ARIZONA
LAND&PEOPLE
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Water Management, Wise Land Use Can Keep State's Farms Productive

By continuing the good planning and management already begun, Arizona can maintain bountiful farms while bringing the state's excessive groundwater deficit under control.

The state has taken initiative with passage and administration of a strong, unique Groundwater Management Act. Individual farms are taking initiative in adopting methods to apply water sparingly and squeeze top production out of every drop of water they use. In industries, homes and backyards, too, Arizonans are beginning to tighten the tap on unneeded water use.

Together, we still face a tremendous challenge. With conservation and with new supplies from the Central Arizona Project, Arizona must eliminate the overdraft of groundwater that now surpasses 2 million acre-feet per year. We must do this even while the population keeps growing as fast as the desert grass after a good rain.

Some Arizona farmers have been able to trim their irrigation by two acre-feet per acre without hurting yields – sometimes even helping yields. However, the technology needed for such efficient irrigation, such as laser leveling, sprinkler and drip systems, is expensive. Only good farm management and profitable crops can make it affordable.

Increased efficiencies, mandated by economics as well as by administration of the groundwater law, may fulfill much of the water savings needed from agriculture. Planting of improved crop varieties and new crops that use less or lower-quality water may also help keep lost acreage to a minimum.

Feeding farmland to growing cities will no doubt reduce farm acreage in Arizona, but is not a smart way to save water. Daily home use of water ranges from about 140 gallons per person to more than twice that in different parts of the state. Sprawling suburbs with only a few families per acre may use less water per acre than farms do, but modern, high-density housing developments can use as much or more. Also, the figures for residential water use do not include some 1,800 gallons needed to raise the food that an average person eats in one day.

An increasing population needs increasing amounts of farm products. That shows the folly of reducing farm acreage. We need to protect a strong agricultural base for the years ahead. Relying on other states' farms in a cop out. Arizona has water problems, but so does most of the West, especially the Great Plains states that are overdrawing on the extensive Ogallala Aquifer. Soil erosion and urbanization are threatening long-term agricultural productivity nationwide.

So, the UA College of Agriculture is doing its best to develop and test many options in technology, management and crop varieties to help farmers save water and stay productive in Arizona. We are also helping to save water in cities through programs in arid landscaping.

The changes underway in Arizona agriculture are exciting. Farmers here have always stayed at the forefront of new production methods, partly through the work done in the research and teaching laboratories of this college, and partly through industry members' own pioneering initiative. Now we face the challenge of cutting water use nearly in half. Working together, we can do it.

Bartley P. Cardon, Dean
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