



Seeing is More Than Believing

Each year incidents involving the sudden release of anhydrous ammonia (NH_3) result in permanent eye damage or even blindness to farmers who use this valuable crop fertilizer to improve crop yields. These incidents often occur during connecting or disconnecting hose couplings or when trying to unplug an applicator plugged with soil. Nearly all of these horrible injuries could have been prevented if only the farmer was wearing appropriate, splash resistant or un-vented goggles. Even a small amount of NH_3 sprayed into unprotected eyes can cause almost immediate damage to the eyes because of the high affinity NH_3 has for water which makes up over 90% of the eye. In this activity, participants will get just a small taste of what it would be like to experience permanent eye damage due to NH_3 exposure.

Procedure:

1. Take two or three pairs of chemical-type goggles (every agriculture or chemistry lab should be equipped with this personal protective equipment) and apply a thin coat of petroleum jelly or Vaseline to the lenses.
2. Have participants put the goggles on and try to read text off the board, the clock, or to recognize fellow participants.

Materials Needed



Chemical goggles, two or three pairs



Petroleum jelly or Vaseline

Remind participants that NH_3 eye-related injuries are usually permanent unless first aid involving lots of fresh water is used immediately to flush the eyes. Hopefully, they will remember that nothing they do to “get the job done” is worth losing their eyesight.

Also, participants should be reminded that under the Hazardous Occupations Order for Agriculture (HOOA), youth under the age of 16 cannot be employed to transfer, transport, or apply NH_3 .