



Safety Up – On Sun Exposure

Ah, the sun. Farming would be impossible without it. The sun has an important role to play in all processes related to crop production – from plant germination and emergence through ripening off, organic matter decay and soil regeneration. It's the source of photosynthesis and the reason why it rains. Important as sunlight is, it is also a source of danger. Working on the farm often means working outside for long periods in the heat of summer days. This creates two kinds of health risks – those associated with intense radiation from the sun's rays, and those associated with prolonged heat exposure.

Suit up

To be safe at work on hot sunny days, learn how to protect yourself before you head out. Educate yourself about the hazards of sun exposure and then stay alert on the job to mitigate damage. **Know the job. Know the hazards. Know the drill.**

Before you start your workday, check the forecast and make sure you dress for the anticipated conditions. Fabric provides excellent protection between you and the sun. Darker colours block more sun, and a tighter weave of fabric gives more protection. Denim jeans, for example, have an SPF of 1,700. Lightweight clothing that fully covers the body is ideal – the more coverage, the better. Loose clothing allows air movement in hot weather, which can help prevent heat stress. Wear a hat with a wide brim that will protect your face, neck and ears. Bring extra layers along to use in windy or rainy conditions.

Catch a ray, not a disease

What are the real hazards of sun exposure? Let's take a good look at the sun to find out. The sun's rays contain powerful ultraviolet radiation. Much of it is diverted by the ozone layer in earth's atmosphere – but not all. Radiation is strongest between 10:00 a.m. and 4:00 p.m. Sun damage doesn't occur with one exposure. It starts at a young age and accumulates over time. It can occur on sunny or cloudy days.

When large amounts of sunlight are absorbed by the skin, the immediate result is a nasty sunburn – ouch! However, the long-term effects of ultraviolet radiation from sun exposure may be more serious: drying, wrinkling skin, permanent eye damage, and skin or lip cancer. Skin cancer is now one of the most common forms of cancer in North America. Everyone is at risk, but some are more so than others. People with fair complexions, freckles, blonde or red hair and blue or grey eyes are at higher risk.

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Prevent heat stress

The sun's rays aren't the only hazard of working in hot weather. Heat stress is another. Hot weather stresses the body's cooling system. When combined with other stresses, like hard physical labour, loss of fluids, or fatigue, it can lead to heat-related illness, disability or even death. Heat-related illnesses include:

- Heat cramps – Sweating drains the body of salt, resulting in painful cramps in the arms, legs or stomach.
- Heat exhaustion – Inadequate water and salt intake causes the body's cooling system to break down, producing heavy sweating, cool moist skin, high body temperature (over 38 degrees C), weak pulse and low blood pressure.
- Heat stroke – When the body has used up all its water and salt, sweating stops. Temperature rises quickly (to above 41 degrees C), and symptoms include weakness, confusion, distress, hot, dry, red skin, rapid pulse, headache or dizziness and, in later stages, convulsions or unconsciousness.

Don't get burned

Once you know what the hazards of sun and heat exposure are, you can plan to avoid or manage them safely. **Know the drill.** Here are some tips to keep you safe while you work in hot, sunny weather.

- Use sunscreen with an SPF of 15 or higher. Put it on before you go outside and reapply regularly – especially around water.
- Wear sunglasses that filter out ultraviolet rays. Insist on glasses that block 99% or 100% of UV light.
- Drink plenty of water. Your rate of intake must equal the increased rate of water loss through perspiration to keep body temperature normal.
- Take frequent breaks in a cool, shady area.
- Watch for early warning signs of heat stress in yourself and your co-workers.
- Don't try to keep up with other workers if you feel ill.
- Save sun-tanning for the beach – don't try to get a tan while working.

- Avoid working in hot and humid conditions for long periods. The combination makes the body work even harder to handle excess heat, and perspiration doesn't evaporate as well in muggy conditions.
- Sickness and injury rates increase when heavy work is done at temperatures over 30 degrees C. Don't push yourself beyond your limits.
- If you suspect a heat-related illness is developing, drink lightly salted water or a fluid-replacement drink. Loosen clothing and move to a cool, shaded area. Fan the skin or spray it with cool water. In cases of heat exhaustion or heat stroke, seek medical help immediately.

SPF primer

- Sunscreen will protect exposed skin, as long as you select the right SPF. To determine what SPF you need, divide the number of minutes you will spend in the sun by the number of minutes your unprotected skin can be exposed to noontime sun before it reddens. (**SPF = Minutes spent in the sun / Minutes before skin reddens**)
- Doubling applications doesn't double the protection. If you apply two layers of SPF 15 sunscreen, you still have an SPF of 15.
- To ensure your sunscreen blocks UV rays, confirm that the ingredient list includes at least one of the following: benzophenone, oxybenzone, methoxybenzone or sulfisobenzone, or Parsol 1789.
- Sunscreen should be applied 20 to 30 minutes before you go outside to give it time to penetrate your skin.
- Use extra protection for your lips, which are extra susceptible to the sun's burning rays.
- If you are outside for long periods, reapply sunscreen regularly.
- If you sweat heavily or expect to get wet, use a waterproof or sports sunscreen.

Red flags

Early detection of skin cancer is the first step to successful treatment. The following early warning signs have often been linked with skin cancer. If you find any of these, see your doctor.

- A new growth, mole or discolouration.
- Asymmetrical moles, especially with irregular colours, or ones larger than ¼ inch.
- Elevated crusty sores that bleed and won't heal.
- A sudden change in an existing mole – itchiness or pain developing.
- Red, scaly patches or lumps on the skin.
- Small, shiny, pearly bumps on the skin.

The final word

To prevent damage from sun exposure on the farm, take time to think about the potential hazards of each new task you perform. You may have prepared to take on the sun for a few hours, but if you find you've been working in it for much longer without stopping, it's time for a break. Drink plenty of fluids, splash some cold water on your skin, reapply sunscreen and revisit your safety strategies to ensure they are still effective.

References

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