Information for pest management professionals and pesticide applicators

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Navigating the PPE Shortage During COVID-19

With increased demand for personal protective equipment, or PPE, goggles, faceshields, disposable coveralls, N95 respirators, and other gear that workers wear to protect themselves from pesticides, COVID-19, and other health hazards are in short supply, or temporarily unavailable, as priority is given to health care workers during the pandemic.

In a phone interview, regional distributors of PPE in California expressed uncertainty in the lead times for certain items, pointing to warnings from manufacturers that the availability of certain PPE will be "touch and go" for now. National distributors of PPE servicing landscape, structural, and agricultural sectors, shared less challenges with inventory of certain PPE items than regional distributors. Stocks of cartridge respirators differed among national distributors due to marketplace competition.

Check as many distributors of PPE as possible at the national and regional level to find necessary equipment and conduct proper maintenance of reusable PPE to extend the longevity of its shelf-life.

To reduce the spread of COVID-19, workers may wear homemade face coverings, but for applying pesticides, they must wear the respirator specified on the pesticide product label.

In the meantime, there is alternative PPE that urban pest management professionals can use during the shortage. Pesticide applicators may use gear that is more protective than required by state regulations and the product label. For example, substitute a half- or full-mask respirator for an N95 disposable respirator when not accessible.

Look for lesser-known brands of PPE as opposed to the first tier of choice. The more recognizable Tyvek coverall from Dupont is hard to come by; try seeking out other brands. Reusable cotton coveralls are more available in supply and a good alternative to their disposable equivalent.

Here are some guidelines for how to meet PPE requirements as the shortage continues.

General PPE requirements

Remember, the label is the law. Label and California PPE requirements are not being loosened. Purchase only what you need for the season and choose reusable PPE whenever possible. Clean and maintain reusable PPE to prevent pesticide exposure and extend equipment shelf-life. Operations with excess supplies of PPE should consider coordinating with their local County Agricultural Commissioner's Office, UC Cooperative Extension advisor, or through other channels to distribute PPE in their area to others in need.

AK HUNTER, UCIPM

Personal protective equipment, like coveralls and gloves, are required by many pesticide labels.

Respirators

If you can't find the respirator required on the label, use an alternative, more-protective respirator. For example, if an N95 is required, you can use a half-mask with N95 particulate filters; these can be stand-alone filters (e.g. P100) or ones that attach to an organic vapor cartridge. Filters and pre-filters rated "R" or "P" are

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N95 Alternatives for Pesticide Handling

Due to PPE shortage during the current COVID-19 crisis, DPR has compiled a list of respirators and exposure controls that offer the same or better protection for employees who are required to use N95 respirators.

If the label requires an N95, you may also use these respirators

Filtering facepiece respirators with the following designations
- N99, N100
- R95, R99, R100
- P95, P99, P100

If product contains oil, do not use "N" series masks

Powered Air Purifying Respirators (PAPRs)
- All PAPR cartridges have HEPA filters that provide more protection than N95 respirators

Elastomeric respirators (half-face or full-face) with particulate filters or combination cartridge/filters
- N, R, or P filters with 95, 99, or 100 efficiency
- Filter can be part of cartridge, an attachment, or stand-alone
- Some chemical cartridges can also filter particulates, which is indicated by a magenta or purple color on the cartridge

If product contains oil, do not use "N" series

Self-Contained Breathing Apparatus (SCBA)
- Not the same thing as SCUBA
- See 3 CCR 6739 (k) for air quality requirements

Can't find a respirator?

1. **Ask your PCA if there is a product that doesn't require respiratory protection**
2. **Mix/load pesticides in a closed system** † (see 3 CCR 6746 and 6738.4 (c) & (d))
3. **Apply pesticides from an enclosed cab** † (see 3 CCR 6738.4 (e))

NOTE: #3 is only applicable to particulate respirators and only if the enclosed cab has a functioning ventilation system

† the required PPE must still be available

Respirators must be NIOSH approved. Before wearing any respirator required by label, permit conditions, regulations, or employer policy, users must be medically able to wear a respirator, be trained, and fit tested. Employers must have a written respiratory protection program as detailed in 3 CCR 6739. https://www.cdpr.ca.gov/docs/whs/ind_hygiene_ppe.htm

more protective than "N" and an option. Choose a different pesticide that doesn't require a respirator.

Gloves

Chemical-resistant gloves, usually 14 mil or more in thickness are required for most California pesticide applications and should be worn by mixers, loaders, and applicators. If nitrile gloves are not available, Viton and laminate gloves are universal chemical-resistant materials for most pesticide labels. If the glove material is specified on the label, that instruction must be followed. Disposable gloves less than 14 mil can be worn, but not for more than 15 minutes at a time. Also note that thinner gloves cannot be layered on top of one another.

Coveralls

Coveralls should be worn when required by the pesticide label or when the signal word is "WARNING" or "DANGER," or as a preventative measure when applying by backpack sprayer or fogger. Coveralls can be made from high-density polyethylene fibers (Tyvek, and other brands), which are disposable, or cotton, which are reusable. If reusable coveralls are worn, the employer must ensure employees are provided clean coveralls.

Goggles/face shields

Face shields are required for mixing and loading pesticides only if it's stated on the label. If a face shield is unavailable, a full-face respirator is an alternative option. Goggles or other protective eyewear should always be worn in California when handling pesticides, regardless of what the label says. The face shield, goggles or safety glasses must provide front, side, and brow protection, and meet the American National Standards Institute Z87.1 standard for impact resistance.

For more information about PPE, see the California Department of Pesticide Regulation's posters at cdpr.ca.gov/docs/whs/pdf/gloves_for_pesticide_handling.pdf and cdpr.ca.gov/docs/whs/pdf/n95_alternatives_for_pesticide_handling.pdf.

UC IPM also covers these topics in their pesticide safety webinar series at ipm.ucanr.edu/IPMPROJECT/workshops.html.

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WHAT IS IPM? Integrated Pest Management (IPM) programs focus on long-term prevention of pests or their damage through a combination of techniques including resistant plant varieties, biological control, physical or mechanical control, and modification of gardening and home maintenance practices to reduce conditions favorable for pests. Pesticides are part of IPM programs but are used only when needed. Products are selected and applied in a manner that minimizes risks to human health, beneficial and nontarget organisms, and the environment.

Adding Disinfection Services for Customers

During the COVID-19 pandemic, you may be adding sanitization and disinfection services to your business' offerings. If you decide to offer disinfection services, it is important to have the correct license category, use the correct pesticide for the job, and follow the label instructions.

Correct license category

Pest management professionals offering disinfection or sanitization services for hire need to hold a California Department of Pesticide Regulation (DPR) Pest Control Business (PCB) license. Additionally, each PCB must have a qualified applicator license (QAL) holder at each main office and branch location with pest control category A (residential, industrial, and institutional) or pest control category P (microbial). If the PCB is performing work for a government agency to ensure public health, pest control category K (health-related) would be most appropriate. Since use of disinfectants to control COVID-19 will occur inside a home, business, or other structure, be sure to verify that your license category allows you to apply pesticides in the requested environment.

What if you don't hold one of those license categories? DPR is not currently testing for new applicators but the County Agricultural Commissioners may use enforcement discretion to allow licensed and registered PCBs to perform sanitization services for the control of COVID-19 if they have a designated individual at each business location with a valid QAL in any category. This exemption currently only lasts until July 6, 2020. For more information, read the full guidance at cdpr.ca.gov/docs/county/cacltrs/penfltrs/penf2020/202003.htm.

In the context of the current COVID-19 pandemic, the Structural Pest Control Board's Branch 2 licensure does not allow for the application or use of antimicrobials/disinfectants since the virus is not a structural pest, nor is it vectored by a structural pest.

Disinfectants are pesticides

Disinfectants are commonplace in homes and businesses and are easily purchased by consumers for use without a license. However, disinfectants are registered pesticides and must be used in accordance with the label and California regulations. Professional-grade disinfectants are more powerful than consumer-grade products and often have signal words of Warning or Danger. Always follow label directions for mixing, use and disposal, required PPE, and contact time. Also be sure to follow California's pesticide regulations and requirements.

Contact time

Some applicators may not be familiar with the term "contact time" since it's a term generally reserved for disinfectants. The contact time listed on a disinfectant label is the amount of time the surface must remain wet with the product in order to disinfect adequately. If the surface dries too fast, the pathogen may still be viable. The contact time varies from product to product and may be as long as ten minutes.

Correct disinfectants

Consistent with other pesticides, disinfectants list the target organisms. Since the coronavirus that causes COVID-19 (SARS-CoV-2) is a new virus, it won't appear on disinfectant labels. The US EPA has released List N, disinfectants that can be used against SARS-CoV-2: epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2. When disinfecting for coronavirus, choose a disinfectant from this list. Make sure however that any product you plan to use is also registered in California at apps.cdpr.ca.gov/docs/label/prodnam.cfm.

ENEAS, WIKIMEDIA

Disinfection process in an office.

If you've branched into disinfection services for coronavirus control, be sure pesticide applicators have the correct license category to apply disinfectants, use the correct disinfectants for the job, and as always, follow the label.

Contact your County Agricultural Commissioner for guidance on performing disinfection services with your license type. For the most up-to-date information about the COVID-19 situation and pest control issues, consult the Department of Pesticide Regulation, Pest Control Operators of California, or your local County Agricultural Commissioners.

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Ask the Expert!

Q: My licensed pest control business will be offering disinfection services. What disinfectants can I legally use to control the new coronavirus (SARS-CoV-2)?

A: Since SARS-CoV-2 is a new pathogen, you won't find it on any disinfectant label. The U.S. Environmental Protection Agency (EPA) has developed a list of already registered disinfectants that will be effective onagainst the COVID-19is virus. Look for "List N: Disinfectants for Use Against SARS-CoV-2" on the U.S. EPA website at epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2.

R IMWALLE, OK NATIONAL GUARD

If you can't find a product on this list to use against SARS-CoV-2, look at a different product's label to confirm it has an EPA registration number and that "human coronavirus" is listed as a target pathogen. The EPA registration number is critical to identify the correct product so be sure to note that. Lastly, the product you intend to use must be registered in California, so check the California Department of Pesticide Regulation's pesticide product database at apps.cdpr.ca.gov/docs/label/prodnam.cfm.

Q: With the shortage of PPE, can I reuse my disposable gloves for handling pesticides?

A: According the California Department of Pesticide Regulation if you use reusable gloves, they must be made of the same material as label-required disposable gloves. Chemical resistant gloves must be at least 14 mil thick so substitute for thicker gloves of the same material.

Care for reusable gloves following the guidelines at cdpr.ca.gov/docs/whs/pdf/gloves_for_pesticide_handling.pdf. These guidelines include inspecting your gloves before putting them on and washing your hands before putting them on and before removing them.

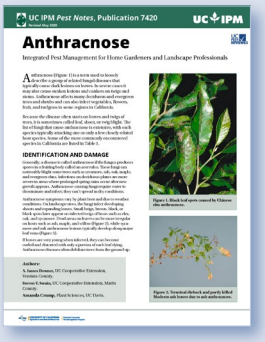
Never wear damaged chemical resistant gloves and do not touch contaminated gloves with bare hands!

SUBSCRIBE TO THE UC IPM URBAN PEST MANAGEMENT BLOG!

UC IPM's blog provides readers with timely information about pests in and around homes, gardens, landscapes, and structures in California. We post articles about common seasonal pests, invasive pests, beneficials, and new UC IPM resources, including new and revised Pest Notes, training events, and other educational materials for residential audiences and pest management professionals.

View or subscribe to the blog at ucanr.edu/blogs/ucipmurbanpests/

Revised *Pest Notes*



Anthracnose

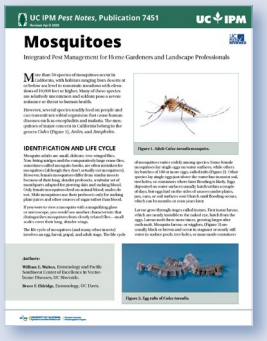
The fungal disease anthracnose infects many trees and shrubs. See *Pest Notes: Anthracnose*, recently revised by UC Cooperative Extension advisors Jim Downer and Steven Swain, and Amanda Crump of UC Davis Plant Sciences, for a list of anthracnose-resistant trees, information about the life cycle and dissemination of anthracnose-causing fungi, and updated chemical control.

Online at
ipm.ucanr.edu/PMG/PESTNOTES/pn7420.html

Carpet Beetles

Carpet beetles are pests in homes, museums, and warehouses and are difficult to control because of their preference for undisturbed locations and their wide range of food sources. Successful control requires a combination of sanitation and exclusion. For more information, see the recently updated *Pest Notes: Carpet Beetles* by UC Riverside entomologist Dong-Hwan Choe.

Online at
ipm.ucanr.edu/PMG/PESTNOTES/pn7436.html



Mosquitoes

Get information in the newly revised *Pest Notes: Mosquitoes* on the newest mosquitoes to become established in California, the *Aedes* genus, vectors of Zika virus and other deadly viral pathogens. UC Riverside entomologist William Walton and UC Davis entomologist Bruce Eldridge, discuss the life cycle and transmission cycle of the *Aedes* genus, including *A. aegypti, A. albopictus,* and *A. notoscriptus.*

New in this version of the *Pest Notes* are tips on managing water barrels and other water capture structures to keep mosquitoes from breeding in them, including the use of Bt products. There are updates on chemical control, including new personal use repellent products and outdoor sprays.

Online at ipm.ucanr.edu/PMG/PESTNOTES/pn7451.html

Visit UC IPM's *Pest Notes* web page for these and many more titles
ipm.ucanr.edu/PMG/PESTNOTES

Always read and carefully follow all precautions and safety instructions provided on the pesticide container label, as well as any other regulations regarding the use of pesticides. Not following label directions, even if they conflict with information provided herein, is a violation of state and federal law. No endorsements of named products are intended, nor is criticism implied of products not mentioned.

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For more information about managing pests, contact your University of California Cooperative Extension office, or visit the UC IPM website at ipm.ucanr.edu.