ATVs on the Farm Meeting Kit

ATVS ON THE FARM

An all-terrain vehicle (ATV), also known as a quad, quad bike, three-wheeler, four-wheeler or quadricycle as defined by the American National Standards Institute (ANSI) as a vehicle that travels on low-pressure tires, with a seat that is straddled by the operator, along with handlebars for steering control.

WHAT TO KNOW ABOUT FARM USE OF ATVS

With a higher center of gravity than other motorized vehicles, ATVs are already at greater risk of rollover. Driving too fast on rough terrain, pulling loads that exceed weight limits, or trying to climb steep hills only increase the chance an ATV will roll over, eject the driver, and possibly land on top of the driver.

The ag ATV is heavier and specifically designed to haul equipment and farm products. The Occupational Safety and Health Administration (OSHA) recommends they be equipped with motorcycle handlebars for the best steering and have large, low pressure tires.

No one should use an ATV without the proper training. Driver inexperience is one of the more common reasons behind ATV accidents. It’s not uncommon for those younger than 16 years of age to operate an ATV.

OPERATIONAL FEATURES OF ATVS

Due to the design of an ATV, it is very different to operate an ATV compared to most other machines on the farm operation. Differences in operation are evident in turning, braking, climbing, and operating on various terrains. Turning involves the operator shifting their weight for different types of turns. The operator should shift their body weight forward and towards the

outside of the turn while making the turn. When turning at a higher speed, the operator should lean their upper body towards the inside of the turn while maintaining their weight on the outer footrest. When braking, gently and evenly apply the brakes. Overturn incidents can occur on sloped terrains so it is important to remember how to climb, descend, and operate on sloped areas. When climbing an incline, the operator should shift their body weight forward while keeping both of their feet on the footrests. If the ATV stalls or begins to drift backwards, slowly apply the brakes, stop the machine, dismount, and slowly guide the ATV down off the slope while using the hand brakes to assist. If the ATV stalls or begins to drift backwards, slowly apply the brakes. When descending a sloped terrain, the operator should shift into a lower gear and drive down hill with their feet on the footrest, sitting toward the back of the operator's seat. When possible, an ATV should not be driven across steep slopes.

ROLLOVER HAZARDS

ATV Rollovers are increasingly common. The latest research found quads are vulnerable to a rollover when traveling around farming environments. This is because farms include bumps and grassy slopes. These may not seem hazardous, but on an ATV it is downright dangerous. NIOSH identified 2,090 ATV injuries and 321 ATV fatalities between 2003 and 2011, with three out of five of the occupational deaths occurring in agriculture.

In 2014, a study found that out of 130 ATV rollovers, side rolls made up 47%, rear 44%, and forward rolls 9%. Most surprising is the speed at which these rollovers occurred. It was very low with 86% of the rolls occurring at speeds of 10 mph or less and 53% occurring at less than 3 mph.

OVERTURN HAZARDS

A four-wheeler can do many of the tasks formerly assigned to the small farm tractor. Just as safe tractor operation is influenced by speed, terrain, and load size, so is the operation of an ATV.

Steep or uneven terrain can cause an ATV overturn to happen quickly. High speed, uneven ground, ditches or large rocks increase the chance of the ATV being rolled or flipped during operation. Moving the ATV at a slower speed while shifting the operator's weight to the upper side of the slope reduces overturn risk.

SPEED AND POWER HAZARD

Adult, work size ATVs come equipped with engines ranging from 90 to 700 cc or more, with gear ratios that allow speeds in excess of 70 mph. The use(s) planned for the ATV should determine the size of the engine and the gear ratios. There are few, if any, reasons for a maximum speed of more than 25 mph in any agricultural operation. Serious ATV injury incidents increase at higher speeds. Differences between an ATV with a 2 x 4 and 4 x 4 drive train include turning and driving ability on different terrains.

ATV MAINTENANCE

An ATV has the following key areas that need to be maintained for the machine to work efficiently:

- Tires – Maintain the recommended air pressure in all tires because uneven pressure can cause the ATV to pull to one side. Nuts and bolts should be tightly secured.
- Throttle – Check the throttle to make sure it is moves smoothly.
- Brakes – Check the brakes every time before you ride.
- Lights – Check the lights to make sure they are working and wipe away any dirt to maintain optimal visibility.
- Oil and Fuel – Examine the ATV for leaks and maintain recommended fluid levels.
- Drive Train and Chassis – Check for wear, leaks, and loose parts. Replace, tighten, and lubricate parts as needed.

BEST SAFETY PRACTICES IN ATV OPERATIONS

- Use personal protective equipment (PPE)—this includes a motorcycle helmet, eye protection, gloves, work boots, and long pants.
- Conduct a pre-ride inspection of tires, brakes, headlights, etc., and fix anything that’s broken.
- Never exceed the manufacturer’s specified hauling and towing capacity or weight limits.
- Do not use an ATV without proper training.

- ATVs are not toys; manufacturers suggestion children under the age of 12 should not operate ATVs with an engine size over 70 cc.
- Those under the age of 16 years often lack the emotional maturity and physical size to operate or control most machines. They should not operate adult-sized ATVs or those with an engine greater than 90 cc.
- Never carry a passenger; the unique handling characteristics of an ATV require that the operator shift both weight and position on the seat to steer and control the vehicle.
- Since ATVs are small and low to the ground, they are not as visible as larger vehicles. Lights, reflectors, and highly visible flags should be used to increase visibility.
- ATVs are not designed for road use and hard surfaces can increase the risk of an overturn incident.
- Avoid using ATVs while alcohol or drugs are in the bloodstream. In nearly 10 percent of all injuries, and in 30 percent of all fatal ATV incidents, alcohol use was a contributing factor.

FINAL WORD

Your farm operations will be a much safer place to work when all workers know the limits and respect the power of ATVs by following all the necessary safety precautions.