

# Linking ag-food-nutrition on global-local levels

By Kathryn Reed

INCLINE VILLAGE – The average person now lives farther from where her food is produced than at any other time in history. And, yet, without food, people won't survive.

Feeding a world of nearly 9 billion people is not easy. And while there are 100 million fewer people classified as hungry today compared to 10 years ago, there are still approximately 800 million hungry people in the world. In California, 16 percent of the households suffer from hunger. One percent of youth in the United State have chronic nutrient deficiencies.



Josette Lewis

Hunger, malnutrition, poor diets and associated diseases were the topic of a lecture at Sierra Nevada College last week. Josette Lewis, associate director of the World Food Center at UC Davis, talked about the link between agriculture, food and health.

She said if diet is not addressed on a global scale, then the next burden would be chronic disease. It's already evident. South Asia, Lewis said, is the No. 2 area in the world for the highest number of people with diabetes and it has some of the highest areas of malnourishment.

Worldwide women and children are more likely to be undernourished.

Lewis pointed out how obesity and malnourishment go hand-in-hand. Many high caloric, high fat foods are cheap.

Next month the World Food Center and Brookings Institution are having a conference to look at the cost of obesity on low-income families in the United States.

“If we want a healthy diet, it needs to be available,” Lewis said.

That is one of the problems – especially in Third World countries – the access to a well-balanced, nutrient rich diet is not available.

Water will increasingly be part of the discussion with food production, especially with California in its fourth year of drought. Lewis said 70 percent of the fresh water in the world is applied to agriculture.

“The majority goes off into the environment; into the soil or into surface water,” Lewis said.

With drip irrigation and other applications, the water is going where it’s intended to go instead of carrying soil nutrients and chemicals into other locations.

Lewis said the ag industry has made great strides in reducing water consumption. From the 1960s to the early 2000s there has been a decrease of 14 percent of applied water in California, while at the same time crops per acre have increased 85 percent.

“We need to be more efficient with the use of water. We are working on technology for irrigation and food processing technology,” Lewis said. “We are working to help faculty develop larger scale research programs.”

Climate change is also being incorporated into the equation because it is affecting what can be grown where.

“Nut crops are particularly sensitive to temperatures. They need a certain number of near freezing temperatures at night to hibernate so they produce in the spring,” Lewis said.

Nighttime temps are increasing, which is worrisome for those growing nuts.

There may be a geographic shift, Lewis said, in where things are grown. There has already been a shift north when it comes to growing wine grapes.

However, moving an entire industry is expensive and may not even be physically possible.

Lewis said the goal of the World Food Center is to “create transformational solutions to feed and nourish the world for decades to come.”