Supplementary Materials

Farm & Ranch ATV SAFETY



General ATV Safety

- ATVs have operator age limitations—
 OBSERVE THEM.
- Keep an ATV well-maintained and do a safety inspection each time it is used.
- Use protective gear—a motorcycle helmet and a pair of glasses, goggles or face shield, all of which will help reduce the risk of injury as well as keep dust and debris out of your eyes.
- Fit the ATV to the job—bigger and faster is not always better. A smaller machine is easier to move by hand if necessary (e.g. if you become stuck or flip the ATV).
- Always lean your body uphill to prevent tipping and flipping. Don't be afraid to stand up and really lean into the hill.
- Be extra careful if you have a load on the front or the back of the machine.
- Before dismounting stop ATV completely (preferably on a level surface), set brake, and shift into park.
- Even if you know your property well, keep an eye out for new environmental hazards like rocks, logs, sinkholes, ice patches, etc.
- Get hands-on training from a Licensed ATV Safety Institute Trainer (www.atvsafety.org).



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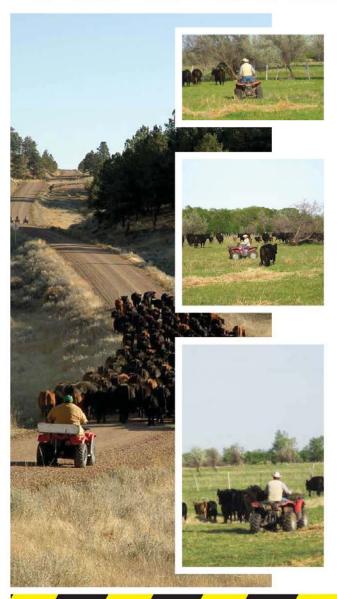


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Figure S1. General ATV Safety.

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Farm & Ranch ATV SAFETY



ATV and **Animal** Handling

- Approach at low speeds to avoid frightening (startling) the animals.
- Be patient—if animals are causing you frustration, don't act on it. If you do, you'll overlook hazards that could injure you or the animals.
- Use caution when making sharp turns at higher speeds. Animals can always cut sharper corners than a vehicle. You might flip the ATV if you try to keep pace.
- Remember, you are eye-to-eye
 with the animals. Some ATV riders
 may appear less imposing to the
 animals and invite more resistance
 than if they were on horseback.
 Using the horn or revving the
 engine can help, instead of getting
 too close physically.
- If you've got a job to do, don't ride alone. Be aware of all riders' whereabouts. If you're moving animals, use ATVs alongside horses, dogs, trucks, etc.
- Communicate with others on ATVs or horses. Use **hand signals**, radios, or something similar.



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Figure S2. ATV and Animal Handling.

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Farm & Ranch ATV SAFETY



Fencing with ATVs

- Use a trailer to transport heavy loads of posts and tools instead of stacking too much weight onto the ATV.
- If you know you're going to have to build or replace a lot of fence, take the pick-up truck or make multiple trips.
- Secure fencing tools and materials.
- Watch your speed—high speeds mean higher chances of losing control, especially if you're carrying extra weight.



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Figure S3. Fencing with ATVs.

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Farm & Ranch ATV SAFETY



Spraying with ATVs

- Don't use an inferior spray system.
- Keep weight balanced—choose a spray system with the lowest practical center of gravity. (Sloshing liquid can significantly change ATV handling.)
- Use a spray tank that has internal baffles. This will reduce liquid surges and improve overall stability when turning on slopes or hills.
- Choose booms that can be operated as low to the ground as possible or use a nozzle sprayer.
- ATVs should only be fitted with rear-mounted spray booms or other equipment to reduce the risk of pesticide exposure.
- Don't ride and spray when using a wand.
 If you're using this setup, make sure the ATV isn't moving while you're spraying.
- Do not drag your spray hose to avoid losing control of the ATV.
- Only use the speed that you need—the optimal speed for good spray distribution is probably slower than you'd like.

Higher speeds mean greater chances of missing your target, and worse, possibly losing control of the ATV.



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Figure S4. Spraying with ATVs.

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