

Beneficial facts for Farmers from

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TRACTOR ACCIDENTS CAN BE PREVENTED!

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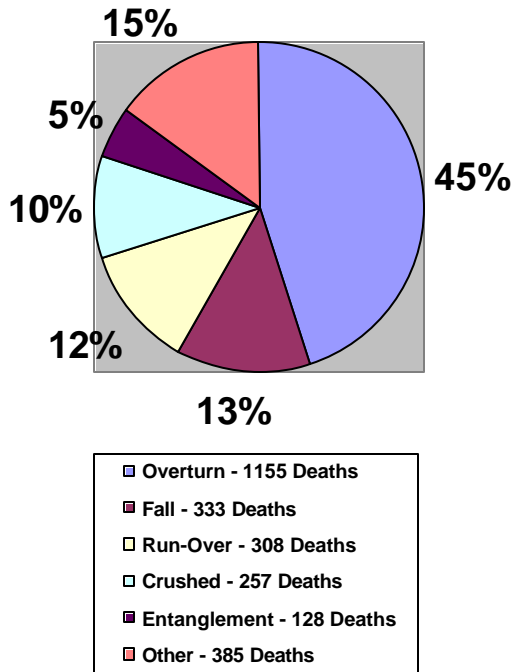
Although today's tractors are the safest ever, they are still involved in many farm accidents. Statistics show that **most machinery-related accidents occur due to human negligence.** These errors include improper or lack of

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machinery maintenance, taking shortcuts to save time, ignoring warnings, failure to follow safety rules and failure to read the operator's manual.

Agricultural studies have shown that the majority of farm-related injuries occur between **10 a.m. and noon**, with the period between 3 and 5 p.m. second highest. During these time periods, fatigue is most likely to occur and concentration is not as sharp.



The highest rate of machinery-related injuries and fatalities occur with **children**. The majority of child deaths resulted from being extra passengers on machinery and being run-over.

Workers over the age of 65 do not have an excessive number of injuries, but the likelihood of an injury being fatal is the greatest. Two-thirds of the fatalities in the over-65 age group were tractor-related. Because of the seriousness of machinery-related accidents, many injuries result in **permanent disabilities**, such as the loss of an arm, leg, fingers or toes. More than 75% of injuries require surgery or antibiotic treatment, or both.

No one deliberately has a tractor accident, but studies have shown that **50% of total farm fatalities involve tractors**. Of those tractor accidents, **overturns have the highest fatality rate**. A seven-year study of trailer-related deaths showed that of the 2,566 reported deaths, 45% were caused by tractor overturns:

A seat belt and roll bar or protective cabin could have prevented almost all of these deaths. Because of this, the Department of Labor has established the *Roll-Over Protective Structure Standard*, or **ROPS Standard**. The standard requires that all tractors manufactured after October 26, 1976 must have Roll-Over Protective Structures. The ROPS Standard also requires that employees receive the following training in the areas of safe tractor operation:

- ✓ Seat belts must be worn when operating machinery equipped with ROPS.
- ✓ Avoid driving near ditches or holes, on very rough ground, and over stumps and large rocks.
- ✓ Drive at the appropriate speed for the job, the terrain, and the machine.
- ✓ Stay off steep slopes.
- ✓ Watch where you are going.
- ✓ Don't permit others to ride.
- ✓ Operate the tractor smoothly: no jerky movements, starts or stops.
- ✓ Hitch only to the drawbar and hitch points recommended by the tractor manufacturer.
- ✓ When the tractor is stopped, set brakes securely.

The most important point of tractor safety is knowing your tractor. Know how it handles and be prepared for emergencies. A good tractor operator has read the instruction manual, and practices good safety habits.

Guidelines for Safe Tractor Operation:

- Tractors must be equipped with **master shields, safety guards, bypass starter**

covers, **Slow Moving Vehicle (SMV) emblems** and **emergency lighting**.

- Tractors must **not transport extra passengers**.
- Keep all **people away from work areas** and machinery unless they are actively involved in the work.
- When refueling, parking or leaving machinery for any length of time, **shut down all motors, engage brakes, remove keys and disengage any attachments**.
- When working with a front-end loader in an area with falling debris, **Falling Object Protective Structures (FOPS)** should be used.
- If used on **public roadways**, farm equipment must have lights conforming to state motor vehicle codes.
- Use **hand signals** during operation if noise is an issue. The American Society of Agricultural Engineers (ASAE) has developed a standardized system that is available to agricultural workers.
- **Never clean or unclog machinery until the motor is shut off** and all moving parts have stopped.
- **Never tow anything that is too heavy or improperly hitched** to the tractor.
- Keep **wheels spread wide** whenever possible, to prevent overturns.
- Keep the tractor **in gear when going down hill**. This allows the tractor engine to serve as a brake.
- Engage the **clutch gently**, especially when going up hill.
- Be sure the tractor is properly **serviced**. Check lubrication, tire pressure, fuel and water, and the radiator level when the tractor is cold.
- **Fuel** the tractor outside and store the fuel outside. Never fuel the tractor while the engine is running.
- Carry a **first-aid kit and dry chemical extinguisher**.
- Provide good **ventilation** when starting tractor engine.
- When operating a tractor. Loose clothing is easily caught in rotating machine parts.

Once caught, it is almost impossible to escape without injury.

- Wear **helmets, goggles, gloves, hearing protection and safety shoes**.
- **Inspect** brakes, hitches, safety chains, springs, shackles and hydraulic and air lines for wear, broken or missing parts and cracks.
- Never operate machinery under the influence of **drugs or alcohol**.

Tractors today are safer than ever, but are still involved in many farm accidents that could have been avoided. To avoid any type of machinery-related injury, **strict safety practices, as well as common sense**, must be used. Operating farm machinery is serious work, and should be treated as such.

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FARMERS ARE STRESSED, TOO!

By Michelle Bross, Burlington County Master Gardener
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There are two schools of thought in regards to farmers and stress. The first believes that farmers are less stressed than other types of workers because of where they work – in quiet pastoral settings. The other is far more accurate:

Farming is one of the top ten most stressful occupations in the U.S., according to the National Institute for Occupational Safety and Health (NIOSH). There are numerous stresses that are unique to the farm environment, the most obvious being financial pressures, heavy debt, dependence on good weather and markets, fatigue and working in extreme weather conditions. Less known stresses include lack of time for yourself, family and friends, lack of time to deal with tough problems, dealing with customers, lack of sleep, concerns about long-term effects of pesticides, undone chores at home and the increasing complexity of equipment and products.

What is stress? Stress is a person's reaction to an event or stimulus considered to be a challenge or a threat (the stressors). People differ in how they perceive and react to stressors. An event or stimulus, which is very stressful to one person, might be considered less stressful to another. When you encounter a potential stressor, your body responds by doing more of some things and less of others. Blood circulation increases, thus increasing blood pressure and heart rate, and digestion slows down or even stops. Over time, these changes could lead to major health problems, including heart disease, high blood pressure, stroke, immune system disruption, ulcers, sleeplessness, headaches, depression and even suicide.

Non-health-related problems also occur. When a farmer faces numerous stressors, he or she is often distracted, thus becoming more prone to errors that lead to serious or fatal accidents such as tractor rollover or entanglement. In time, the stressed person becomes physically weaker and tires more easily. Concentration is more difficult and poor management decisions are made. Under stress, most people become so involved in their own problems that they forget about everyone else. At the same time, they start to take out their frustrations on family members and friends, thus becoming a problem for everyone.

Stress has a "snowball effect". All the problems it causes with personal health, family and work will become new problems. Without learning to control it, stress can become an endless cycle.

Some early warning signs of stress are:

Physical Symptoms of Stress

- Headaches
- Stomach problems
- Rising blood pressure
- Rapid heart rate
- Clenched teeth
- Waning sexual interest

Emotional Symptoms of Stress

- Impatience
- Frustration
- Depression
- Angry blowups
- Difficulty controlling emotions
- Low self-esteem

Behavioral/Relationship Symptoms of Stress

- Increase in smoking and/or drinking
- Trouble adapting to changing circumstances
- Finding it hard to relax or sleep
- Communication problems
- Verbal and/or physical abuse
- Sarcastic arguments

The following lists some **techniques that the farmer can use to gain control of the stressors:**

1. Learn how to recognize stressors. The body gives warning signs (muscle tightening in neck or shoulder, stomach problems, changes in behavior or

- relationships) when the stress level is too high.
2. Reduce the pile-up of too many stressful events at one time. Plan ahead, repair/replace worn machinery, set priorities for the day, week, etc, postpone stressful events within your control, and say no to things you don't have time to do.
 3. Don't worry over things you cannot control. Know the difference between what you can and cannot change. Change those you can and ignore the rest.
 4. Break down major problems into smaller, manageable parts.
 5. Take breaks often.
 6. Take care of yourself. Exercise is a great stress-reliever. Eat well and drink plenty of water. Get enough sleep (unwinding before bed time will help).
 7. Notice what you have accomplished rather than only what you haven't.
 8. Set realistic goals and expectations.
 9. Plan time for activities that you enjoy, such as going to the movies or a sports event, reading, listening to music or visiting friends.
 10. Find someone to talk to about your worries and frustrations.
 11. Get help when you need it.

It is also important to recognize the **unhealthy ways to de-stress**. Drug, alcohol, and even tobacco use alter your perceptions. They are contributing factors in many farm accidents and the destruction of important relationships. Support is available if you need it.

Unrelieved stress is a known risk factor in many of the leading causes of premature death among adults. The farmer is particularly prone to very high levels of job-related stress. To prevent the often life-threatening effects of stress, it takes discipline and daily practice at controlling events (planning ahead), attitudes (set realistic goals)

and responses (relax and take care of your body). And remember, **it's OK to ask for help!**

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BACK PAIN

By Michelle Bross, Burlington County Master Gardener
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Next to headaches, **physicians note that back problems are the most common medical complaint**. And back pain is found to be second only to the common cold as the **greatest cause of lost workdays**. Farmers have a significantly higher chance of experiencing back pain than the general population, according to research. Older farmers, and those who also work a second job, are more likely to have back pain.

What Causes Back Problems?

Most of the support to your spine is maintained by your stomach muscles, as well as the many muscles and ligaments that run up and down

your back. If muscles and ligaments are weak, then discs (soft cartilage that act as shock absorbers for your vertebrae) in the lower back can become weakened. With **excessive lifting, or a sudden fall**, a disc can rupture. With **years of back abuse, or aging**, the discs may simply wear out, and chronic pain is the result. Fortunately, back pain caused by a muscle strain or a ligament sprain will normally heal within a short time, and may never cause further problems. **Poor physical condition, poor posture, lack of exercise, and excessive body weight** are the major causes of sprains and strains. Degeneration of the spine due to aging and abuse is also a major contributor.

How To Reduce/Prevent Back Problems

1. Having strong back and stomach muscles to hold the spine in proper position is important to ease the work the back is put through every day. Simple **back-toning exercises** will strengthen the back, and also can reduce stress.
2. Maintain **good posture** when walking, lifting, sitting, and sleeping. Prolonged sitting or standing, particularly in forward, bent or slouched positions, can cause muscle fatigue, which can lead to leg and back problems.
3. **Change work practices.** Instead of lifting heavy objects, consider using machinery such as tractors equipped with forks or a bucket.
4. **Change the size, shape and weight of containers** or other materials that have to be carried. Some companies have already done this, by supplying feed, seed and fertilizer in smaller quantities.
5. **Lift, push and pull with your legs**, not your arms or back. Set loads down carefully.
6. Wear **slip-resistant, supportive shoes**.
7. Carry **heavy objects close to your body**. Carry in both hands.

8. When stepping down from equipment, **step down backward**, not forward.
9. **Lose excess weight**, which puts extra force on the back and stomach muscles.

Preventing a back injury is much easier than repairing one. Most back pain comes from using your back improperly, so learning a few basic rules can help the farm worker keep his or her back in good shape.

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HAND PAIN: CARPAL TUNNEL SYNDROME?

By Michelle Bross, Burlington County Master Gardener
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If you have ever woken up in the middle of the night with a tingling sensation in your hand or arm, or if your hand wakes you up with severe discomfort and pain, you could be suffering from Carpal Tunnel Syndrome.

What Exactly is Carpal Tunnel Syndrome?

Carpal Tunnel Syndrome (CTS) is the compression and entrapment of the median

nerve where it passes through the wrist into the hand. When irritated, tendons swell and press against the median nerve. The pressure causes

tingling, numbness or severe pain in the wrist and hand, primarily in the thumb, index and middle finger. This pain is often experienced at night, and the pressure can result in lack of hand strength and an inability to make a fist, hold objects or perform other manual tasks. If the pressure continues, it can damage the nerve, causing loss of sensation and even decreased strength.

Carpal Tunnel Syndrome has become widely reported among farmers. It is the result of **repetitive activities involving the hands and wrists, without adequate rest**. Some common causes of CTS among farmers are:

1. Prolonged use of vibrating power tools (ex. right angle grinders).
2. Frequent use of tools that require gripping with the hands (pitchfork, shovels, post tamper)
3. Gripping of the steering wheel of machinery for long periods of time.
4. Carrying heavy buckets of materials.

Do You Have CTS?

Some of the early signs of CTS may be difficulty in unscrewing the cap of a bottle, lifting objects, grasping firmly and other manual activities. There may also be a loss of feeling in some of the fingers. Physicians have a number of tests they can use to determine whether the symptoms are truly Carpal Tunnel Syndrome.

Treatment for CTS

For some, the problem clears up without treatment. With others, treatment can include rest, immobilization of the wrist using a splint, gentle exercises, pain killers, and minor surgery to relieve the pressure on the nerve.

Prevention of CTS

The best way to manage CTS is to prevent it in the first place. And, early identification and treatment is the only way that CTS can be prevented from worsening, since in severe cases there can be permanent nerve damage. There are some things that can be done to decrease the likelihood of getting it:

1. Take frequent breaks when doing repetitive chores.
2. Give the hands a break by gently stretching and bending them about every 15 minutes (more frequently if using a vibrating tool).
3. Avoid bending the wrist all the way up or down.
4. Avoid using excessive force when using the hands.

Carpal Tunnel Syndrome is a common problem that can be treated if identified early. If you use your wrists a lot in the course of your work, make sure to give them ample rest now and then.

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