

Proper Lifting, Pushing, and Pulling

To Prevent Strains, Sprains, and Lower Back Pain

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Problem

Injuries resulting from overexertion while participating in some activities, such as lifting, pushing, and pulling, are among the more frequent types of occupational injuries in the United States. They happen to both men and women, and to workers of all ages. These kinds of injuries, along with accidental slips, trips, and falls, can result in sprains, strains, hernias, and lower back pain. Except for headaches, these types of injuries are the most common medical complaint in the country. Furthermore, they are second only to colds as the greatest cause of lost workdays in the general workforce.

Back injuries, alone, cost American industry \$10-14 billion in workers' compensation costs and about 100 million lost workdays annually. Add the costs of hernias, sprains, and strains to other body parts, and it is evident that these types of impairments are the major accident cost in the workplace.

This problem is severe in Florida agriculture. There are in excess of 3,000 serious injuries to agricultural workers annually. Over 2,000 of these are the result of improper lifting, pulling, and pushing, or from slips, trips, and falls. Of these injuries, nearly 1,000 are sprains and strains, and approximately 50 percent are to the back. Most of the remaining sprains and strains are to joints of the lower or upper extremities: the knees, ankles, hips, wrist, elbow, or shoulder.

As shown in Table 1, the percentage of serious injuries in agriculture, caused by lifting, pushing, and pulling range from a low of 43.5 percent in livestock production to a high of 65 percent in horticultural production occupations. The vast majority of these serious accidents results in sprains and strains.

Another important cause of sprains and strains is slips, trips, and falls. These account for 12 percent in horticultural service occupations and run the gamut to 32.1 percent in livestock production occupations.

Workers' compensation costs for these serious accidents range from an average of \$3,647 in livestock production occupations to \$6,899 in horticultural service occupations. Such accidents cost Florida's agricultural industry over \$10 million dollars annually. Add to this the pain and suffering, and the disruption to families and businesses, and it becomes apparent that prevention of these problems needs to be addressed.

In two occupational areas -- fruit/vegetable production and general farm production -- sprains and strains comprise nearly 50 percent of all serious accidents, as shown in Table 2. This table also indicates that in all the occupational areas, 45-55 percent of serious sprains and strains are to the back. These figures provide evidence that those conditions or activities which result in sprains and strains are a major safety problem in Florida's agricultural occupations.

Table 1. Types of accidents in the various occupational areas, leading to serious sprains and strains, and costs.*

Occupational area	Percent of Accidents			Average cost per accident
	Lifts, pulls, pushes (overexertion)	Slips, trips, falls (all types)	Other	
Livestock production	43.5	32.1	24.4	\$3,647
Fruit, vegetable production	47.0	28.0	25.0	3,771
General farm production	51.9	30.4	17.7	5,373
Horticulture production	65.0	17.0	18.0	6,274
Agricultural services	51.0	23.0	26.0	5,340
Livestock services	60.0	26.0	14.0	6,034
Horticultural services	51.0	12.0	37.0	6,899

*Based on 1987 statistics provided by the Florida Division of Workers' Compensation.

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