
AGRICULTURAL SAFETY TOPICS

RESPIRATOR FIT

Objective:

To wear the correct respirator for the job and make sure it fits properly.

Background:

A dust/mist respirator will always have two straps and should not be confused with single strap masks. (The single strap masks are only for nontoxic nuisance dusts.) It protects your lungs from most dusts, mists, pollen and certain low toxicity pesticides, as specified on the label, by removing small particles from the air you breathe.

Dual cartridge respirators are available to handle a long list of contaminants. The three types mostly used by farmers and ranchers are those effective for: pesticide application; for ammonia; and those for spraying toxic paints and using solvents. However, they are not designed for use against gases that are extremely toxic even in small concentrations such as manure or silo gases from a recently filled silo. They also, should not be used for contaminants their cartridges are not designed to handle or in oxygen deficient places. An air-supplied respirator should be worn in oxygen-limited environments.

Some situations that may lead to respiratory related injuries include:

- You have a beard, mustache, long sideburns, a deep facial scar or deformity.
- You have lung disease, heart trouble or breathing problems. A doctor's advice may be needed before using a respirator in these situations.
- It has not been approved for the specific hazard you are protecting yourself against.
- It does not accommodate for glasses.

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Fit Tests for Respirators

Dust Respirator fit test:

- Check for proper fit each time you put on a dust respirator.
- Cup both hands in front of the mask. Be careful not to push on the mask or move it.
- Inhale deeply. Check to see if the facepiece collapses toward your face.
- Smile, and then frown.
- If the mask is drawn in and no air is leaking in around the edges, you have a proper fit.
- If you don't have a proper fit, try readjusting the straps or repositioning the respirator on your face.
- Repeat the test until you have a proper fit.
- Check the written material that comes with the respirator for other specific fitting instructions.

Dual Cartridge Respirator Fit Test:

- For a Positive Pressure Test, put on your respirator and block off the exhalation valve with the palm of your hand.
- Gently exhale, and then hold it for about 10 seconds.
- Place your hand on the facepiece to see if it is bulging slightly.
- Smile, and then open your mouth. If you notice a slight bulge and you don't detect any air leaks, you have a proper fit.
- For the Negative Pressure Test, place the palms of your hands over the cartridge openings and gently inhale, holding your breath for 10 seconds.
- You will notice that the facepiece is collapsing slightly.
- Smile, and then open your mouth. If the facepiece is collapsing slightly and you don't detect any air leaks, you have a proper fit.

****Both fit tests should be done to ensure a proper fit.****

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Review The Following Points:

- Respirators will help protect your lungs.
- Choose the proper respirator for the hazards you are working around.
- Use the correct cartridge depending on what it will protect you from breathing in: pesticides, anhydrous ammonia, grain dust, paint sprays or other contaminants.
- Read the instructions that come with the respirators and also the labels of pesticides and other contaminants for their recommended instructions.
- Be sure there's a tight seal between your face and the facepiece. Perform the fit tests!

Based upon: Ohio State University Extension. *Respirator Fit*. Retrieved from website <http://ohioline.osu.edu/atts/modules.html>

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