2007

Pesticide 2007 - Gloves 2007

Carolyn J. DeMoranville

University of Massachusetts - Amherst, carolynd@umext.umass.edu

Follow this and additional works at: https://scholarworks.umass.edu/cranberry_extension

Part of the Horticulture Commons

Recommended Citation

Retrieved from https://scholarworks.umass.edu/cranberry_extension/62
Using the Correct Gloves

Carolyn DeMoranville
UMASS Cranberry Station
Why worry about gloves?

- Studies show that farmers working with pesticides reduced their exposures tenfold when they used the proper gloves.
- Pesticide handlers get the most exposure on their hands and arms.
Choosing the right glove - label requirements – listed under PPE on the first page of the label.

- Glove type - if not specified (e.g. 'waterproof') use chemical resistant for Category A. Nitrile and barrier laminate are recommended.
- If specified - use the category called for.
- Gloves should be at least 14 mils thick (0.014 inch). Exception is barrier laminate -- Silver shield is 0.004"
**EPA CHEMICAL RESISTANCE CATEGORY SELECTION CHART**
*For use when PPE section on pesticide label lists a chemical resistance category*

<table>
<thead>
<tr>
<th>SELECTION CATEGORY LISTED ON PESTICIDE LABEL</th>
<th>TYPE OF PERSONAL PROTECTIVE MATERIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barrier Laminate</td>
<td>Butyl Rubber &gt; 14 mils</td>
</tr>
<tr>
<td></td>
<td>Nitrile Rubber &gt; 14 mils</td>
</tr>
<tr>
<td></td>
<td>Neoprene Rubber &gt; 14 mils</td>
</tr>
<tr>
<td></td>
<td>Natural Rubber* &gt; 14 mils</td>
</tr>
<tr>
<td></td>
<td>Polyethylene</td>
</tr>
<tr>
<td></td>
<td>Polyvinyl Chloride (PVC) &gt; 14 mils</td>
</tr>
<tr>
<td></td>
<td>Viton &gt; 14 mils</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Barrier Laminate</th>
<th>Butyl Rubber &gt; 14 mils</th>
<th>Nitrile Rubber &gt; 14 mils</th>
<th>Neoprene Rubber &gt; 14 mils</th>
<th>Natural Rubber* &gt; 14 mils</th>
<th>Polyethylene</th>
<th>Polyvinyl Chloride (PVC) &gt; 14 mils</th>
<th>Viton &gt; 14 mils</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (dry and water-based formulations)</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>high</td>
</tr>
<tr>
<td>B</td>
<td>high</td>
<td>high</td>
<td>slight</td>
<td>slight</td>
<td>none</td>
<td>slight</td>
<td>slight</td>
<td>slight</td>
</tr>
<tr>
<td>C</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>moderate</td>
<td>moderate</td>
<td>high</td>
<td>high</td>
</tr>
<tr>
<td>D</td>
<td>high</td>
<td>high</td>
<td>moderate</td>
<td>moderate</td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>slight</td>
</tr>
<tr>
<td>E</td>
<td>high</td>
<td>slight</td>
<td>high</td>
<td>high</td>
<td>slight</td>
<td>none</td>
<td>moderate</td>
<td>high</td>
</tr>
<tr>
<td>F</td>
<td>high</td>
<td>high</td>
<td>high</td>
<td>moderate</td>
<td>slight</td>
<td>none</td>
<td>slight</td>
<td>high</td>
</tr>
<tr>
<td>G</td>
<td>high</td>
<td>slight</td>
<td>slight</td>
<td>slight</td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>high</td>
</tr>
<tr>
<td>H</td>
<td>high</td>
<td>slight</td>
<td>slight</td>
<td>slight</td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>high</td>
</tr>
</tbody>
</table>

*Includes natural rubber blends and laminates*
Cranberry pesticides - which gloves?

- READ THE LABEL
  - Look under PPE (personal protective equipment)
  - Usually on the first or second page of the label
  - All but barrier laminate should be at least 14 mil thick
Cranberry pesticides - which gloves?

- READ THE LABEL
  - Use the class listed or choose based on the description
  - If no class listed
    - Waterproof = Class A
    - Any Chemical-resistant = Barrier laminate preferred but any Class A should be ok
    - If specific ones listed, they are the best choice
Cranberry pesticides - which gloves?

- Herbicides
  - Select and Poast – Category G
    - barrier laminate or >14 mil Viton
  - all others: waterproof
    - (Category A implied)
Cranberry pesticides - which gloves?

- Fungicides
  - All are stated or implied Category A
  - BUT check your label
Cranberry pesticides - which gloves?

- Insecticides
  - Sevin XLR+ -- Category E
    - Barrier laminate, nitrile rubber, neoprene rubber or viton
  - All other Sevin formulations – Category A
Cranberry pesticides - which gloves?

- Insecticides
  - Diazinon – Category F
    - Barrier laminate, butyl or nitrile rubber, or viton
Cranberry pesticides - which gloves?

- **Insecticides**
  - Lorsban 4E/Nufos 4E – Category G
    - Barrier laminate or viton
  - Lorsban 75WG/Chlorpyrifos 4E-AG – Category H
    - Barrier laminate or viton
Cranberry pesticides - which gloves?

- Insecticides
  - Trilogy (neem) – Category C
    - barrier laminate; butyl, neoprene or nitrile rubber; PVC; or Viton
  - Spintor: no gloves listed
  - all others: waterproof (Category A implied)
Natural rubber

Neoprene

Barrier laminate

Nitrile

NO CLOTH CUFFS !!
No linings !!
No perfect solutions

- Laminate gloves protect from all categories but can tear and are non-dextrous
- Disposables are easy to work in but not thick enough - all plastic and rubber require >14 mil
- Try thinner gloves over the laminates - get the advantage of both
No lined gloves - but liners allowed

- All agricultural workers (harvesters, cultivators, pesticide handlers) are permitted to wear separable glove liners beneath chemical-resistant gloves.
  - Workers may choose when to wear the liners.
  - The liners may not be longer than the chemical-resistant glove so that they do not extend outside of the glove.
  - The liners must be disposed of after 8 hours of use, or at the end of the work day, whichever comes first.
Choosing gloves for fit

- Too loose - lose dexterity
- Too tight - bind hands and may tear more easily
- Assure that pesticide can't run down into the glove
- The glove should be at least 12 inches long (half-way to elbow) but longer if reaching into containers.
Inspect your gloves

- Leaky gloves are much worse than no gloves - chemical gets in and is trapped near your skin.
- Check for tears, pinholes, and signs of chemical damage - even new gloves!
- Keep a spare pair handy (seal in a zipper bag to keep clean)
Cleaning your gloves

- Wash the gloves on your hands
- Remove carefully - don't use your teeth!!
- Wash your hands
- If you plan to use again - wash in bucket of heavy-duty detergent solution right away - the jury's out on submerging
- If disposable - cut up before trashing
All gloves are permeable

- It's just a matter of time.
- Choosing the right material will buy you more time but even the common barrier laminate 4H is rated for only 4 hours of constant exposure.
- The glove may not look any different when it fails.
When should I dispose of my gloves?

- Make glove replacement a high priority.
- Replace after 5-7 days of use (10-14 if a heavy duty glove).
- Look for signs of wear but remember - it doesn’t always show.
Signs that it's time to dispose of your gloves

- Staining or color change (in or outside)
- Softening, swelling, bubbling
- Stiffening, cracking, surface change
- Dissolving or becoming 'jelly-like'
- Leaking at any time (have a spare handy - wash hands before putting on new ones)