Olive Disease Management

Jim Adaskaveg, Professor in the Department of Plant Pathology at UC Riverside joined the meeting by video to present his work on epidemiology and management of olive knot and the evaluation of new fungicides for control of olive leaf spot and Peacock Spot. Dr. Adaskaveg has been working with the OOCC for years and has during this time identified a number of promising products for the control of olive knot. The objective is to have a number of products with different active ingredients/ modes of action so that pathogens are unlikely to develop resistance.

Since these products are not registered on olives, an important part of his work now is on the regulatory side, seeing these products through the EPA process called IR-4. Unfortunately, one of the promising fungicides for Peacock Spot, Ziram (active ingredient ziram), was suddenly cancelled on all crops in February 2022.

There are additional products in process, including Syllit (a.i. dodine); a decision is expected in October of this year. There is also a product that was previously rejected, Topsin-M (a.i. thiophanate-methyl), that is now back in consideration. In all there are five new fungicide registrations expected.

For control of olive knot, a number of products have proven effective in the research. Some of these are GRAS (generally recognized as safe) food additives and some are antibiotics (kasugamycin and oxytetrcycline). In order to increase efficacy and reduce the danger of resistence, the most promising approach apprears to be a mixture of chemicals with different modes of action. The food additives do not require complex approvals but the antibiotics are in IR-4. There have been multiple setbacks, but a decision is now expected in December this year for kasugamycin and in March of 2023 for oxytetracycline.

Mohammed Nouri, UCCE Orchard Systems Advisor presented an investigation of decline symptoms of super-high-density oil olives in the San Joaquin Valley. There are multiple causes of tree decline in CA, including *Verticillium* wilt, *Botryosphaeria*, *Pleurostoma, Eutypa lata* and freezing temperatures; accurately diagnosing these in the field can be very difficult. Consult your local UCCE office or *mnouri@ucanr.edu* for guidance regarding sampling.

Dr. Nouri also spoke about the ongoing challenge of *Neofabraea*. This disease particularly affects the Arbosana cultivar, causing leaf and twig lesions. The infection primarily occurs in wounds caused by mechanical harvest damage but can also appear as spotting on fruit. Research has shown some control with a few fungicides that are in IR-4 for Peacock spot as well. A final optimistic result from a survey of anthracnose in CA found that this disease is not found in commercial CA orchards. It is unlikely to become a significant problem because of low humidity, dry summers, resistant cultivars and a tendency to harvest early.

Find the full research presentation on the epidemiology and management of olive knot and the evaluation of new fungicides for control of olive leaf spot and Peacock Spot here.