the personal nature of AGRICULTURE

Agriculture and skin cancer: What you should know

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Farmers and ranchers are at risk of getting skin cancer because they are exposed to excessive amounts of sun during their work activities.

Too much sun, resulting in sunburns, and the total amount of sun received over time can cause skin cancer. Over one million Americans are diagnosed each year with skin cancer, the most common and fastest growing form of cancer. It is estimated that one in five Americans will develop skin cancer during his or her lifetime.¹

There are two types of skin cancers—nonmelanoma and malignant melanoma.

**Nonmelanoma skin cancers**

In general, nonmelanoma skin cancers are less deadly than melanomas. Nevertheless, left untreated, they can spread, causing disfigurement and more serious health problems.

*Basal cell carcinomas* are the most common type of skin cancer. They usually appear as small, fleshy bumps or nodules on the head and neck but can occur on other skin areas, as well. Basal cell carcinomas form in the basal level of the skin. They grow slowly and rarely spread to other parts of the body. They can, however, penetrate to the bone and cause damage.

*Squamous cell carcinomas* are tumors that may appear as nodules or as red, scaly patches. They form in the squamous level of the skin and can develop into large masses. Unlike basal cell carcinomas, squamous cell carcinomas can spread to other parts of the body.

**Malignant melanoma**

Melanoma is a cancer that begins in melanocytes—the skin cells that produce skin coloring or the protective pigment called melanin. Melanin helps protect deeper layers of the skin from the harmful effects of the sun.² Melanoma develops when the melanocytes are transformed into cancer cells that grow uncontrollably. If not detected at an early stage, melanoma can spread. Once melanoma cells reach vital internal organs, they are much more difficult to treat and a cure is much less likely.³ Each year about 44,000 people are diagnosed with melanoma and about 7,300 die from it.⁴

**Factors that increase risk**

The main cause of skin cancer is overexposure to sunlight. Individuals with fair skin that burns and freckles easily, light blue or green eyes, and either red or blond hair appear to be at greater risk. People who have certain types of atypical moles and those with family members who have
had melanoma are more likely to develop this skin cancer. People who suffered severe, blistering sunburns during childhood are more likely to develop melanoma later in life. Young people who are indoors all week and then try to “catch up” on their tans by exposing themselves to hours of sunlight on the weekends are also at increased risk of developing melanoma. People who have lived in the South or West before the age of 18 are at greater risk due to the more intense sunlight in those parts of the country. The higher the altitude, the more intense the sun’s radiation and, hence, the greater the risk for skin cancer. Those who participate in a constant outdoor lifestyle—working, fishing, boating, skiing, and hiking—increase the risk of melanoma. Actually, no one is entirely free from the risk of skin cancer.

Recognizing melanoma

A change in a mole or freckle’s appearance is a sign that you should see a physician since over three-fourths of melanomas develop on or near a mole. However, melanoma is more complicated than a mole. The American Cancer Society recommends the following “ABCD Rule” to remember the important signs of melanoma:

A. Asymmetry. One half of the mole does not match the other half.

B. Border irregularity. The mole’s edges are ragged, notched, or blurred.

C. Color. The pigmentation is not uniform. Shades of tan, brown, and black are present. Red, white, and blue also may be evident.

D. Diameter. Any mole greater than one-fourth of an inch in diameter should be checked. A sudden or continuing increase in the size of a mole is cause for concern.

Preventing melanoma

Staying out of the sun is the best defense against skin cancer. If you cannot avoid the sun, there are still things you can do to reduce the risk.

Limit the time you spend in the sun between 10 a.m. and 4 p.m. Although agricultural work won’t wait, try to arrange the work schedule so that as much as possible is done in the sun before 10 a.m. or after 4 p.m. If this is not possible, use a tractor with an enclosed cab or sunshade for doing field work.

Be aware of reflective surfaces. Even when you think you are in the shade, you may be exposed to the sun’s rays. Reflective surfaces, such as water, snow, sand, glass—and even metal sheds—can reflect up to 85 percent of the sun’s rays.

Wear clothing that covers your body and shades your face. Loose-fitting, tightly woven fabrics and dark-colored, long-sleeve shirts offer the best protection. Wearing
sunglasses protects the area around the eyes from the sun. Although a baseball cap seems to be the favorite among those who work in agriculture, a wide-brimmed hat (including cowboy hats) offers better protection.

**Use sunscreen.** Apply sunscreen with a sun protection factor (SPF) of 15 or greater 30 minutes before going outside. A higher SPF factor does not mean a longer period of protection. Even though some screens claim all day protection, re-apply the sunscreen every two hours and more often if you are perspiring heavily. Don’t leave the sunscreen in the car or truck. Carry it with you in case you are away from the vehicle and need to re-apply.7

**Protect children.** Severe sunburn in childhood or teenage years can increase the risk for melanoma later in life. Take extra care to protect babies and children from the sun.

Malignant melanoma can be life threatening so early treatment is the most effective strategy. Become familiar with your own pattern of moles, freckles, and blemishes. Be alert to changes in the number, size, shape, or color of pigmented areas. Learn to examine yourself thoroughly. If you find any unusual skin changes, see a doctor and get it checked. Prevention and early detection of skin cancer offers the greatest opportunity for avoiding the suffering and death caused by this disease.

For more information about skin cancer visit the following Web sites:

American Cancer Society: www.cancer.org

National Cancer Institute: cancernet.nci.nih.gov/patient.htm

National Farm Medicine Center: www.marshfieldclinic.org

**References**


7. American Cancer Society.

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