AMPUTATION Student Reference Sheet

Agricultural industry ranks as the most hazardous type of work in the United States. The use of machinery, exposure to the elements, and the general nature of the work make the risk of injury greater for those who work in production agriculture. Equipment such as combines, tractors, bush hogs, augers, power take-offs (PTOs), and conveyor belts have potential to cause severe damage to limbs and the upper body. Amputations are $2\frac{1}{2}$ times more likely to occur in farming than in any other industry, and as much as 11% of all agricultural injuries are amputations.

Limb loss can be classified into four causes: entanglement, entrapment, crushing, and infection. Entanglement involves getting caught in a moving part of machinery. Loose clothing or attachments like gloves, baggy shirts, dangling strings and long hair can catch easily on rotating power take-off stubs and shafts, in belts and pulleys, and in moving parts of balers and combines. The use of tighter clothing that will tear easily and keeping hair pulled back and up will help prevent entanglement. Removing dangling drawstrings on jackets and shoe laces will prevent being pulled in. Remember, "**If it dangles, it tangles**". To prevent entanglement, the easiest rule to remember is **shut down the machinery**. It

is also important that others cannot accidentally start the equipment while it is being worked on. The second rule is to **disable the** equipment.

Entrapment occurs when something is trapped and pulled into a device, such as augers, combine heads, and hay balers. It is important to keep distance between your body and these devices. Augers should always have guards in place and be turned off when worked on.

Crushing injuries occur when some part of the body is trapped between a force and a surface. These incidents usually involve post drivers and heavy



machinery, as well as falling objects. Crushing injures the inside of the arm or leg, causing internal damage that may lead to amputation.

Limb loss can be prevented by turning off machinery before working on it, disabling equipment so it cannot be started by others, avoiding rotating PTO shafts, maintaining shields and guards, and wearing tight-fitting clothing that does not tangle.

Limb loss may occur instantly, or the limb may survive initial injury but not be saved even after intensive therapy. Infection due to the dirty wounds often means the limb must be removed, sometimes weeks or even months after the injury.

The results of limb loss include more than losing an arm or leg. Your entire life and the lives of those around you are changed forever. The physical changes mean you will always look different than before, but the damage goes beyond that. You have to learn new ways of doing things and develop new ways of accomplishing your activities, even simple things you never thought twice about before. You have to learn to use other body parts as substitutes for the lost limb. If an artificial limb is available and you are able to purchase one, you must learn to use it just as a new baby learns to use their limbs. The limb loss will affect your balance, reaction time, and your overall health (shoulder problems, increased problems with arthritis, and "other parts wear out faster").

The psychological effects of limb loss are difficult to overcome as well. You have to prove to yourself and to others that you can do a task. Your body will still believe it has that part, and you can continue to feel pain and itching for years even though the limb is no longer there. You will have to think more before you act on anything, always figuring out how to do things other people do without a second thought.



Someone else will have to do your share of the farm work for a while as well. It takes about six months for the wound to really heal, and it has to be toughened up and strengthened before you can even wear an artificial limb. Your family, friends, and probably hired labor will have to fill your shoes. If the injury occurs during

planting or harvesting times (most common times) your crop will suffer, because the attention and time will be centered on you, not the crop and work needing to be done. When you return to farm work, you will be slower, and it will take extra time to get jobs done until you get accustomed and find new ways to do things. Time is money.

What about the cost of an amputation? Even if everything goes well, you still have to spend money on upkeep of the prosthesis to keep it in working order. Many insurance companies will pay for only one prosthetic limb, so you may have to pay out of your pocket for the next one (maybe out of your savings for that new truck).