

one knows for sure what that is. And there is a belief that the longer we delay implementation of the changes we believe will ultimately be required, the higher the costs will be. We believe there is a need to be visionaries to some extent, to try new tactics, even if they turn out to be wrong, to help move the industry forward.

Are high-density plantings on drip irrigation the way of the future for Florida citrus? No one knows for sure, but waiting to see will only place the grower further behind the eight ball. Those who survive will likely be the growers who begin

implementing promising changes now — the risk takers.

The issues listed at the start of this article, while important, are the details of a broader issue: What will be the role of agriculture, specifically citrus in this case, in our society? While the grower's bottom line currently depends on the dollar value of the fruit produced, the industry's future survival depends on the values citizens of Florida place on citrus groves. These values arise from things such as wildlife habitat, attenuation of storm-water runoff, protection of domestic water supplies,

New citrus production management paradigms

By Timothy M. Spann
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Citrus greening, citrus canker, hurricanes, urban sprawl, foreign competition and time — all of these are public enemy No. 1 if you are a Florida citrus grower. One thing is certain: Becoming a profitable citrus grower is getting harder and harder and the future isn't exactly a rosy picture if using the same old methods continues. But for those who make the investment in change, there is a future in Florida citrus that doesn't involve planting condominiums. This article looks at the potential of future citrus production, and agriculture in general, in Florida with particular input from a progressive industry leader.

For citrus production to continue in Florida, agriculture in general must

remain a permanent part of the Florida landscape. Three things must be achieved if this is to happen:

- 1) Agriculture remains profitable,
- 2) successful transfer/purchase of development rights (TDR) programs are put in place, and
- 3) the combined value of future agricultural income and sale of TDRs is equal to or greater than the value of selling the land for development.

We believe all the issues boil down to time, or a lack thereof. Given the events of the past few years — hurricanes and the spread of greening for example — the industry is in a more unstable state than it has ever been. The combinations of issues that managers must deal with are more complex than ever, and there is anxiety. Managers seem to feel that all they need to do is to begin doing the “right” thing now to survive, but no

TDR (transfer of development rights) programs allow for the transfer of development rights from agricultural areas to designated growth areas with access to services. They also allow agricultural landowners to retain the agricultural and natural resource values of their land while simultaneously realizing the development value.

community identity, and a safe, reliable domestic food supply.

While most citizens understand these issues and accept the inherent value in them, the impetus will be solid leadership from city and county governments, through such things as tax incentives and growth planning, to secure public support for maintaining agriculture as a permanent component of the developed landscape. TDR programs are an effective tool that can be used by local and state governments for this purpose. These programs allow for the transfer of development rights from agricultural areas to designated growth areas with access to services. They also allow agricultural landowners to retain the agricultural and natural resource values of their land while simultaneously realizing the development value.

Successful TDR programs have been used in other rapidly growing agricultural areas of the country. For example, within the California Central Valley, TDR programs have been used to maintain agricultural and natural area “greenways” between valley cities and towns. This has prevented a number of small communities within the valley from growing together to form vast urban areas, while encouraging infill and redevelopment within existing cities and towns.

As development swallows up land at staggering rates, the citrus industry is one whose crop traditionally takes 10 to 15 years to break even. With greening, the longevity of trees is now questionable. IFAS's role will be one of helping to develop methods or systems that allow growers to reach that break-even point sooner. But it will be up to individual growers to decide which of these systems they want to

— from a manager's perspective

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adopt, how they want to evolve, and what role they want to play in Florida's agricultural future.

Many within the university and industry have taken the initiative to observe firsthand the production methods used in other citrus growing regions of the world. Some, like Pete Spyke, will adapt the Open Hydroponics System (OHS) methods seen in South Africa, and begin trial plantings. He believes the primary advantage to this system, if properly tailored and practiced in Florida, allows trees to enter production faster. But the system has the additional benefits of potentially having lower environmental impact, having productive groves in the presence of greening as well as allowing for competitive production on smaller acreages. And a return of the smaller grower would have countless benefits to Florida citrus production.

Perhaps the transition from agriculture and development being incompatible to peaceful coexistence will be the greatest paradigm shift of all. In a Florida (hopefully) not too far off, growth can be accommodated in new towns and villages in the countryside, based on traditional neighborhood design, surrounded by permanent open space that includes agriculture, natural systems, recreational areas and other components. Citrus grove designs will have evolved and groves will be completely transparent to local citizens, becoming another part of the green space that adds value to their cities and towns. We are not there now, but the sooner we get going, the faster we will learn and the better the outcomes will be.

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