



# How to avoid **electrical shock**

**Electricity, one of the most versatile and widely used power sources, is used extensively on almost every farm. Farmers are so familiar with electricity that they may take electrical safety for granted. When this happens, accidents often follow.**

People can feel electrical currents at levels as low as approximately 1 milliamp (mA), which produces a slight tingling sensation. Increasing current levels to higher than 5mA causes loss of muscular control, irregular heart rhythm and, finally, cardiac arrest. The current needed to power a 60-watt bulb, is about ½ amp, or 500mA.

Portable power tools is one of the most frequent causes of death by electrocution on farms. Farm workers typically expose themselves to more electrical hazards than do workers in other industries. They frequently work alone, often operating electrical equipment in damp and dusty places with no one nearby to help in case of an accident. Farm work thus requires extra caution in using power tools.

## **A few precautions:**

- Never use any electrical hand tool that does not carry the SABS mark of approval. This seal indicates that the tool has undergone extensive testing and has been found to be safe when properly maintained.
- Older tools with a two-wire design should immediately be upgraded to a three-wire system by qualified personnel. If your tool cannot be upgraded, discard it. Most power tools in use today have a three-wire system. This third wire serves as an emergency ground in the event of an internal short or ground fault.
- Make sure the three-wire system is maintained through all adapters and extension cords. Adapters not properly connected to receptacle boxes make the ground fault wire ineffective.
- Never disconnect or carry power tools by their cords. This causes the cord's insulation to rapidly deteriorate. Inspect tool and extension cords routinely for fraying and other signs of deterioration. Repair or replace immediately. 