

# Tree Assistance Program For Florida Citrus Greening<sup>1</sup>

Ariel Singerman and Fritz Roka<sup>2</sup>

## Introduction

On September 17, 2014, the United States Department of Agriculture (USDA), Farm Service Agency (FSA) announced additional support for commercial Florida citrus growers to manage greening (USDA/FSA 2014). To qualify as a commercial operation, the grower must market the fruit. Farm Service Agency support is in the form of an expanded Tree Assistance Program (TAP). The original program assisted growers in the event the loss occurred within a single year due to a natural disaster such as a hurricane. The expanded TAP recognizes citrus greening (Huanglongbing, or HLB). The program provides growers cost-sharing financial assistance to replace trees that meet a mortality criterion within a time period of up to six years.

The starting date of the expanded TAP is retroactive to October 1, 2011. The deadline for submitting an application for cost-sharing assistance on expenses of trees pulled between October 1, 2011 and December 31, 2014 depends on the year in which the grower applies. For example, if the grower applies for assistance for 2015—say, for cumulative losses from 2013 and 2014—the deadline is 90 calendar days after December 31, 2014. For 2015 and subsequent years, growers need to apply within 90 calendar days of the disaster event, or the date the loss became apparent.

## TAP Eligibility

The Tree Assistance Program is available for individuals or legal entities with an average annual adjusted gross income (AGI), during the last three years, of \$900,000 or less. Adjusted gross income refers to taxable income; that



is, gross income minus adjustments such as farm expenses and personal deductions and exemptions. Below we provide a rough approximation of the maximum acreage that a grower who produces oranges for the juice market would need to earn, at most, an annual AGI of \$900,000. However, our calculations are for illustration purposes only and do not apply to any single operation. Therefore, we advise growers to consult their accountants or tax specialists to check whether their operation actually meets the established AGI limit.

We estimate the size of an operation potentially eligible for the expanded TAP by making several assumptions. We begin by using USDA's latest figures for acreage and production of oranges for 2013/14. These figures are 418,900 bearing acres (USDA/NASS, 2014a) and 104.6 million boxes (USDA/NASS, 2014b), respectively. The resulting average production per acre is 250 boxes. We use this

1. This is EDIS document FE966, a publication of the Food and Resource Economics Department, University of Florida, UF/IFAS Extension, Gainesville, FL. Published April 2015. Please visit the EDIS website at <http://edis.ifas.ufl.edu>.
2. Ariel Singerman, assistant professor, Food and Resource Economics Department, University of Florida, Citrus Research and Education Center, Lake Alfred, FL, UF/IFAS Extension, Gainesville, FL. Fritz Roka, associate professor, Food and Resource Economics Department, University of Florida, Southwest Florida Research and Education Center, Immokalee, FL, UF/IFAS Extension, Gainesville, FL.

figure as the mean of a yield bracket with a low and high of 200 and 300 boxes per acre, respectively. Assuming an average of six pounds solid per box, we combine yields with sensible price assumptions to obtain an estimate of gross income per acre for each yield-price combination. Finally, assuming no other income, we adjust gross income per acre by deducting farm expenses per acre (\$1,500), pick and haul charges per box (\$2.50), FDOC tax per box (\$0.20), a standard deduction for a married couple (\$12,200), and the self-employment tax deduction (computed as half of the applicable self-employment tax).

Table 1 shows the number of acres of an orange grove implied by an AGI of \$900,000 for combinations of prices and yield. Thus, for example, assuming a price of \$13.20 per box and 250 boxes per acre, a grower with up to 829 acres would earn a gross income of \$900,000 or less, making that grower potentially eligible for the TAP cost-sharing.

## How TAP Works

The grower can choose the length of the time period for which to claim a loss due to greening. That is, growers can choose to apply for TAP during any single year in which a stand sustained a mortality loss greater than 15 percent, after adjustment for normal mortality. Or, alternatively, growers can apply for TAP after the stand has accumulated tree mortality in excess of 15 percent (again, after adjustment for normal mortality) over a period of up to six years.

To receive financial assistance in 2015 and subsequent years, growers will first need to obtain approval from FSA for the trees they intend to replace. An authorized FSA representative will visit the grove and assess the trees' condition before the trees are removed. Citrus trees will meet the TAP mortality criterion when they are either biologically dead or no longer commercially viable due to greening.

## TAP Payments

Payments will be triggered when the stand sustains damage or mortality in excess of 15 percent after adjustment for normal mortality, which is established at 3 percent. Therefore, TAP will reimburse the grower for a proportion of the expenses incurred when replacing any number of trees greater than 18 percent for the time period for which claims are made.

The calculation for TAP payments is the lesser of the following:

1. Payment is 65 percent of the actual cost of replanting and 50 percent of the actual cost of site preparation
2. The maximum eligible amount established for each individual practice by FSA

In addition, payments are subject to a mandated sequestration (i.e., reduction) of 7.3 percent. Table 2 shows an example of TAP payment calculations for replacing one tree, assuming the requirement for 15 percent mortality plus 3 percent adjustment has been fulfilled. Note FSA will examine each practice individually for computing payments.

Other payment considerations include the following:

1. An annual cap of 500 acres has been established on the cumulative total quantity of acres for which a grower can receive TAP payments.
2. The total payments under TAP will be capped to a maximum of \$125,000 per individual or legal entity per application.
3. There will be no partial payments (e.g., growers will not receive a partial payment after site preparation is complete; they will only receive a single payment after resets are planted).
4. Resets planted under TAP that are infected by greening are not re-eligible for cost-sharing assistance due to greening for another six years.
5. The new types of trees planted may differ from those replaced if the new types have the same general end use, as determined and approved by the FSA County Committee.
6. All approved practices must be completed by the grower within 12 months of the approval of the TAP application by the FSA.
7. The cost-sharing program is "one-for-one," which means that it calls for replacing a tree with a single tree. If the grower replaces a tree with two or more trees to increase density, the program will only cost share one tree.
8. There will be no financial assistance for abandoned groves.

Below is an example for the calculation of the payment's trigger based on a single grove acre.

## Trigger

To qualify for assistance, the program requires the stand to sustain cumulative tree mortality over 15 percent due to greening, adjusted by a normal mortality rate of 3 percent, that is, a total of 18 percent. Assuming there are 100 trees in our single acre, cost-sharing payments will be triggered when the number of trees to be replaced is greater than 18 (=100 x 18 percent).

USDA/NASS. 2014a. *Commercial Citrus Inventory*. United States Department of Agriculture, National Agricultural Statistics Service (USDA/NASS), Washington, DC (September).

USDA/NASS. 2014b. *Citrus Forecast*. United States Department of Agriculture, National Agricultural Statistics Service (USDA/NASS), Washington, DC (October).

## Cost-Sharing Payments

Assuming a total of 28 trees needs to be replaced in our hypothetical grove, the expanded TAP will provide cost sharing for the expenses related to the replacement of 23 trees (=28 x [100 percent–18 percent]). If we further assume the grower in this example has the same costs as those described in Table 2, the TAP cost-sharing payments included in that table for each practice after sequestration are as follows (totals do not add up exactly due to rounding error):

- Resets: \$110.87 (= \$5.20 x 23 x [100% - 7.3%])
- Planting: \$36.59 (= \$1.72 x 23 x [100% - 7.3%])
- Site preparation: \$126.65 (= \$5.94 x 23 x [100% - 7.3%])

In this example, the total TAP payment is \$274.10 per acre.

## Summary

Expansion of TAP will provide Florida citrus growers with cost-sharing payments to replace trees infected with greening that are either biologically dead or no longer commercially viable. TAP takes into account the multi-year effect of the disease and is targeted to small-sized and medium-sized citrus growers. However, any commercial operation meeting the eligibility criteria qualifies for assistance. By cost sharing the expenses related to the replacement of infected trees, the Florida citrus TAP will provide support at the farm-level. However, we expect the effects TAP to also benefit the citrus industry as a whole by helping prevent further downsizing.

## References

USDA/FSA. 2014. Press Release: USDA announces additional support for citrus growers impacted by HLB. United States Department of Agriculture, Farm Service Agency (USDA/FSA), Washington, D.C. [http://www.fsa.usda.gov/FSA/newsReleases?area=newsroom&subject=landing&topic=ner&newstype=newsrel&type=detail&item=nr\\_20140917\\_rel\\_0201.html](http://www.fsa.usda.gov/FSA/newsReleases?area=newsroom&subject=landing&topic=ner&newstype=newsrel&type=detail&item=nr_20140917_rel_0201.html)

Table 1. Number of acres of an orange grove implied by an AGI of \$900,000 under different yield-price combinations

Boxes per acre	Price per box		
	\$12.00	\$13.20	\$14.40
200	2,591	1,554	1,110
250	1,131	829	655
300	723	565	464

Table 2. Example of TAP cost sharing (in dollars) for replacing one tree

Individual Practice	(1) Grower cost per tree	(2) Grower cost per acre	(3) TAP cost sharing	(4) = (1) or (2) x (3) TAP \$ amount of cost sharing	(5) Maximum FSA
Cost of reset	8		65%	5.20	< 8 per tree
Planting cost	2.64		65%	1.72	< 2 per tree
Site preparation		11.88 <sup>1</sup>	50%	5.94	< 500 per acre
Subtotal				12.86	
Sequestration 7.3%				0.94	
Total TAP Payment				11.92	

<sup>1</sup> Includes tree removal (\$8.73), disk tree-site (\$1.53), and rotovate-disk tree site (\$1.62)