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Electrical Fire Prevention on the Farm and Ranch

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Machine shops, grain bins, barns and other agricultural buildings are all susceptible to electrical fires. Watch for fire hazards in these areas and repair them immediately to prevent costly losses.

- old, non-grounded wiring;
- oversized fuses;
- conduit passing into ceilings and walls;
- bare wiring;
- loose-hanging conduit;
- burn marks on switches and outlets;
- switches that stick;
- knob and tube wiring and/or
- rodent-damaged wiring.

REMEMBER THAT PERMITS are required for open burning. When burning:

- never burn under power lines;
- never burn around utility poles and
- never burn around utility boxes.

ELECTRICAL EMERGENCIES can occur on the farm and ranch. You should know what to do when an accident happens. Always be prepared.

- If someone receives an electric shock, shut off the power. Do not touch the person directly until they are removed from the electrical source.
- Call your rescue unit immediately.

IN CASE OF AN ELECTRICAL FIRE

- Evacuate all people and livestock.
- Call the fire department. Give your name and address and tell them what is burning.
- If possible, turn off the electricity. If you are unable to do so, call your utility company.
- NEVER use water when attempting to put out an electrical fire.
- Use a fire extinguisher ONLY if the fire is small and the extinguisher is a CO_2 or dry chemical fire extinguisher.

For more information contact:
Nebraska Forest Service
Wildland Fire Protection Program
P. O. Box 830815
Lincoln, NE 68583-0815
(402) 472-2944
(402) 472-2964 (FAX)
www.nfs.unl.edu

Written by Bob Vogltance and Larry Wiles, Nebraska Forest Service.

Photos courtesy University of Nebraska Institute of Agriculture and Natural Resources.

Nebraska Forest Service

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Nebraska Forest Service

Electrical Fire PREVENTION on the Farm and Ranch

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University of Nebraska

ELECTRICAL POWER is essential to the operation of farms and ranches. However, it can cause serious problems if not respected. Everyone who lives or works on a farm or ranch should watch for electrical fire hazards and know what to do in the event of an electrical emergency.

EVERYONE LIVING OR WORKING on a farm or ranch should know the location of electrical panels and how to shut off power. Additionally, everyone should know to NEVER touch a wire that is exposed or down and NEVER assume exposed or downed wires are dead. If you or anyone else discover downed or exposed wires, report them to your power company immediately.

WILDFIRES are occasionally caused by electricity. Both electric fences and well pumps should be kept clear of grass and weeds to prevent costly fires. Similarly, if well wiring is not properly maintained, a wildfire can ignite. Downed power lines also pose a threat, particularly in remote areas where wildfires may destroy many acres before the fire department can arrive.

Maintain irrigation well pumps and keep the surrounding area free of weeds and tall grass to prevent electrical fires that can destroy valuable irrigation equipment and crops.

THE ELEMENTS OF NATURE are beyond our control and may cause an electrical distribution system to come dangerously within our reach. Weather events can dislodge or break utility poles, causing the wires to sag or break. Even if tempted, NEVER move downed or damaged wires or electrical equipment. Report downed lines and damaged poles to your utility company immediately.

TREES contain moisture and will conduct electricity so avoid planting them under power lines. If there are existing trees near your power lines, don't try to trim them yourself. Leave this to your local utility company.

MODERN FARMING requires the use of large, complex machinery. Each year a tragic number of accidents are caused by the careless handling of equipment around electric power. Use caution when moving large equipment, such as front-end loaders, grain augers, balers, hay stackers, combines and even items such as irrigation pipe and metal ladders. If there is any chance of the item coming into contact with overhead wires, DO NOT move it. Contact your utility company for help.

LIVESTOCK are not normally considered an electrical hazard, but conditions in their environment may produce an electrical fire.

- Keep all electrical wiring out of areas that can be accessed by livestock.
- Damage to wiring can be prevented by using conduit to protect the wire from livestock chewing or rubbing.
- Extension cords used for heat lamps and portable heaters should be a sufficient size for the electrical load.
- Prevent heat lamps from falling into flammable bedding material by securing them to a solid object.
- Use waterproof wiring and equipment in areas susceptible to moisture, such as for electric heaters in stock tanks.
- Never install electric fencers near combustibles.
- All electrical circuits should be properly grounded.

Take special caution when using electrical items around livestock. Protect wires from being chewed or rubbed by livestock and be sure heat lamps are secured to prevent them from falling into flammable bedding material.

AGRICULTURAL BUILDINGS should be examined for electrical hazards. Wiring in farm buildings is highly susceptible to deterioration due to dust, moisture and corrosive gases. Any of the following conditions can signal a potential hazard:

- flickering or blinking lights;
- damaged or corroded fuse boxes;
- circuit breakers that malfunction;