

# Looking Ahead: Cooperation Needed

Arizona crop agriculture is highly productive and efficient, and contributes significantly to the economy of the state. Its cash receipts of \$1.7 billion annually rank it as third or fourth among the state's industries that generate cash receipts.

Crop agriculture can continue to exist harmoniously in Arizona with an expanding urban population. However, the state cannot continue to overdraw its water supply by 2.2 million acre-feet annually. We must learn to live within the resources that are provided for us or that we can augment from other sources. The challenge is in recognizing the problems and solving them in logical ways that do not harm part or all of our society.

Changes should not be made precipitously, but only after careful analysis of the results of action. In a word, the essential element is research. Research can develop answers to minimize the undesirable results of drastic change, and help improve the quality of life for a growing population. Given sufficient time, it also decreases polarization by finding answers to problems that generate differences of opinion.

Crop agriculture must continue to adapt in the future to help the state reach a water balance. Inefficiencies in irrigation practices must be eliminated. However, urbanization will not decrease water use per unit of land. An acre of suburban housing uses about as much water as an acre of cotton. All water users must conserve.

The overdraft can be stopped without ruining agriculture. For example, an average reduction of one acre-foot of irrigation water for the 650,000 acres of Arizona cotton is reasonable to predict. On our remaining 550,000 acres of irrigated cropland, improved efficiency plus an increase in the proportion of land devoted to low-water-use crops might save 2.5 acre-feet per acre. This hypothetical scenario would cut the state's groundwater overdraft by more than 90 percent.

Procedures for growing traditional crops in Arizona will continue to change. Water savings will result from new short-season varieties, improvement in irrigation practices, and the optimizing of output in relation to all inputs rather than just maximizing yields per acre.

New, low-water-consuming crops also can help maintain crop agriculture in the face of a diminishing water supply. More research funding and less political tampering with research efforts are needed to speed development of these crops. This development must be coordinated with private industry. A crop of guayule is useless if industry is not ready to process it into rubber. Economists must be involved at every step to ensure that society benefits from projected developments.

The future of Arizona crop agriculture is bright. It can continue to contribute significantly to the state's economy even with a rapidly increasing urban population and constraints on the water supply. It can—if we all work together.

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