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Risk Management Strategies Concerning Seasonal Farmworkers¹

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Introduction

Citrus and fresh vegetable production in southwest Florida generates more than \$700 million of farm sales annually. Growers of these commodities depend on a significant number of seasonal farmworkers. The purpose of this paper is to describe some of the risks associated with the seasonal work force in southwest Florida and present some of the strategies growers are considering to manage these risks. The pros and cons of each strategy are outlined. The issues associated with seasonal farmworkers are not unique to southwest Florida; therefore, the ideas presented in this paper have relevance to other production regions which rely on seasonal workers.

Risk Issue 1: Availability and Cost of Seasonal Farmworkers

During peak production periods in southwest Florida, tomato growers and citrus harvesters collectively employ more than 10,000 seasonal workers (Roka and Cook, 1998). Nearly 200 man-hours of seasonal labor are required to plant, prune, tie, stake, and harvest one acre of tomatoes

(Smith and Taylor, 1998). Approximately, 50 hours of seasonal labor are required to harvest one acre of citrus (Roka, 1998). Over the course of a season, it is estimated that citrus and tomato growers pay in excess of \$80 million to seasonal farmworkers (Roka, 1998).

In recent years, growers have become increasingly concerned over the availability and cost of seasonal farmworkers. Recent surveys of farmworkers indicate important shifts in the demographic characteristics, which could suggest greater uncertainty with respect to labor availability. Compared against their counterparts 15 to 20 years ago, seasonal farmworkers today are younger and less experienced at farm work. The percentage of migrant workers in vegetable and citrus operations has increase to as much as 80% of the seasonal agricultural work force, and most migrant farmworkers today travel as single men (Roka and Cook, 1998; Roka and Emerson, 1999b). The implication of these demographic shifts are that, for a higher percentage of seasonal farmworkers, the social anchors to a specific production area are not as strong today as they perhaps once were. Consequently, wages and other economic inducements, inside and

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outside of agriculture, have become relatively more important in directing how and to whom workers sell their labor services.

By law, farmworkers earn minimum wage (\$5.65 per hour as of April 1, 1999) for every hour they are on the farm. Piece-rate workers (i.e. harvesters) have the opportunity to earn higher hourly wage rates. During tomato and citrus harvests, a worker can earn between \$7 and \$10 per hour depending on their level of effort and crop yields (Roka and Emerson, 1999a). These hourly rates compare favorably with what non-agricultural employers offer. However, the seasonal nature of agricultural production usually limits the number of hours available to earn high hourly rates in the field. A strong regional and national economy has provided an increased number of non-farm employment opportunities for farmworkers. In southwest Florida, golf course communities, residential construction, and tourism have attracted a number of former farmworkers. While hourly rates may be lower than those earned by harvesters, many non-agricultural firms are able to offer full-time employment and, hence, more annual income (Hyman, 1999).

Another important demographic feature is that many seasonal farmworkers employed on U.S. farms today are not U.S. citizens. Further, there is strong evidence that more than 40 percent of the seasonal farmworkers in the U.S., and specifically in Florida, do not possess legal documentation (Gabbard, 1998). If federal agencies such as the U.S. Immigration and Naturalization Service and Social Security Administration choose to enforce existing laws, 40 percent of the seasonal farm work force would be deported, thereby crippling most fresh vegetable and fruit operations.

Risk Issue 2: Social Justice

Many farmworkers, particularly seasonal farmworkers, occupy the bottom rung on the economic prosperity ladder. The economic plight of farmworkers attracts broad public sympathy, and many concerned citizens conclude that the plight of farmworkers is part of an underlying social disorders. While piece rates and hourly wages may be justified from labor market forces of supply and demand,

worker advocates argue that the wage scale for farmworkers is an artifact of employer exploitation. Worker advocates call for farmworkers to be paid "living wages" whether market forces justify those wages or not. Poor housing, unsafe working conditions, and undue exposure to pesticides are other issues advocates voice on behalf of farm workers.

Social justice issues increase costs to agricultural employers both directly and indirectly. Direct costs could be in the form of legal expenses defending against a cadre of attorneys who expose grower missteps concerning fair labor practices, payment of correct compensation, and general working conditions. Direct cost may also take the form of increased regulations, as farmworker advocates pass laws to increase the minimum wage or tighten requirements for safer pesticide handling.

Indirect costs occur through negative publicity. For example, when the news media airs a story that depicts growers/employers as heartless usurpers of defenseless farmworkers, the social stature of agricultural producers within the community is diminished. Consequently, agricultural interests may not be well served in future public policy debates such as maintaining "greenbelt" tax exemptions, land-fill siting, or protecting against the imports of foreign agricultural commodities.

Strategies to Reduce Risk Issues of Seasonal Farmworkers

Growers in southwest Florida who depend on large numbers of seasonal farmworkers are exploring three types of risk management strategies—mechanization, guest worker program, and labor management options. Each strategy has potential benefits and costs.

Mechanization

The Florida citrus industry is investing resources into machines that will mechanically harvest citrus for processing. Several prototypes are being developed and some machines (trunk shakers) are starting to become commercially available. Within five years, officials at the Florida Department of

Citrus picking machines will handle 20 percent of the state citrus harvest.

Harvesting machines for citrus will substantially reduce the demand for harvesting labor, perhaps by as much as 60 percent. For the workers who remain in the harvesting operations, their professional status will be elevated to machine operators. The enhancement of their machine-aided productivity should cause their income to increase.

From a grower's point of view, mechanical harvesters will reduce the dependency on seasonal labor and help guarantee the feasibility of being able to harvest a crop destined for the processed market. An added advantage of mechanical equipment is that it should stabilize and reduce the uncertainty of future harvesting costs. At the very least, liability insurance should be reduced because safety features can be built into machine design and machines do not sue over working conditions.

Whether overall unit cost of harvest will decrease remains unclear. Mechanization will require sizable investments of capital, learning new harvesting systems, and changing grove configurations. Further, none of the machines under current evaluation are able to completely harvest 100 percent of the mature fruit crop, thereby adding cost over what a hand crew would incur.

Enthusiasm for machines should also be tempered by the fact that mechanical harvesters are limited to processed fruit and vegetables. Machines have yet to be developed that can replace the human eye and touch abilities that are needed to harvest fruit and vegetables for the fresh produce markets. Consequently, so long as south Florida growers choose to produce fruit and vegetables for the fresh market, some number of seasonal farmworkers will be in demand. The reduction in demand for workers undoubtedly will translate into fewer workers in the seasonal labor pool. However, the dynamics of a seasonal migratory work force create some uncertainty over whether reduction in worker numbers will be proportionally greater, equal, or less than the percentage reduction in available positions. If the proportion of workers who choose not to return to south Florida is greater than the proportion of jobs lost to mechanical harvesters, a labor shortage

remains, as do the risks associated with such a shortage.

Guest Worker Programs

Growers view a guest worker program as another option to reduce the risk of seasonal farmworker shortages. Because of its many restrictive stipulations, many growers have not embraced the current guest worker program, known as H2A. In particular, growers are required to pay travel expenses, provide housing, pay an "adverse prevailing wage rate", and guarantee a minimum number of working hours for the season. However, guest worker programs are receiving greater attention among growers. As the uncertainty of worker availability increases, a guest worker program represents an assurance that adequate numbers of workers will be provided. Further, given immigration and social security concerns, a guest worker program would provide a supply of *legal* workers. Growers who enlist in a guest worker program would define and stabilize their labor costs, at least for the current season.

Any guest worker program has several drawbacks. First, both growers and farmworkers lose flexibility within the current season. Workers would not be allowed to shift among alternative employers. Growers will be required to pay a prevailing wage, and also guarantee a minimum number of work hours. If a freeze shortens the growing season, growers who have hired guest workers may be liable for additional labor payments.

Another reason for grower concern over a guest worker program is the strong opposition from farmworker advocacy groups. Farmworker advocates consistently reject arguments of domestic labor shortages. They view low wages and annual incomes among farmworkers as an endemic problem and see a guest worker program as another means for growers to keep farmworker income low. Therefore, it is reasonable to expect that advocacy groups would increase their vigilance over growers and workers participating in a guest worker program. With increased vigilance from advocacy groups, legal actions against participating growers could increase.

Labor Management Options

Mechanized equipment and guest worker programs are strategies that can address the risk issues associated with an uncertain supply of seasonal farmworkers and, to a certain extent, address some of the social issues that surround migrant seasonal farmworkers. However, these strategies rely on people, events, and conditions that are beyond the direct control of a grower or farm owner. A farm manager has, at his or her disposal, management options that could address the same risk issues harvesting machines and guest worker programs attempt to allay. Farmworker income, non-wage benefits, and training are three options under the control of individual growers and may serve to manage some of the risks associated with seasonal farmworkers.

Employers who are concerned about the availability of their workers need to start with an understanding of what motivates their workers. Income is the first incentive that comes to mind. However, other issues may be important to workers and may provide powerful incentives if employers are in a position to implement them. For an employer who hires working parents, particularly women with small children, providing childcare at the work site may represent a significant benefit, which may translate into greater employee loyalty and lower rates of absenteeism. In the case of seasonal farmworkers, many of whom come from foreign countries, it may be important to understand a worker's long-term objectives. What percent of farmworkers simply pass through a region and, of those farmworkers who are migrant, what percentage have a long-term objective to return and establish social roots in the community?

Income is a basic motivation for any employment. For many agricultural jobs that involve repeated tasks, a piece rate system is a common method of payment. In general, a piece rate system is designed to influence worker performance. Higher piece rates are expected to motivate workers to increase their productivity level. In agriculture, however, the piece rate may fluctuate for reasons beyond stimulating productivity. Rate may be adjusted for varying field and labor supply conditions.

Emerson et al. (1994) found little correlation between piece rates paid to citrus harvesters and hourly earnings. Citrus harvesting piece rate varied according to volume of fruit and grove conditions. Citrus harvesters tended to negotiate higher piece rates to compensate for low fruit volume and more difficult working conditions (i.e. taller trees implying greater ladder use). Conversely, when fruit volume per tree was heavy, piece rates tended to be lower.

Farmworker advocacy groups argue that simply increasing the piece rate would significantly affect farmworker incomes. At a simplistic level, they are right. However, a more complete examination of the determinants of farmworker income indicates that other variables may have an equal, or more important, role in establishing the level of a farmworker's income.

The equation below summarizes three components of a farmworker's annual income.

$$\$/\text{year} = (\$/\text{unit}) \times (\text{unit}/\text{hour}) \times (\text{hour}/\text{day}) \times (\text{day}/\text{year})$$

The piece rate (\$/unit), worker productivity (unit/hour), and availability of work (hour/day * day/year) are three components that can change independently of each other, having multiplicative effects on annual income. Growers are understandably reluctant to increase the piece rate because it directly increases unit costs and, in turn, erodes their competitive market position. Alternatively, organizing workers such that they have access to more time in the field increases farmworker income without affecting unit cost. Growers may also choose to invest in labor aids that serve to improve worker productivity. Depending on the tools and cost of the investments, piece rates could decline and still afford workers with greater overall income because of greater productivity. A harvesting machine is an example of a labor aid.

While for many seasonal farmworkers, the economic priority is to earn the maximum amount of income, finding affordable, adequate, and safe housing is another important goal. Most growers in southwest Florida have been reluctant to build and/or maintain housing for their workers. Such an activity can be expensive and divert a grower's attention

away from the primary task of agricultural production. However, as growers' concerns over labor availability increase, housing is being viewed as an option to secure individual farm labor requirements. For larger operations, housing may also provide a means to gain greater control over a farm's work force and, therefore, be able to implement more efficient labor management practices.

Training is a third area employers can utilize to recruit and secure a more stable work force. Implied in this strategy is the opportunity for workers to advance within a company or farm employment ranks. While full-time farming positions are limited relative to the number of seasonal farmworkers, large-scale corporate farms may offer better opportunities for internal advancement than smaller farms managed by a sole proprietor. Larger corporate farms tend to hire workers who specialize as equipment operators, pesticide applicators, irrigation specialists, field foremen, etc.

Summary

Availability of seasonal farmworkers and external pressures from worker advocacy groups are two sources of risk fruit and vegetable growers face in southwest Florida. Machine harvesters and guest worker programs will alleviate some of these risks by reducing the demand on the current domestic labor pool of farmworkers. In addition, growers are considering farm-level labor management strategies that include increasing worker income, training, and providing non-wage benefits such as housing. As with any risk management strategy, the potential gains from lowering a risk must be weighed against the increase in unit costs of production. Fruit and vegetable growers operate in a highly competitive global market, producing high valued crops that are very sensitive to weather conditions.

References

Emerson, R., R. Chung, and L. Polopolus, "Harvesting Labor Market Efficiency," Staff Paper SP 91-11, Department of Food and Resource Economics, University of Florida, Gainesville, FL, August 1994.

Gabbard, S, "Farmworkers in Florida - A Subset of NAWS," Aquirre International, San Mateo, CA, April 1998.

Roka, F. and D. Cook, "Farmworkers in Southwest Florida," Final Report, Southwest Florida Research and Education Center, University of Florida, Immokalee, FL, September 1998.

Roka, F. and R. Emerson, "Piece Rates, Hourly Wages and Daily Farm Worker Income," *Citrus and Vegetable Magazine*, p. 10-12, April 1999.

Roka, F. and R. Emerson, "Demographics, Income and Choices of Seasonal Farmworkers in Southwest Florida. Penn State – USDA/ERS Conference: Dynamics of Hired Farm Labor: Constraints and Community Response, Concordville, PA, October 25-26, 1999.

Roka, F., Interviews with agricultural employers, unpublished data, Southwest Florida Research and Education Center, University of Florida, Immokalee, FL, May 1998.

Smith, S. and T. Taylor, "Production Costs of Selected Florida Vegetables 1996-97," IFAS Circular 1202, Department of Food and Resource Economics, University of Florida, Gainesville, FL, April 1998.