

Personal Protective Equipment (PPE) Selection in the Time of COVID-19

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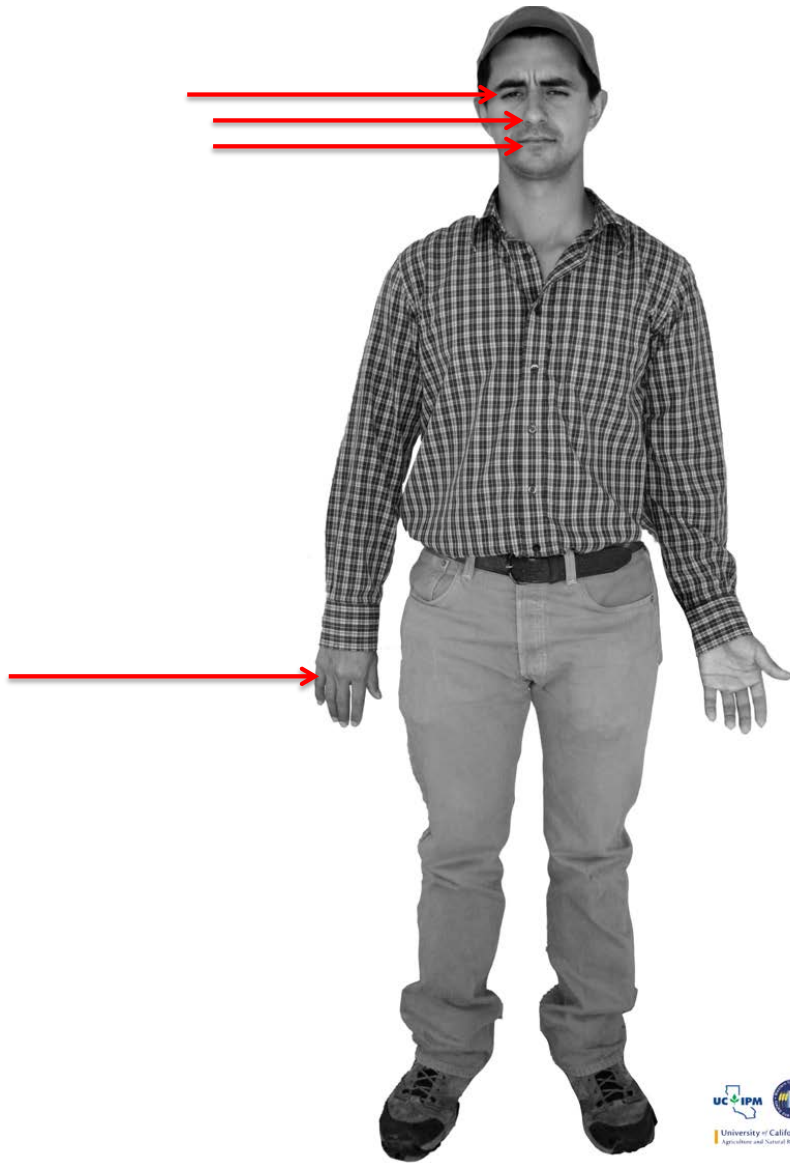
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Agriculture and Natural Resources



PPE and COVID-19 - Overview

- What is happening with PPE
- What to do if you can't find what you normally purchase
- How to identify and select the appropriate PPE (before, during and after COVID)



There are **four** routes of exposure

It is most common for pesticides to enter our body through our **skin!**



Personal Protective Equipment (PPE)





What is Happening with PPE During COVID-19

- N95 respirators are the most limited
 - Healthcare workers
 - General public
 - Wildfire protection
- Wait time for N95 respirators
 - In May: Disposable respirators backordered until July
 - Update: Backorders are currently being filled. Stock still low.





What is Happening with PPE During COVID-19

- Other PPE supplies either in stock or stock changes frequently
 - Chemical resistant gloves
 - Face shields
 - Coveralls





What if you can't find the appropriate PPE?

- If the PPE you need for an application is not available
 - Seek an alternative, more protective PPE
 - Seek alternative pesticides that do not require the PPE you don't have
- Some tips for finding PPE
 - Look for reusable options
 - Look at different brands and distributors



How do you know what PPE to wear?



California PPE Regulations - Minimum

- 3 CCR Section 6738
 - Protective eyewear
 - Chemical resistant gloves
 - Coveralls



Protective Eyewear Requirements

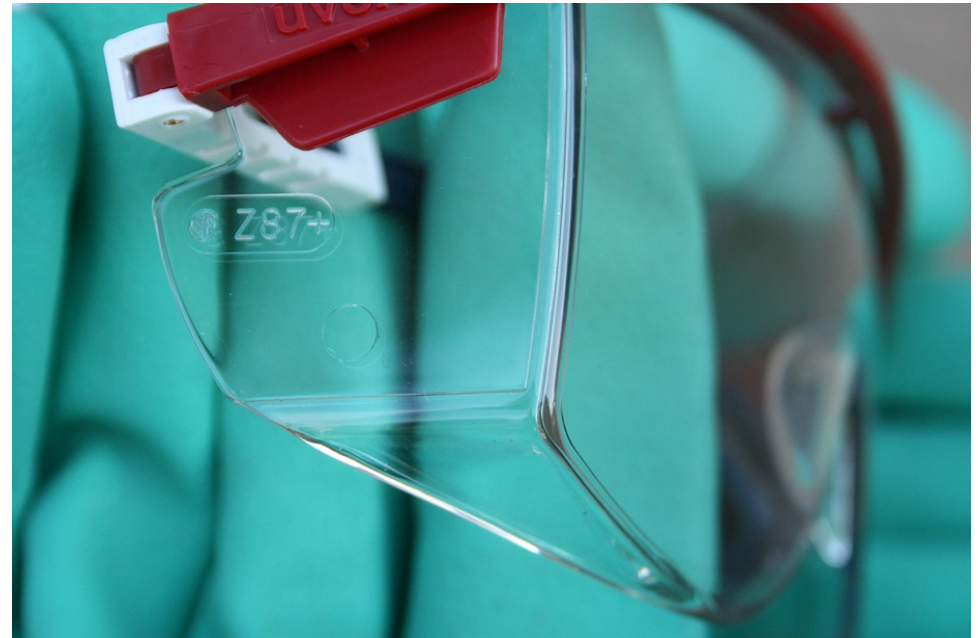
- Z87.1 compliant
- Front, side, and brow protection
- If specific eye protection is listed on the label, you must follow those instructions
- If nothing is specified, you choose





Protective Eyewear

Z87.1





Protective Eyewear - Face shields



....or choose a different pesticide.



Chemical Resistant Gloves

dpr Glove Category Selection Key

| Label Code | Materials Required by Law | Material Code |
|------------|---------------------------|-----------------|
| A | 1,2,3,4,5,6,7,8 | 1: Laminate |
| B | 1,2 | 2: Butyl |
| C | 1,2,3,4,7,8 | 3: Nitrile |
| D | 1,2 | 4: Neoprene |
| E | 1,3,4,8 | 5: Natural |
| F | 1,2,3,8 | 6: Polyethylene |
| G | 1,8 | 7: PVC |
| H | 1,8 | 8: Viton |

All but Laminate and Polyethylene must be 14 mils or thicker



Chemical Resistant Gloves

- Nitrile gloves are most commonly used and can be found
- Disposable 15 mil nitrile gloves harder to find
- Materials like barrier laminate and Viton are almost universally protective



Gloves for Handling Pesticides

Due to PPE shortage during the current COVID-19 crisis, DPR has compiled some glove-safety tips.

If you use reusable gloves, they must be 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.

[†] except laminate and polyethylene gloves

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Caring for Reusable Gloves

1. Inspect your gloves before putting them on. **Never wear damaged chemical resistant gloves!**
2. Wash your hands with soap and water before you put them on.
3. Wear your gloves as required by label or regulation when performing handler tasks.
4. Wash your gloved hands with soap and water before removing gloves.
5. Dry and store your clean gloves away from pesticides, in a cool dry place, and away from direct sunlight.
6. After removing gloves, wash your hands with soap and water.

Do not touch contaminated gloves with bare hands!

Be sure to follow 3 CCR 6738. For more information go to: https://www.cdpr.ca.gov/docs/whs/ind_hygiene_ppe.htm

https://www.cdpr.ca.gov/docs/whs/pdf/gloves_for_pesticide_handling.pdf

https://www.cdpr.ca.gov/docs/whs/pdf/spanish/gloves_for_pesticide_handling_sp.pdf



Coveralls

- Must be worn if stated on the label
- Must be worn when handling pesticides with the signal words DANGER and WARNING
- Should be worn if handler will come into contact with spray





Coveralls

- Try different brands of coveralls
- Reusable coveralls are a good option
- Employers must provide clean coveralls





Coveralls





Respirators

- Disposable N95 respirators are difficult to order
- Try reusable respirator options





Particulate Filters for Reusable Respirators



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

https://www.cdpr.ca.gov/docs/whs/pdf/n95_alternatives_for_pesticide_handling.pdf

https://www.cdpr.ca.gov/docs/whs/pdf/spanish/n95_alternatives_for_pesticide_handling_sp.pdf



If you change respirators

- You need to repeat your medical evaluation
- You need to repeat your fit test
- You need to receive additional training that corresponds to your new respirator

-BEFORE you wear the new respirator





Take-Home Messages - Minimum PPE



- Wear protective eyewear and chemical resistant gloves for all handling activities
- Wear coveralls when handling DANGER and WARNING pesticides
- Filtering facepieces (often called “dust masks”) are respirators!



Some Strategies for Finding PPE

- Look for lesser known brands of PPE
- Speak with your county agricultural commissioner
- Find other growers/producers to communicate with and distribute PPE
- Check with different distributors
 - Gempler's
 - Woodland Farm Supply in California
 - Target Specialty Products
 - Envirosafety



Resources for You



[http:// ipm.ucanr.edu](http://ipm.ucanr.edu)

PPE online training
Pest Management Guidelines
Additional webinars

ANR NEWS RELEASES

News releases from the UC Division of Agriculture and Natural Resources

PPE in short supply for farm work during the COVID-19 crisis

Author: Katrina Hunter, UC Integrated Pest Management Program pesticide safety writer Published on: April 20, 2020



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People who work on farms wear personal protective equipment to protect themselves from COVID-19, pesticides, dust and other health hazards.

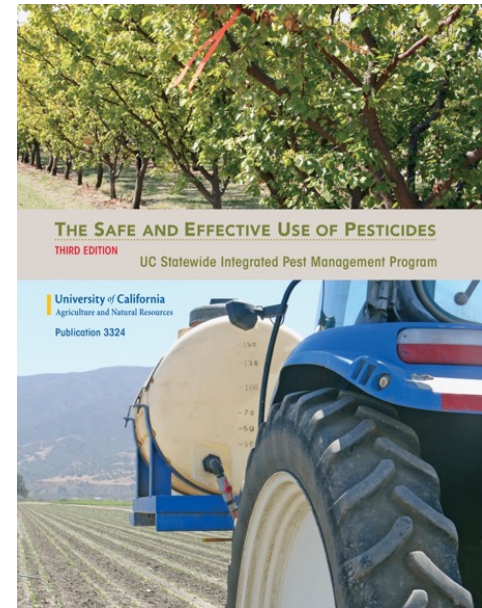
While most Californians are staying home to slow the spread of the novel coronavirus, California farmers, farmworkers and other agricultural professionals are out in the fields and packing houses working to produce food. With increased demand for personal protective equipment, or PPE, to protect against COVID-19, these essential workers are facing shortages. Agricultural commissioners in 28 counties are hearing from farmers who are having trouble getting PPE for their employees and farmers in another 11 counties who are worried about running out of PPE in the next month or two, according to a California Department of Pesticide Regulation survey.

Gloves, N95 respirators, coveralls and other gear that workers wear to protect themselves from COVID-19, pesticides, dust and other health hazards are in short supply as priority is given to health care workers during the pandemic.

To reduce the spread of COVID-19, workers may wear homemade face coverings, but for applying pesticides, they must wear respirators specified on the pesticide product label, said Whitney Brim-DeForest, UC Cooperative Extension rice advisor.

Pesticide applicators may use gear that is more protective than required by the product label and regulations.

<https://ucanr.edu/blogs/ANRnewsreleases/>



<http://anrcatalog.ucanr.edu/>



Questions?

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