan	0.0	0.0	32,500	32,500	32,500	32,500	0.0	0.0
Jordan	29,000	20,000	0.0	0.0	25,000	18,000	5,000	3,000
Latvia	0.0	--	600	--	500	--	100	--
Lebanon	6,000	5,500	0.0	0.0	5,000	5,000	500	1,000
Libya	5,500	9,000	2,000	0.0	7,500	9,000	0.0	0.0
Lithuania	0.0	--	200	--	200	--	0.0	--
Luxembourg	0.0	--	800	--	800	--	0.0	--
Malta	0.0	--	500	--	500	--	0.0	--
Mexico	2,500	--	10,000	--	12,000	--	500	--
Morocco	50,000	75,000	0.0	0.0	40,000	60,000	10,000	15,000
Palestinian Terr.	20,000	10,000	0.0	0.0	10,000	10,000	10,000	0.0
Peru	0.0	--	0.0	--	0.0	--	0.0	--
Poland	0.0	--	3,200	--	3,100	--	100	--
Portugal	46,400	30,000	45,000	--	69,000	--	22,500	--
Russian Fed	0.0	--	9,000	--	9,000	--	0.0	--
Saudi Arabia	0.0	--	5,500	--	5,500	--	0.0	--
Serbia-Montenegro	500	--	0.0	--	500	--	0.0	--
Slovakia	0.0	--	800	--	800	--	0.0	--
Slovenia	400	400	1,000	--	1,400	--	0.0	--
Spain	980,300	880,000	94,000	--	600,000	--	592,500	--
Sweeden	0.0	--	5,600	--	5,300	--	300	--
Switzerland	0.0	--	11,000	--	11,000	--	0.0	--
Syria	175,000	100,000	0.0	0.0	135,000	95,000	35,000	20,000
Taiwan	0.0	--	4,500	--	4,500	--	0.0	--
Tunisia	130,000	200,000	0.0	0.0	42,000	50,000	100,000	150,000
Turkey	145,000	112,000	0.0	0.0	60,000	50,000	82,000	75,000
United Kingdom	0.0	--	76,800	--	73,200	--	3,600	--
United States	1,000	1,000	228,000	233,000	217,000	219,000	15,000	15,000
Other Countries	13,200	--	42,500	--	183,400	--	500	--
* Total	3,001,000	2,584,500	634,000	682,500	2,885,500	2,769,000	607,500	654,000

* Trade between European countries is not considered as imports or exports