

Agricultural Skills & Career Ladders Project

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Chemeketa's Short Term and Accelerated Training (STAT)
& Agriculture Programs

CHEMEKETA
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"If you tickle the earth with a hoe she laughs with a harvest." -- Douglas William Jerrold

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A Brief History of the Wine Grapes and Nursery Industries in Oregon's Willamette Valley

"Cultivators of the earth are the most valuable citizens. They are the most vigorous, the most independent, the most virtuous, and they are tied to their country and wedded to its liberty and interests by the most lasting bands." -- Thomas Jefferson

Fifteen thousand years ago, a massive ice dam east of present-day Spokane, Washington, broke. The result was a cascade of 500 cubic miles of water and rock, held in a lake covering what is now Montana's Missoula Valley. The 350-foot high wall of water traveled at over 65 miles per hour down the Snake River into the Columbia Basin before creating a 400-foot deep lake in the Willamette Valley. This lake eventually drained into underground rivers and the Pacific Ocean. What remained were rich sediments that would later provide some of the best farm land in the United States. For wine grape growers and plant nurseries, that land proved to be exceptionally rich.

The name synonymous with both the nursery and wine grapes industries in Oregon is Henderson Luelling. A noted horticulturist from Iowa, Luelling planted fruit trees and grapes in the Willamette Valley in 1847. In the late 1880's, Ernest Reuter grew Pinot Blanc grapes west of Forest Grove in Washington County. Although the Willamette Valley nursery industry grew steadily over the years, the wine grapes industry did not take hold until 1965 when Charles Coury planted Pinot Noir grapes on the same site that Mr. Reuter had grown his crops eighty years earlier. Since that time, Oregon's wine grape industry has grown into the nation's fourth leading producer of table wine, behind California, Washington, and New York.

Oregon holds steady among the nation's top three states in nursery production. Oregon's nursery and greenhouse growers produced and shipped \$779 million worth of product in 2003, of which approximately \$580 million's worth of plant material was shipped to out-of-state buyers. The nursery and greenhouse industry is the largest sector of Oregon's farm economy, generating \$3.8 billion dollars in agricultural goods. Oregon ranks fourth in wine production output in the United States. In 2003, Oregon had 250 wineries with 9,400 acres harvested in 2002. The same year, wine sales totaled \$200 million. Most of the state's nursery, greenhouse and wine production is located in the Willamette Valley and these industries provide \$275 million in wages to 10,000 full-time workers and 11,600 part-time and seasonal workers in Oregon. Jointly employing over 8,000 in the Willamette Valley, Oregon's nurseries and wine grape industries now provides opportunities for employees as well as local and statewide economies.

Executive Summary

"Of all occupations from which gain is secured, there is none better than agriculture; nothing more productive, nothing sweeter, nothing more worthy of a free man." --Cicero

This report summarizes research-based information on agricultural skills and career ladders for current and potential employees in the wine grapes and nursery industries in Oregon's Willamette Valley. The results of these findings will help strengthen the Oregon agricultural sector, create long-term career opportunities for agricultural workers, and stabilize rural agricultural employment.

In response to a proposal request issued by the Farmworker Institute for Education and Leadership Development (FIELD), Chemeketa Community College's Short Term and Accelerated Training (STAT) and Agriculture Programs staff conducted surveys among employers of the Willamette Valley's wine grapes and nursery industries. These surveys, along with other research data, were the foundation for the findings and recommendations contained herein.

Background

The 8,000-plus employees in Oregon's Willamette Valley nursery and wine grapes industries experience challenges in seeking to rise through traditional employment ranks and maintaining a year-round income for their families and themselves. These challenges often result in income stasis and lack of job security for the employees. They also create difficulty for employers in these industries in maintaining a constant level of production while struggling to provide sufficiently trained employees to manage the crops. The challenges and struggles experienced by both employers and employees further exacerbate economic instability within these industries.

This agricultural employee class has traditionally been referred to as "migrant workers." Commonly defined as an itinerant worker who travels from one area to another in search of work, this description creates three key stigma: there is little economic and employment stability in these positions; this type of farm labor is not perceived as desirable to a broad range of potential employees; and the lack of stability undermines local rural economies. Furthermore, many migrants have either not been given or not seen opportunities in job advancement or education to assist in job advancement. And finally, although much has been accomplished over the past 40 years to improve conditions of agricultural workers in general, this class of workers continues to confront general social and political apathy. It is important to note that in the nursery and wine grapes industries, the majority of workers are not true "migrants". They are, under the US Department of Labor definition, seasonal or temporary basis workers.

During the past few years, many states have begun to recognize the migrant and seasonal worker population's plights as well as the potential they have as economic and social members of communities. That recognition has led to education and training initiatives, research grants, and greater awareness of the needs of agricultural workers, and new avenues to assist in their assimilation into the community.

Objectives

The objectives of this research were to:

1. Identify key entry-level jobs within the wine grapes and nursery industries in the Willamette Valley region, including data on hourly wages, annual earnings, benefits, and human resources processes;
2. Recognize specific technical and interpersonal skills required to work in those key jobs;
3. Analyze how employees advance on the industry career ladders or pathways leading to better jobs, including earnings available to limited-English speaking agricultural workers employed in Oregon agriculture;
4. Identify skill gaps and other barriers that may prevent limited-English speaking agricultural workers from moving up those career ladders; and
5. Recommend appropriate workforce and economic development strategies that will assist in narrowing or eliminating skill, earnings, and pathway gaps in agricultural employment.

Methodology

To meet the objectives of this proposal, the work was organized into four phases.

- **Phase 1:** Establishing a leadership team and writing a plan of action, including a timeline for all deliverables. This phase also included developing data-gathering tools, conducting onsite visits, meetings & conference calls with wine grapes and nursery employers and workers to gather information (including job, wage and career progression data) and working in partnership with industry associations, educational

advisory commissions and other employers and worker organizations as appropriate. The information gathered was summarized into career matrices, identifying required skill sets within key jobs in the industries.

- **Phase 2:** Creating pathway charts and narratives for each of the key jobs within the industries and analyzing data to develop specific pathways for limited-English speaking workers.
- **Phase 3:** Reviewing existing regional education, workforce and economic development services and strategies, identifying potential gaps and developing recommendations.
- **Phase 4:** Reporting out to FIELD and industry partners through narrative, charts and pathway maps on all project information.

Key Findings & Recommendations

The research process revealed that while there are individual and collective efforts already underway by employers and industry associations to address the needs of agricultural workers and opportunities to advance in the industry, there is much that still needs to be done. This includes the need for re-evaluation of some standard employee-oriented practices within the nursery and wine grapes industries. The key issues and needs identified in the findings of this study include:

- Stabilizing the methods of recruiting employees
- Enhancing the image of key jobs within the targeted industries
- Establishing stronger and clearer communication among agricultural employers, employees and industry associations
- Instituting consistent and self-sustaining education and training initiatives, including rigorous soft-skills training programs
- Embracing cultural differences, incorporating them into business management philosophy and production practices

Planning and Research Results

"When tillage begins, other arts follow. The farmers, therefore, are the founders of human civilization." -- Daniel Webster

In the first phase of this study, the research team developed a plan of action that included timelines and data collection tools, (e.g., survey, methods of research), to begin identifying skill set data and potential pathways development for current and potential employees in the wine grapes and nurseries industries in the Willamette Valley region. The overall objective in this phase was to create a plan of action with appropriate timelines that would identify key jobs within the two industries. Along with that information, the research included gathering data on hourly wages, annual earnings, benefits supplied by employers, and hiring practices to fill jobs. Finally the team used the gathered data to outline the specific skills required to work in those key jobs.

Methodology

To research the wine grapes and nursery industries in the Willamette Valley, the team used a variety of available resources. A list of all vineyards, wineries, and nurseries in the Willamette Valley was compiled from a variety of sources, including Chemeketa's Vineyard Management program, Oregon wine grape and nursery industry associations, phone and email contact with the target employers to be surveyed, and direct contact with those employers.

The creation of information gathering tools was also part of this phase. An employer questionnaire, developed to gather information specific to the focus of this project, was the primary data gathering instrument. The questions in this document were used as guidelines by the interviewer as he met with local employers, and focused on identifying worker skill sets that would build career ladders for wine grapes and nursery workers. The interviewer also used a matrix with the employers to capture the career paths within each company that currently existed.

In an attempt to be consistent with the National Economic Development and Law Center's (NEDLC) research on farm workers being conducted simultaneously in the area, the team included many of the same companies as those on the NEDLC's list of businesses who employed the subjects of their research.

Survey Participants

Twenty-three employers in Marion, Polk and Yamhill Counties in four employer size range groups were included in this study. Both seasonal and year-round employment data were included from the following categories of businesses:

Wine grapes growers (9 employers)

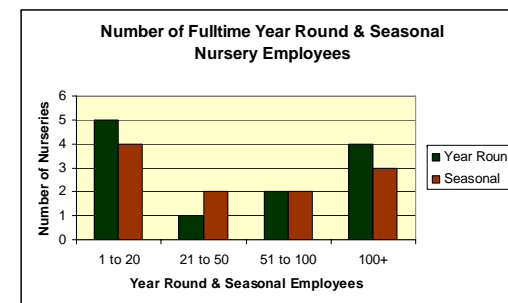
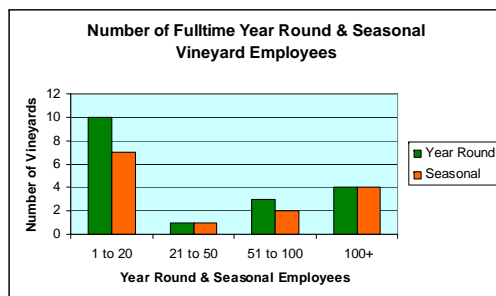
- 3 vineyard management services
- 1 vineyard
- 5 wineries with vineyards

Nurseries (14 employers)

- 3 Greenhouse
- 2 container-stock only
- 7 field-grown bare root or ball-and-burlap / container stock
- 1 field –grown bare root trees
- 1 field-grown grafted ornamental trees

Sample Distribution

The sample included weighted representation from small, medium, and large companies from across the region. The following graphs demonstrate the ratio of companies surveyed to number of employees at surveyed companies. Note that in both industries the majority of companies are small, keeping consistent with the actual balance of size of companies in Oregon's agricultural industry. This fact has a direct bearing on the kinds of recommendations included elsewhere in this report. The research timeline was tied to employer harvesting schedules. Therefore, data gathering began with vineyards, switched to nurseries as vineyard harvest began, then returned to vineyards.



The following companies participated in the survey:

| Industry | Company | Contact | Product | County |
|-------------|---------------------------------|--|--|---------|
| Nursery | A&R Spada Nursery and Farms | Angelo and Joan Spada, Owner/Manager | Conifers, arborvitae, broadleaf evergreens, deciduous and flowering shrubs | Marion |
| Nursery | Bailey Nurseries, Inc. | Brian Bowman, HR Manager | Field grown bare root, container stock, roses | Yamhill |
| Nursery | Baker West, Inc. | Art Anderson, Manager | Trees | Marion |
| Nursery | Broadmead Nursery | John Castle, Manager | Container grown nursery stock | Yamhill |
| Nursery | Carlton Plants, LLC. | John Bartch, General Manager | Bare root deciduous trees, shrubs, rootstocks and seedlings | Yamhill |
| Nursery | Clackamas Greenhouses | Steve Sampson, Manager | Greenhouse grown container plants | Marion |
| Nursery | D.Wells Nursery and Farms | Dan Wells, Owner/Manager | Field grown grafted ornamental trees | Marion |
| Nursery | Egan Gardens | Ellen Egan, Owner/manager | Greenhouse plants | Marion |
| Nursery | Heritage Seedlings, Inc. | Mark and Jolly Krautmann, Owner/Managers | Unusual deciduous specimen trees | Marion |
| Nursery | Holden Wholesale Growers | Verl Holden, Owner/Manager | Container nursery stock and field grown trees | Marion |
| Nursery | J. Frank Schmidt & Son Co | Jack Davis, HR Manager | Nursery stock, shade trees | Polk |
| Nursery | Meyer Nursery and Orchards | Juli Meyer, Office Mgr & Keith Meyer, Prod. Mgr. | Nursery stock, bare root and deciduous trees, small fruits | Polk |
| Nursery | Monrovia | Andres Acosta, Personnel Manager | Container grown nursery stock | Yamhill |
| Nursery | Smith Gardens | Don Spence, Production Manager | Greenhouse plants | Marion |
| Wine Grapes | Advanced Vineyard Systems, Inc. | Buddy Beck, Owner | Vineyard Mgt Services | Yamhill |
| Wine Grapes | Airlie Winery | Mary Olson, Owner and Manager | Wine grapes, Wine | Polk |
| Wine Grapes | Archery Summit Winery | Leigh Bartholomew, Vineyard Manager | Wine grapes, Wine | Yamhill |
| Wine Grapes | Argyle Wine | Allen Holstein, Vineyard Manager | Wine grapes, Wine | Yamhill |
| Wine Grapes | Oregon Grape Management | Stirling Fox, Manager | Vineyard management | Yamhill |
| Wine Grapes | Results Partners, LLC. | Matt Novak, Manager | Vineyard Mgt Services | Yamhill |
| Wine Grapes | Temperance Hill Vineyard | Dai Crisp, Manager | Wine grapes | Yamhill |
| Wine Grapes | Willakenzie Estate | Daniel Fey, Vineyard Manager | Wine grapes, Wine | Yamhill |
| Wine Grapes | Willamette Valley Vineyards | Efren Loeza, Vineyard Manager | Wine grapes, Wine | Marion |

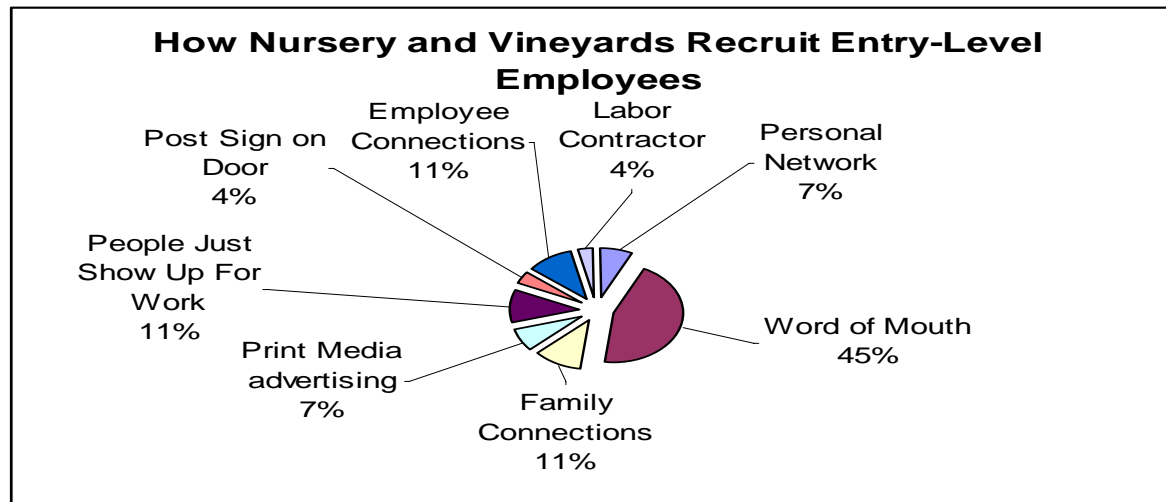
Key Objective #1: *Identify Key Entry-level Jobs*

"To forget how to dig the earth and to tend the soil is to forget ourselves."
-- Mohandas K. Gandhi

Willamette Valley nursery industry employers require entry-level workers to perform a variety of tasks, including filling pots with potting soil, planting plugs, moving and spacing pots, mixing potting soil, pruning plants, and digging and balling trees (balling refers to digging a tree's root ball and then wrapping the ball in burlap for transport). Entry-level skills in the vineyard industry include pruning, harvesting and canopy management.

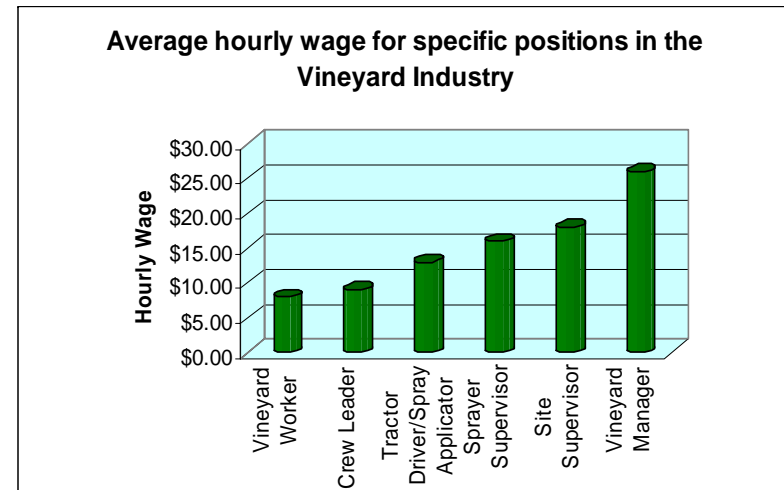
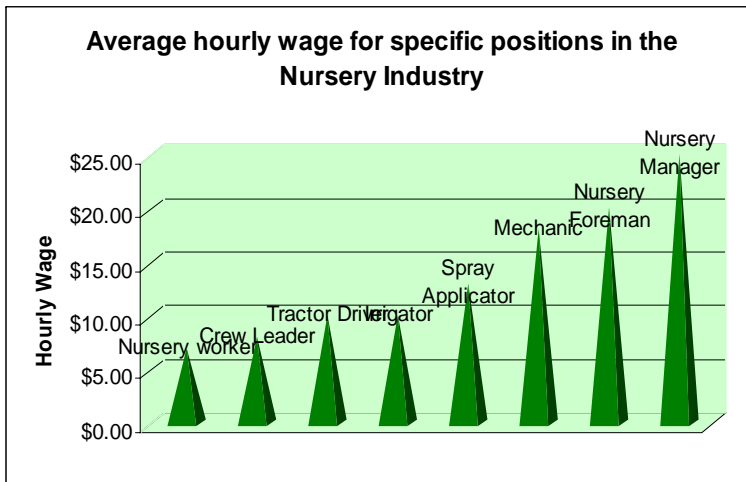
Hiring Practices

Both nursery and vineyard employers depend largely on word-of-mouth through employees' personal networks for new entry-level hires. This hiring method was cited as the most common practice by surveyed employers. The word-of-mouth concept is generally initiated by the field foreman. Most hiring in both industries is performed by a foreman using a list of contacts developed over time, hiring those he knows will work under his direction. Much of this hiring practice is based in cultural norms of the agricultural industry and the worker population, using community and family relations as a basis for measuring the worth and capabilities of potential employees. The graph below offers a capsulated view of the various means applied by employers seeking employees.



Wage and Benefit Analysis

Large differences in wages for all positions exist among both nursery and vineyard employees. The research team discovered as much as a \$4-per-hour difference for new hires between small and large nurseries for the same positions, and a \$3-per-hour difference existed among employers for the same level of employees in vineyards. In the Willamette Valley, the average entry-level wage range for nursery workers is \$7.25 - \$8 per hour and a range of \$7.25 - \$9 per hour for vineyard workers.



As with most other industries, wage follows job responsibility. Typical career ladders in both nursery and vineyard industries reflect how an employee's wages increase as s/he acquires new skill sets and advances within the organization. The wage scale is similar in both industries relative to the size of the operation. For instance, annual salaries for nursery foremen and vineyard managers at small operations can range from \$35,000 to \$45,000 per year. The same positions in large operations in either industry can reach \$55,000 to \$75,000 or higher per year. However, the majority of employers in both industries paid similar wages for similar skill sets. Wages paid to Willamette Valley nursery and vineyard entry-level employees are, on average, higher than the national average due in part to Oregon's higher minimum wage.

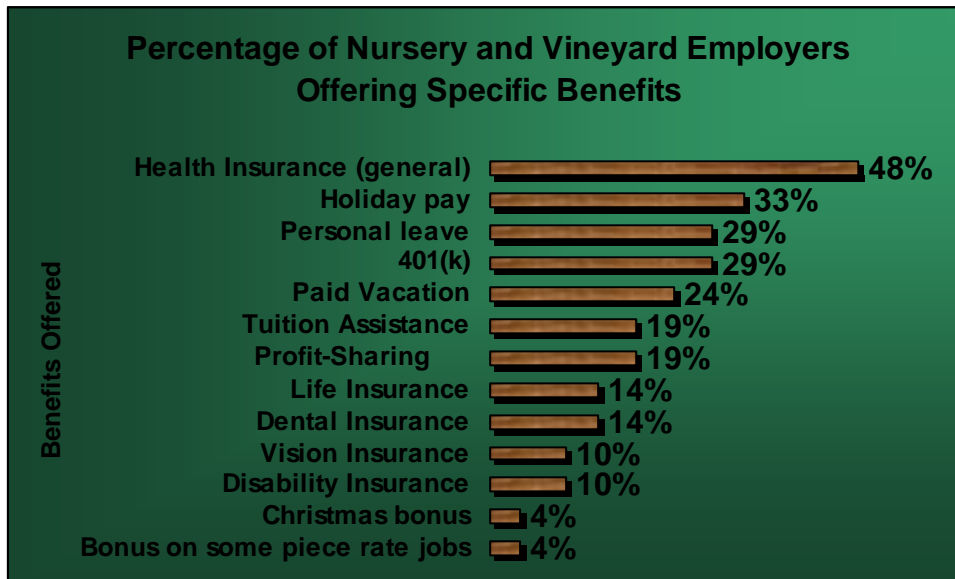
Wages for entry-level workers in both nurseries and wine grapes businesses are at or above most entry-level positions in Oregon's retail, service, and manufacturing sectors; only construction jobs on average pay higher entry-level wages. However, the wages paid employees by both the

surveyed employers and those included in reference data from other key employment sectors in Oregon reflect heavily on the challenge of maintaining a constant and thriving workforce, and thus a stable and prosperous economy.

Benefits

Beyond monetary wages, many of the employers surveyed offered a variety of benefits to their workers. This trend can be attributed in part to employers seeking ways to maintain stable workforces and social service organization intervening in farm labor practices. Many migrant workers, however, may not fully understand the value of benefits beyond wage and move to higher paying jobs (outside of nursery or vineyard) to realize the immediate cash benefits rather than seeking the long-term benefits offered by their current employers.

The chart below offers a general view of employer responses to the question “What benefits does your company offer?” Most of the benefits listed are offered to entry-level employees. However, to access many of the benefits employees need to be in continuous employment for a certain period of time. Depending on the employer, for example, employees were offered general and comprehensive health insurance packages if they were employed continuously for between 3 and 12 months. The same kinds of time period requirements often applied to paid holidays, personal leave and paid vacations as well.



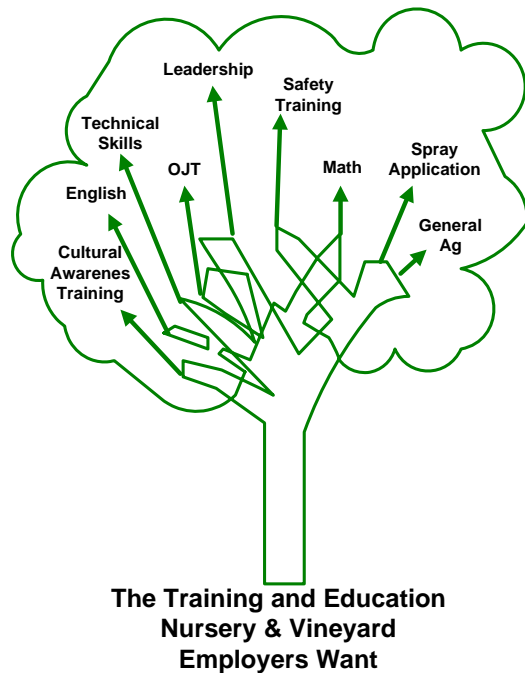
Tuition assistance, when offered as a benefit, was described by nursery and vineyard employers who offered it as a means to stabilize the workforce or, at the very least, to stabilize their industry.

Education and Training

All employers in the survey considered the education and training of employees to be vital in stabilizing the industry as a whole. Although much of the training provided was on-the-job (OJT) by each individual operation, there were specific areas of training that were of common interest to nearly all employers.

Many of those training areas focused on developing the skill gaps addressed elsewhere in this report. Those gaps are in soft (interpersonal) skills, language and communication, basic math, and leadership skills. However, 10% of employers surveyed wanted to have all their employees become more aware of cultural differences. Twenty-two percent wanted employees trained in a variety of technical skills, ranging from a basic understanding of the combustion engine to operating basic machinery.

Other areas of training employers cited as needs included:



- Welding (and other technical skills taught in Spanish)
- Equipment Maintenance
- Safety training
- Model behavior
- Management skills
- Budgeting
- Organizational structure and operation
- Plant identification; general botany (in English and Spanish)
- Computer programs (Word, Excel); data entry
- Spray application

Key Entry-Level Jobs: Nurseries

Most entry-level employment in the nursery and wine grapes industries is difficult, tedious and physical work. However, employers surveyed stated that the jobs offered more than just a wage; they offered cultural camaraderie, a continuation of agrarian work, and the independence of working out doors.

The nursery industry offers the widest variety positions for entry-level agricultural workers. Beyond the many jobs working with plants, in most nurseries there are warehouse, shipping, and merchandiser opportunities.

Five of the thirteen nurseries surveyed employed well over 100 full-time, year-round employees. At these operations, employees have more opportunity to advance laterally into other positions (transportation, warehouse, shipping, maintenance) and thus have additional opportunities to move vertically on the company career ladder.

Smaller nurseries offered less variety of positions, and therefore often less opportunity for either lateral or vertical movement within that organization. This lack of open positions within smaller companies may be due in part to the total number of employees hired, an employee's loyalty to an individual employer, low employee turnover or family-owned businesses with limited positions for non-family members.

| Key Jobs | Key Tasks | Technical Skills, Knowledge, & Abilities | General Skills | Average Wage Range |
|----------------|---|---|---|--------------------|
| Nursery Worker | <ul style="list-style-type: none"> • Fill pots • Plant plugs • Move & space pots • Mix potting soil • Prune plants • Dig and ball trees | Able to: <ul style="list-style-type: none"> • Manually plant, cultivate, and harvest horticultural specialties • Make repeated movements • Properly utilize and maintain hand tools and equipment • Weed, thin or prune crops | <ul style="list-style-type: none"> • Positive attitude • Team oriented • Ability to take instruction • Dependable • Physical endurance | \$7.25 - \$8 HR |

Key Entry-Level Jobs: Wine Grapes

Entry-level employment in wine grapes is typically limited to three main tasks; pruning, harvesting, and canopy management. Regardless of the size of the vineyard, these tasks remain static.

Within each industry, the technical skills sets, knowledge and abilities, are fundamental agrarian knowledge specific to each industry. Key jobs in both industries require specific general skills such as physical endurance, but the majority of general skills deal with soft skills.

Although employers prefer to fill key jobs with workers who have agricultural experience, most employers in both industries stated that they prefer to train workers on specific tasks in the ways of their own organization.

For instance, the research team found that most vineyard employers approach all three of the key tasks (set forth in the matrix shown here), in their own way. All entry-level key jobs in nurseries and vineyards pay between minimum wage and \$9 per hour.

| Key Jobs | Key Tasks | Technical Skills, Knowledge, & Abilities | General Skills | Average Wage Range |
|-----------------|---|---|--|--------------------|
| Vineyard Worker | <ul style="list-style-type: none"> • Prune • Harvest • Canopy Management | Able to: <ul style="list-style-type: none"> • Distinguish between new wood and old wood • Know the number of spurs or canes to leave on the vine • Properly utilize and maintain hand tools and equipment • Know how and where to cut so as not to harm the plant • Identify parts of vine that no longer produce and remove them. | <ul style="list-style-type: none"> • Vineyard experience • Good attitude • Team oriented • Ability to take instruction • Dependable | \$7.25-\$9 HR |

Key Objective #2: *Technical and Interpersonal Skills Required*

"The five steps in teaching an employee new skills are preparation, explanation, showing, observation and supervision."

-- Bruce Barton

Employers in both nursery and vineyard worksites indicated a number of technical skills they considered critical for workers in their industry to know, even in entry-level positions.

These technical skills included the abilities to apply:

- Basic Carpentry Techniques
- Correct Harvest Technique
- Irrigation Techniques
- Plant Disease Control Techniques
- Plant Materials and Propagation Principles

They are also expected to identify and/or follow:

- Hazardous Materials Specifications
- Safety Procedures
- Verbal Instructions
- Fruits, Vegetables Or Crops For Proper Harvest
- Tree And Plant Characteristics
- Plant Disease

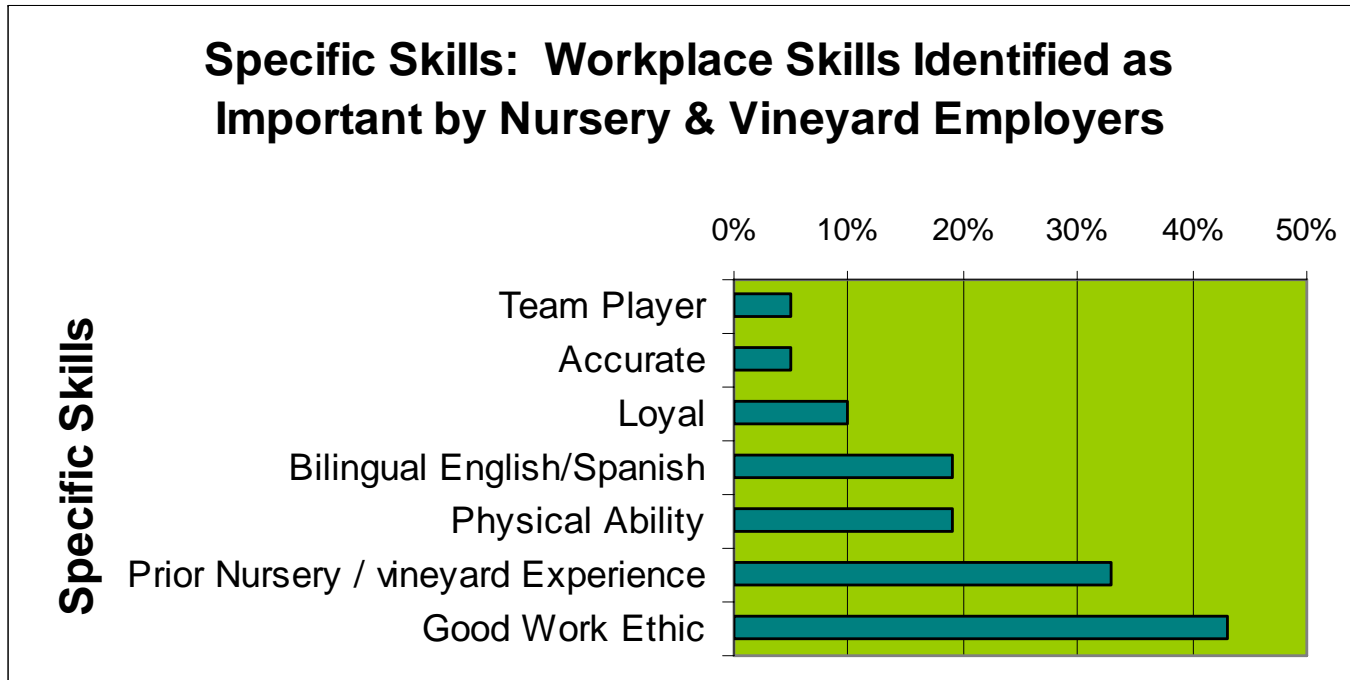
Other skills included maintaining specialized farm equipment and maneuvering heavy objects. The majority of these skill sets align with those needed by entry-level nursery and vineyard employees. However, the survey revealed that vineyard and nursery employers also chose numerous soft skills over common cross industry skill sets.

Those soft skill sets included:

- | | | |
|--|--|---|
| <ul style="list-style-type: none">➤ Accuracy➤ Prior Nursery / Vineyard Experience➤ Bilingual Communication Skills➤ Loyalty➤ Physical Ability➤ Ability to be a Team Player | <ul style="list-style-type: none">➤ Good Work Ethic, with such traits as:<ul style="list-style-type: none">○ Ambitious○ Attentive○ Available○ Dependable○ Enthusiastic | <ul style="list-style-type: none">○ Reliable○ Stable○ Ability to Take Instruction○ Willingness to Work |
|--|--|---|

Skills identified as Important

The chart below illustrates how employers identified these soft skill sets by importance to the job. Although communication skills and agricultural experience rated high percentage marks, a good work ethic rated the highest percentage.



Key Objective #3: *How Employees Advance on Industry Career Ladders*

"Ability may get you to the top, but it takes character to keep you there."
- John Wooden

Although many reasons exist for employee advancement, there are also many reasons why employees do not advance. As with any industry, employees receive new challenges and responsibilities by showing their knowledge of the work and their ability to perform that work successfully. Advancement to a supervisory position requires that the employee is able to teach someone else how to perform the work and then manage his/her time and productivity. The same is true in nurseries and vineyards. Although more kinds of positions are generally available to nursery employees, both nurseries and vineyards in the Willamette Valley have similar career ladders.

It is interesting to note that many of the participating companies did not have a formal organization chart or clear ladder defined prior to the interviews. In some cases, usually in larger organizations, job descriptions only existed for the highest levels of management. In most companies, the interview participants could describe how individuals in general might move up, but frequently acknowledged that this was not necessarily common knowledge among the general workforce. The majority of responses to the question of how workers advance within the workplace cited individual workers' need for overall literacy, soft skills and leadership abilities.

According to those employers interviewed, most entry-level workers in nurseries and vineyards have the opportunity to advance on an employer's career ladder. However, most businesses in these two agricultural categories are small, family owned operations that cannot afford to keep a year-round work force. The result is that for employees who might traditionally advance in an employers operation, they are forced to look elsewhere for work during an operation's seasonal "down time". This cycle continues as those employers seek workers for the next harvest or other agricultural tasks and many of the same workers are no longer available.

Although the initial career pathways are relatively equal in both nurseries and vineyards, more positions exist in the nursery industry. While many nursery positions offer lateral rather than upward movement, survey results indicated that they generally offer greater opportunities for learning, variety, and better potential for future advancement into more responsible positions. Vineyard pathways appear limited in that, beyond the initial two or three rungs on the average career ladder, most vineyards only have one or two management positions, and there is little turnover in those positions.

Of the two industries, (nurseries and wine grapes), nursery workers have the opportunity to benefit most from defined career ladders or pathways because of the many options within the organization available to them. And although the wine industry offers equal monetary rewards for advancing on an employer's typical career ladder, less position opportunities result in fewer advancement opportunities.

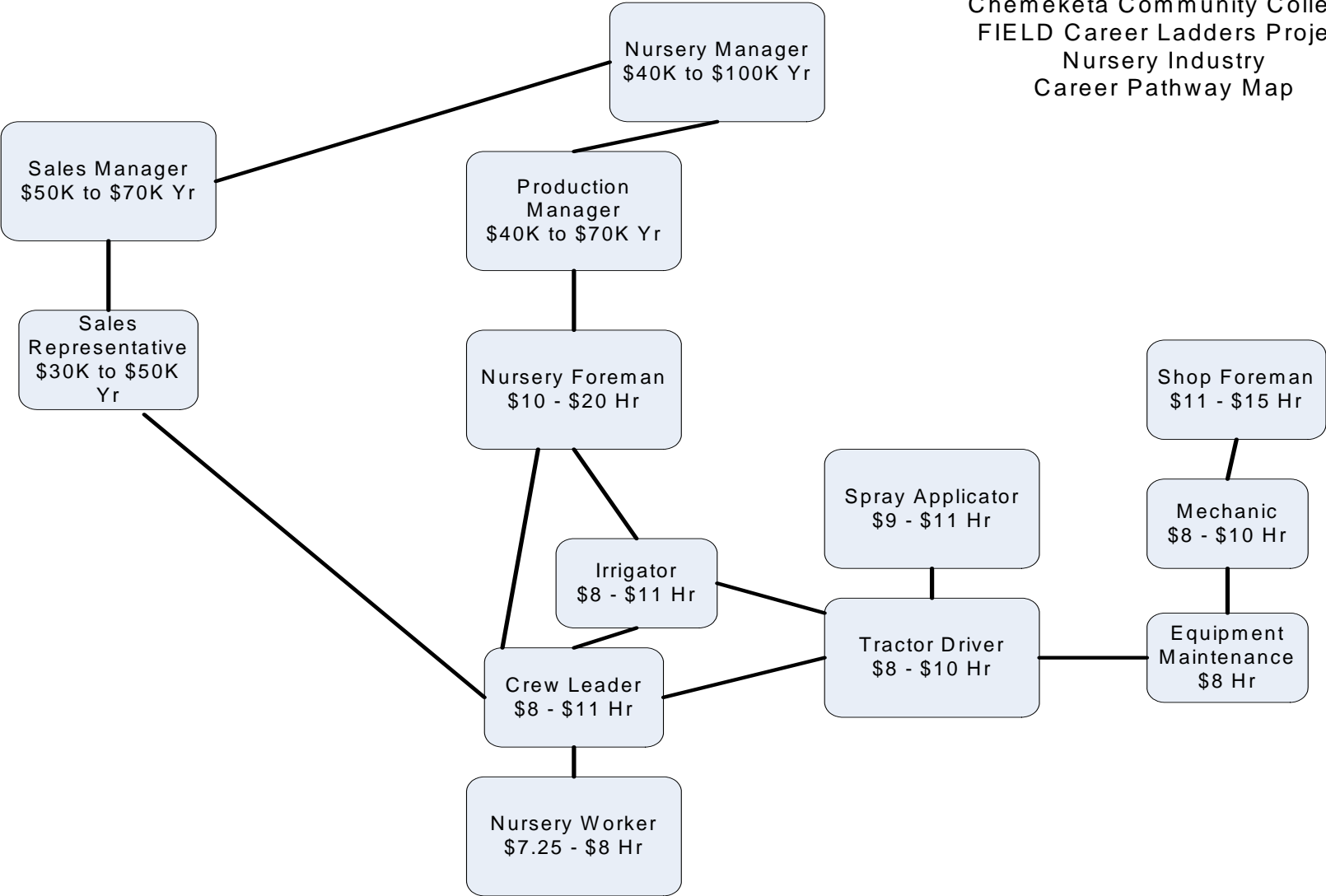
Industry Career Pathways: Nurseries

Employers in our survey have a positive approach and outlook to pathways development for their employees. The challenges to those pathways have been discussed previously in this paper, but center on a lack of education and training, cultural understanding of job competitiveness, and desire.

At larger nurseries for example, there are many departments with positions available for those able to advance including: propagation, warehouse, field, shop, container, shipping, pesticide, and soils. In larger nurseries, qualified employees typically advance to supervisory positions. Some may transfer to various positions such as production, shipping, or quality inspecting. Most of the positions above entry-level require English-speaking communication and record-keeping skills. Because of this, entry-level nursery workers with lower levels of literacy are unlikely to rise through the ranks.

The following pathway map and table of job information show a typical career path in the nursery industry. Most large nurseries offer a wide variety of career ladder opportunities. With the proper training, attitude, and credentials, an entry-level worker can take one or more of four career tracks. The most typical track is from nursery worker to crew leader, then foreman, with possible irrigator, tractor driving, and spray application positions along the way. However, in a few instances culled from the survey, it appears that some entry-level workers advanced through the mechanical side or, on rare occasions, found their place in an organization's administration side.

Chemeketa Community College
 FIELD Career Ladders Project
 Nursery Industry
 Career Pathway Map



| Key Jobs | Key Tasks | Technical Skills, Knowledge, & Abilities | General Skills | Career Pathways Within the Nursery Industry | Average Wage Range |
|-------------------------|---|--|--|---|--------------------|
| Nursery Worker | <ul style="list-style-type: none"> • Fill pots • Plant plugs • Move & space pots • Mix potting soil • Prune plants • Dig and ball trees | <p>Able to:</p> <ul style="list-style-type: none"> • Manually plant, cultivate, and harvest horticultural specialties • Make repeated movements • Properly utilize, maintain hand tools & equipment • Weed, thin or prune crops | <ul style="list-style-type: none"> • Positive attitude • Team oriented • Ability to take instruction • Dependable • Physical endurance | Opportunities exist to move throughout most nursery environments—(please refer to Nursery Industry Career Pathway Map). However, the majority of workers have limited English and math proficiency | \$7.25 - \$8 HR |
| Crew Leader | <ul style="list-style-type: none"> • Train workers • Oversee labor • Keep records | <p>Able to:</p> <ul style="list-style-type: none"> • Communicate with crew • Oversee the quality level and productivity of crew • Perform simple recordkeeping tasks • Train crew to perform nursery duties | <ul style="list-style-type: none"> • Nursery experience • Leadership skills • Some mechanical aptitude • Some math skills • Bilingual (English/Spanish) | Crew leaders typically move up in plant production by assuming more responsibility. Other paths may lead into mechanical or management positions. | \$8 - \$11 HR |
| Tractor Driver | <ul style="list-style-type: none"> • Inspect vehicle • Drive • Maintain equipment | <p>Able to:</p> <ul style="list-style-type: none"> • Recognize dynamics of vehicle stability • Demonstrate familiarity with tractor and equipment controls and function • Conduct a pre-operation vehicle inspection • Safely operate the vehicle | <ul style="list-style-type: none"> • Mechanical aptitude • Detail oriented • Able to function independently | Tractor driver may take on irrigation duties or alternate between tractor and nursery worker duties. Most tractor drivers operate sprayers | \$8 - \$10 HR |
| Spray Applicator | <ul style="list-style-type: none"> • Plan daily work • Apply spray products • Keep records | <p>Able to:</p> <ul style="list-style-type: none"> • Calculate spray mixtures • Know when plants need to be sprayed • Follow detailed instruction when mixing and applying plant protection products • Recognize and maintain data on amount of spraying completed and sprays used • Perform simple recordkeeping tasks | <ul style="list-style-type: none"> • Mechanical aptitude • Detail oriented • Able to function independently • Read and understand product labels (in English). | Spray applicators typically move up through either mechanical or production tracks to positions of greater responsibility. | \$9 - \$11 HR |
| Mechanic | <ul style="list-style-type: none"> • Use mechanics tools • Repair and maintain vehicles | <p>Able to:</p> <ul style="list-style-type: none"> • Use mechanics tools with appropriate acumen • Maintain nursery vehicle equipment • Conduct vehicle inspection and tests | <ul style="list-style-type: none"> • Mechanical aptitude • Reliable • Able to work under a variety of weather conditions | Mechanics may move into a mechanic foreman (within a large organization). Some mechanics become short or long haul truck drivers for nursery product. | \$8 - \$15 HR |
| Nursery Foreman | <ul style="list-style-type: none"> • Plan, organize, and oversee all nursery activities | <p>Able to:</p> <ul style="list-style-type: none"> • Manage all aspect of nursery operations • Communicate strong leadership skills • Apply nursery marketing and business practices | <ul style="list-style-type: none"> • Leadership • Communication • Bilingual (English/Spanish) • Math skills • Ability to understand cultural issues | Can move laterally (in a large organization) to positions that include production manager in a variety of areas. Other opportunities exist with further education (administration, sales, management. | \$10 - \$20 HR |

NOTE: Not all jobs on the map are described on this table

Industry Career Pathways: Wine Grapes

The vineyard operations surveyed offered fewer positions but equal opportunities to advance to those positions.

In a typical vineyard operation, according to employers, most entry-level workers spend at least one season under the supervision of a crew leader. Then if a worker shows the ability to lead and give instruction, he or she has the opportunity to become a crew leader. If the worker shows mechanical aptitude, she or he may opt to drive a tractor.

Within the surveyed sample, there were few instances of entry-level workers advancing to vineyard manager. In the two examples cited by employers where employees advanced that far on the career ladder, all elements of soft-skills, agricultural experience, leadership, abilities, communication, and an excellent understanding of business management were firmly in place. The following graph indicates a more typical path. As noted in other portions of this report, career opportunities within the vineyard or wine grape industry are often limited by company size, numbers of varied positions within the production process, and the inclination of some workers to choose outdoor-based employment over indoor production settings like the bottling or tasting rooms.

In larger vineyards where a winery is present, qualified employees typically advance through the vineyard operation, and take on supervisory positions in the vineyard. Some may transfer to various positions such as production, shipping, or supervising in the winery. Much of the winery work requires English communication and record-keeping skills. Because of this, entry-level vineyard workers with lower levels of literacy are unlikely to rise through the ranks in a winery. Other entry-level vineyard workers elect not to rise through the ranks in a winery, preferring to remain in outdoor positions within the vineyard. The following pathway map and table of job information show a typical career path in the wine grapes industry.

Chemeketa Community College
FIELD Career Ladders Project
Winegrapes Industry
Career Pathway Map

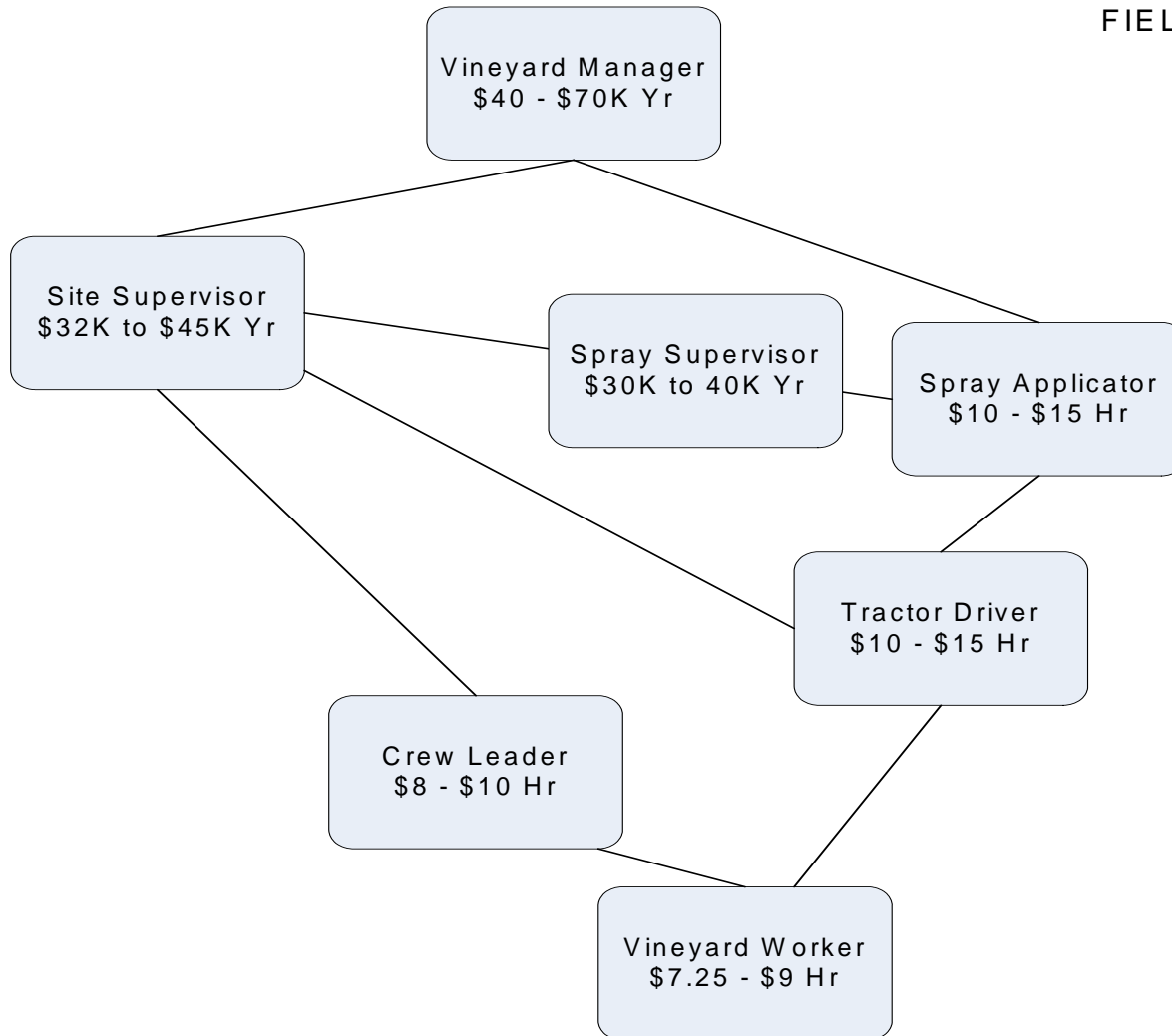


Table 1 – Vineyard Job and Career Pathways Information (1 of 2)

| Key Jobs | Key Tasks | Technical Skills, Knowledge & Abilities | General Skills | Career Pathways within Wine Grapes Industry | Average Wage Range |
|--|--|--|--|---|--------------------|
| Vineyard Worker | <ul style="list-style-type: none"> • Prune • Harvest • Canopy • Management | <p>Able to:</p> <ul style="list-style-type: none"> • Distinguish between new wood and old wood • Know the number of spurs or canes to leave on the vine • Properly utilize and maintain hand tools and equipment • Know how and where to cut so as not to harm the plant • Identify parts of vine that no longer produce and remove them. | <ul style="list-style-type: none"> • Vineyard experience • Good attitude • Team oriented • Ability to take instruction • Dependable | <p>Although opportunities exist in other winemaking, mechanical, sales and office work, vineyard workers do not typically go further than tractor driver/sprayer.</p> | \$7.25-\$9 HR |
| Crew Leader | <ul style="list-style-type: none"> • Manage labor crew • Supervise productivity | <p>Able to:</p> <ul style="list-style-type: none"> • Demonstrate leadership abilities • Understand production concepts | <ul style="list-style-type: none"> • Vineyard experience • Ability to give instruction • Organized | <p>With experience, crew leaders can advance to tractor drivers/spray applicators, and site supervisors (with training in leadership, English, and communication skills).</p> | \$8 - \$10 HR |
| Tractor Driver / Spray Applicator | <ul style="list-style-type: none"> • Mow • Disc • Spray | <p>Able to:</p> <ul style="list-style-type: none"> • Recognize dynamics of vehicle stability • Demonstrate familiarity with tractor and equipment controls and function • Conduct a pre-operation vehicle inspection • Follow detailed instruction when mixing and applying plant protection products | <ul style="list-style-type: none"> • Knowledge of vineyard • Some leadership skills • Some mechanical aptitude • Some math skills | <p>Tractor driver / spray applicator may take on irrigation duties or alternate between tractor and vineyard worker duties</p> | \$10 - \$15 HR |

Table 2 – Vineyard Job and Career Pathways Information (2 of 2)

| Key Jobs | Key Tasks | Technical Skills, Knowledge & Abilities | General Skills | Career Pathways within Wine Grapes Industry | Average Wage Range |
|---------------------------|--|---|--|---|--------------------|
| Site Supervisor | <ul style="list-style-type: none"> • Manage labor • Plan & organize work • Supervise productivity | <p>Able to:</p> <ul style="list-style-type: none"> • Demonstrate leadership abilities • Understand production concepts • Plan work schedules • Communicate in English and Spanish | <ul style="list-style-type: none"> • Loyalty to employer • Leadership skills • Team oriented • Bilingual | Site supervisors can move upward, with appropriate education and experience, to vineyard manager. Upward and lateral opportunities also exist in wine production. | \$32K to \$45K YR |
| Sprayer Supervisor | <ul style="list-style-type: none"> • Plan • Oversee spray application • Data collection | <p>Able to:</p> <ul style="list-style-type: none"> • Calculate spray mixtures • Know when vines need to be sprayed • Recognize and maintain data on amount of spraying completed and sprays used | <ul style="list-style-type: none"> • Leadership skills • Math skills • Detail oriented | Site supervisors can move upward, with appropriate education and experience, to vineyard manager. Upward and lateral opportunities also exist in wine production. | \$30K to \$40K YR |
| Vineyard Manager | <ul style="list-style-type: none"> • Plan • Organize • Oversee all vineyard operations | <p>Able to:</p> <ul style="list-style-type: none"> • Manage all aspect of vineyard operations • Employ strong leadership skills • Communicate in English and Spanish • Apply marketing and business practices | <ul style="list-style-type: none"> • Leadership skills • Bilingual • Math skills • Ability to understand cultural issues | | \$40K to \$70K YR |

Barriers to Advancing on the Career Ladder

For those employees who are able to remain in the employ of one employer, respondents identified nine categories of reasons for lack of advancement. The chart below identifies these barriers that many workers in the nursery and vineyard industries experience. **NOTE: Employers were asked to identify one or more barriers, so cited percentages will not total 100%.**

| Barriers to Job Advancement in the Nursery & Vineyard Industries | Percentage Employers Who Identified the Barrier |
|--|---|
| Low Literacy Skills | 95% |
| Lack of Soft Skills | 71% |
| Little or No Leadership Skills | 19% |
| Little or No Experience | 19% |
| Little or No Computer Skills | 14% |
| Limited Mechanical Skills | 10% |
| No Ability to learn on-the-job | 10% |
| Lack of Understanding Cultural Norms | 10% |
| Legal Status | 5% |

1) **Low Literacy Skills:** Research showed that 95 percent of nursery and vineyard employers rated low literacy skills as the most common barrier to job advancement. There were several skill sets that made up the employers overall definition of “literacy skills.”

- **Language skills** -- The ability to understand and speak English and Spanish.
- **Math skills** – The ability to make simple computations and understand basic liquid and linear measurements.
- **Writing skills** – The ability to communicate through writing, typically giving instructions.
- **Spanish literacy** – A basic understanding of reading, writing and math skills in Spanish.

2) **Soft Skills:** The second most prevalent barrier was employees’ lack of soft skills. This could be attributed in part to cultural differences in how these skills are valued; cultural differences are addressed under “Key Objective #4” in the report in more detail. Often referred to as emotional intelligence skills, soft skills are primarily based on an individualistic form of advancement. Those soft skills cited as desirable by employers in the nursery and vineyard fields include:

- **Work ethic** – A motivating belief that employees owe their employer a full day of diligent work including following their supervisor’s instructions.

- **Teamwork** – The ability to share responsibilities, confer with others, honor commitments, help others do their jobs, and seek help when needed.
- **Self-discipline and self-confidence** – The ability to arrange one’s own tasks for best performance, to learn from experience, to ask questions and correct mistakes, and to absorb criticism and direction without feeling defeated, resentful, or insulted.

3) **Lack of Leadership Skills:** Although these skills were rated third at 19 percent, undeveloped or lack of leadership skills was cited by most employers as a major barrier to advancement. Leadership and the ability to supervise others are touted as critical success elements for employees working up a career ladder. The challenge of not having or understanding leadership as a skill set was frequently described by

employers as a “cultural road block.” As one employer described it, for the average Hispanic worker the concept of leading his friends or family or to supervise one older than himself is culturally difficult.

- 4) **Little or no Experience:** Most entry-level workers have some type of agricultural background. And although most employers surveyed wanted to train workers in methods common to their own organizations, they still wanted workers with specific agricultural skill sets. Very often agricultural workers did not advance unless they worked at least one season. During that time, a worker motivated to progress typically moved up within the organization to higher levels of responsibility and pay.
- 5) **Little or no Computer Skills:** Although computer skills are not mandatory for crew leader or supervisor skills, 14 percent of nursery and vineyard employers considered computer skills an advantage and necessary to advance beyond those positions. As all agricultural organizations increase their use of technology in production, this skill has become one of “basic technology literacy.”
- 6) **Limited Mechanical Skills:** Tractor driver and spray applicator are two career opportunities in both nurseries and vineyards. Without basic mechanical knowledge—how to change oil, how a combustion engine works, basic mechanics of a sprayer—workers cannot advance to any position that utilizes mechanized equipment.
- 7) **No Ability to Learn on the Job:** Ten percent of those surveyed described a barrier that demonstrated a true or perceived limit to learning skills on the job. According to those employers, those employees who do not have the ability to learn on the job are weeded out quickly and would thus have no chance for advancement. The lack of ability to learn on the job can usually be attributed to either a lack of desire or a lack of one or more soft skills.
- 8) **Lack of Understanding of Cultural Norms:** Understanding the cornucopia of cultural norms inherent in a US-based workplace is critical in agricultural leadership, and thus in advancing to a leadership position within the organization. While these are sometimes a barrier for native-born employees, they are often a considerable challenge for those who come from other cultural backgrounds. The key cultural issues generally revolve around communication and the perception of the leadership role, but also relate to how one person perceives the world and interacts with others.
- 9) **Legal status:** To advance with any U.S. employer, employees need to have the ability to work legally in the United States. Employees do not advance without the proper legal documentation. Although only 5% of the surveyed employers cited this as a barrier to advancement, other outside research suggests that this is a more significant barrier. This is particularly a barrier for workers seeking entry to the industry, or moving from “migrant” status to more permanent seasonal or year-round positions.

Key Objective #4: *Identifying Skill Gaps and Other Barriers*

"A low hedge is easily leapt over."
-- English Proverb

Skill Gaps

There are a variety of skill sets that are both specific to and cut across nursery and vineyard occupations. To advance on any ladder within the agricultural sector, workers need to possess at least the basics of those skill sets. The survey of these agricultural sectors illustrated dynamic gaps in both basic and advanced skill sets.

The major skill gaps found were soft skills, literacy skills (which include language and communication, basic math), bilingual communication skills, and leadership. The lack of these skills limits workers' ability to advance within a single organization and often perpetuates their need to seek work in other related industries (e.g., Christmas trees) to maintain consistent employment throughout the year.

Much of the skill gap in the soft skills areas can be attributed to cultural and language barriers. Language barriers are partly to blame for low literacy skills. Many of the foreign born workforce in employed in the surveyed nurseries and vineyards have less than the equivalent of a third-grade education in their native countries, creating a lack of literacy comprehension not only in English but in the workers' native languages. Bilingual language skills, i.e., the ability to read, write and speak in both English and their native language (often Spanish), create the opportunity for individuals to take a major step forward on the career ladder. As noted earlier, the leadership skill gap, particularly related to cultural differences, is pervasive among this population of employees and can be a major deterrent for advancement in both agricultural industries.

Cultural Communication Differences

One thread that was woven through all the survey responses was that of cultural issues and how they impact the organization in so many ways, including opportunities for employees to move up on the company career ladder. Those issues often focused on communication, socialization,

perceptions of leadership, and the role of workers. These issues often dictated how, when and where most workers migrated to and how long they might work for a particular employer.

The majority of workers in both the nursery and wine grapes industries are Hispanic in ethnicity. Most have migrated from an agrarian community that is predominantly an oral culture. By contrast, many of those employers interviewed for this survey come from a background that is predominantly print-based. The clash in communication styles is often at the root of workers not moving up within the organization.

Oral Culture (orality) is a natural state in which individuals are highly attuned to their senses (touch, smell, sight, sound, and taste) and devote a great deal of attention to sensory information. Orality emphasizes an interconnection with the environment and the people in it. Print Culture (literacy) is a learned way of relating to the world, where people learn to process and analyze (breaking things down according to parts) information collected through sight, sound, hearing, touch, and smell according to categories, classifications, and styles of reasoning developed by reading.

There is a dominant belief in the United States that portrays the oral culture style of communicating as inferior and requiring less intelligence. However, there is evidence that oral culture has unique strengths. Many of the cultures that have been ecologically sustainable over hundreds or thousands of years are oral cultures. Many of the characteristics of these oral cultures, i.e., emphasis on relationships, respect of the limitation of the earth resources, closer connection to the earth and its cycles, less focus on material possessions, and in flow with relationships and time, are characteristics found in societies that live within the ability of the earth to replenish themselves.

Print culture, while admirable in many ways, contains within it many of the characteristics that challenge today's ways of living: focus on technological solutions; a "management" orientation towards nature; distancing self from the world, self, and others through abstract reasoning and reliance on print; focus on material growth; fast pace; and relationship with time as a commodity.

Currently, the majority of organizations in the United States are set up in a way that honors, validates, and serves people with print culture skills. This is evidenced by the high reliance on printed materials to convey information, such as sending important information out to workers through flyers, handouts and letters. Companies are beginning to recognize the loss of talent and potential by shutting out the gifts of oral culture and focusing only on print culture styles of learning and communicating.

The challenges faced by both the agricultural employer and the employee are akin to attempting to fit a round peg into a square hole. Most entry-level employees work under foremen who understand oral culture and its values because they come from that background. Subsequently, there is often a stable working relationship formed. Problems may arise when workers who may have little familiarity with print culture practices are expected to know how to navigate within the organization following different "rules" than they had in their previous oral-based communities. Workers from an

oral culture may also have difficulty with the structure of North American education and training environments, further exacerbating their chances for advancement.

Under the “Recommendations” portion of this report, several suggested strategies are described for bridging this communication gap. In general, it begins with a recognition that oral culture styles are not specifically ethnicity or language-based. This way of communicating is also a predominant style for individuals of all ethnicities living in poverty in the United States, for example, and can be found throughout the world, often in countries with predominantly rural communities. For employers in the agricultural industry, this means striking a balance in communication styles between oral and print culture: building relationships among workers and supervisors, using stories and repetition to train and to describe company career ladder opportunities, and breaking tasks into smaller pieces to help oral-culture workers begin to gain print-culture skills.

Worker Migration

Stabilizing the nursery and wine grapes sectors of agriculture is largely dependent on overcoming the challenge of worker migration. Although there are several factors, natural and legislated (e.g., growing season cycles, the H-2A Guest Worker Program), the ultimate desire of all employers is to maintain a stable and fixed workforce. Worker migration affects large and small employers alike, although sometimes larger employers are only marginally affected by this continual churn of available workers.

Typically, seasonal workers in both industries move within set agricultural parameters. According to those interviewed, seasonal nursery workers migrate to Christmas tree trimming and/or harvest or to other nurseries with more key jobs to perform during the off-season. Vineyard workers may migrate to other vineyards or to Christmas tree trimming. In rare cases within our surveyed population, workers will migrate to other agricultural crops and then return to their main vocational trade when work picks up again.

Economics play a large part in migration patterns. When the construction industry is booming, many nursery and vineyard jobs are lost to higher paying jobs there, as construction work typically pays \$12 to \$16 per hour in the Willamette Valley. Many of the skill sets from both the nursery and vineyard industries are transferable to the construction industry. Additionally, the retail industry and the burgeoning Latino-owned business sector of the economy in the Willamette Valley recruit a small percentage of nursery and vineyard workers.

The surveys indicated that there was currently little turnover among companies in both industries. Employers attributed the lack of turnover to loyalty on the part of their employees, and their fairness toward their employees.

Key Objective #5: *Key Findings & Recommendations*

"I think it the duty of farmers who are wealthier than others to give those less so the benefit of any improvements they can introduce, gratis."

-- Thomas Jefferson

The research process revealed that while there are individual and collective efforts already underway by employers and industry associations to address the needs of agricultural workers and opportunities to advance in the industry, there is much that still needs to be done. This includes the need for re-evaluation of some standard employee-oriented practices within the nursery and wine grapes industries. The key recommendations included in the findings of this study are to:

- Stabilizing the methods of recruiting employees
- Enhancing the image of key jobs within the targeted industries
- Establishing stronger and clearer communication among agricultural employers, employees and industry associations
- Instituting consistent and self-sustaining education and training initiatives, including rigorous soft-skills training programs
- Embracing cultural differences, incorporating them into business management philosophy and production practices

These findings and recommendations will offer potential workforce and economic development strategies to help close skill gaps and promote stabilization in rural agricultural employment. The development and implementation of strategies are like household tasks that one knows need to do, but often end up at the bottom of a list buried in a kitchen drawer. The research team acknowledges that recommending one thing or another is the easy part; putting thought and action to recommendations takes commitment and work. The reader of this report is now challenged to take action.

Recommendation #1: Stabilize Recruitment

The research revealed that from an organized business structure perspective there is a glaring need for a more structured approach to hiring entry-level workers. This includes changing cultural practices that, although standard and presumably effective in the nursery and wine grapes industries, create both constant uncertainty with regard to worker availability and competence and a destabilizing posture for employers.

The first consideration is whether or not nursery and vineyard operations should align with common human resource practices of employers in other key economic sectors. The second consideration is to determine the ultimate profitability of current employee recruiting methods over institutionalized methods. There is a national trend to stabilize employee hiring (and thereby stabilizing the economy as a whole) using a more structured approach to hiring seasonal employees. The crux of this trend focuses on staffing agencies. The use of staffing agencies (or, in agriculture, labor contractors), opens at least two key debates: whether or not an employer will lose the close rapport with employees that is fostered in the current hiring system, and the risks of significantly altering a system that has been in place since the economic demise of the family farm. These debates should be explored. Whatever the outcome, consideration should be given to more structure in hiring than simply relying on word-of-mouth and placing a sign on the employer's door.

Orientation programs, designed around the working philosophy of individual employers, offer new employees the opportunity to learn about their employer and how their employer's organization operates. Orientation programs are excellent vehicles to facilitate training of new hires while giving employers a captive audience for building employer/employee relationships.

Recommendation #2: Enhance Job Image

The root of all agricultural work, dirt, is a hard sell to today's young and technologically-minded workforce. Long days working among grape vines or potting plants is not as appealing as the variety of retail and service industries that permeate the economic landscape. The challenge here is how to paint an interesting and engaging picture of the nursery and wine grapes industries. Doing so will relieve some of the burden of stabilizing workforces while creating a sustainable entry-level workforce for the future.

These industries need to be shown as promising alternatives to florescent lights and drab cubicles. Most employment decisions by young people are based on three criteria: 1) what an individual's parents wish them to do; 2) personal desire; and 3) labor market need. Nursery and vineyard employers need to focus on desire, or at least building that desire. Three ways to build the desire to work in these two industries are as follows:

1. Initiate a summer internship program that focuses on the positive aspects of working outdoors (especially working within the nursery or wine grapes industries), and introduces students to the variety of positions available to them within the industry. Working within the parameters of the Workforce Investment Act, employers can oftentimes secure pre-paid internships for select individuals. Several companies surveyed in this study already have some form of internship model in place.
2. Promote the nursery and wine grape industries among middle school, high school, community college, and university communities. This recommendation calls for individual employers or a consortium of employers to design classroom presentations depicting opportunities available for students in the future. One-on-one partnerships between employers and schools are also effective means of exposing students to agricultural careers. Many employers in the Willamette Valley participate in the annual Ag Fest, which provides a wide range of hands-on experiences for youth and adults related to the agricultural industry. Nurseries and wine grapes employers may want to increase their participation in these kinds of events, focusing on career aspects of their industries.
3. Encourage current employees to bring their working-age children to work during the summer or other seasons during breaks from school. Parents and employers can promote the whole picture of these industries, not just the tasks that young people think of as tedium or back-breaking.

Recommendation #3: Establish Better Communication

Communication is the key to success in any endeavor. And communicating with other employers to facilitate the hiring of employees is smart business practice. Within the nursery and wine grapes industries, not all employers hire, lay off, or provide training at the same time. A coordinating hiring schedule, for example, based on the daily or weekly needs of each employer could stabilize the hiring process across the industry and assure that there is a ready pool of available employees. Issues surrounding individual employers' specific methods of completing work would need to be addressed on an individual basis.

Employers should work with the variety of organizations and associations supporting their industries to develop staffing plans and training schedules that support the industry cycles. Encouraging these organizations and associations to assist in the development of a stabilized workforce would benefit all facets of these two industries.

The findings of this study support the notion that after employees are hired, employers have an opportunity to work with individuals to assess their long-term value to the organization. This needs to be maintained through a seasonal schedule to discuss overall desires, goals and plans as the employee's progress within the company. These discussions can include the creation of career pathways maps or other demonstrative career measuring devices, such as a career progress chart for each employee. Taking the time to work with each employee builds stronger relationships between worker and supervisor, and provides a consistent, structured means to guide them to the next steps in their plan.

Recommendation #4: Institute Education & Training Initiatives

Throughout this report, the researchers have emphasized how further education and training will assist workers perform their jobs while potentially stabilizing their employment. Education and training in key areas are critical to the goals of this research. The key areas of education and training where employers need to focus are:

- Literacy skills
- Soft skills
- Leadership skills
- Mechanical skills

Literacy skills should include English as a second language (ESL) courses, basic reading, math, and where necessary, those same courses in Spanish.

According to the employer respondents, communication and math skills are lacking in most entry-level employees. In the nursery and wine grapes industries, bilingual communication skills (the ability to speak both Spanish and English) are considered an advantage. Large employers may find it feasible to provide trainings of this type either on-site or by providing incentive for workers to attend classes outside of work time. Programs of this type have proved successful in a variety of employment sectors. One employer arranged reading comprehension classes to be taught for one hour per day during a seasonally "down" period, for example, and the result was a more productive and loyal workforce.

Soft skills, those skills that include attitude, behavior, teamwork, and overall work ethic, are increasingly important to employers. Whether employing workers from other cultures or those reared in a loose framework in American culture, soft skills are severely lacking in most workers. Teaching soft skills insures that workers have a specific structure in which to work. That structure will help stabilize employers' workforce and overall economy.

Most of the employers in the survey lamented that their workers lacked the basics of leadership. Whether in a supervisor position or not, all employees benefit from understanding what leadership is within an individual or multiple organizations. With that kind of targeted training, individuals can either use the skills learned to better their positions with an employer or to become better, more productive employees.

Basic mechanical skills range from how a specific machine works to identifying the tools of the trade. Mechanical skills training helps workers better understand the dynamics and economic value of an employer's machinery. This knowledge also helps employees advance up the career ladder. Education and training programs will go a long way to close the variety of skill gaps present in these two industries.

One additional recommendation for training focuses on entrepreneurial skills. The thought of teaching entrepreneurial skills to entry-level agricultural workers may seem unconventional. However, as employers in most employment sectors are discovering, entry-level workers' knowledge of entrepreneurial skills not only benefits the organization, those skills help workers better themselves. In entrepreneurial environments, workers are not afraid to try new things. They are not afraid of speaking up, and they are not afraid of experimenting. Once employees work in such an environment, their communication skills improve because they feel more valued. Teamwork becomes the preferred way of working. They learn to care about their peers, their employer and their own ideas.

Recommendation #5: Embrace Cultural Differences

Under Key Objective #4: Identifying Skill Gaps and Other Barriers earlier in this report, the section on Cultural Communication Differences highlighted the challenges of both workers and employers who face cultural differences on a daily basis. Every employment sector in the U.S. and in all industrialized nations in the world are facing this challenge and will continue to do so. As always, economics are at the heart of cultural migrations. Although this situation is not new in this country (after all, America was built on the backs of immigrants), the ways in which we as a society view and deal with cultural diversity has changed. In many ways, employers are more compassionate in cultural considerations. However, there remains an ostrich mentality when working cultural differences into business practices.

In the nursery and wine grapes industries, the research findings indicated that although cultural norms dictated how the majority of workers socialized with one another, how they supervised and were supervised, and how they performed their work, those norms and customs were typically addressed through intermediary employees, namely crew leaders and supervisors who shared the same culture as that of the workers. Regardless of the recognition that this business management practice is not as productive as other, more direct models, it obviously works and has worked

economically for the employer and employee. However, this type of shadow management often suppresses an employee's desire and ability to advance in education, training, and career opportunities.

This report's findings recommend a more progressive approach to managing the overall vocational and educational growth of employees, one where employers take the initiative to work the cultural differences of workers into their overall human resource plans. Actively assisting and working with employees in their cultural framework as they move up a career ladder will go far in closing skill gaps and promote stabilization in rural agricultural employment.

In addition, the concepts of oral and print culture can be very powerful for those who work with people from both culturally different and poverty backgrounds. In particular, employers can use these lenses as a way to look at the services their diverse worker population provides and examine to which extent they meet the needs of their workers. Much of this work is drawn from Dr. Donna Beegle, Ed.D. from Communication Across Barriers. She grew up as an Anglo migrant worker in Arizona and Oregon, and is nationally recognized as an expert in working with individuals in poverty (which includes most of those in entry-level agricultural occupations). The following are suggested practices to consider when interacting with individuals who come from an oral culture:

1. **Build relationships.** Being relationship-focused means the oral-culture-oriented individuals will do things that are outside of their comfort zone if they feel that they have a relationship with the one asking. This is one reason why the present hiring and supervising practices within the agricultural industry are most effective when the supervisors are from the same ethnicity. Having a relationship with the supervisor also allows the workers to see, through another perspective, why the tasks are important and how it can mean something other than stress to them.
Building a relationship also gives employers an opportunity to (empathetically) listen to their stories and to hear what their life is like. Then when they are explaining concepts, employers will be able to use examples from the workers' lives, not just ones from middle class lifestyle, which will help them answer the question, "What does this have to do with me?" With the inclusion of examples from the workers' lives, concepts won't be so removed from their world that they can't see the value.
2. **Use Stories.** Story telling is an essential part of learning for those from oral cultures. Individuals from oral cultures get their information from asking other people. Print culture information gathering comes from reading, getting information from the written word. The more storytelling that is incorporated around concepts, the more effective the communication will be. It can be really powerful. If supervisors can describe how something happened to somebody, the workers are going to learn it more than if it is described as an abstract concept. Personalize the information and they'll get it. If it's abstract it's hard for them to grab on to.

3. **Allow time and energy for spontaneity.** Individuals from poverty tend to exhibit the characteristics of spontaneity. They tend to be very comfortable jumping from subject to subject to subject, which is the nature of verbal communication. Print culture people are very linear. The word linear (l-i-n-e-a-r) means nothing unless those letters come in that particular order. Reading trains the brain to think in terms of first-this-then-that, and that is how print-oriented individuals organize their lives accordingly. That is why institutions are organized for print culture people in a very linear fashion. Going with the flow is part of verbal communication, staying with whatever comes up. However, oral culture-oriented individuals will have a more difficult time with a plan. They are not as accustomed to stepping back and planning things.
4. **Be repetitive—saying the same things over and over again.** Being repetitive made sense when the world didn't have print, because the knowledge would be lost if it weren't repeated. Repetition is also important for oral culture people because they store information in their short term memory. Knowledge that is not used in their daily lives is discarded. That's why you can tell oral culture people something and then a little later they'll say, "You didn't say that!" Because if they didn't use it right away, they had already discarded it. Print culture people put the knowledge outside of them. They write it down and then come back to it if they need it. These are just two distinct/different ways of storing and receiving information.
5. **Plan for the future.** The immediacy of oral culture doesn't allow for a focus on the future or to strategically plan ahead; so, at best, individuals from poverty can tend to focus on what they're going to do today and maybe what they're going to do tomorrow. This is a learned skill and one that employers cannot assume is in the life experiences of their workers.
6. **Break things into "bite size" pieces.** For oral culture individuals, employers will need to break things down into tiny little parts until more print-based cultural practices are learned. Giving oral-culture-oriented workers a large assignment and asking them to complete the entire thing may not be an effective supervisor strategy. They may be overwhelmed with the amount of information and have not been taught how to break tasks down into manageable, doable pieces. Training for employees should include some modeling about how to plan for the completion of the activity by setting up benchmark steps along the way.

To help oral culture people remember and learn:

- Help them to feel confident. Research shows that self-confidence affects the ability to remember. Help them to not focus on mistakes, but to focus on what they have done well.
- Spread out repetition is most effective. Have them make a list. Set it aside. An hour later, look at it again. An hour after that, look at it again. This helps transfer the information to long-term memory.
- Share information in multiple ways. Hearing it, writing it, seeing it, creating models of it all help with recalling information.
- Have people imagine an image of what you want them to remember. If it is a date or a name, give an image to associate it with. For example, "My name is Donna Beegle, like the dog, but with two ees." This kind of mnemonic device can make a difference. (Beegle, 2000)

Summary

The nursery and winegrape industries serve as an important model for agricultural employment opportunities in the Willamette Valley. Working in partnership with their grower associations, training providers, and community organizations, agricultural employers can create real opportunities for advancing their workforce by:

- Stabilizing the methods of recruiting employees
- Enhancing the image of key jobs within the targeted industries
- Establishing stronger and clearer communication among agricultural employers, employees and industry associations
- Instituting consistent and self-sustaining education and training initiatives, including rigorous soft-skills training programs
- Embracing cultural differences, incorporating them into business management philosophy and production practices

These five recommendations should guide the development of appropriate workforce and economic development programs that will strengthen the Oregon Agricultural sector, create long-term career opportunities for farmworkers, and therefore stabilize rural agricultural employment.

Appendices

"Like farmers we need to learn that we cannot sow and reap the same day."
--anonymous

FIELD Career Ladders Project
Nursery Industry
 Top three answers to individual survey questions

| Survey Question: Nursery Industry | First Response | Second Response | Third Response |
|---|------------------------------------|---|------------------------|
| Where do you recruit for new hires? | Word of mouth | Family connections | Friends of employees |
| What is the most important quality when hiring entry level positions? | Willing to work | Motivated | Previous experience |
| What are the barriers to advancement in your company? | Low language, math, writing skills | Lack of motivation | Lack of experience |
| How do people move up in your company? | Ability to learn | Communication skills | Initiative |
| How long does it take to move up? | Depends on person | Depends on education and English skills | Depends on attitude |
| What are the primary causes of turnover? | Very little turnover | Seasonality of work | Attendance |
| What training and education support would benefit your workforce? | English as a second language | Leadership skills | Plant botany & biology |
| Is your work primarily year round or seasonal? | Year round | Seasonal | |

FIELD Career Ladders Project
Wine Grapes Industry
 Top three answers to individual survey questions

| Survey Question: Wine Grapes Industry | First Response | Second Response | Third Response |
|---|----------------------------------|---|-----------------------|
| Where do you recruit for new hires? | Word of mouth | Personal network | Industry publications |
| What is the most important quality when hiring entry level positions? | Attitude | Prior vineyard experience | Dependable |
| What are the barriers to advancement in your company? | Limited English Skills | Low leadership skills | Low math skills |
| How do people move up in your company? | Ability to accept responsibility | Ability to lead others | High quality work |
| How long does it take to move up? | Depends on the individual | Depends on a variety of factors | |
| What are the primary causes of turnover? | Not much turnover | | |
| What training and education support would benefit your workforce? | Leadership | Language and technical skills taught in Spanish | Management |
| Is your work primarily year-round or seasonal? | Year-round | seasonal | |

FIELD Career Ladder Project
FIELD DATA QUESTIONNAIRE

- Date:
 - Company name:
 - Company location:
 - Company representative:
 - Commodity produced:
1. How many employees are at your company?
 - A. Full-time year-round
 - B. Full-time seasonal
 - C. Part-time year-round
 - D. Part-time seasonal
 2. Where do you recruit for new hires?
 3. What's the most important quality you look for when hiring for entry-level positions?
 4. What benefits does your company offer?
 5. What are the key entry-level and mid-level positions at your company?
 - A. Position title:
 - B. Wages/annual earnings:
 - C. Skills and competencies needed (from job description):
 - D. Barriers to advancement:
 6. What skill gaps do you perceive among your employees that prevent them from advancement in your company?

7. How do people move up in your company?

Please diagram how an employee could be promoted through key jobs to advance in your company.

8. How long does it take to move up?

9. What are the primary causes of turnover?

10. What training and education support would benefit your workforce?

11. Is your work primarily year-round or seasonal? Y-R S

12. Do you provide housing for your workforce? Y N If yes, how many people do you house? _____

13. Do you know the housing situation of your workers? Y N

14. Would you be interested in learning about how to provide housing for your employees? Y N