



# EYE PROTECTION

## COMMONLY ASKED QUESTIONS

Although they don't tend to make the headlines, eye injuries result in countless hours of lost work time for farmers and ranchers. Here are some practical tips for protecting your vision.

## HOW CAN I PROTECT MY EYES FROM CHEMICAL SPLASHES AND FLYING OBJECTS?

A variety of goggles, safety glasses with side shields, and face shields are available. Many are designed to fit over corrective eyeglasses. Make sure to use glasses and goggles that meet the American National Standards Institute (ANSI) Z87.1 Standard for Safety. Lenses that meet this standard will have Z87 or Z87+ on the frame or lens.

It is very important to read the product safety materials before using any new chemicals. The appropriate personal protective equipment for eye protection will be listed. This is particularly important for applying and handling pesticides, working with caustics such as lime fertilizer, acid washes and other dairy disinfectants. Chemical proof tight-fitting ventless goggles or a face shield should be worn whenever handling anhydrous ammonia, a powerful alkali which can cause permanent scarring and even blindness. Contact lenses should never be worn while handling ammonia. Wearing appropriate eye protection when repairing machinery and using hand and power tools can also prevent corneal abrasions and serious penetrating eye injuries.

## CAN SUN EXPOSURE DAMAGE MY EYES?

Research studies have shown that cumulative exposure to ultraviolet (UV) radiation can lead to the development of cataracts. Growths on parts of the eye and skin cancers of the eyelid may also develop as a result of UV exposure.

## HOW CAN I PROTECT MY EYES FROM UV RADIATION?

Wear sunglasses and a hat with a wide brim (three inches or larger) when outside during bright sunlight.

## ARE THERE ANY SPECIAL TIPS FOR SELECTING SUNGLASSES?

The sunglasses should be UV absorbent, blocking 99 or 100% of all ultraviolet light. Look for the words “blockage” and “absorption” rather than just “protection” on the label.

- Lenses labeled “UV absorption up to 400nm” are the same as 100% UV absorption.
- “Special purpose” or “Meets ANSI UV requirements” lenses will block at least 99% of UV light.
- Polycarbonate (high-index plastic) tinted lenses will filter out 100% of harmful UV radiation.
- Plastic and glass photochromatic lenses (those that automatically darken in sunlight and lighten when indoors) offer 100% UV absorption. Plastic photochromatic lenses should be replaced after several years because they lose their ability to darken over time.

## WHAT DO EYE PROTECTION PRODUCTS COST?

Goggles and sunglasses are available for under \$10, and even these inexpensive models can offer the necessary features. Welding masks with filtering lenses are available for under \$50. Masks/helmets which automatically adjust to light are available for under \$200. When you consider the pain, lost work time and disability that eye injuries and conditions can cause, investment in this type of protection is wise indeed.

## WHAT ARE THE DANGERS ASSOCIATED WITH WELDING?

Acetylene torch welding and cutting can expose you to visible, infrared (IR), and sometimes UV light radiation. Arc welding exposes you to all three forms of light radiation and can damage the cornea and cause a painful “flash burn.”

## HOW CAN I PROTECT MY EYES WHEN I AM WELDING?

Wear welding filter lenses that are designed to protect the eyes from visible, IR and UV rays. Choose the darkest shade that still allows you to complete the task. Welding filter lenses are rated from 2 to 14 (lightest to darkest). National Institute for Occupational Safety and Health recommends at least a 4 rating. Start by selecting a shade that is too dark to see the weld zone, then switch to a lighter shade which gives sufficient view. There are also welding masks available with shields that automatically adjust to the light.

## WHAT ARE SOME GOOD SOURCES OF EYE PROTECTION EQUIPMENT FOR WELDING?

Most farm supply and hardware retailers carry sunglasses, safety glasses, goggles and welding masks with filtering lenses. Mail order and Internet-based safety suppliers are also an option.

