Florida Cooperative Extension Service

Keep Cool¹

William J. Becker²

With so many 90 degree days in May, what will June, July and August be like? Probably hot and humid, and with it comes heat stress, one of the serious health and safety problems of agricultural workers and others who spend hours outdoors. Heat cramps, heat exhaustion, and heat stroke are the health problems associated with this situation. But there are safety problems, also.

WHEN IT'S HOT, PLAY IT COOL

When we get too hot or too thirsty, we become irritable, frustrated, impatient and careless. We get in a hurry, our "clear-thinking" evaporates and accidents happen—accidents that may be more serious, even, than the heat-induced health problems. Such problems are more common to individuals who are not conditioned to working under these conditions. Fortunately, however, the human body has the ability to adjust to hot weather conditions within a week or two. What must we do?

The National Institute for Occupational Safety and Health (NIOSH) recommends that those not conditioned to strenuous activity in hot, humid weather limit their exposure to not more than two hours per day for the first week. This time can then be gradually increased to half-and then full-time activity during the next couple of weeks. This allows our body's temperature control mechanism to adjust.

The major problem is dehydration, the loss of body fluids caused by perspiration. Energetic activity on hot

days can cause the body to lose one to one-and-a-half quarts of fluid per hour. If this continues for a few hours, you can lose two to as much as six percent of your body weight.

A loss of only two to three percent of your body weight decreases blood circulation. This leads to extreme discomfort and thirst, along with an increase in body temperature and a rapid pulse. You will undoubtedly be suffering heat cramps; dizziness, headaches, excessive sweating and a feeling of weakness are symptoms of heat exhaustion.

If you lose three to six percent of your weight, you are, or are near, suffering a heat stroke. This is when the body stops perspiring, the body temperature increases rapidly, and convulsions, unconsciousness and death become very real possibilities.

But none of this needs to happen to you if you recognize the early symptoms and follow simple precautions. The first precaution is to avoid dehydration. If you are sweating, drink cool water. Take a short break every half hour and drink 10 to 12 ounces of water, even if you are not thirsty. Stay away from alcohol and salt.

The second precaution is to wear the proper clothing. Wear lightweight, light-colored, loose-fitting cotton clothes. And, yes, long-sleeved shirts and pants. Initially, you may feel cooler in sleeveless tops and

The Institute of Food and Agricultural Sciences is an equal opportunity/affirmative action employer authorized to provide research, educational information and other services only to individuals and institutions that function without regard to race, color, sex, age, handicap, or national origin. For information on obtaining other extension publications, contact your county Cooperative Extension Service office.

Florida Cooperative Extension Service / Institute of Food and Agricultural Sciences / University of Florida / John T. Woeste, Dean

This document was published 11/91 as Fact Sheet AE-84, Florida Cooperative Extension Service. For more information, contact your county Cooperative Extension Service office.

^{2.} Professor and Extension Safety Specialist, Agricultural Engineering Department, Cooperative Extension Service, Institute of Food and Agricultural Sciences (IFAS), University of Florida, Gainesville, Florida.

Keep Cool Page 2

shorts, but under a hot sun and/or on a hot, windy day your body temperature will increase more rapidly.

Finally, there are two more ways to "beat the heat"—do the strenuous work in the cool of the day or in the early morning, or don't do the work at all! In summary, when it is hot:

- Take frequent breaks, allow your pulse to return to normal.
- Drink lots of cool water, 10 to 12 ounces each half hour.

- Wear cool clothing, light-colored and loose fitting.
- Do the strenuous work in the cool of the day.
- Know the symptoms of heat stress, and when the first symptoms occur move to a cooler location, drink cool water and rest. Do not "push" yourself to a doctor, hospital or early grave. When it is hot—play it cool!