



## ATV safety for farm work, recreation<sup>1</sup>

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Farm operators may purchase all-terrain vehicles (ATVs) to haul livestock feed or get to the field but ATVs often serve another purpose: recreation. Since youth are frequently victims of accidents involving the popular multi-wheeled vehicles, it's important that all family members know and follow necessary precautions every time ATVs are used - for work or for play.

According to the U.S. Consumer Product Safety Commission, four out of every 10 people treated each year in emergency rooms for ATV injuries are under age 16. In 1993, the Iowa Department of Public Health reported at least 50 injuries (including one fatality and nine hospitalizations) from farm-related ATV accidents. Not included are many accidents unrelated to agriculture.

This publication briefly discusses major safety concerns related to ATVs, including the need for protective gear, a pre-ride inspection, and proper operation. Parents also should determine each family member's readiness to operate an ATV based on physical size, coordination, balance, ability to judge distances, willingness to follow rules, and peripheral vision.

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Manufacturers' guidelines suggest that no one under age 16 should operate an ATV with an engine larger than 90CC. They also recommend an engine between 70 and 90CC for youth under 12, and an engine 70CC or smaller for children under age 6. Although a child may be old enough to ride a certain sized ATV, not all youth have the strength, skills, or maturity needed to operate it safely. See the back page for how to get more information on how to decide.

All ATVs must be registered in the county of residence in Iowa. Iowa law also prohibits their use on public roads, and certain restrictions apply to their use on public land and land purchased with snowmobile registration fees. Anyone under age 18 must have a valid safety certificate to operate an ATV, and youth between ages 12 and 15 must have a certificate and be under direct parental or adult supervision.

### WEAR THE RIGHT GEAR

**Head protection.** A helmet is the most important piece of safety gear for an ATV operator. If designed for ATV use, a helmet can prevent serious head injuries. Helmets used for bicycling, skateboarding, and rollerblading should not be used on ATVs because they lack face protection and the ability to absorb energy on impact. Look for helmets with a label from the American National Standards Institute, Department of Transportation, or the Snell Memorial Foundation to verify that the helmet has been safety tested. The helmet also must be able to resist a blow from a sharp object,

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stay in place, and provide a minimum amount of peripheral (side) vision. Correct size is essential, especially for young operators.

**Eye protection.** A face shield may be part of the helmet. If not, wear an ANSI-approved pair of goggles or glasses with hard-coated polycarbonate lenses. This will protect your eyes from rocks, twigs, branches, flying dirt, insects, or water, that can cause you to lose control or damage your eyes.

**Body protection.** Gloves protect hands from scrapes and scratches, improve grip on the controls, and reduce soreness from the pressure of holding onto the handle bars. Boots protect feet from trail debris and keep feet properly placed on the footrest, which is important in maintaining balance and control of the ATV. Also recommended are a sturdy, long-sleeved shirt or jacket and long pants to protect arms and legs from cuts or scrapes caused by trail debris and branches. Proper clothing also protects the operator from problems caused by weather conditions, including sunburn and frostbite. Optional gear, worn by professional riders, includes a padded jersey and shin guards.

### MAKE A PRE-RIDE CHECK

- **Tires and wheels** - Make sure air pressure in tires is as recommended and check for cuts or gouges. Tighten axle nuts and secure by a cotter pin.
- **Controls and cables** - Check location and make sure all work. Throttle should move smoothly when handlebar is in different positions. Brakes should be properly adjusted and foot shift firmly fastened.
- **Lights and electrical system** - Ignition switch should stop engine when in "off" position and when in "on" position, headlights and taillights should work.
- **Oil and fuel** - Check oil and fuel levels.
- **Chain and/or driveshaft chassis** - Inspect, adjust, and lubricate chain and/or drive-shaft chassis. Check for nuts and bolts loosened by vibration.

### START IT PROPERLY - BONEC

This refers to steps to use every time you start the ATV:

- **Brakes** - Always have parking brakes on.

- **On position** - for fuel cap vent or valve, and then for ignition key (if equipped).
- **Neutral** - The transmission always must be in the neutral position.
- **Engine** - The engine stop switch should be in the "run" or "start" position.
- **Choke** - If the engine is cold, put the choke in the "on" position and start the engine according to the manual.

### KNOW HOW TO OPERATE

ATVs handle differently from other vehicles, such as motorcycles and cars. Therefore, it's important to know how to turn, go up and down hills, and select safe routes. Operators also need good judgment in maintaining a safe distances behind other ATVs, knowing when to turn around due to weather, fuel needs, or darkness, and following laws.

Always scan the environment ahead and identify visible hazards, such as rocks or stumps, low or fallen branches, fences, guy wires, and rough or unstable trail surfaces. Some hazards may be hidden or appear unexpectedly, such as other riders or wildlife. Fixed obstacles, such as railroad tracks, driveways, or waterways also can be hazardous if the operator does not anticipate them.

Operating an ATV safely also requires skill and practice. The ATV operator must know the proper speed, also where and how much weight to shift while making turns and riding up and down hills.

The operator also must be willing to follow rules. Never allow passengers on the ATV, or allow anyone to operate it who has not had proper training or may be under the influence of alcohol or drugs. ATVs are designed for one person only - the operator. An extra person will interfere with normal operation of the vehicle. The added weight also will complicate handling of the ATV up and down slopes, around curves, and stopping distances. Operators also must know and be willing to follow local and state laws that apply to ATVs.

All-terrain vehicles can be both practical and fun for farm families but they also pose risks. Reduce the dangers, and the number and severity of injuries, by following good safety practices whenever an ATV is used.

## ALL-TERRAIN VEHICLE SAFETY

### How much do you know?

1. What does each letter in the BONEC acronym mean?
2. Tire pressure may cause ATVs to handle improperly. True or false?
3. How many passengers, at most, are ATVs designed to carry?
  - a. none
  - b. one
  - c. two
  - d. three
4. What is the most important piece of safety gear needed for riding an ATV?
  - a. chest protection
  - b. boots
  - c. helmet
  - d. gloves
5. ATVs must be registered in Iowa. True or false?

See answers at the end of the next section.

### What can you do?

- Become trained in how to use and handle an ATV.
- Always wear an approved helmet when riding an ATV. A strip of reflective tape on back of helmet gives extra visibility at night.
- Inspect the helmet for wear; replace after every accident or every two to four years.
- Know and follow laws that apply to ATV operation.
- Use caution on unfamiliar roads and avoid excessive speeds.
- Ask permission before riding on private property and leave the area clean.
- Never allow passengers.

### Answers to quiz:

1-Brakes, On, Neutral, Engine, Choke; 2-True; 3-a; 4-c; 5-True.

### FOR MORE INFORMATION

- For a summary of Iowa snowmobile and ATV regulations, contact the Iowa Department of Natural Resources, Wallace State Office Bldg., 900 E. Grand Ave., Des Moines, Iowa 50319-0039.
- For training, contact the ATV Safety Institute, (toll-free) 1-800-887-2887. For a youth readiness checklist and age recommendations, contact the ATV Safety Hotline, (toll-free) 1-800-852-5344.
- For other information, call the Consumer Product Safety Commission, (toll-free) 1-800-638-2772.