Time to End U.S. Reliance on Foreign Farm Labor

Those who oppose restrictions on immigration often point to agriculture, claiming that without foreign labor, “our crops would rot in the fields” and say, “their cheap labor keeps our food prices low.” They sometimes go on to say that because of this need, we should legalize all illegal aliens in the U.S., now estimated at between 11 million and 12 million.

That conclusion simply doesn’t follow. Only about five percent of the illegal aliens in the U.S. are involved in agriculture. We could deport 95 percent of all illegal immigrants without any impact on crops at all.

In reality, cheap labor contributes only marginally to food prices. The labor that is cheap to employers is not really so cheap for consumers in general. Whatever gains in lower food prices is offset in varying degrees by higher taxes paid to provide the public services, welfare, and other costs incurred by illegal immigrants.

Americans still make up about 46 percent of the agricultural workforce, according to the Center for Immigration Studies. More Americans would be drawn to farm work if the wages were higher and working conditions were better, but as long as illegal alien workers are readily available, wages and working conditions will not improve.

An economically sensible way to accomplish farm work without importing illegal labor is to continue a trend that began about 150 years ago -- the mechanization of agriculture.

Today, those who ask, “Who will pick the apples?” are like those in the 19th century who asked, “Who will pick the cotton if we don’t have slaves?” Mechanized harvesting soon replaced slave and unskilled labor.

Other technology soon followed to harvest wheat and other commodity crops. It is true that mechanization has come unevenly to fruits and vegetables, but mechanization continues to advance.

Mechanization of fruit and vegetable harvests began in the late 1930s, and today machinery brings in a large share of crops for processing such as tomatoes, blueberries, tart cherries and grapes. Available machinery also can harvest fruits such as oranges and apples for juicing. Technology still must be refined to allow the mechanical picking of fresh-market crops such as apples, sweet cherries, and peaches without bruising them.

In the mid-sixties the U.S. Department of Agriculture along with land-grant universities began a major research effort to develop new technology to harvest crops as the government ended the Bracero program, which had enabled growers to obtain an abundant supply of cheap farm workers from Mexico. With that labor supply gone, the incentives to mechanize were strong, and much progress ensued.

Unfortunately, that government-initiated effort came almost to a halt within a decade and half. In 1979 Secretary of Agriculture Bob Bergland announced, “I will not put money into any project that results in saving farm labor.” The United Farm Workers Union and other labor groups saw mechanization as a threat to their members’ jobs.

At the time, a great disincentive to mechanize was on the rise: massive illegal immigration. With so many inexpensive illegal workers available, the need to develop agricultural machinery seemed less pressing, and the lack of public funding for research slowed progress. Today, most research in agricultural technology takes place outside of the United States in countries where cheap labor isn’t readily available.

Mechanization came to the raisin industry despite objections that only human labor could do the work of cutting grape clusters, and the subsequent steps to turn the grapes into raisins. By 2005 a major shift toward mechanization was began in the U.S. due to mechanized foreign competition.

The San Diego Times Union reported (The New Grapes of Wrath, 1/23/05), “The transition of many of
[California’s] 5,500 raisin growers [is] considered the most significant innovation in the raisin harvest since the industry was established in 1873. It’s happening faster than anyone expected. Last fall, the amount of raisin acreage picked by machine increased by more than 30 percent.”

Despite worries that mechanization bruises fruits, change is coming to many orchards. One innovation still requires human pickers, but it greatly reduces the work they have to do and the total number of pickers needed. It lifts workers off the ground on a platform so they can pick apples and feed them into an attached machine which sorts the fruits for acceptable quality and then stores them. Thus there is no more need for bags and ladders.

Progress is coming on mechanical picking equipment, some of it described as “robotic.” An Associated Press story noted (Robots May Become Essential on U.S. Farms, 9/6/07), “Such machines, now in various stages of development, could become essential for harvesting delicate fruits and vegetables now picked by hand.” The story quoted Jack King, national affairs manager of the California Farm bureau, “If we want to maintain our current agriculture here in California, that’s where mechanization comes in.”

The AP account added,“The new pickers rely on advances in computing power and hydraulics that can make robotic limbs and digits operate with near-human sensitivity. Modern imaging technology also enables the machines to recognize and sort fruits of varying qualities.” Derek Morikawa, who heads the Vision Robotics firm, works with the California Citrus Research Board and the Washington State Apple Commission to mechanize harvesting. He observed that “The technology is maturing at the right time to allow us to do this kind of work economically.” Part of this technology is a scanning unit which creates three-dimensional maps of orchards showing the location and ripeness of the fruit. The robotic pickers then follow the maps to pick the fruit.

Another development provides a fine touch to harvest sensitive crops, such as high-grade wine grapes. The near-infrared spectrometer, a device which measures the sugar level and chemical make-up of grapes, can guide mechanical harvesters to the right grapes to pick.

Mechanization of U.S. agriculture is clearly the wave of the future. Innovation is an outstanding facet of our national character, and we have strong incentives to continue our inventiveness in agriculture.

Dependence on foreign labor discourages innovation, while bringing many social and political problems. Surely we can find alternatives to economies based on sweat and toil which seem more appropriate to the 19th century than today. As a humane nation, we ought to seek better ways to produce our food than those which sometimes border on exploitation of illegal laborers.