

PERSONAL PROTECTIVE EQUIPMENT FOR PESTICIDE APPLICATORS

By: Megan Wilkerson, Senior Program Coordinator, Pesticide Safety
Center for Urban Agriculture and Gardening Education

FACT SHEET

The agricultural sector has many occupational hazards. Pesticide applicators and mixers are particularly predisposed to occupational hazards and illnesses. When used properly, Personal Protective Equipment (PPE) reduces the risk of pesticide poisoning and safeguards the body from pesticide residue.

MINIMUM PPE INCLUDES:

- Long-sleeved shirts and long pants
- Chemical-resistant gloves, shoes, and socks
- Protective eyewear (goggles, face shield or safety glasses)



Figure 1: Minimal PPE

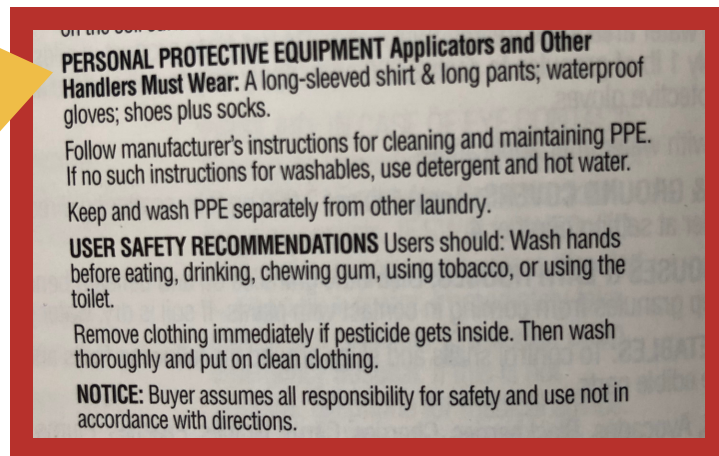
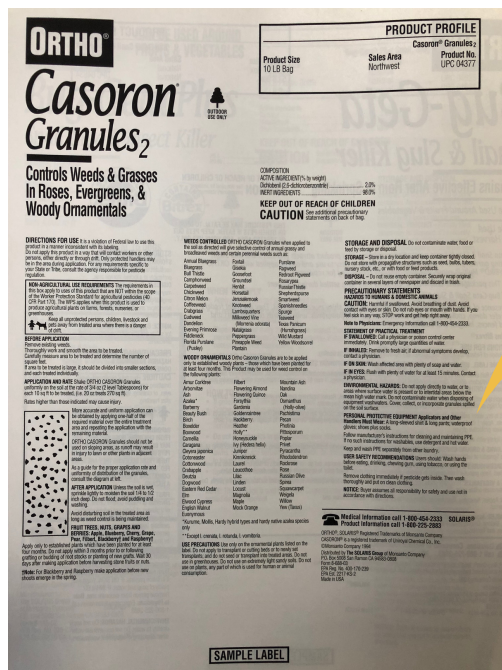


Figure 2: Refer to the label for detailed PPE instructions.

(It is a violation of federal law to use any pesticide in a manner inconsistent with its labeling. "The label is law.")

PROTECTIVE CLOTHING

Pesticides can enter the body through the eyes, lungs, skin, and mouth. Protective clothing refers to the outerwear intended to prevent dermal exposure to hazardous chemicals. Although the amount of protection varies based on the toxicity category and formulation, the product label determines what PPE you are required to wear for that product. Product labels on pesticides outline critical safety information along with detailed PPE instructions¹ (Figure 2). It is highly recommended that applicators reserve one set of clothing used exclusively for pesticide handling. PPE clothing should be made of durable fabrics and free of holes and absorbent materials since pesticides can work their way through clothing fibers.

PERSONAL PROTECTIVE EQUIPMENT FOR PESTICIDE APPLICATORS

GLOVES

Gloves should be snug, unlined, elbow-length and chemical-resistant. A rolled edge cuff will prevent pesticides from running down the gloves onto your sleeves and forearms. Always avoid gloves made from absorbent materials like cotton and leather.



Recommended glove materials include¹:

Glove Materials	Pesticide Formulations
Natural rubber	Dry formulations only
Butyl	Dry and liquid pesticides
Nitrile	Dry and liquid pesticides
Neoprene	Dry and liquid pesticides

RESPIRATOR

Although the respiratory system offers natural filtration, respirators should be worn to protect the applicator from inhaling toxic airborne particles. Respirators should fit snugly to block the passage of contained particles during mixing or filling highly toxic pesticides. Filter disposal is recommended after 40 hours of use, or 30 days, and when²:

- Natural inhalation becomes difficult
- You smell or taste fumes
- Eyes, nose, or throat become irritated
- Nausea or faintness occurs



EYEWEAR

Shielded safety spectacles, or face shield, or goggles, or full-face respirators should be worn to block toxic chemicals from entering your eyes. Eyewear should be cleaned after each use. During cleaning, be cautious of the headband; especially if it is made of adsorbate material¹.

WASHING PPE

PPE should be removed immediately after pesticide handling. Before removing PPE, the outside of gloves should be washed thoroughly with a high pH detergent. Pesticide contaminated clothing should be washed separately from regular clothing. Once PPE is washed, run an empty wash cycle with hot water and detergent to clean the washer from residual pesticides.

RESOURCES

Personal Protective Equipment - Pesticide Safety Education Program | Montana State University. Retrieved from <http://www.pesticides.montana.edu/reference/ppe.html>

When to Change Your Respirator Filters or Cartridges. Retrieved from <https://pksafety.com/blog/when-to-change-your-respirator-filters-or-cartridges>

About the University of the District of Columbia
An HBCU, urban land-grant, and the only public university in the nation's capital, The University of the District of Columbia is committed to a broad mission of education, research and community service. Established by abolitionist Myrtilla Miner in 1851, the University of DC offers Associate's, Bachelor's and Master's Degrees and a host of workplace development services designed to create opportunities for student success. The University is comprised of the College of Agriculture, Urban Sustainability and Environmental Sciences, College of Arts and Sciences, School of Business and Public Administration, School of Engineering and Applied Sciences, a Community College and the David A. Clarke School of Law. To learn more, visit www.udc.edu. The University of the District of Columbia is an Equal Opportunity/Affirmative Action Institution. Minorities, women, veterans and persons with disabilities are encouraged to apply. For a full version of the University's EEO Policy Statement, please visit: http://www.udc.edu/equal_opportunity. The University of the District of Columbia is accredited by the Middle States Commission on Higher Education - 3624 Market Street - Philadelphia, PA 19104 - 267 284 5000.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, familial/parental status, income derived from a public assistance program, political beliefs, reprisal or retaliation for prior civil rights activity. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, this information is available in languages other than English. To file a complaint alleging discrimination, please complete the USDA Program Discrimination Complaint Form, AD-3027, found online at http://www.ascr.usda.gov/complaint_filing_cust.html, or at any USDA office or write a letter addressed to US Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410 and provide in the letter all of the information requested in the form. Submit your completed letter or form to USDA via fax: (202) 690-7442; or email: program.intake@usda.gov. To request a copy of the complaint form, call (866) 632-9992. USDA is an equal opportunity provider, employer and lender.

The University of the District of Columbia is an Equal Opportunity/Affirmative Action institution. The University prohibits discrimination or harassment against any person on the basis of the actual or perceived actual race, color, religion, national origin, sex, age, disability, sexual orientation, gender identity or expression, family responsibilities, marital status, personal appearance, genetic information, familial status, source of income, status as a victim of an interfamily offense, place of residence or business, or status as a covered veteran, as provided for and to the extent required by District and Federal statutes and regulations. This policy covers all programs, services policies, and procedures of the University, including admission to educational programs and employment. The University emphasizes the recruitment of minorities, women, disabled individuals, disabled veterans, Vietnam era veterans, and other eligible veterans.

El Departamento de Agricultura de EE. UU. (USDA) prohíbe la discriminación en todos sus programas y actividades por motivos de raza, color, nacionalidad, religión, sexo, identidad de género (incluida la expresión de género), orientación sexual, discapacidad, edad, estado civil, estado familiar / parental, ingresos derivados de un programa de asistencia pública, creencias políticas, represalias o represalias por actividades previas de derechos civiles. (No todas las bases prohibidas se aplican a todos los programas.) Las personas con discapacidades que requieren medios de comunicación alternativos para obtener información sobre el programa, (por ejemplo, Braille, letra grande, cinta de audio, lenguaje de señas estadounidense, etc.) debe comunicarse con la Agencia responsable o con el TARGET Center de USDA al (202) 720-2600 (voz y TTY) o comunicarse con el USDA a través del Federal Relay Service al (800) 877-8339. Además, esta información está disponible en otros idiomas además del inglés. Para presentar una queja alegando discriminación, por favor complete el Formulario de Queja por Discriminación del Programa del USDA, AD-3027, que se encuentra en línea en http://www.ascr.usda.gov/complaint_filing_cust.html, o en cualquier oficina del USDA o escriba una carta dirigida al Departamento de Agricultura de los Estados Unidos, Oficina del Subsecretario de Derechos Civiles, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410 y proporcionar en la carta toda la información solicitada en el formulario. Envíe su carta o formulario completado al USDA por fax: (202) 690-7442, o correo electrónico: program.intake@usda.gov. Para solicitar una copia del formulario de queja, llame al (866) 632-9992. USDA es un proveedor, empleador y prestamista con calidad de oportunidades para todos.

La Universidad del Distrito de Columbia es una institución de Acción Afirmativa en Igualdad de Oportunidades. La Universidad prohíbe la discriminación o el acoso contra cualquier persona sobre la base de la raza, color, religión, nacionalidad, sexo, edad, discapacidad, orientación sexual, identidad o expresión de género reales o percibidos, responsabilidades familiares, matrícula, afiliación política, estado marital, apariencia personal, información genética, estado familiar, fuente de ingresos, estado como víctima de una ofensa intrafamiliar, lugar de residencia o negocio, o estado como veterano, según lo dispuesto y en la medida requerida por los estatutos del Distrito y Federal y regulaciones. Esta política cubre todos los programas, políticas de servicios y procedimientos de la Universidad, incluida la admisión a programas educativos y empleo. La Universidad enfatiza el reclutamiento de minorías, mujeres, personas discapacitadas, veteranos discapacitados, veteranos de la era de Vietnam y otros veteranos elegibles.