



## Extra Riders on Farm Equipment

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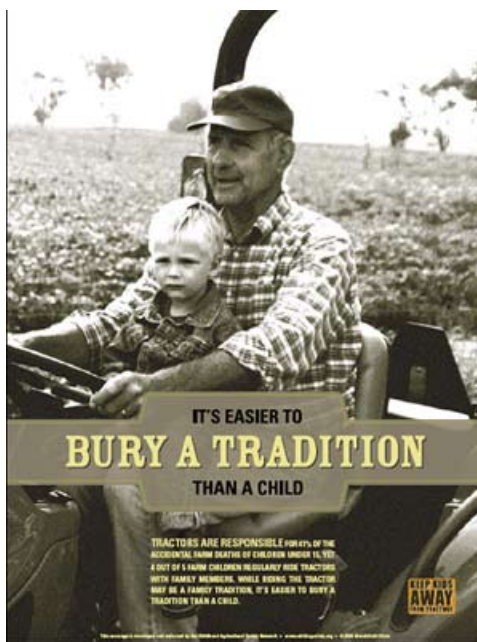
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The idea of safely carrying extra riders on farm equipment is controversial. Even so, the practice is common and deeply embedded within farming’s heritage. Farm equipment manufacturers have begun installing extra seats on some farm machinery; most notably large tractors and self-propelled machines like combines and forage harvesters. Providing an extra seat on farm machinery responds to farmers who choose not to follow the recommended safety practice of permitting no one but the operator on the machine. This fact sheet examines the extra rider issue.

### Extra Rider Injury Victims

Injury data throughout North America show that many extra rider victims are young children. This is one reason why a discussion of this topic is often emotionally charged. Young children are: developing their motor skills; curious about operating machinery; and desire to be with adults. At this age, many parents feel that their child is now old enough to help with certain chores, and to ride on and/or operate farm equipment. Parents generally consider the child passenger as a low risk activity. And many times this risk is low, but the consequences for potential injury or fatality must be weighed in relation to the value of this seemingly innocent activity.



machinery. It is easy to imagine that every adult farmer has been an extra rider on a tractor or other machine during his or her farming career. Incidences of riding extra on a tractor or other farm machinery may occur a dozen times during a typical work day or week and become as routine as daily livestock chores. Riding extra on a tractor or other farm equipment may not result in any type of injurious or unwanted event. In fact, just the opposite normally occurs: work is completed more quickly or conveniently; needed transportation is provided; job training is accomplished; or a child watching problem is resolved. Thus, riding extra may be practiced at a young age, become deeply ingrained, and passed on from generation to generation.

### An Extra Seat on Farm Machinery?

Currently, U.S. manufacturers add an instructional seat on tractors, combines and forage harvesters with enclosed cabs only. The tractors have a ROPS (Rollover Protective Structure) with seatbelts for both the operator and passenger. This instructional seat serves many purposes, including the following:

- enhances the training of tractor operators
- facilitates communications between workers
- improves the demonstration of for-sale tractors
- transports workers to worksites
- assists operations requiring extra help
- provides assistance in emergency situations
- supports a desired work ethic among farmers
- strengthens interpersonal relationships (bonding between parent and child)

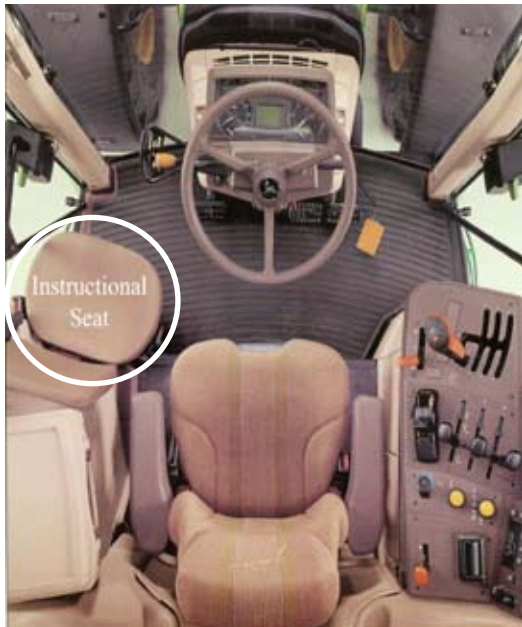
### Extra Riders: A Cultural Tradition

Photos in magazines and newspapers which reflect intimate moments of farm life often portray an idyllic scenario of father and son forming the bonds that keep America’s esteemed agrarian traditions alive. Conversations among farm reared adults are often peppered with boasts of how young they were when they first began riding on or operating farm tractors and other

- represents one method of parenting (constant supervision)

Since most tractor operators have reasons for carrying or being an extra rider, an extra seat can be said to increase passenger safety for several reasons. The benefits of the instructional seat include:

- reduced interference with the operator
- lowered passenger injury potential should an emergency arise
- lowered level of passenger fatigue
- reduced need for passenger to concentrate on holding on
- reduced need for extra rider to find another location to ride
- encouraged use of tractors with ROPS cabs



The seat circled on the left offers an extra rider a safer place to sit.

### ***Concerns about Extra Seats***

While there are good reasons for providing an instructional seat with seat belt on self-propelled agricultural equipment, there are also compelling reasons why the extra seat may be less than desirable. Major concerns include overuse of an instructional seat and increased opportunity for injury. Concerns are that an individual in an instructional seat will:

- encourage the carrying of children on farm equipment
- increase riders' exposure to noise, vibration, dust, and chemicals.

- increase the risk of being thrown out of a cab should the seat belt not be used or when a cab door or window is missing or open.
- interfere with the operator's vision and movement of control levers
- become a source of distraction to the operator
- Encourage unnecessary two-person operation of agricultural machinery increasing risk during machinery malfunctions, adjustments or servicing.
- enhance the potential for a passenger to contact control levers
- Increase the risk for multiple-injury incidents.

### ***Instructional Seat Standard***

An instructional seat as provided on contemporary tractors is consistent with safety engineering principles. An instructional seat is compatible with the human factors engineering principle of adapting the working environment to accommodate the worker, rather than changing the work practices of the worker. The instructional seat is also consistent with the safety hierarchy for addressing risks. The safety hierarchy suggests that it is more effective to provide a safety engineering solution (an instructional seat with seat belt inside of a ROPS cab) rather than rely upon safety warnings (e.g. No Extra Riders!) or reliance on safety behavior.

An instructional seat should meet American Society of Agricultural Engineers (ASAE) Standard S574 (R2005). This precludes use of homemade extra seats. Instructional seats are designed for limited use by a trainer or trainee inside an enclosed cab on self-propelled agricultural equipment. The seat is not designed for children or long-term use. Information and training in the proper use of the seat should include discouragement of use by those for whom the seat is not intended. This seat is placed such that the user creates minimal potential impact on the operation and visibility of the operator under normal use. A restraint system (seatbelt) is provided and its use should be enforced. A handgrip or handrail also is required by the standard. A required safety sign further depicts proper use of the instructional seat.

### **The Practice of Riding Extra**

There are many ways to reduce the need to carry an extra rider. Advanced planning of work tasks, using safety management techniques to reduce hazards, alternative forms of transportation, and changing job assignments are some ways to reduce the need to



Tractor operators should resist carrying extra riders on farm equipment that has an operator's station for only one person.

carry an extra rider. Nevertheless, the practice of riding extra is likely to continue.

Riding as a passenger does involve risk for a fatal or permanent injury, but the same can be said about office work, recreational activities, or even taking a shower. Some risk is always present in nearly all activities of daily life. To avoid injury is to minimize the chances that an unwanted incident will occur, or if it does, how to minimize its most serious consequences. The rest of this section addresses how to minimize the hazard and risk of carrying or being an extra rider.

**The best practice is to not ride extra on a tractor or towed implement.**

### ***Training New Machinery Operators***

The training of new operators of tractors, combines, or other self-propelled machinery is one instance where an extra rider may be justified. The size and complexity of some modern machines make static and ground-based instruction less than satisfactory from an instructional perspective. On equipment with a ROPS cab, the instructor should be inside the cab with the door and cab windows closed. On equipment with an

instructional seat and seat belt, the instructor should be seated and seat belt buckled.

Most training can be conducted with the instructor on the ground and the trainee in the operator's station. The trainee should first be taught how to safely start and turn off the machine, engage and disengage the clutch, and locate the primary controls such as the brakes, PTO and hydraulics. Training should then be done at a slow, carefully controlled speed while on level, solid ground. Other equipment or machinery should not be attached and the training session should be:

- away from vehicular traffic
- while the weather is clear and calm
- at a safe distance from other bystanders
- when both the instructor and trainee know standard agricultural hand signals

These conditions allow a training instructor to walk safely beside a moving machine and to use hand signals to communicate with the trainee. Suggestions for starting and stopping farm machinery safely and use of agricultural hand signals are available from a variety of sources, including operator's manuals, extension bulletins and other training resources. Contact your equipment dealer or county extension service to obtain these resources. It is also crucial that the person doing the training use good instructional methods during training.

### ***Riding Extra on Farm Machinery***

Extra rider safety usually focuses on tractor operations, but riding on loaded or empty wagons and other pulled or attached machinery is also an issue. This practice, too, is likely to continue though it usually is unnecessary and could be avoided with advance planning. The specific locations and circumstances for riding extra on farm machinery and equipment are nearly endless. Nevertheless, some scenarios are more common than others. Suggestions for reducing risk for common situations can be applied to less common situations.

Risks for extra riders can be reduced by the operator: starting and stopping smoothly; using slower speeds while towing or turning; going slowly over rough terrain; and avoiding bumps and other obstructions. Extra riders can enhance their safety by sitting whenever possible and by wearing shoes with non-skid soles.

Extra riders on self-propelled machines can reduce risk by using machinery with enclosed cabs (preferably with ROPS), with all doors and windows closed. The risk to extra riders increases when a tractor or self-propelled machine is towing other equipment. On tractors without trailing equipment, risk is lowered by riding at the rear of the tractor rather than on the rear wheel fender or rear axle. This reduces, but does not eliminate, the chance of being thrown under the tractor's wheels. Modern farm tractors may not have a place to stand or ride such as the drawbar of older model tractors.

### A Final Comment

The idea that an extra rider on farm machinery can be carried safely is controversial. It is a highly emotional

issue when focusing primarily on children and their safety. Some of the underlying factors are: age appropriate farm work tasks for children; parenting and child supervision options for farm families; the economic

necessity of child agricultural labor; and cultural heritage and lifestyles. Each of these topics can generate their own level of controversy among farm families, safety and health professionals, government regulators and the public. Less debatable is a need to reduce injuries to all persons living, working and visiting on farms. Following the safety practice of not allowing an extra rider is one way to achieve this goal. Especially with children, remember this thought: **It's easier to bury a tradition than a child!**



### Sources Cited

American Society of Agricultural Engineers Standard S574 (R2005), *Instructional Seat for Agricultural Equipment*.

National Safe Tractor and Machinery Operation Program, Hazardous Occupations Safety Training Program Task Sheet 4.2 *Tractor Hazards* and Task Sheet 2.9 *Hand Signals*.

See [www.nstmop.psu.edu](http://www.nstmop.psu.edu) then download selected Task Sheets.

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For more information on agricultural safety and health, see <http://www.abe.psu.edu/ash>

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