

Outlook on Agricultural Labor in Florida, 2012-13.

Fritz Roka, Associate Professor,
Agricultural Economics, UF/IFAS, Southwest Research & Education Center,
Immokalee, FL 34142

Importance of seasonal and migrant farmworkers in Florida Specialty Crops.

Citrus and fresh vegetables are important Florida specialty crops. Their combined production during 2011 generated \$3.8 billion of farm gate sales. These sales represented more than 70% of Florida's total agricultural output and nearly 90% of all farm sales from just crops. Florida specialty crop producers depend on a small army of migrant and seasonal farm workers to do several labor intensive tasks. UF/FRED crop enterprise budgets indicate that one acre of round tomatoes requires an estimated 200 hours of manual labor to plant, prune, stake, tie, and harvest mature fruit. One acre of sweet oranges yielding between 400 and 500 boxes of citrus (36,000 and 45,000 pounds) requires at least 50 hours of manual labor to harvest.

The demand for labor by specialty crop producers translates into a small army of workers. The National Agricultural Statistic Service's Florida Field Office (FASS) reports hired farm workers on a quarterly basis, and April is considered the peak production period as citrus and vegetable production is in full swing across the Florida peninsula. By May vegetable production has shifted to the northern part of Florida and by June citrus harvesting is winding down. Since 2002, FASS has reported numbers of hired farm workers during April between 46 and 55 thousand workers (Table 1).

Table 1. Numbers of hired Florida farm workers by survey month

Season	July	Oct	Jan	Apr
	(1,000 workers)			
2011-12	40	41	50	55
2010-11	35	43	45	na
2009-10	36	43	48	50
2008-09	42	38	38	46
2007-08	41	43	49	51
2006-07	43	44	na	55
2005-06	41	42	49	52
2004-05	39	52	48	49
2003-04	45	49	61	57
2002-03	43	57	70	53
1995-96	43	45	67	60

Source: [http://www.nass.usda.gov/Statistics by State/Florida/Publications/Economics/laborp.htm](http://www.nass.usda.gov/Statistics%20by%20State/Florida/Publications/Economics/laborp.htm)

Farm labor issues for 2012-13

Florida specialty crop growers face three major issues during the 2012-13 season with respect to farm labor:

1. rising minimum wage rates and implications on piece rates;

2. increased scrutiny by farm labor investigators within the U.S. Department of Labor;
3. immigration reform.

These issues affect not only the cost of labor but raise concerns over whether farm workers will be available in sufficient numbers to handle the production tasks that specialty crop growers require. After discussing these issues, this paper outlines two “solutions” that should ease the burdens on Florida’s specialty crop growers as they manage their farm labor needs.

Minimum wage and consequences to specialty crop employers.

The federal Fair Labor Standards Act (FLSA) requires farm employers to pay farm workers an average hourly rate that is equal to or greater than the minimum wage. From 1938 when FLSA was first enacted to 1995, the minimum wage for farm workers was less than the minimum wage for non-farm workers. Since 1995, however, the federal minimum wage threshold for farm labor has been the same as received by non-farm workers and between 1995 and 2004, the federal minimum wage was constant at \$5.15 per hour. During the 2004 general election, Florida voters passed a constitutional amendment that established a separate Florida minimum wage. Initially, the state minimum wage was set at \$6.15, \$1.00 higher than the federal minimum wage rate. More importantly, Florida’s constitutional amendment created a formula by which the state minimum wage would be increased annually by the cost of living as measured by the Consumer Price Index. In 2009 the U.S. Congress increased the federal rate to \$7.25 per hour and for a brief period, Florida employers had to default to a higher federal minimum wage rate. Annual cost of living adjustments increased the state minimum wage and, since June 2011, Florida’s minimum wage has surpassed the federal rate (Table 2). As of January 1, 2013, Florida’s minimum wage increases to \$7.79 per hour.

Table 2. Federal and state minimum wage rates, 2004 - 2013.

Year	Florida Minimum Wage Rate	Federal Minimum Wage Rate
2004	\$5.15	federal
2005	\$6.15	state
2006	\$6.40	state
2007	\$6.67	state
2008	\$6.79	state
2009	\$7.21 (Jan 1 – Jul 23) \$7.25 (Jul 24 – Dec 31)	State Federal
2010	\$7.25	federal
2011	\$7.25 (Jan 1 – May 31) \$7.31 (Jun 1 – Dec 31)	federal state
2012	\$7.67	state
2013	\$7.79	state

Source: Florida Dept. of Econ Opportunity, Oct 2012.

<http://www.floridajobs.org/minimumwage/FloridaMinimumWageHistory2000-2013.pdf>

An increasing minimum wage has important implications on most specialty crop producers. Citrus, fresh vegetables, and other specialty crop growers rely on piece rates to pay workers for harvesting and other labor intensive jobs. A piece rate worker's hourly earnings are dependent jointly on his or her productivity as well as the stated rate. While a worker's productivity initially improves as he/she acquires the physical stamina and the necessary skills to do the job, at some point a worker's physical capacity is reached and afterward it is reasonable to assume that labor productivity remains constant. Hence, as minimum wage rates increase, growers who stay with hand harvesting crews are pressured to increase piece rates just to stay within minimum wage compliance.

As an example of how increases in the minimum wage can affect piece rates consider two workers, a citrus harvester whose productivity averages 8, 90-lb boxes per hour, and a tomato harvester whose productivity averages 15, 32-lb buckets per hour. In 2004, when the minimum wage was \$5.15 piece rate of \$.65 per 90-lb box and \$.34 per 32-lb bucket were sufficient to meet minimum wage threshold for the citrus and vegetable harvester, respectively (Table 3). When Florida's minimum wage increases to \$7.79 on Jan 1, 2013, that same citrus harvester has to be paid \$.97 per box and the same tomato harvester has to be paid \$.51 per bucket just to remain compliant with the minimum wage regulation.

Table 3. Lowest piece rate to meet minimum wage threshold for a citrus and vegetable harvester at given levels of productivity, 2004 - 2013.

Season	Minimum Wage Rate \$/hr	Citrus Harvester (8 box/hr)	Tomato Harvester (15 buckets/hr)
		Minimum required piece rate \$/box	Minimum required piece rate \$/bucket
2004	\$5.15	\$0.65	\$0.34
2008	\$6.79	\$0.85	\$0.45
2010	\$7.25	\$0.91	\$0.48
2013	\$7.79	\$0.97	\$0.51

Statistics reported from the FASS indicate that average hourly earnings among Florida's field workers have increased by 33% in the past 10 years, from \$7.80 in 2002 to \$10.35 per hour in 2011 (Table 4). Average hourly earnings as reported by the data in Table 4, in large part drive the Adverse Effect Wage Rate (AEWR). The AEWR is the minimum wage paid to foreign agricultural guest workers brought into the United States by the H-2A program. During 2011-12 the AEWR was \$9.54 per hour, and those who closely follow the H-2A program predict that the AEWR will increase to above \$10 per hour in 2013.

Table 4. January average Hourly wages for ALL farm workers and just FIELD workers:

Season	ALL	Field	Adverse Effect Wage Rate (AEWR)
	\$/hr		
2011-12	\$11.43	\$10.35	\$9.54
2010-11	\$10.70	\$9.45	\$9.50
2009-10	\$10.84	\$9.60	\$9.20
2008-09	\$10.16	\$8.95	\$9.08
2007-08	\$9.98	\$9.00	\$8.82
2006-07	\$10.01	\$9.20	\$8.56
2005-06	\$9.55	\$8.80	
2004-05	\$9.52	\$8.50	\$8.07
2003-04	\$8.85	\$7.70	\$8.18
2002-03	\$8.81	\$7.80	\$7.78
1995-96	\$7.35	\$6.80	\$6.54
Average by survey month			

Source: http://www.nass.usda.gov/Statistics_by_State/Florida/Publications/Economics/labor/2010/lab1110.pdf

Regulatory expectations by DOL investigators in 2012-13.

The US Dept of Labor (DOL), Wage and Hour Division is tasked with enforcing two federal laws created to protect the interests of farm workers, FLSA and MSPA, the Migrant & Seasonal Worker Protection Act. Corresponding state laws have been created by the Florida legislature and those statutes are enforced by the FL Dept of Business and Professional Regulations (DBPR), Farm Labor Bureau. Wage and Hour compliance officers have briefed Florida agricultural leaders that they intend to increase their number of investigations of specialty crop operations during the 2012-13 harvest season. They intend to focus on five areas: 1) information disclosure, 2) vehicle safety, 3) housing standards, 4) hours worked, and 5) minimum wage. The first three areas relate strictly to MSPA. Employers are required to disclose all relevant information about piece rates, or hourly earnings, as well as the expected working conditions when workers are recruited. In addition, farm labor employers must provide workers with sufficient information to allow them to verify that they have been paid properly at the end of a pay period. Most farm labor contractors provide transportation for their workers, and as such they have to possess a Farm Labor Contractors (FLC) license that indicates their company is "Transport Authorized," that the company's drivers are properly licensed and "Driver Authorized," and that all farm labor vehicles are in safe working condition. If housing is provided by farm labor contractors, then the FLC license has to indicate "Housing Authorized" and that the facilities meet the environmental safety and sanitation conditions of local housing and health agencies.

The remaining two DOL investigative targets for the 2012-13 season are accurate recording of "compensable" hours and auditing employers on whether they met the weekly minimum wage threshold. During 2011-12, DOL Wage & Hour compliance officers investigated 144 Florida agricultural operations which included 50 citrus harvesting companies. Investigations showed that 91% of the citrus harvesting companies had committed "major" violations. A major violation occurred when the employer "failed to pay workers their due wage," which translates to say that employers committed minimum

wage violations. In most cases, employers had not sufficiently credited their workers with the appropriate number of “compensable hours” during the employment period.

“Compensable” hours include not only the time a worker is performing his/her primary job activity, such as harvesting, but also any time spent doing tasks at the bequest of an employer, such as attending a safety meeting or loading equipment onto busses or trailers. Compensable time also includes any time when a worker is under an employer’s control and “engaged to wait.” For instance, a crew bus arrives at a field at 8 am to harvest fresh peppers. On instructions from the grower, however, harvesting cannot begin until the fruit is dry. If harvesting does not begin until 10 am, the two hours that workers were “engaged to wait” is compensable time. Waiting time can also occur at the end of the day when workers waiting for their crew leader/bus driver to finish his/her duties, such as recording piece rate tokens for each worker.

One specific violation that DOL Wage and Hour investigators have found repeatedly during their compliance audits is employers who do not enforce automatic lunch/break time deductions. There is no federal or state law that requires an employer to give employees a lunch break, and if a lunch break is given, an employer can deduct that time from total compensable hours. However, if a break is given and time deducted, then the employer needs to guarantee that their workers are completely “relieved of duty.” During investigations, Wage and Hour officers will ask workers about their start and stop times as well as whether they take the lunch break as recorded by the company’s time keeping system. Inevitably, workers respond by saying that they do in fact eat lunch but the total time taken is far short of the time actually deducted. When this occurs, the farm or the farm labor contractor has committed, at the very least, a record keeping violation for deducting time when in fact the workers worked.

A more serious situation arises when the correct number of “compensable” hours is adjusted upward and now the level of piece rate earnings is not sufficient to meet minimum wage levels. Farm employers have to compensate any worker for “back-earnings” to meet the minimum wage level, and in some cases, pay Civil Monetary Penalties (CME).

Immigration issues and a potential “fix” through E-verify.

The I-9 is a required form for all new employees and it records the details of documents presented by a prospective employee to verify his/her identity and authorization to work within the United States. The I-9 form was created as part of the 1986 Immigration Reform and Control Act (IRCA) as a procedure to prevent employment of unauthorized immigrant labor. Unfortunately, fabrication of false documents quickly became a cottage industry and employers, particularly agricultural employers, were not in a position to check the authenticity of submitted documents.

Of the estimated 12 million people who are working currently in the US without legal documentation, only 1.5 million are estimated to be farm workers. The 1.5 million, however, comprise a significant percentage of the “domestic” farm labor work. The 2004 NAWS reported that 56% of farm workers self-reported that they were not working with legal documentation. More striking are data from the US Social Security Administration (SSA), which sends annual “mis-match” letters to farm employers listing as many as 75% of submitted social security numbers that do not match the data on file with the SSA.

Enforcement of immigration policies is the jurisdiction of the United States federal government. Unfortunately, the US Congress has become polarized over the immigration reform debate. The most contentious issue is how to deal with the undocumented people already working in the country. A number of people argue that all undocumented workers should be deported without amnesty. The mere perception of amnesty doomed AgJOBS as a legislative fix for the current farm worker population. AgJOBS was drafted in 1999 and was designed to revamp the current agricultural guest worker program, H-2A. With support from both farm labor advocates and agricultural employers, AgJOBS bill passed the Senate on three occasions, but for various political reasons AgJOBS failed to gain House approval. By 2004 the rhetoric over immigration reform intensified and the bill was branded as giving previously undocumented workers amnesty since AgJOBS provided a pathway for workers to earn a “green” card.

With the federal congress failing to create viable immigration reform policy, several states enacted their own versions of immigration reform. Arizona led the way in 2009 with other states, namely Georgia and Alabama following in 2010. Florida failed by only one vote to pass an immigration law during the 2011 legislative session. The key feature of Florida proposed law was E-Verify, a feature common to other state immigration initiatives and will likely be part of any federal immigration reform effort. E-Verify will allow employers to quickly check the authenticity of I-9 documents. Computer technology, national databases, access to local driver licenses, and biometrics could very well eliminate the use of fraudulent documents and prevent illegal immigrants from working in the US. Agricultural employers, particular those who depend on large numbers of seasonal and migrant farm workers, perceive E-Verification as a serious threat if such a system is installed without a viable foreign guest worker program.

Foreign agricultural guest workers, the H-2A program.

An agricultural guest worker program can be viewed as one option to relieve, if not solve, the problem of finding sufficient numbers of legal agricultural workers. Strong arguments against a guest worker program, however, have been raised and are responsible for why political action has not been forthcoming to modify the existing guest worker program or create a new one. Guest workers by definition are recruited from foreign countries and with the national unemployment rate nearly 8%, the political rhetoric has been to push farm employers to hire legal domestic workers. Evidence, unfortunately, does not suggest that a sufficient number of unemployed U.S. citizens will do agricultural work. Agricultural work is inherently low paying and physically demanding. Opponents of a guest worker program argue domestic workers could be recruited if piece rates and hourly earnings increased substantially. While this is a reasonable argument and is supported by economic theory of labor markets, it is not clear the extent by which agricultural wage rates need to increase before unemployed domestic workers seek out farm jobs in sufficient numbers. Oranges, tomatoes, sweet corn, and other fresh fruits and vegetables compete within a global market place. Raising piece rates would have a negative effect on economic competitiveness of Florida specialty crops.

The only legal means currently available for employers to recruit foreign agricultural guest workers is through the H-2A program. The H-2A program was included as part of the 1986 Immigration Reform and Control Act (IRCA) and designed to be a legal method for agricultural employers to secure foreign workers in the event domestic workers were not available in sufficient numbers. The program was, and

still is, a bureaucratic challenge in part because of a lingering perception that domestic workers should fill farm jobs, but also because farm labor advocates have described the H-2A program as a modern form of indentured servitude. Advocates are correct in that foreign workers are bound exclusively to a single employer during a contract period. Workers, however, have the option of terminating their contract and returning home. Further, contract periods can be no longer than 10 months and workers can choose to be recruited by a different employer for the next season.

While workers are bound to a single employer during one contract period, employers are bound by fairly strict regulatory conditions and by the contractual terms defined within the "Job Order." H-2A workers are guaranteed a minimum wage to be the AEW (Adverse Effect Wage Rate). As of January 1, 2012, the Florida AEW was \$9.54 per hour and it is predicted to increase to more than \$10 per hour in 2013. The Job Order provides a detailed description of the job for which workers are being recruited and specifies the duration of the contract period and the minimum number of total hours that will be offered during that period. Unless an "act of God" intervenes, such as a freeze, or a worker commits an act of gross negligence, the employer is bound to pay the guest worker at least three-quarters of the hours guaranteed in the Job Order. Per regulatory requirements, H-2A employers pay for the round-trip travel costs and all in-country travel during the contract period. Furthermore, H-2A workers are provided housing at no cost to them and that meets local and state environmental standards. Finally, an H-2A employer must offer the same benefits to any legal domestic worker who wishes to be hired on that farming operation. The fact that few domestic workers have enlisted on farms with H-2A workers offers additional evidence that the current AEW, along with the value of travel and housing benefits, is not sufficiently high enough to attract domestic workers.

Mike Carlton, director of Labor Relations with the Florida Fruit and Vegetable Association (FFVA) and one who processes H-2A applications for FFVA members, estimated that 40% of the 2011-12 citrus crop was harvested by H-2A workers. He expects this percentage to increase among the citrus harvesting companies for the 2012-13 season.

Mechanical harvesting

Mechanical harvesting equipment can be viewed as another solution to challenges posed by agricultural labor. Mechanical harvesting systems, which dramatically improve harvest labor productivity, would not only relieve the demand for seasonal agricultural workers, but also lower net unit costs of harvesting.

The transition to mechanical harvesting has already occurred within all agronomic crops such as wheat, soybeans, field corn, and sugarcane. Significant progress has been made with respect to harvesting some of the fresh fruit and vegetable crops. Figures 1 through 4 show examples of harvesting equipment for snap beans, potatoes, sweet corn, and lettuce. Blueberry growers are having some success with an over-the-row mechanized harvester. For most of the "soft" fruit and vegetable crops like tomatoes, however, mechanical harvesting equipment remains a distant vision. Mechanical harvesting of fresh market round tomatoes was explored more than 40 years ago and a significant effort was made into developing plant varieties that could sustain mechanical harvesting equipment. In the

early 2000, robotic harvesting of fresh market tomatoes was explored, but a commercially viable system was cost prohibited.

Developing mechanical harvesting of oranges for juice processing has been a major effort of the Florida citrus industry since 1995. Two systems gained a measure of technical success – the trunk shake and catch system (Fig 5) and the continuous canopy shake and catch system (Fig 6). Both systems increased harvest labor productivity by 10-fold, recovered 90% of the available crop, and lowered grower harvesting costs by between 20 and 30 cents per box. As a result of these promising results, acreage of mechanically harvested citrus increased to more than 35,000 by 2006 (Fig 7). Since 2009, however, mechanically harvested acreage has fallen off dramatically and during the 2011-12 season, less than 10,000 acres were harvested with mechanical equipment. The most significant factor behind the decline in citrus mechanical harvesting has been the spread of citrus greening, or HLB, throughout the citrus production area. HLB inhibits the flow of nutrients within a tree and growers have withdrawn from mechanical harvesting in order to limit the amount of stress infected trees have to endure.

Citrus growers remain keenly interested in mechanical harvesting efforts primarily as a way to lower their harvesting costs. The cost to hand harvest citrus during the 2011-12 season ranged from \$1.70 to \$2.00 per box depending on yield and tree conditions. Mechanical harvesting equipment currently in use does inflict some visible tree damage, and while UF/IFAS research has shown in repeated trials that “well-nourished” citrus trees can withstand and recover from mechanical harvesting stress, the prevalence of HLB makes “well-nourished” trees scarce. An abscission compound, CMNP, embodies the hope that mechanical harvesting energy can be significantly reduced and thereby minimizes tree stress even to HLB infected trees. USEPA registration of CMNP is expected to be completed by early 2013.

Concluding comments

Fresh fruit and vegetables are important specialty crops in the Florida agricultural economy. While mechanical harvesting technology is being incorporated into several specialty crops, a large number of seasonal and migrant farm workers will continue to be hired to harvest soft tissue crops and preserve fresh market fruit quality. Investigators at both the federal and state departments of labor will continue to be aggressive in their enforcement of farm labor regulations, which are designed to protect workers from dangerous working conditions and ensure that they are paid appropriately for their work efforts.

The status of immigration reform has created significant uncertainties within the farm labor market. A majority of “domestic” farm workers are recent immigrants and do not have legal documents to work in the U.S. In due time, the U.S. Congress will pass comprehensive immigration reform legislation and E-Verification will most likely be part of that “fix.” Agricultural employers will need a viable “guest” worker program to satisfy the labor demand most specialty crops require. A viable guest worker program should reduce some of the current bureaucratic complexities; while at the same time protect the rights of foreign workers.

Even with immigration reform and a viable guest worker program, Florida specialty crop growers still face the challenges of rising labor costs. The minimum wage will likely continue to increase annually, and thus put pressure to increase agricultural labor piece rates. Higher piece rates translate directly into

higher unit production costs which erode economic competitiveness on most of the Florida specialty crops.



Fig 1. Snap Beans



Fig 2. Potato



Fig 3. Sweet Corn



Fig 4. Lettuce

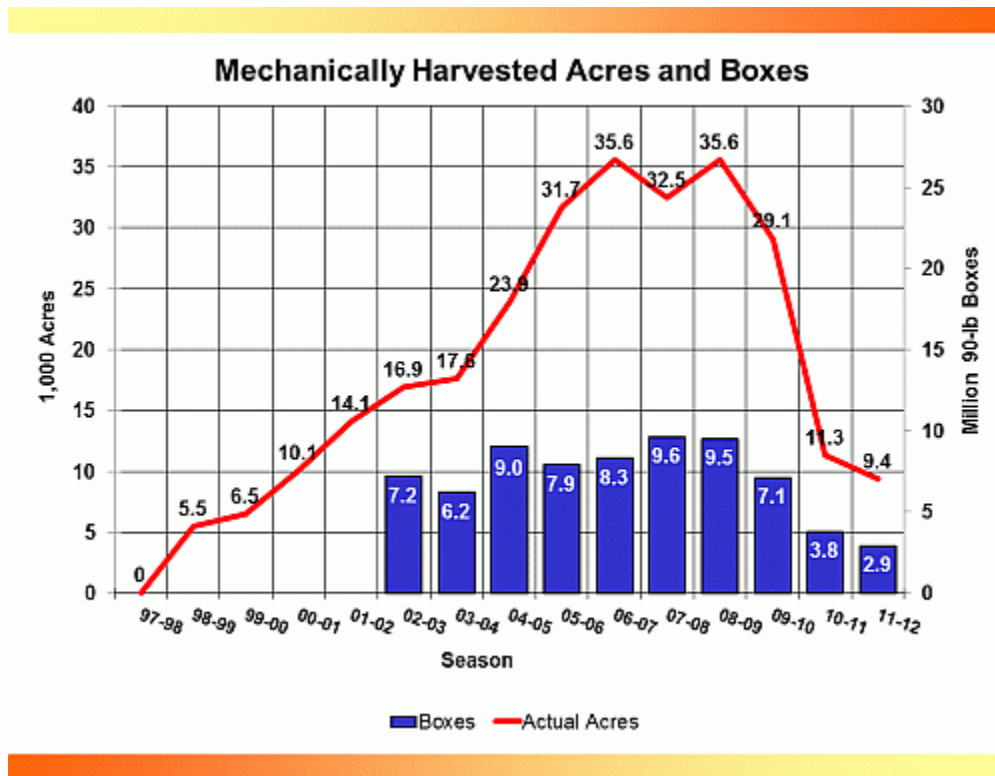


Fig 5. Trunk Shakers



Fig 6. Canopy Shakers

Figure 7. Mechanically Harvested Acres and Boxes, 1999 – 2012.



Source: Florida Dept of Citrus. <http://citrusmh.ifas.ufl.edu/index.asp?s=2&p=2>. Accessed Oct 16, 2012.