

BC AGRICULTURE HORTICULTURE LANDSCAPE SECTOR

LABOUR MARKET PARTNERSHIP PROJECT

Phase 2: Labour Market Information Research

July 9, 2018



05

LABOUR MARKET INFORMATION
FINAL REPORT



*Funding provided through the Canada-British Columbia
Labour Market Development Agreement.*



PREPARED FOR:

Ministry of Advanced Education, Skills & Training

PREPARED BY:

The BC Landscape & Nursery Association
and Roslyn Kunin & Associates Inc.

**ROSLYN KUNIN &
ASSOCIATES INC.**

www.rkunin.com

#102 - 19289 Langley Bypass
Surrey BC V3S 6K1

E.info@bclna.com | www.bclna.com
T 604 575 3500 | F 604 574 7773

Project C18LMP013

FINAL REPORT: PHASE 2

BC AGRICULTURE-HORTICULTURE & LANDSCAPE-HORTICULTURE SECTORS LABOUR MARKET INFORMATION STUDY

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	IV
Figure 1: Sector Labour Market Partnership Phases	v
EXECUTIVE SUMMARY	IX
RECOMMENDATIONS	XIII
1.0 INTRODUCTION	1
1.1 FINAL REPORT	1
2.0 RESEARCH METHODOLOGY AND STAKEHOLDER ENGAGEMENT	3
2.1 RESEARCH APPROACH	3
Figure 2: Research Approach	3
Figure 3: Responses to the Four Surveys	5
2.2 STAKEHOLDER ENGAGEMENT	7
3.0 SECTOR DESCRIPTIONS: AGRICULTURE-HORTICULTURE AND LANDSCAPE- HORTICULTURE	10
3.1 OVERVIEW OF THE SECTORS IN CANADA AND BRITISH COLUMBIA	10
3.2 SECTOR DESCRIPTIONS	12
Figure 4: Labour Force Status of Selected Occupations in Ag-Hort, 2016	13
Figure 5: BUSINESS EMPLOYEE COUNTS, BY EMPLOYMENT SIZE, BC, JUNE 2017	16
Figure 6: Labour Force Status-Selected Occupations, Landscaping Sector, 2016	17
3.3 IMPLICATIONS FOR THE SECTORS	20
Figure 7: Selected Occupations in Ag-Hort Production Sector, by Gender, 2016	21
Figure 8: Selected Occupations in Ag-Hort Production Sector, by Age, 2016	21
Figure 9: Selected Occupations in Landscaping Sector, by Gender, 2016	22
Figure 10: Selected Occupations in Landscaping Sector, by Age, 2016	22
4.0 LABOUR SHORTAGES AND SKILL GAPS	24
4.1 OVERVIEW OF THE SECTORS IN BC	24
Figure 11: Job Vacancy Rates, Selected BC Industries, Quarterly 2016 & 2017	26
Figure 12: Job Vacancies and Hourly Wage Rate Offered for Selected Occupations, Ag-Hort Production and Landscaping Sectors, Quarterly, 2017	26
4.2 LABOUR SHORTAGES	28
Figure 13: Barriers to Attract Applicants - HR Managers Survey	29
Figure 14: Positions for Hiring - HR Managers Survey	30
4.3 SKILL GAPS	31
4.4 IMPLICATIONS FOR THE SECTORS	31
5.0 TRAINING SUPPLY AND GAPS	33
5.1 TRAINING IN AGRICULTURE-HORTICULTURE AND LANDSCAPE SECTORS	33
Figure 15: Credentials Related Ag-Hort & Landscaping, 2011/12 - 2015/16	34
Figure 16: BC Active Apprenticeship Registrants (January-November 2017)	36
Figure 17: Certificate of Qualifications for Selected Trades, 2012/13 to 2016/17	36
5.2 PROJECTED TRAINING SUPPLY	37
Figure 18: Occupational Supply Projections from BC's Post-Secondary Training and Education, 2017/18 to 2026/27	37

5.3	IN-HOUSE TRAINING.....	38
	Figure 19: Company Training Preferences - HR Managers Survey	38
	Figure 20: Company Training Offered - HR Managers Survey	39
	Figure 21: Satisfaction with Training Opportunities – Domestic Workers Survey	39
	Figure 22: Challenges with Upgrading Skills - HR Managers Survey	40
5.4	CAREER DIRECTIONS	40
5.5	TRAINING GAPS	41
5.6	IMPLICATIONS FOR THE SECTORS	42
6.0	IMPACT OF CHANGING CONSUMER DEMAND ON LABOUR MARKET	43
6.1	CHANGING CONSUMER DEMAND.....	43
6.2	LABOUR IMPACTS AND ALTERNATIVES.....	45
6.3	IMPLICATIONS FOR THE SECTORS	47
7.0	FOREIGN WORKER PROGRAMS.....	48
7.1	ROLE OF THE TEMPORARY FOREIGN WORKER PROGRAMS	48
	Figure 23: Reasons for Hiring SAWP Workers - HR Managers Survey	48
	Figure 24: Types of Training Received – Foreign Workers Survey	49
7.2	KEY ISSUES OF THE FOREIGN WORKER PROGRAMS	50
7.3	IMPLICATIONS FOR THE SECTORS	52
8.0	HUMAN RESOURCES PRACTICES: IMPACTS ON LABOUR MARKET.....	53
8.1	HUMAN RESOURCES PRACTICES IN BC.....	53
	Figure 25: Recruitment Methods - HR Managers Survey	53
	Figure 26: Challenges for Employee Retention - HR Managers Survey	54
	Figure 27: Attraction to Company – Domestic Workers Survey	55
	Figure 28: Satisfaction with Pay Rate – Domestic Workers Survey	55
	Figure 29: Hiring Incentives Word Cloud - HR Managers Survey	56
8.2	HUMAN RESOURCES PRACTICES FROM SELECTED JURISDICTIONS.....	57
8.3	PERCEPTIONS OF THE SECTOR: CURRENT, FORMER, AND POTENTIAL WORKERS.....	60
8.4	IMPLICATIONS FOR THE SECTORS	62
9.0	THE IMPACT OF LABOUR SHORTAGE FOR THE INDUSTRY	63
9.1	THE IMPACT OF LABOUR SHORTAGES	63
9.2	COMMON THEMES.....	63
9.3	RECOMMENDATIONS	64
9.4	CONCLUSION	66
APPENDIX A: FINAL REPORT SIGN-OFF		67
	LMP BCLNA BOARD AND PARTNERSHIP STEERING COMMITTEE REPORT SIGN-OFF	69
APPENDIX B: TERMS OF REFERENCE-STEERING AND VALIDATION COMMITTEES.....		70
	LMP PARTNERSHIP: STEERING COMMITTEE: MEMBERSHIP AND TERMS OF REFERENCE	70
	VALIDATION COMMITTEE: MEMBERSHIP AND TERMS OF REFERENCE	72
APPENDIX C: SECONDARY SOURCES		74
	ARTICLES, REPORTS AND STUDIES	74
	STATISTICAL DATA SOURCES	77
	WEBSITES	77
APPENDIX D: INTERVIEW RESPONDENTS.....		78
	INDUSTRY ASSOCIATIONS.....	78
	COMPANIES	78
	GOVERNMENT/FOREIGN WORKER ORGANIZATIONS	79
	TRAINING PROVIDERS	79
	OTHER JURISDICTIONS.....	79

APPENDIX E: INTERVIEW GUIDES..... 80

- INDUSTRY ASSOCIATIONS 80
- COMPANIES 83
- GOVERNMENT – FOREIGN WORKERS 86
- TRAINING PROVIDERS 88
- OTHER JURISDICTIONS..... 90

APPENDIX F: SURVEY GUIDES 93

- INDUSTRY ASSOCIATIONS 93
- HR MANAGERS - COMPANIES 99
- DOMESTIC WORKERS..... 113
- FOREIGN WORKERS..... 120

FINAL REPORT: PHASE 2

BC AGRICULTURE-HORTICULTURE & LANDSCAPE-HORTICULTURE SECTORS LABOUR MARKET INFORMATION STUDY

ACKNOWLEDGEMENTS

The views and opinions expressed in this report are those of the authors and not the official policy or position of the Government of British Columbia.

This report was prepared in partnership by:

BC LANDSCAPE AND NURSERY ASSOCIATION

The BC Landscape and Nursery Association (BCLNA) promotes the global recognition of British Columbia as a leader in agriculture horticulture and landscape horticulture.

A member of the BC Agriculture Council and Canadian National Landscape Association; BCLNA is committed to responding and advancing the interests of the agriculture and landscape horticulture industry.

The over 550 members represent the landscape trades, wholesale and retail nurseries, suppliers, garden centres, as well as educators, students and horticulture affiliates.

ROSLYN KUNIN AND ASSOCIATES INC.

Operating since 1993, Roslyn Kunin and Associates (RKA) is a highly regarded and experienced consulting firm. RKA's mission is to give understandable, applicable, affordable answers to questions on people and skills, industries and the economy, including forecasting and analysis.

RKA has a diverse team that offers a wide spectrum of services with specialization in research, analysis, economics, labour demand and supply, industry labour market programs, strategy development, program evaluation, and graphic design. For this project, the RKA team included: Dr. Roslyn Kunin, Lee Gan, Jordan Watters, Nicole Beissner, Michael Izen, and Robyn Huth.



BC LANDSCAPE AND NURSERY ASSOCIATION LABOUR MARKET PARTNERSHIP

The BCLNA acknowledges the support provided by Ministry of Advanced Education, Skills and Training, through the Sector Labour Market Partnerships (SLMP) program, as funded by the *Canada-British Columbia Labour Market Development Agreement (LMDA)*.

The main purpose of the SLMP project is to inform the design of labour force strategies that address the underlying causes of widespread labour shortages being experienced across the sectors, through a detailed analysis of current labour market conditions, trends and supply and demand imbalances in British Columbia (BC).

The SLMP Program has five distinct phases described in the diagram below. Each phase is negotiated as a separate contract. Progress from one phase to another is based on demonstrated need and satisfactory completion of project deliverables outlined in the previous phase.

Figure 1: Sector Labour Market Partnership Phases



In late 2015, the BCLNA Labour Market Partnership project emerged from an industry initiative to build collaboration on common issues faced by the agriculture-horticulture and landscape-horticulture sectors in British Columbia.

The Sector Engagement Phase, conducted in 2016/17, engaged the agriculture-horticulture and landscape-horticulture sectors to build a shared understanding of key sector labour market issues. This Labour Market Information Research report provides the detailed labour market information, identified as a need during Phase 1.

This report completes the Labour Market Information Research phase of the sector project. Later phases of the LMP will design strategies and implement solutions to reduce the impacts of the challenges identified herein.

INDUSTRY PARTICIPATION

In addition to thanking the Governments of Canada and the BC Government, there are many people from industry and post-secondary institutions who have lent many hours to the success of this project.

The LMP Project Steering Committee members have provided both all-encompassing input and guidance, as well as displayed significant insight and energy to ensure British Columbia has flourishing agriculture-horticulture and landscape-horticulture sectors.

The BCLNA Board of Directors, industry associations, Validation Committee members and key industry stakeholders also contributed a significant amount of time to this project.

LMP PROJECT STEERING COMMITTEE

Cable Baker

Down to Earth Landscapes

Ken Denbok

Greenhouse Floriculture

Hedy Dyck

BC Landscape and Nursery Association

Reg Ens

BC Agriculture Council

Jeff Foley

Para Space Landscaping Inc.

Bruce Hunter

Hunter Landscape Design

Jacob Kerkhoff

Calais Farms

Giuseppe Pagano

Davey Tree

Randy Sihota

Appointed representative BC Potato Farmers' Association

Leisa Yee

BC Potato Farmers' Association

Bill Zylmans

Chair BC Potato Farmers' Association

BCLNA BOARD OF DIRECTORS

Len Smit

Chair

Craig Stewart

1st Vice Chair

Shannon Claypool

2nd Vice Chair

Garfield Marshall

Treasurer



Heike Stippler
Landscape Chair

Michael Mills
Retail Chair

Steven Folkerts
Growers Chair

INDUSTRY ASSOCIATION PARTNERSHIP COMMITTEE

BC Blueberry Council

BC Cherry Association

BC Cranberry Growers, BC Grape Growers Association

BC Golf Superintendents Association (BCGSA)

BC Greenhouse Growers Association

BC Honey Producers Association

BC Landscape & Nursery Association

BC Potato & Vegetable Growers Association

BC Raspberry Industry Development Council

BC Strawberry Growers Association

BC Tree Fruit Growers Association

Fraser Valley Cole Crop Growers Association

Pacific Northwest Chapter of the International Society of Arboriculture (PNW ISA)

Pea & Bush Bean Growers Association

United Flower Growers Cooperative

Western Canada Turfgrass Association (WCTA)

PROJECT VALIDATION COMMITTEE

Lisa Craig
Raspberry Industry Development Council and
BC Strawberry Growers Association

Hedy Dyck
BC Landscape and Nursery Association

Kevin Scollon
Thompson Rivers University

Heike Stippler
Heike Designs Inc.

Bill Van Belle
Van Belle Nursery Inc.



THANK-YOU TO ALL PARTNERS, STAKEHOLDERS AND PARTICIPANTS

The BCLNA would like to thank our research partner RKA for their contribution in the design and completion of this study.

The participation and engagement of the associations, employers, owner/operators, managers, workers, and educators was greatly appreciated. Thank you to the many individuals who participated in the interviews, surveys and meetings to share their opinions and insights.

Appreciation and thanks goes out to the team at the BCLNA and BC Agriculture Council.

The result of this report clearly demonstrates the importance of agriculture-horticulture and landscape-horticulture to our province. It also offers the foundation for the development of a strategy to implement solutions so that the agriculture sectors can continue to grow and thrive as more workers find employment in the many sectors within agriculture.

Sincerely,

Ann M. Walsh
Project Manager



FINAL REPORT: PHASE 2

BC AGRICULTURE-HORTICULTURE & LANDSCAPE-HORTICULTURE SECTORS LABOUR MARKET INFORMATION STUDY

EXECUTIVE SUMMARY

This report provides current and comprehensive labour market information for the agriculture-horticulture and landscape-horticulture sectors in BC, based on both primary and secondary research. The study is Phase 2 of the *BC Ag-Horticulture Landscape LMI Research Project* with funding from the *Canada-BC Labour Market Development Agreement (LMDA)*, through the Ministry of Advanced Education, Skills and Training's Sector Labour Market Partnerships program. The eight research components addressed in this report were derived from the Phase 1 portion of this project, and by an industry-led Project Steering Committee.

The secondary research examined previous studies from both within and outside the sectors and made use of the most recent available statistical data. Interviews with industry associations, companies, those involved with foreign worker programs, service agencies, and training providers were the first phase of the primary research. Information was also gathered from other geographical jurisdictions. Surveys were then conducted with industry associations, human resource managers, and both domestic and foreign workers. The results of both the primary and secondary research were then validated by an industry focus group, as well as a review by the Project Steering Committee. All sources of research provided consistent results.

The eight research components addressed in this report include:

- 1) A detailed description of the sector, including the types and number of businesses by sub-sector, types of occupations by NOC and NAICS, characteristics of the workforce in these sub-sectors;
- 2) An analysis of labour shortages and of key skills gaps;
- 3) An analysis of training supply and training gaps;
- 4) An analysis of the impact of changing consumer demands on the sub-sectors' labour market conditions;
- 5) An analysis of the role of guest worker programs played in the sub-sectors;
- 6) A description and analysis of the impact of recruitment, retention and other human resource management practices;
- 7) A description and analysis of the impact of labour shortages; and
- 8) A description and analysis of the perception of the industry by current and potential labour supply.

Key findings for these eight research components are summarized as follows.

1) INDUSTRY WORKFORCE

- The agriculture and agri-foods sector across Canada accounts for 6.6% of the national GDP, but employs 12% of the workforce, making this a labour intensive sector.

- Across Canada and BC, the agriculture-horticulture sector is expected to show significant growth as consumer demand is trending towards the choices of Canada's produce, and value-added products.
- The industry is dealing with many changes and challenges including engaging current workers to funnel their career growth upwards, maintaining mental and physical health of workers, dealing with cultural diversity, and, how climate change is affecting the industry now and into the future.
- BC's agriculture sector employed 40,200, with 'tree fruit and vine', and 'greenhouse, nursery, and floriculture' half of workforce, and 6,200 workers in greenhouse, and 3,620 workers in nursery operations.
- The greenhouse and nursery sector in BC employs over half (54%) of its workforce on a seasonal basis.
- The landscape sector in BC is dominated by small independent operators with small workforces, while golf clubs tend to be establishments with large number of employees.
- Landscape infrastructure building and installation, work is all year long, and busiest from March to October.

2) LABOUR SHORTAGES AND SKILLS GAPS

- Lack of labour supply has limited growth for most business owners.
- In both sectors, unskilled labour make up 90% of the workforce and it is the area where employers find the biggest challenge in recruitment and retention.
- Although the size of the skilled labour is much smaller, managers and supervisors with the right knowledge, people-skills, and vision are also in short supply. With the current age profile of these supervisors and managers nearing retirement, the need to find suitable candidates to fill these positions in the near future becomes ever more important.
- New labour can be found from non-traditional sources which may include veterans and light offenders, but programs to attract, educate and train them need to be tailored accordingly.
- Labour force development programs in other jurisdictions facing labour shortages are mostly new, with limited results yet, but focus on high schools, as well as other targeted groups.
- For both sectors, the challenges are to find people willing to work in all-weather conditions, and willing to take on physical work. The work is seasonal.
- Among the barriers to access to work, lack of transportation, lack of ability to drive vehicles as sometimes required by employers, wages much lower than competing industries, all need to be addressed if employers would want to find a meaningful solution to on-going labour shortage.

3) TRAINING SUPPLY AND TRAINING GAPS

- Relatively flat or moderate growth in the number of graduates and an apparent lack of active recruitment or marketing by the education sector suggests both a need and

- opportunity for the industry to work more closely together with the education sector to recruit students and future workers.
- Employers must address baseline and in-house training offers to improve current employee engagement and job satisfaction - these improvements could lead to higher levels of retention and better employee productivity.
 - A lack of consistent HR planning with regards to both expansion and succession suggests a strong need for members of the industry to more fully understand human resources matters at the operational level. This leads to better planning for the industry overall.
 - Both the extent of the labour shortage and a lack of coordination between Post-Secondary Institutions and sector employers can explain the propensity of employers to train workers or address skills-gaps through in-house training.
 - A reasonable willingness by employers to be “flexible” to identify new and different styles of work with regards to training and related incentives is worthy of further exploration.
 - New programs around sustainability, green infrastructure and urban gardening tie in with “healthy living” and are becoming increasingly available and important. This is also a topic where there has been growth of interest from students and the general public. It is a potential theme for the industry and education sector together to find new applicants and workers together.

4) CHANGING CONSUMER DEMAND

- The agriculture-horticulture and landscape-horticulture sectors are driven by consumer demands which change over time. Shifts in consumer preferences can present opportunities for growth that require a stable and reliable labour force.
- Key trends in the agriculture-horticulture sector include a consumer shift to environmental sustainability and health consciousness. These trends do not impact the skills in demand, but rather represent a continued need for a dependable labour pool.
- Key consumer trends in the landscape-horticulture sector include a desire for more complex outdoor living spaces and gardens. These trends drive demand for workers skilled in installation, design, plant knowledge, and customer service, as well as a continued need unskilled workers.
- Consumer trends could be leveraged to attract new workers to the sectors.
- With technological advancement, automation in horticulture can bring a meaningful solution to the chronic labour shortage. Many Owner/Operators currently do not see automation as a viable solution, and as a result need support in exploring the potential value of automation.

5) ROLE OF FOREIGN WORKER PROGRAMS

- The agriculture-horticulture sector is dependent upon the federal Temporary Foreign Worker (TFW) Programs – particularly the Seasonal Agricultural Worker Program (SAWP) – to fill critical labour gaps. TFW Programs do not serve the landscape-horticulture sectors in any meaningful way.
- Key administrative challenges with SAWP include:

- transparency of decision-making processes including SAWP application formats, and timelines;
- align administrative processes and approval times with agricultural and horticultural cycles; and
- coordinate the timing of compliance checks and audits with employers to avoid peak production and harvest times.
- Key challenges with SAWP from the workers' perspective include:
 - working conditions: health and safety, long hours, bullying and harassment;
 - living conditions: sub-standard and/or over crowded housing; and
 - the vulnerability of workers created by employer-specific work permits.
- The Federal Government is currently reviewing TFW Programs, and upcoming reports may reveal a pathway to improvements.

6) HR PRACTICES

- Future industry workers may be found by continuing to expand the current labour force including the roles filled by women and immigrants and exploring and educating new segments of the population, including high school students, individuals in a mid-life career change or part-time older workers, ex-military personnel/veterans, light-offenders completing prison terms, and members of the Indigenous population.
- Other practices for consideration include:
 - Make improvements by revisiting what the sectors offer workers in terms of wage structure, including on-call, sick days, vacation pay, and/or seasonal staying bonuses;
 - Improve other working conditions important to workers such as ensuring health and safety standards are up-to-date, providing flexible working hours/time off where possible;
 - Provide transportation/commuting solutions;
 - Build team spirit through good employee relations and communications;
 - Develop career pathways;
 - Encourage and support the development of talent through continued education and training; and
 - Invest in new technologies.

7) IMPACT OF LABOUR SHORTAGES

- Traditionally, agricultural horticulture production is very labour intensive, relying much on manual labour. The lack of labour supply limits growth for most business owners.
- Nurseries, greenhouses and orchards have experienced some moderate success in applying technology to reduce their reliance on manual labour. There is great interest and potential to gain further relief from labour strain via technology.

- As always, the financial investment in technology is significant. It will require strong leadership and coordination, especially given the diversity and complexity of the industry's many sectors but the potential to alleviate the stresses of labour shortages and the potential benefits from increased productivity are not to be overlooked.
- Work in agriculture-horticulture and landscape-horticulture sectors have many similarities – potential applicants need to face physically challenging and seasonal work, and they should be willing to work in all-weather condition. There is the need for newcomers to the industries to feel that the work is interesting, fulfilling, and to feel that they are part of a team.

8) PERCEPTION OF THE INDUSTRY

- To attract domestic workers in the current and projected labour market, BC's agriculture, horticulture and landscape employers must be prepared to make some changes to enhance interest in working in their industry.
- This includes the following considerations:
 - Address the perception of the industry overall and working towards making it more positive;
 - Recognize the importance of the reputation of each individual operation as an employer; and
 - Find ways to alleviate the stress of physical demands on the body and the tedious nature of monotonous work on the mind. This may include better break structures and job rotations to produce a healthier more positive workplace overall.

Temporary foreign workers have been and are still being used extensively across the agriculture-horticulture sector especially as the number of domestic job applicants is declining. They are vital to on-going operations. Employers were concerned with the regulatory burden in accessing essential foreign workers. Those foreign workers survey respondents were satisfied with the program and their working conditions. The landscape-horticulture sector has no access to temporary foreign workers, but can bring in specialized skilled workers through regular immigration programs.

Employers use a wide variety of methods to attract and retain domestic workers with insufficient success. The physical, outdoor nature of the work and the wage levels are barriers to hiring. The existing workers who responded to the survey liked the nature of the work and being outdoors, but these are workers who have chosen to stay in the sector and not those who have left or do not apply. Examining horticultural sectors outside BC reveals very similar issues and searches for solutions. The research in this report can provide a basis for strategic planning that will lead to such solutions.

RECOMMENDATIONS

It is clear the agriculture-horticulture and landscape-horticulture sectors are in dire need of a strategic approach and practical ideas to respond to the current and projected labour market shortages. The four recommendations identified below address the key human resource challenges for industry. A more detailed explanation of the recommendations, aligned with key findings and suggested themes of interest are presented in Section 9.0 of this report.

I. SUPPORT INDUSTRY OWNER, OPERATORS AND MANAGERS

Key Findings: A lack of consistent human resources planning with regard to both expansion and succession suggests a strong need for the industry to more fully understand human resources matters at the operational level. This leads to better planning for the industry overall, more effective workers and improved odds of attracting non-traditional labour groups.

II. SUPPORT INDUSTRY WORKERS

Key Findings: The offering of baseline but otherwise limited in-house training must be addressed to improve current employee engagement and job satisfaction as it can lead to higher levels of retention and better productivity.

III. IMMIGRANT WORKFORCE STRATEGY

Key Findings: Consumer trends could be leveraged to attract new workers to the sectors. The agriculture-horticulture and landscape-horticulture sectors rely on key types of occupations; labourers, technical, and supervisors/managers.

BC welcomes close to 40,000 new immigrants each year; strategies should be developed to welcome an immigrant workforce through coordinated tactics such as: more communication between the industry and policy formulators and implementers.

IV. INDUSTRY COMMITMENT TO EXCELLENCE

Key Finding: For both sectors, the challenges are to find people willing to work in all-weather conditions, and willing to take on physical work. The landscape-horticulture industry consists predominantly of small businesses that will need to work together to achieve excellence by implementing strategies to improve the perception of the industry, and develop proactive systems and solutions to respond to key industry issues.

FINAL REPORT: PHASE 2

BC AGRICULTURE-HORTICULTURE & LANDSCAPE-HORTICULTURE SECTORS LABOUR MARKET INFORMATION STUDY

1.0 INTRODUCTION

1.1 FINAL REPORT

Roslyn Kunin and Associates (RKA) and the BC Landscape and Nursery Association (BCLNA) present this Final Report, as the fifth deliverable in the *Labour Market Information Research Study of the BC Ag-Horticulture Landscape Sectors* (the study). The study is Phase 2 of the *BC Ag-Horticulture Landscape LMI Research Project* with funding from the *Canada-BC Labour Market Partnership*, through the Ministry of Advanced Education, Skills and Training's (MAEST) Sector Labour Market Partnerships (SLMP) program.

The report is structured around the eight research components that were derived from Phase 1 of this project, as outlined in the previous project documents, including the Draft Report, the Research Plan, and the LMI Tools. The following eight key research components were addressed using multiple methods, and answered in this report through analysis:

RESEARCH COMPONENTS

- A detailed description of the sector, including the types and number of businesses by sub-sector, types of occupations by NOC and NAICS, characteristics of the workforce in these sub-sectors;
- An analysis of labour shortages and of key skills gaps;
- An analysis of training supply and training gaps;
- An analysis of the impact of changing consumer demands on the sub-sectors' labour market conditions;
- An analysis of the role of guest worker programs played in the sub-sectors;
- A description and analysis of the impact of recruitment, retention and other human resource management practices;
- A description and analysis of the impact of labour shortages; and
- A description and analysis of the perception of the industry by current and potential labour supply.

This Final Report presents the research and analysis of the research components; and descriptions of the research tools utilized in this project, including a mix of secondary and primary methods. Section 2.0 provides a detailed description of the methodology and the research activities conducted.

Section 3.0 provides a detailed description of both the agriculture-horticulture and landscape-horticulture sectors, based upon the industry reports and government data, and addresses research component #1. Section 4.0 presents the analysis of labour shortages while addressing research component #2, and Section 5.0 presents an

analysis of the supply of trained workers for research component #3. Section 6.0 is a discussion of how evolving consumer demand is expected to affect sector production, as per research component #4.

Section 7.0 is a look at the foreign worker programs and the needs of the sector to address research component #5. Section 8.0 is a review of human resources practices in British Columbia (BC) and in selected jurisdictions on how they have attempted to address these key labour shortages for research component #6, as well as a discussion of the perception of the sector for research component #8.

Section 9.0 is the conclusion with a summary and identified common themes, including research component #7. These key points and common themes are the basis for the recommendations, for the direction of a Strategy Development Phase Sector Labour Market Partnership initiative on strategies to address the identified labour shortages.

Appendix A provides a list of the Project Steering Committee providing formal sign-off on this Final Report, while Appendix B provides details on the Steering Committee structure. Appendices C through F provide details on the various sources and research tools.

2.0 RESEARCH METHODOLOGY AND STAKEHOLDER ENGAGEMENT

2.1 RESEARCH APPROACH

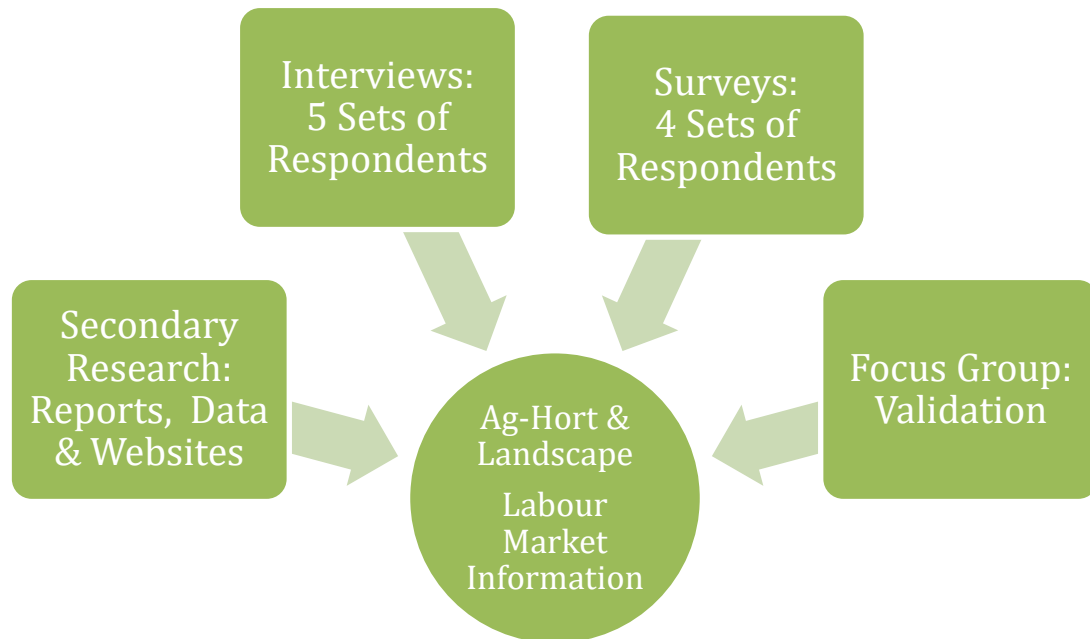
The project is complex as it combines both the agriculture-horticulture and landscape-horticulture sector; although the sectors are similar in many ways there are expansive differences as they relate to the details of the work. This did impact the design of the interviews, surveys and focus group guides. The approach to the research and methodology revolve around the eight main research components for this Labour Market Information Research report, to provide more detailed labour market information on the agriculture-horticulture and landscape-horticulture sectors in BC.

The approach to the research includes four main methods:

- Secondary Research: literature review, studies, and data from government and industry;
- Primary Research – Interviews: Structured interviews with five sets of industry stakeholders and respondents;
- Primary Research – Surveys: Online surveys with four sets of industry stakeholders and respondents; and
- Primary Research – Industry Stakeholder Focus Group: A structured discussion to inform and validate the preliminary conclusions and next steps.

Below is a graphic representation of the research approach:

Figure 2: Research Approach



Previous reports in this study, the Research Plan and the LMI Tools, have provided the detailed approach on these research methods, including sources, contacts, interview guides, survey guides, and a focus group guide.

SECONDARY RESEARCH: REPORTS, DATA AND WEBSITES

The secondary research includes the identification and review of previous reports, government and industry data, and key websites. The sources were identified by BCLNA, as well as through related research. Over four dozen sources were identified, examined, and reviewed in detail. Appendix C provides a detailed list of the sources reviewed.

The statistical data from Stats Canada and the most recent Census in 2016 provide a solid base of information on the industry. Data from Ministry of Advanced Education, Skills and Training, and the Industry Training Authority, on the number of graduates from relevant training programs in the province, have also been reviewed.

The articles, reports and studies on related agricultural, horticultural, and landscape topics as they relate to issues of labour include academic-type reports and government issued documents, although most were derived from various industry sources in Canada. Issues of consumer trends were informed by articles from both Agriculture and Agri-Food Canada reports, as well as articles in online trade magazines.

The websites and related reports and links on the websites of the various agriculture-horticulture and landscape industry associations in BC were a useful starting point for the background of the industry and related concerns. The information about labour practices in other jurisdictions began with a review of industry websites and interviews with representatives of the selected jurisdictions: Alberta, Washington, Oregon, Ontario, Texas and Colorado.

PRIMARY RESEARCH: INTERVIEWS

Five sets of structured interviews were conducted to gather detailed thoughts and opinions from selected industry stakeholders. Interview Guides - which include the questions, introductory remarks, and the list of potential respondents – were developed by the research team, reviewed and altered by the BCLNA, steering committee members, and MAEST.

The interviews were conducted from February to April 2018, and the Interview Guides were slightly modified during the beta-testing of the first two interviews. The respondents were generous with their time and thoughts, and the interviews ranged in length from 40 to 75 minutes, providing in-depth data. While the respondents are all identified by name and title in Appendix D, each interview was conducted on the condition of anonymity of specific responses, only citing the type of respondent.

In total, thirty-five interviews were completed of the five sets of stakeholders described below. The final versions of the five Interview Guides are presented in Appendix E:

- 1) Industry Associations: ten interviews with selected industry associations representing the key sub-sectors within the agriculture-horticulture and landscape sectors;
- 2) Companies: eleven interviews with key selected companies within each of the two sub-sectors: five agriculture-horticulture, and six landscape-horticulture;
- 3) Government/Foreign Workers: four interviews with managers responsible for foreign worker programs, including industry associations, and service agencies;

- 4) Training Providers: six interviews with managers of selected public post-secondary and private training providers; and
- 5) Other Jurisdictions: four interviews with managers of industry associations in other jurisdictions in Canada and the US.

PRIMARY RESEARCH: SURVEYS

Four sets of surveys were conducted, using the online tool *SurveyMonkey* to reach a large number of respondents. The Survey Guides – the introduction, questions, distribution methods, and distribution lists – were developed by RKA and edited by the Steering Committee and MAEST. The edits resulted in an additional fourth survey, an expanded survey introduction, and additional numbers of questions.

The approved surveys in the LMI Tools Report were transferred into the *SurveyMonkey* formats for online edits and distribution. As part of that transfer, several key issues became apparent, once the surveys moved from the flat *Word* format, to the dynamic online format. More specifically, in the survey for Industry Associations, common terms, such as, SAWP, were spelled out in full – Seasonal Agricultural Worker Program - and the questions related to SAWP were broken out with an additional question to cover the Temporary Foreign Worker–Agricultural Stream. As well, a question (#14) expanded the list of answer options. The first survey – Industry Associations – served as the model for the revisions, with the other three following the new model.

As with the interview respondents, the survey respondents were promised anonymity, and their names were not required to complete the survey. However, as nine prizes will be awarded from randomly drawn names of the survey respondents, their names were required to be eligible for the draw.

The surveys were launched in March, and distributed through the participating industry associations, steering committee members, and employers. The surveys were open for one or two weeks, with the two workers surveys extended an extra week. The figure below contains the survey dates, the numbers of respondents for each survey, the number of questions, the completion rates, (those who completed every question), and the typical time spent on the survey.

Figure 3: Responses to the Four Surveys

Survey and Dates	Questions	Responses	Completion	Typical Time
Industry Associations March 21 - 29	19	8	75%	13 mins
HR Managers March 22 - 30	45	116	78%	15 mins
Domestic Workers March 22 to April 4	27	40	85%	7 mins
Foreign Workers March 21 – April 4	25	12	58%	11 mins

The number of responses, the breadth of respondents, and the quality of the data are deemed sufficient to provide the needed data for this study. The Survey Questions are presented in Appendix F.

An examination of the respondents indicates, however, that while the Industry Association and HR Manager responses provided in-depth data from all the key perspectives, the data from the domestic workers seemed to be dominated by the landscape sector over the agriculture-horticulture sector (30/8). As well 22 of the 38 respondents identified themselves as supervisors, technicians, or administration. Overall, the perspective of the unskilled labourers only occurs in relatively small numbers. As well, the number of foreign worker responses (12), are too low to provide any strong conclusions.

Under the original research plans, the surveys of both the domestic and foreign workers were to be conducted during the winter months, while the workers were not busy harvesting or planting. Due to delays in approvals, the surveys were not launched until March and closed in April, well into the planting season. As a result, access to both the domestic and foreign workers was severely limited.

PRIMARY RESEARCH: FOCUS GROUP

The industry stakeholder focus group was on April 19, 2018 in Surrey from 3:30 – 5:00pm to review and validate the research and analysis. Prior to the meeting, the Committee received the Draft Report to review. The group of thirteen sector stakeholders reviewed, discussed, and validated the preliminary results of the research and analysis, to confirm, re-direct and validate the research information. The discussion was based upon a PowerPoint presentation that highlighted the key points on each of the research components. The focus group was led by Dr. Roslyn Kunin, and supported by RKA team member Nicole Beissner and Project Manager Ann M. Walsh.

The industry participants included:

Cable Baker

Owner, Down to Earth Landscapes
(Landscape)

Gary Bartley

Head Groundskeeper Athletics and Recreation, University of British Columbia
Head Groundskeeper, Whitecaps Training Facility
Western Canada Turfgrass Association

Shannon Claypool

Customer Account Manager, Douglas Lake Equipment
(BCLNA Board) 2nd Vice

Ken Denbok

Operations Manager, Rainbow Greenhouse Inc.,
United Flower Growers
(Floriculture)

Hedy Dyck

Chief Operating Officer, BCLNA

Jeff Foley

Para Space Landscaping Inc.
(Landscape)

Steven Folkerts

Owner, Linnaea Nurseries
(BCLNA Board) Growers Chair

Gary Jones

Co-Chair, School of Horticulture
Kwantlen Polytechnic University

Jacob Kerkoff

Manager, Calais Farms
BC Greenhouse Growers Association

Michelle Koski

Executive Director, Investment Agriculture Foundation of British Columbia

Len Smit

Partner, Bradners Growing Concern
(BCLNA Board) President

Craig Stewart

General Construction Manager, Finning (Canada)
(BCLNA Board) 1st Vice

Cameron Watt

Assistant Supervisor, Redwoods Golf Course
Western Canada Turfgrass Association

2.2 STAKEHOLDER ENGAGEMENT

Engaging the industry stakeholders within both the agriculture-horticulture and landscape-horticulture sectors across all regions in BC was a key component of this project. Therefore, engaging the stakeholders included several key methods: correspondence, the Steering Committee and Validation Committee, targeted interviews, and multi-layered industry surveys. It is through this process that the sector is informed and can make informed decisions based on the progress and outcome of this study.

An introductory email overview of the Labour Market Information Research project was distributed throughout the industry at the start of the project. A request was made of the initial steering committee and partnership team to continue to work and support the project in an advisory capacity. Contact with the committee and engagement has been consistent throughout the project.

The first task was to establish a terms of reference for the Steering Committee and Validation Committee. Appendix B identifies the membership and terms of reference for both committees.

Initial correspondence was and continues to be sent via email to the committees and Labour Market Partnership Membership Committee. This is the most efficient means of communication, as people in the industry work long hours and are most often onsite working outdoors during the day.

In addition to regular email correspondence there were numerous phone calls and four face-to-face meetings with individual committee members. The industry hosts regular commodity meetings and committee members regularly attend offering updates to the attendees. Additionally, the BCLNA Board meets monthly and members of the committee are in attendance, providing an opportunity for regular project progress updates. This opportunity allowed for engagement, participation and confirmation of the following:

1. Project Methodology and Research Plan approval;
2. The Methodology and Research Plan report review and approval;
3. The LMI Tools and literature review and approval;
4. The LMI Tools report review and approval;
5. Progress updates related to data collection, for example Stats Canada, Census data and published resources;
6. Interview status; and
7. Survey response rates and status updates.

The industry stakeholders and LMP members, and committees understand the value of the project and look forward to learning more about the trends and potential strategies.

Selected industry stakeholders, LMP and committee members reviewed a copy of the LMI draft Final Report and provided feedback which has been addressed in this Final Report. The industry is aware of the labour market shortage at the provincial, national and international levels. Individuals within the sector wish to see a comprehensive analysis with identified solutions.

The first review and request for input related to the scope of analysis. The industry stakeholders directed the consultants to explore and take the time to collect data that would offer comprehensive detail on the sources of labour available to meet the potential demand in BC's agriculture-horticulture and landscape industry. The industry stakeholders were clear they need to know the analysis represents their industry and its labour market shortages as per the eight research components.

There was agreement on the project methodology and research plan as outlined by RKA. The committee offered comments that supported the approach and plan outlined by RKA. The LMI tools were discussed at length and again there was agreement with the methods of collecting data via interviews, surveys and focus groups. The challenge of doing so was noted with respect to the cycle of the industry. As pointed out earlier in this report the December holiday season and illness resulted in some delay. The delays and their impacts were out of the control of the consultants.

Stakeholder feedback and engagement was comprehensive with regards to the LMI tools, particularly the survey questions. There was steady debate about the number of questions, the rationale and logic of the questions and the delivery. Another challenge related to the survey was the division of the two sectors; agriculture-horticulture and landscape-horticulture. The landscape stakeholders felt the focus was heavy on agriculture and less on landscape. Language and style within the design of each question was discussed; the challenge was to ensure the correct wording without moving away from the focus of the research. Additionally, there was

a strong influence to include more questions. Rather than ask more questions it was determined best to stay focused on the eight key components for study. This approach brought all stakeholders back to the original purpose and allowed the process to move forward.

The industry has a strong voice and this is evident from the participation levels. Clear timelines were given for feedback and, typically, feedback came in both before and after the timeline for comment. Since the industry relies heavily on the Seasonal Agriculture Worker Program (SAWP) and winter 2017/18 saw challenges that left many of the committee members with little time to provide feedback for the study, many comments related to the survey design continued to be received late in the research process. They have been filed and acknowledged.

As RKA moved through the project and identified the methodology, research plan and LMI tools, the level of engagement increased. The BCLNA Board were interested to learn more and offered their input. Industry stakeholders attending various meetings provided their comments and insight while visiting the office.

The greatest achievement that is also a challenge is the participatory nature of the industry. In managing this project, feedback was vetted and reviewed and submitted to RKA keeping in mind the project components for analysis. This was a helpful process to keep the project on task.

The experience of this study has offered significant learning for the industry. It is recognized that other industries are also experiencing a labour shortage and it is provincial, national and international in scope. The data collection process has demonstrated the extent of the labour shortage and the industry has come to realize this process is important to advance the project to the next level.

3.0 SECTOR DESCRIPTIONS: AGRICULTURE-HORTICULTURE AND LANDSCAPE-HORTICULTURE

This section focuses on addressing research component #1:

- *A detailed description of the sector, including the types and number of businesses by sub-sector, types of occupations by NOC and NAICS, characteristics of the workforce in these sub-sectors.*

3.1 OVERVIEW OF THE SECTORS IN CANADA AND BRITISH COLUMBIA

CANADA

Canada's agriculture and agri-food sectors - which include primary agriculture, aquaculture, food and beverage processing, input and service suppliers, food distribution, retail, wholesale, and food service industries - are a major economic force. These sectors employ over 2.3 million Canadians and account for one in eight jobs in the Canadian economy, or 12% of total Canadian employment. They contribute over \$108 billion dollars annually, or 6.6% of Canada's gross domestic product (GDP). As demand for Canadian food and agriculture products increases worldwide, this contribution to the economy is expected to grow significantly.¹

The recent Canada Agricultural Human Resources Council (CAHRC) report, *Canada's Agriculture Sector Labour Market Forecast to 2025*, paints a challenging picture for the sector. It presents the challenges as follows:

*Without a thriving primary sector, the entire agri-food value chain is at risk. However, this sector faces labour challenges that threaten its continued growth. The area of greatest concern to agricultural employers and sector stakeholders is the persistent lack of workers, especially workers with the right skills who are located in areas where agricultural jobs are located.*²

Over the entire agricultural sector in Canada, despite the slow growth of labour demand between 2004 and 2014, the labour gap – the number of jobs that could have been filled, but were not able to be filled by domestic workers – steadily widened. In 2004, the labour shortage was estimated at 30,100 workers; by 2014, the gap has widened to 59,200 workers. CAHRC's research indicates that by 2025, this gap is expected to reach 114,000 workers, equivalent to more than one in four jobs unfilled.³

Nationally, the greenhouse, nursery, and floriculture industry will continue to have the largest labour gap; with 27,000 more jobs than available domestic workers by 2025. This commodity group will account for nearly one-quarter of the entire agricultural

¹ Canada Agricultural Human Resources Council. May 2016. Agriculture 2025: How the Sector's Labour Challenges Will Shape Its Future. Available online: https://cahrc-ccrha.ca/sites/default/files/files/Labour-Employment/NAT_reportE_final.pdf

² Canada Agricultural Human Resources Council. May 2016. Agriculture 2025: How the Sector's Labour Challenges Will Shape Its Future. Available online: https://cahrc-ccrha.ca/sites/default/files/files/Labour-Employment/NAT_reportE_final.pdf

³ Canada Agricultural Human Resources Council. May 2016. Agriculture 2025: How the Sector's Labour Challenges Will Shape Its Future. Available online: https://cahrc-ccrha.ca/sites/default/files/files/Labour-Employment/NAT_reportE_final.pdf

sector's labour gap. Other horticultural commodities will also continue to experience significant labour gaps.⁴

Across all provinces, Ontario is expected to face the largest share of the labour gap, with about 46,000 jobs potentially going unfilled. Alberta is the province expected to experience the fastest growth of labour gap – 7,000 jobs in 2014 rising to 23,000 by 2025. BC and Quebec are expected to experience a somewhat more modest labour gap, each with potentially 11,000 jobs unfilled.⁵

BRITISH COLUMBIA

In 2014, BC's agriculture sector employed 40,200 people, which is 11% of Canada's agricultural workforce. It is estimated that there were 9,100 more jobs than domestic workers could fill. Nearly half of the agriculture-horticulture sector workers (48%) are concentrated in the tree fruit and vine, and the greenhouse, nursery, and floriculture industries. It is possible that the province's agriculture-horticulture sector could potentially face up to 4,300 jobs unfilled by domestic workers by 2025.⁶

In the decade ahead, BC's agriculture-horticulture sector faces a bright production outlook and a growing demand for labour. The greenhouse, nursery, and floriculture industry, which is the province's second-largest agricultural employer, is predicted to see production grow by 2.5% per year between now and 2025.⁷

Even so, the challenges faced by the agriculture-horticulture sector are huge, with demographic shifts being the driving force. The large number of older retiring workers, and fewer young people entering the workforce, creates downward pressure on labour supply. Other challenges include the poor perception of the industry, as well as the physical and seasonal nature of the work.⁸

Due to the constant shortage of domestic labour supply, BC has been relying on foreign workers as a source of labour supply – in fact, BC has one of the highest levels of reliance on foreign workers of any province in Canada, second only to Ontario. In 2014, 6,800 foreign workers represented 17% of BC's 40,200 agriculture sector workforce.⁹ In the future, even if the province continues to rely on foreign workers to fill the labour gap, it is unlikely that the 11,000 jobs labour gap can be

⁴ Canada Agricultural Human Resources Council. May 2016. Agriculture 2025: How the Sector's Labour Challenges Will Shape Its Future. Available online: https://cahrc-ccrha.ca/sites/default/files/files/Labour-Employment/NAT_reportE_final.pdf

⁵ Canada Agricultural Human Resources Council. May 2016. Agriculture 2025: How the Sector's Labour Challenges Will Shape Its Future. Available online: https://cahrc-ccrha.ca/sites/default/files/files/Labour-Employment/NAT_reportE_final.pdf

⁶ Canada Agricultural Human Resources Council. May 2016. British Columbia Agricultural Labour Market Forecast to 2025. Available online: https://cahrc-ccrha.ca/sites/default/files/files/Labour-Employment/BC_reportE.pdf

⁷ Canada Agricultural Human Resources Council. May 2016. British Columbia Agricultural Labour Market Forecast to 2025. Available online: https://cahrc-ccrha.ca/sites/default/files/files/Labour-Employment/BC_reportE.pdf

⁸ Phoenix Strategic Perspectives Inc. (Phoenix SPI). April 2017. Agricultural Awareness Baseline Survey, Prepared for: Agriculture and Agri-food Canada. Available online: http://epe.lac-bac.gc.ca/100/200/301/pwgsc-tpsgc/por-ef/agriculture_agri-food/2017/091-16-e/report.pdf

⁹ Canada Agricultural Human Resources Council. May 2016. British Columbia Agricultural Labour Market Forecast to 2025. Available online: https://cahrc-ccrha.ca/sites/default/files/files/Labour-Employment/BC_reportE.pdf

closed using foreign labour.¹⁰ In recognizing the urgency of the situation, the agriculture-horticulture and landscape-horticulture sectors are coming together to find ways to deal with the labour shortage challenge. A further description of selected occupations in these sectors, along with their characteristics, is provided in the following Sector Description.

3.2 SECTOR DESCRIPTIONS

The sectors in this study – agriculture-horticulture, and landscape-horticulture - are two closely related yet distinctive sectors. The agriculture-horticulture sectors are growers that produce vegetable and fruit outdoors and in greenhouses, as well as nursery stock and flowers. The landscapers and turf sectors are some of the major clients who purchase the nursery and floriculture products, and apply landscaping services in residential, commercial and park settings. This section describes these two sectors in terms of their economic value.¹¹

AGRICULTURE-HORTICULTURE SECTOR

In 2017, there were 665 greenhouse operations in BC, 58 million square feet.¹² For these greenhouses, the average number months of operation is 9.5 months per year.¹³ Of these greenhouses, 154 out of 665 (23%) specialize in growing fruit and vegetables, covering 56% of the total square footage. Another 285 (43%) specialize in growing plants and flowers, which cover 29% of the total square footage.¹⁴ The rest of the greenhouses are mixed (vegetables, flowers, and plants) operations.

Although there are fewer greenhouses specializing in growing fruit and vegetables, the average size of the operations are larger, when compared with greenhouses that specialize in growing plants and flowers. The total sales of greenhouse plants and flowers in 2017 amounted to \$344 million, while total sales of greenhouse vegetables and fruit were \$304 million. The total greenhouse sales were almost \$648 million.¹⁵

Of all the greenhouse plants and flowers sold, the largest proportion, at 41%, was distributed to mass market chain stores. About 10% of total sales were exported, and this proportion has been growing over the past five years.¹⁶ For greenhouse fruit and vegetable growers, the largest proportion (54%) was sold to wholesalers, with another 17% for export.¹⁷ For greenhouse operations, the single largest line item of operating expenses, almost 30%, goes to gross payroll. In 2017, total payroll for all the greenhouse operations amounted to \$162 million.¹⁸

¹⁰ Canada Agricultural Human Resources Council. May 2016. British Columbia Agricultural Labour Market Forecast to 2025. Available online: https://cahrc-ccrha.ca/sites/default/files/files/Labour-Employment/BC_reportE.pdf

¹¹ Source of data for the sector profile is data tables (CANSIM tables) derived from Statistics Canada's Annual Greenhouse, Sod and Nursery Survey, (including CANSIM tables 001-0006, 001-0046, 001-0047, 001-0048, 001-0049, 001-0050, 001-0051, 001-0052, 001-0053, 001-0054, 001-0055, 001-0057, 001-0059, 001-0060, 001-0061, and 001-0076), as well as the Business Register.

¹² Estimates of greenhouse total area and months of operation, annual (001-0046).

¹³ Estimates of greenhouse total area and months of operation, annual (001-0046).

¹⁴ Estimates of specialized greenhouse operations, greenhouse area, and months of operation, annual (001-0047).

¹⁵ Channels of distribution for horticulture product sales and resales, annual (dollars) (001-0050).

¹⁶ Channels of distribution for horticulture product sales and resales, annual (dollars) (001-0050).

¹⁷ Channels of distribution for horticulture product sales and resales, annual (dollars) (001-0050).

¹⁸ Greenhouse producers' operating expenses, annual (dollars) (001-0052).

The total number of employees in the province’s greenhouse operations was approximately 6,200 in 2017.¹⁹ Seasonal employees, who work less than eight months a year, account for 56% of the total workforce, while permanent employees, who work more than eight months per year, account for the other 44% of the workforce.²⁰ Greenhouse operations specializing in growing fruit and vegetables employed about 37% of the total greenhouse workforce; while operations specializing in flowers and plants employed about 42% of the total workforce.²¹

As well, sod operations (30 in BC) employed approximately 100 persons, with an annual gross payroll of almost \$2.4 million.²² Nursery operations in the province employed 2,860 persons, with an annual gross payroll of \$54 million.²³ The distribution of seasonal and permanent employees in nursery operations was similar to greenhouse operations (56% and 44% respectively).²⁴

Results from interviews and surveys indicate that in terms of labour cycle, the core staff works year-round with increasing staffing needs leading to the largest labour requirement during the busiest period mid-February/March through mid-June then slowing down and increasing again September/October. The slowest period is most often November through January.

A number of major occupations have been selected and provided more detailed description here using data most recently available from the 2016 Census. They are selected because of their importance in the sector. The figure below shows the labour force status of these occupations.

Figure 4: Labour Force Status of Selected Occupations in Ag-Hort, 2016

Labour Force Status	NOC 0821: Managers in agriculture	NOC 0822: Managers in horticulture	NOC 8252: Agricultural service contractors, farm supervisors and specialized livestock workers	NOC: 8432 Nursery and greenhouse workers	NOC 8611: Harvesting labourers
In the labour force	235	775	45	2,930	0
Employed	240	760	40	2,715	0
Unemployed	0	10	0	215	0
Not in labour force	10	40	10	435	0
Total*	250	810	45	3,365	0

**Note: Total may not add up due to rounding.*

(Source: Statistics Canada, Census 2016)

¹⁹ Total greenhouse, sod and nursery employees, annual (001-0054).

²⁰ Total greenhouse, sod and nursery employees, annual (001-0054).

²¹ Total number of employees of specialized greenhouse operations, annual (001-0055).

²² Estimates of sod area, sales and resales, annual (001-0060) and nursery and sod producers' operating expenses, annual (dollars) (001-0061).

²³ Total greenhouse, sod and nursery employees, annual (001-0054) and nursery and sod producers' operating expenses, annual (dollars) (001-0061).

²⁴ Total greenhouse, sod and nursery employees, annual (001-0054).

NOC 0821: Managers in Agriculture

In 2016, 250 individuals identified themselves in this occupation. The unemployment rate of this occupation was zero, indicating that the labour market conditions were favourable for these individuals. Only a small percentage of individuals identified themselves “not in the labour force”, meaning they were possibly seeking education, ill, or retired.

Among these managers, 68% were male and 32% female. Female representation in this occupation is much lower than the general workforce – compared with the 48% in general workforce. However, the proportion of female managers in this occupation is much higher than the proportion of female managers in the broader middle management occupations in trades, transportation, production and utilities (20%).

Among these managers, because of the skills and experience required, no one was in the 15-24 age cohort. Those in the 25-54 age cohort accounted for 51% of all those employed, and 49% identified themselves aged 55 and over. The proportion of older workers in this occupation is much higher than the general workforce – compared with 23% in the workforce. Only 4% of these managers indicated that they had an Indigenous identity.

About 17% of these managers had below high school education, while another 35% had completed high school, and 48% had achieved some form of post-secondary education. These managers’ educational attainment was much lower than the middle management occupations in trades, transportation, production and utilities group, and even much lower than the general workforce. By comparison, only 9% of the general workforce had below high-school education, 29% had completed high school education, and 63% had completed some form of post-secondary training.

NOC 0822: Managers in Horticulture

In 2016, 810 individuals identified themselves belonging to this occupation in agriculture-horticulture production. The occupational unemployment rate was almost zero, an indication of favourable labour market conditions for workers. The proportion who identified themselves as “not in the labour force” (because of illness or seeking other training or other reasons) was also very low (about 5%).

Almost half of these managers were female – similar to that in the general workforce (48%). The proportion of female managers in this occupation is much higher than the proportion of female managers in the broader middle management occupations in trades, transportation, production and utilities (20%).

The proportion of managers in horticulture who were 15-24 years old accounted for only 5% of the total, reflecting the level of experience and skills required of this occupation. Those in the 25-54 age group accounted for 56%, while those 55 years and older represented 39% of all in this occupation, a much higher proportion than the general workforce (23%). The proportion of older managers is similar to the proportion of middle management occupations in trades, transportation, production and utilities in this age cohort (35%). Only a very small percentage (2%) of these managers indicated that they are of an Indigenous identity.

Compared with managers in agriculture, the proportion of managers in horticulture who have completed some form of post-secondary education is higher (55% vs. 48%). Still, the proportion of these managers who did not have any form of post-secondary training (55%) was much lower than the general workforce (63%).

NOC 8252: Agricultural Service Contractors, Farm Supervisors and Specialized Livestock Workers

In 2016, 45 individuals identified themselves belonging to this occupational group, with an unemployment rate of zero. This may reflect the fact that the contractors in this occupational group were self-employed, and that the labour market condition for farm supervisors was tight.

The gender distribution amongst contractors and supervisors in this occupational group was similar to the general workforce (56% male and 44% female). No contractors or supervisors identified themselves as Indigenous. Half of workers in this group were between 25-54 years old, and the other half were in the older age cohort (age 55 and over).

The level of educational attainment of this occupational group was not high – fewer than half of these contractors and supervisors (48%) had some form of post-secondary training, a proportion much lower than the average for all workers (63%).

NOC 8432: Nursery and Greenhouse Workers

There were 3,365 individuals who considered themselves in the occupation of nursery and greenhouse workers in 2016, with an unemployment rate of about 7.3%, higher than the unemployment rate for all occupations (5.0%). This may be an indication of workers in between jobs, or looking for work. Those considered themselves “not in the labour force” (almost 13%) could be pursuing training, ill, or for other reasons.

Workers in this occupation are either younger or older than the general workforce. About 17% of nursery and greenhouse workers were 15-24 years old, a proportion higher than the general workforce (12%). Those in the 25-54 age group accounted for a little more than half of all workers (53%) in this occupation, a smaller proportion when compared with the general workforce (65%). Older workers, those aged 55 and over, accounted for 31% of all workers in this occupation. By comparison, older workers accounted for 23% of the overall workforce.

A much higher than average proportion of workers in this occupation were female (about seven out of ten) – compared with the average of 48% female representation in the general workforce.

The educational attainment of nursery and greenhouse workers was much lower than the general workforce. Those who never completed high school accounted for 33%, much higher than the proportion in the general workforce (9%). Those who completed high school accounted for another 41%, compared with only 29% in the general workforce.

NOC 8611: Harvesting Labourers

Although this occupation was selected for detailed analysis, there was no indication they were counted in the Census data. It is possible that essentially no domestic workers identified themselves working in this occupation in agriculture-horticulture production, but as nursery and greenhouse workers instead. Also, the timing of when Census is conducted (in May) does not coincide with the time when harvesting labourers are hired. Alternatively, if these were mostly foreign workers, they would not have participated in the Census program.

LANDSCAPE-HORTICULTURE SECTOR

Landscaping services in the province are dominated by operations with few employees or no employees, while golf and country clubs often have establishments with large numbers of employees. The table below shows the distribution of business counts by employee size.

Figure 5: BUSINESS EMPLOYEE COUNTS, BY EMPLOYMENT SIZE, BC, JUNE 2017²⁵

Business Employees	Landscaping Services	Golf & Country Clubs
Without employees	1,930	45
With employees 1 to 4	1,115 (59%)	27 (11%)
With employees 5 to 9	484 (26%)	33 (14%)
With employees 10 to 19	187 (10%)	42 (18%)
With employees 20 to 49	91 (5%)	60 (25%)
With employees 50 to 99	13 (1%)	48 (20%)
With employees 100 to 199	7 (0%)	21 (9%)
With employees 200 to 499	0 (0%)	4 (2%)
With employees 500 & plus	0 (0%)	1 (0%)

(Source: Statistics Canada, CANSIM Table 552-0006 and 553-0006)

Results from the interviews and surveys indicate that in terms of labour cycle, the busiest times are mid-March through early October for lawn and garden maintenance. For landscape infrastructure building and installation, work takes place year round as long as weather is not too cold or too hot (for planting).

Detailed information is presented below for a number of occupations in the landscaping/golf course sector, based on data from the 2016 Census.

²⁵ Percentages shown refer to distribution by the number of employees within business counts with employees. It is also noted that these are business location counts, meaning they are counted according to the number of “statistical locations” they have. For example, a retail business with 10 stores and a head office is counted 11 times in the Canadian business counts.

Figure 6: Labour Force Status-Selected Occupations, Landscaping Sector, 2016

Labour Force Status	NOC 0822: Managers in horticulture	NOC 2225: Landscape and horticulture technicians and specialists	NOC 7522: Public works maintenance equipment operators and related workers	NOC 8255: Contractors and supervisors, landscaping, grounds maintenance and horticulture services	NOC 8612: Landscaping and grounds maintenance labourers
In labour force	50	2,200	195	3,130	14,465
Employed	50	2,070	170	3,030	13,315
Unemployed	0	130	30	95	1,155
Not in the labour force	0	160	50	250	2,525
Total*	45	2,355	250	3,375	16,990

(Source: Statistics Canada, Census2016.) * Note that total may not add up due to rounding.

NOC 0822: Managers in Horticulture

In 2016, about 50 individuals identified themselves belonging to this occupation in the landscape sector, with an occupational unemployment rate of zero, an indication of favourable labour market conditions (for workers) for this occupation. The proportion who identified themselves as “not in the labour force” (because of illness or seeking other training or other reasons) was also essentially non-existent.

Six in ten of these managers were female – much higher than the average for the general workforce (48%). Even compared with these managers in agriculture-horticulture production, the proportion of female managers in this occupation is much higher (60% vs. 49%).

Essentially no managers in horticulture working in the landscape sector were 15-24 years old – reflecting the level of experience and skills required of this occupation. The majority of these managers were in the 25-54 cohort (70%), a proportion even higher than managers in horticulture working in agriculture-horticulture production. The other 30% of these managers were 55 years and older, which is a much higher proportion than the general workforce (23%). The higher than average proportion of managers in this age cohort implies that these managers are close to normal retirement age, the pressure to find new workers or promote within the industry gets even more urgent. None of these managers indicated that they are of an Indigenous identity.

Compared with managers in agriculture, the proportion of managers in horticulture who have completed some form of post-secondary education is higher (55% vs. 48%). Still, the proportion of these managers who did not have some sort of post-secondary training (55%) was much lower than the general workforce (63%).

NOC 2225: Landscape and Horticulture Technicians and Specialists

In 2016, about 2,355 individuals identified themselves in the occupational group of landscape and horticulture technicians and specialists working in the landscape sectors. The occupational unemployment rate was 5.9%, similar to the average for all occupations (5.0%). About 6.8% of these technicians and specialists were “not in the labour force”, indicating that they may be pursuing training, due to illness or other reasons.

The majority of these technicians and specialists were male (72%), much higher than the general workforce (52%). Consequently, female representation in this occupation (28%) is much lower than the workforce average (48%).

About 8% in this occupation were 15-24 years old, a proportion slightly lower than the average for all workers in the province (12%). The proportion of those in the 55 years and older age group is the same as the average for all occupations (23%). Therefore, those in the 25-54 age cohort accounted for 69% of all in this group, a proportion higher than the general workforce (65%).

Because of the education and training requirement for this occupation, the majority (73%) have completed some form of post-secondary education and training. Within those who have had some post-secondary training, 23% had obtained a trades certificate or diploma, 39% obtained college or other non-university certificate or diploma, 20% obtained a bachelor’s degree, and 6% obtained a Master’s degree. About 7% of landscape and horticulture technicians and specialists reported an Indigenous identity.

NOC 7522: Public Works Maintenance Equipment Operators and Related Workers

In 2016, 250 individuals identified themselves working as public works maintenance equipment operators and related workers in landscape services. Occupational unemployment rate was 15.4%, much higher than unemployment rate for the province’s workforce (5.0%). This may be reflective of the seasonal nature of the work. Twenty per cent of the people in the occupation also identified themselves “not in the labour force”, indicating that they could be retired, pursuing training, or ill.

This is a male-dominated occupation. In fact, Census data indicated that all employed workers in this group were male.

In terms of age distribution, 15% in this occupation were of age 15-24 years old, a proportion slightly higher than the average for the overall workforce in the province (12%). The proportion of those in the 55 and older age group (18%) was much lower than the average for all occupations (23%). Consequently the proportion of those aged 25-54 years accounted for 67%, a share slightly higher than the average for all occupations.

In general, public works maintenance equipment operators and related workers do not have a very high level of education; 19% did not complete high school, and another 45% had completed high school. Those who have completed some form of post-secondary education and training accounted for 37%, a proportion much lower than the average for all occupations (63%). About 6% of these workers indicated Indigenous identity.

NOC 8255: Contractors and Supervisors, Landscaping, Grounds Maintenance and Horticulture Services

In 2016, 3,375 individuals identified themselves belonging to this occupational group. The occupational unemployment rate was 3.0%, much lower than the average for all occupations (5.0%). This may reflect the fact that many in this occupational group were self-employed. 7.4% of those in this occupation identified themselves as “not in the labour force”, due to reasons such as retirement, illness, or pursuing education.

The majority of contractors and supervisors in this occupational group were male (83%), while female contractors and supervisors accounted for only 17% of the total.

Three out of four workers in this group were between 25-54 years old. Conversely, the shares of those in the young age cohort (15-24 years old) and older age cohort (age 55 and over) were lower than the workforce averages (6% vs. 12%, and 19% vs. 23%). About 4% of contractors and supervisors in landscaping services indicated indigenous identity.

The level of educational attainment of this occupational group was not high when compared with the general workforce average – 14% did not complete high school, 38% had a high school diploma. Fewer than half of these contractors and supervisors had some form of post-secondary training, a proportion much lower than the average for all workers (63%).

NOC 8612: Landscaping and Grounds Maintenance Labourers

In 2016, 16,990 individuals identified themselves belonging to this occupation in the landscaping services sector. The unemployment rate for these labourers was 8%, higher than the average for the general workforce. This could be because of the seasonal nature of the work, or that workers were in between jobs. Almost 15% of these labourers reported that they were not in the labour force at the time the Census was conducted. The reason they were not in the labour force could be they were pursuing training, ill, looking after family, or retired.

Landscaping and grounds maintenance labourers were predominantly male (80%), while female labourers accounted for 20% of the total occupation.

Because of the physical nature of the work, young workers in the 15-24 years age group accounted for almost one-third of all those employed (29%), a proportion much higher than in the general workforce (12%). About 20% of workers in this occupation were aged 55 and over, a proportion just slightly lower than the general workforce (23%). This relatively high percentage of older workers in this occupational group is attributed to those working as grounds maintenance labourers in golf courses (about 29%).

About 8% of workers in this occupational group were of an Indigenous identity – the highest proportion in all the occupations reviewed in this section.

The level of educational attainment of this group of workers was lower than the general workforce. Those who did not complete high school accounted for 20%, compared with 9% in the general workforce. Those who had completed high school accounted for 45% of all employed, much higher than the 29% in the general workforce. Conversely, those who obtained some form of post-secondary training accounted for only 35%, compared with 63% in the general workforce.

3.3 IMPLICATIONS FOR THE SECTORS

The sectors in this study – agriculture-horticulture, and landscape-horticulture - are two closely related yet distinctive sectors. The agriculture-horticulture sectors are growers that produce vegetable and fruit outdoor as well as in greenhouses, as well as nursery stock and flowers. The landscapers and turf sectors are some of the major clients who purchase the nursery and floriculture products and apply landscaping services in residential, commercial and park settings.

Workers in the agriculture-horticulture production sector are more likely to work indoors, although there are those in outdoor nurseries, and those working in landscaping work predominately outdoors. The work is physically demanding. Seasonal work is also common in both sectors. In greenhouse, nursery and floriculture operations, there are more seasonal workers than permanent employees.

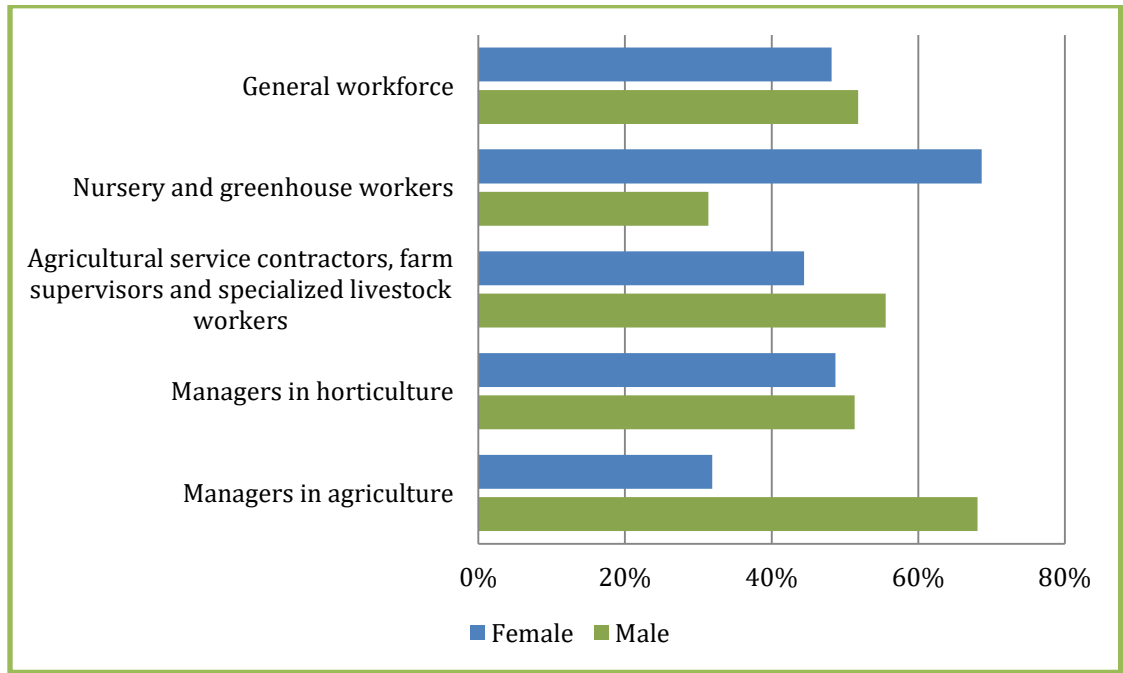
Based on CAHRC's research, the national labour gap in the agricultural and agri-food sector was estimated at 30,100 workers. By 2014, the gap had widened to 59,200 workers. By 2025, this number of unfilled jobs by domestic workers is expected to reach 114,000, equivalent to more than one in four jobs to be filled.

Nationally, the greenhouse, nursery, and floriculture industry will continue to have the largest labour gap; with 27,000 more jobs than available domestic workers by 2025. This commodity group will account for nearly one-quarter of the entire agricultural sector's labour gap.

In BC, output in the greenhouse, nursery and floriculture sector is projected to grow at 2.5% per year from now to the year 2025. BC's share of the labour gap in the entire agriculture sector – potentially some 11,000 workers by 2025 - may make this rate of growth unachievable. Given that the tree fruit and vine and the greenhouse, nursery, and floriculture industries account for almost half of the entire agriculture workforce, it is projected that these industries could potentially face up to 4,300 jobs unfilled by domestic workers by 2025.

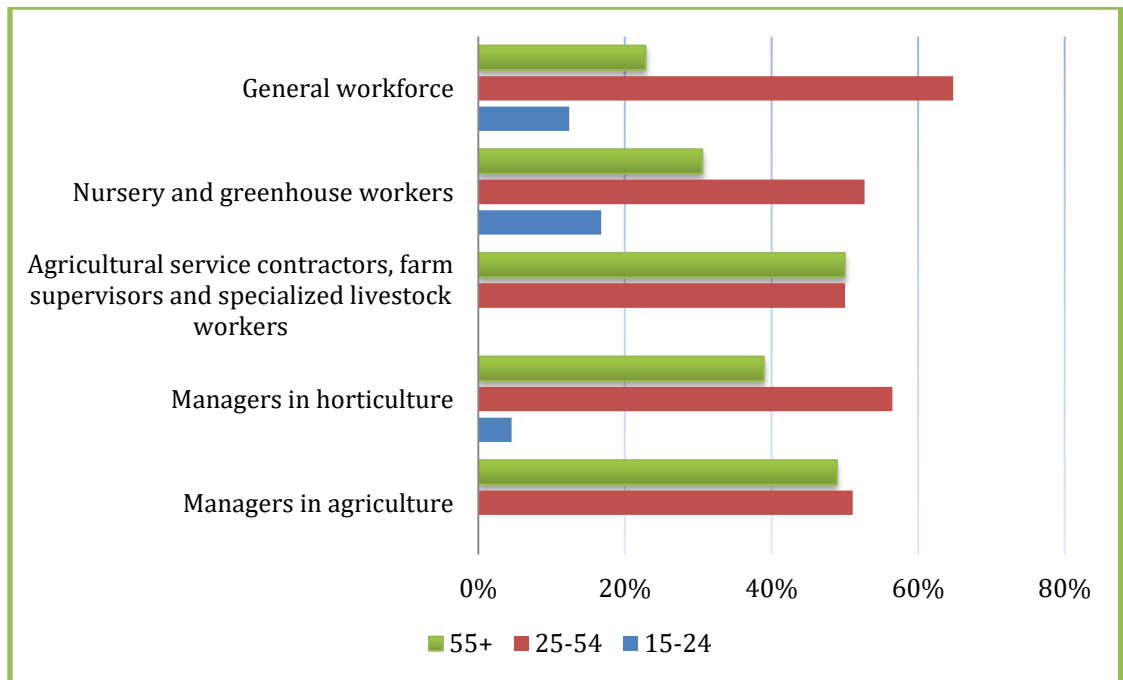
The four figures below summarize the demographic profiles of major occupations in these two sectors, and how they compare with the general workforce in the province.

Figure 7: Selected Occupations in Ag-Hort Production Sector, by Gender, 2016



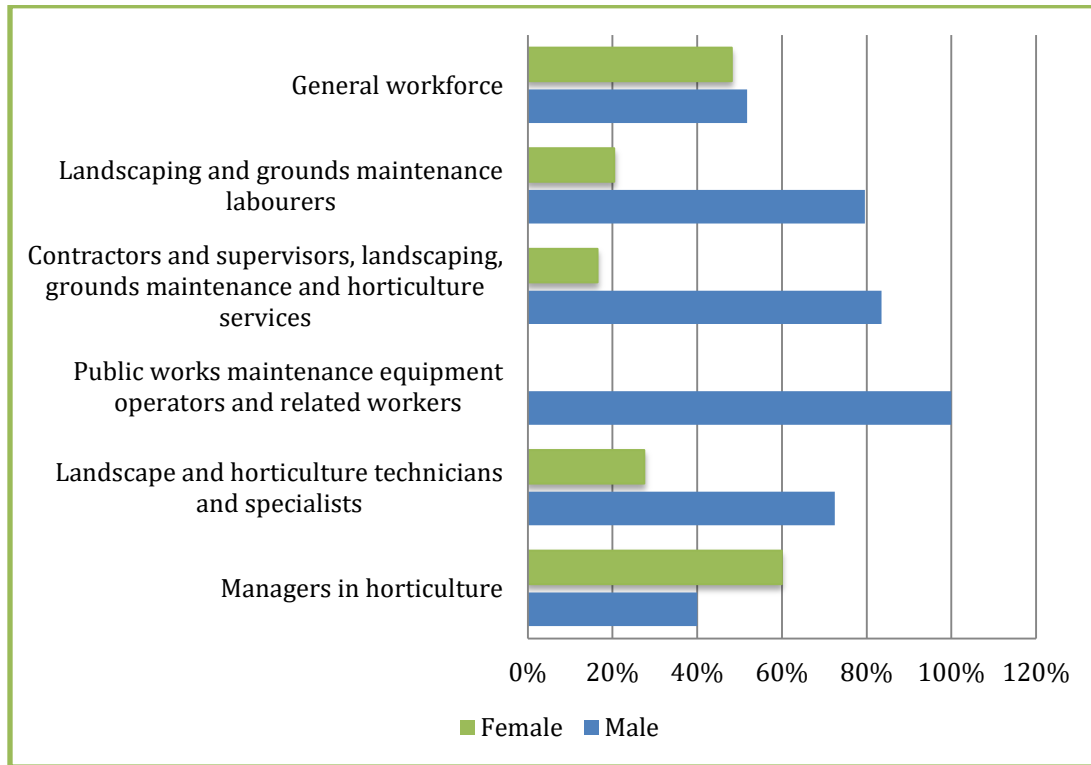
(Source: Statistics Canada, Census 2016.)

Figure 8: Selected Occupations in Ag-Hort Production Sector, by Age, 2016



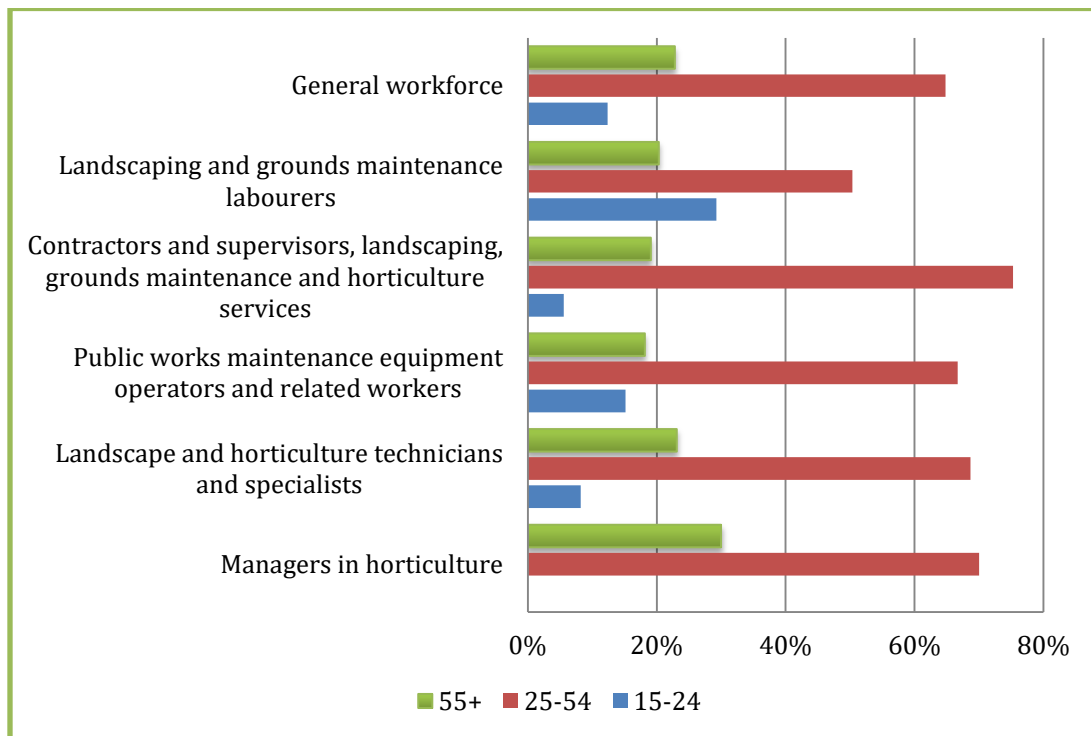
(Source: Statistics Canada, Census 2016.)

Figure 9: Selected Occupations in Landscaping Sector, by Gender, 2016



(Source: Statistics Canada, Census2016.)

Figure 10: Selected Occupations in Landscaping Sector, by Age, 2016



(Source: Statistics Canada, Census2016.)

The profiles of workers in the agriculture-horticulture sector and the landscape services sector show the differences - the landscaping sector is dominated by small business owners with few or no paid employee help. The age profiles of workers are quite different from that of workers in agriculture-horticulture production. These workers are much younger. Those working as arborists have an educational attainment similar to other technical occupations in the general natural and applied science field.

Challenges faced by the agriculture-horticulture sector are enormous, with demographic shifts being the driving force. The large number of older retiring workers, and fewer young people entering the workforce, creates downward pressure on labour supply. The specific occupational groups for which we presented detailed data analysis (from managers to contractors and nursery workers) all paint a picture of a workforce with a much higher than average proportion of older workers nearing retirement age.

4.0 LABOUR SHORTAGES AND SKILL GAPS

This section focuses on addressing research component #2:

- *An analysis of labour shortages and of key skills gaps;*

4.1 OVERVIEW OF THE SECTORS IN BC

The BC agriculture-horticulture and landscape sectors encompass diverse sub-sectors, which presents the potential for very specific issues around labour shortages and skills gaps. As a result, care was taken to investigate each sub-sector to validate sector wide findings and identify unique challenges on context.

The research has confirmed that all sub-sectors struggle to recruit and retain pure unskilled labour. Supervisors and managers with the right knowledge, people-skills, industry expertise, the cyclical nature of the work and vision are also in short supply across both the agriculture-horticulture and landscape-horticulture sectors. Respondents to interviews with HR managers indicate that the agricultural-horticulture and the landscape-horticulture sectors compete with other industries for labour, specifically construction which pays higher wages and is therefore more attractive for many domestic workers. Similarly, the tourism and hospitality sector also offers entry-level job opportunities that are attractive to the same potential pool of labour.

In 2017, the sectors with the largest increase in payroll employment in BC were accommodation and food services (+9,400 or +4.2%), construction (+7,100 or +4.9%), and health care and social assistance (+6,900 or +2.7%).²⁶ By comparison, employment in the entire crop production sector declined by 1,500 jobs in 2017.²⁷

All sub-sectors struggle to some degree with the challenges of finding suitable labour to fill part-time and seasonal positions. Likewise, all season outdoor working conditions are deterrents for many domestic workers regardless of sub-sector. Within the agriculture-horticulture sub-sector, there were perceived differences in recruiting and retaining labour in outdoor field positions, versus indoor greenhouse work – which while also tedious and repetitive, does protect workers from much of the weather challenges. Across the agriculture-horticulture sub-sector, there is an insatiable demand for unskilled labour and skills or training needs do not present an issue. Expertise and skills in farm management knowledge are in demand, and there is a consistent shortage of skilled mechanics and shop workers.

Within the fruit growers sub-sector, 90% of jobs are unskilled manual repetitive labour, and 10% of jobs are skilled; gaps are present for both skilled and unskilled labour, according to respondents to stakeholder interview. Annually, up to 1,000 young people from Quebec also work in the tree fruit industry seasonally, which is unique to this sector of agriculture and seen as a popular “rite of passage”. There is also some supplementary labour filled by Indigenous people, which often requires training, support, and special funding, according to company and industry association interview respondents.

²⁶ Statistics Canada. 2018. *Annual Review of the Labour Market, 2017*. Statistics Canada Catalogue no. 75-004-M-2018001.

²⁷ Statistics Canada, Labour Force Survey (LFS), unpublished data reproduced and distributed with permission by Statistics Canada, prepared by BC Stats.

Despite these unique labour pools, fruit growers struggle to fill their labour needs. This sub-sector has a strong need for skilled supervisors who are able to manage people both in terms of directing the work and managing the human resource needs that can present themselves. There is also a shortage of skilled horticulturalists to meet the needs of fruit-growers. Horticulturalists working in these farms require knowledge of irrigation, spray, insect control, pesticide, growth regulations, et cetera.

The actual number of active apprenticeship registrants in the Production Horticulturist programs is minimal; however, as noted in Section 5.0 of this report. The tree fruit and vine industry includes farms that produce tree fruits (apples, apricots, cherries, pears and peaches), tree nuts (walnuts and hazelnuts), berries and vineyards. The growing of the crops listed is labour-intensive – hand picking, harvesting, packing and lifting, for example. This sub-sector has traditionally relied heavily on foreign workers to fill the void.²⁸

For berry growers, low wages and unpleasant working conditions are the biggest challenge. This subsector is heavily dependent on Mexican labour, and thus vulnerable to the shifts and timing of temporary foreign worker programs. Berry growers utilize domestic workers for higher skilled and supervisory jobs including more advanced horticulture roles, mixing and selecting spray structure and truck drivers. All of these jobs can be difficult to fill.

Within the horticulture sub-sector, there is a shortage of experienced growers and supervisors. Company owners are often unable to fill positions for people requiring several years of experience and a certificate or diploma. More broadly there seems to be a large gap around horticultural knowledge and technical skills including pruning, tree care, and pest management. Looking towards the future, the horticultural sub-sector is anticipating a critical need for middle managers and senior growers as a result of existing workers retiring.

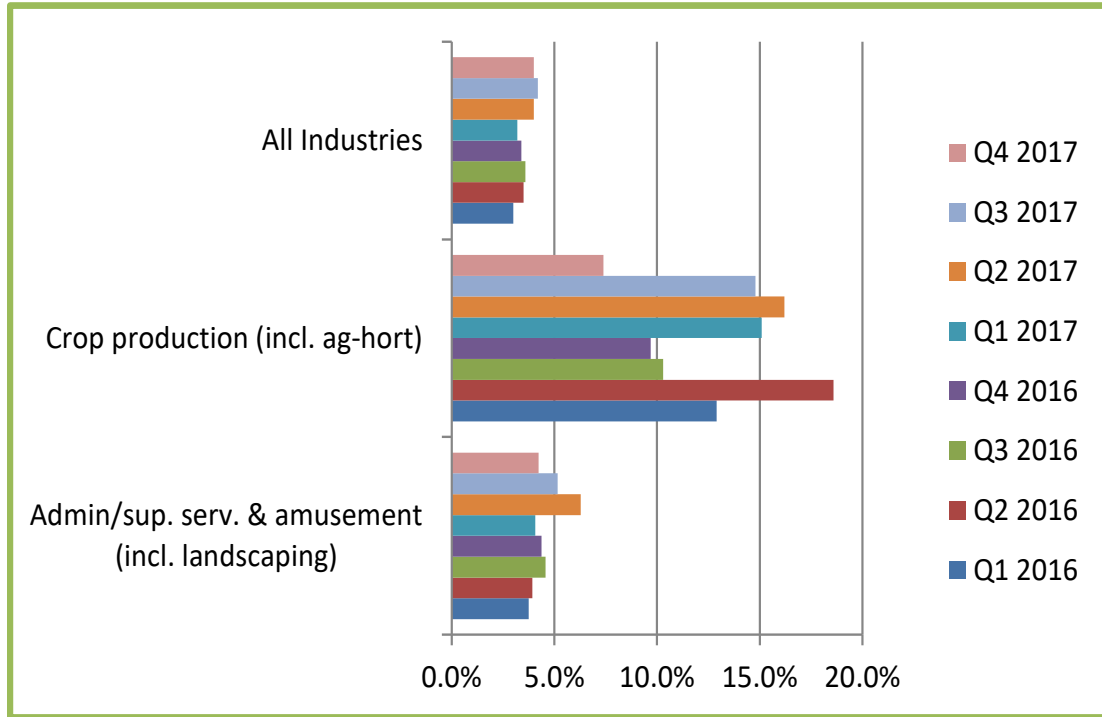
The landscaping sub-sector needs more workers with job-ready skills. Many applicants expect to be placed into supervisor or managerial roles without putting in the time or even having any training. A key challenge highlighted by managers was difficulty finding workers with a good attitude, ability to work as part of a team, and a willingness to continue learning and growing in the role. The information garnered from respondents to association and human resource manager interviews indicate that new hires have an expectation of a wage rate that is unrealistic when starting a new career in the industry. These respondents were also of the opinion that many new hires require further guidance when it comes to workplace professional issues – for example, reporting to work on time, communication and problem-solving, use of mobile phones, working on designated tasks, consistent quality work, and being a part of the team.

Statistical data available from the Job Vacancy and Wage Survey by Statistics Canada certainly supports these findings in general, although data limitation makes it impossible to get as much detail as the specifics from interviews. The figure below shows job vacancy rates for the broader industry groupings to which agriculture-horticulture production and landscaping services belong, compared with the all-industry average in the province. The data presented indicates that job vacancy rates

²⁸ Canadian Agricultural Human Resource Council. (December 2017.) A Review of Canada's Seasonal Agriculture Worker Program.

in these two broader industry groupings have been consistently higher than the all-industry average.

Figure 11: Job Vacancy Rates, Selected BC Industries, Quarterly 2016 & 2017



(Note: vacancy rate in crop production in 4th quarter of 2017 carries a data qualifier of “E” meaning that the reader should use it with caution)

(Source: Statistics Canada, CANSIM Table 285-0002.)

In BC, the three largest occupations for which there is limited occupational vacancy data available are presented with data showing the size of the vacancy as well as wages offered for these vacancies.

Figure 12: Job Vacancies and Hourly Wage Rate Offered for Selected Occupations, Ag-Hort Production and Landscaping Sectors, Quarterly, 2017

Quarter	NOC 8432: Nursery & greenhouse workers	NOC 8611: Harvesting labourers	NOC 8612: Landscaping and grounds maintenance labourers
Q1 2017	155 ^E \$11.40	--	1,025 ^E \$16.10
Q2 2017	F \$11.50	--	1,500 \$15.85
Q3 2017	590 ^E \$11.45	2,350 ^E \$11.20	980 \$16.15
Q4 2017	F \$11.75	-- \$11.55	445 ^E \$16.85

* Data qualifier: E – use with caution. F – too unreliable to be published. – not available

(Source: Statistics Canada, CANSIM Table 285-0003.)

Using data for national vacancies, below are the characteristics of farm related workers (NOC 8431 General Farm Workers NOC 8432 Nursery and Greenhouse Workers, and NOC 8611 Harvesting Labourers):

- Over two-thirds of the vacancies required full-time workers (30 or more hours of work per week). This is higher than the job vacancies for all occupations in Canada where relatively more vacancies were for part-time jobs (less than 30 hours per week).²⁹
- Vacancies for farm-related occupations are much more likely to be seasonal jobs. Since 2015, more than one-half of the vacancies for general farm workers have been for seasonal employment.³⁰
- Among nursery and greenhouse workers, up to one-half of the vacancies were for permanent jobs in the 3rd quarter of 2015, 2016 and 2017. In the other quarters, over one-half of the vacancies were for seasonal jobs.³¹
- Most vacancies for harvesting labourers are for seasonal jobs (except in the winter months (i.e., 4th quarter of 2016 and 2017)) when most vacancies for the few harvesting jobs were for permanent jobs).³²
- Most vacancies (60% or more) for farm-related occupations have no minimum educational requirement.³³
- Most of vacancies for farm-related occupations required little or no experience (less than one year of experience).³⁴
- To maintain their workforce, employers of farm-related occupations were more likely to be continuously recruiting, compared to businesses with vacancies for other occupations.³⁵

In landscaping services, for the occupation of Landscaping and Grounds Maintenance Labourers (NOC 8612), just slightly over half of the vacancies required full-time work, while the other half of vacancies required part-time work.³⁶

About three-quarters of the vacancies were in seasonal work. In fact, the proportion of seasonal work related vacancies was even higher than those for farm-related workers.³⁷

²⁹ CAHRC LMI Update “Job vacancies in selected agri-related occupations: Update to the 4th quarter of 2017”. <https://www.cahrc-ccrha.ca/programs-services/agrilmi/research>

³⁰ CAHRC LMI Update “Job vacancies in selected agri-related occupations: Update to the 4th quarter of 2017”. <https://www.cahrc-ccrha.ca/programs-services/agrilmi/research>

³¹ CAHRC LMI Update “Job vacancies in selected agri-related occupations: Update to the 4th quarter of 2017”. <https://www.cahrc-ccrha.ca/programs-services/agrilmi/research>

³² CAHRC LMI Update “Job vacancies in selected agri-related occupations: Update to the 4th quarter of 2017”. <https://www.cahrc-ccrha.ca/programs-services/agrilmi/research>

³³ CAHRC LMI Update “Job vacancies in selected agri-related occupations: Update to the 4th quarter of 2017”. <https://www.cahrc-ccrha.ca/programs-services/agrilmi/research>

³⁴ CAHRC LMI Update “Job vacancies in selected agri-related occupations: Update to the 4th quarter of 2017”. <https://www.cahrc-ccrha.ca/programs-services/agrilmi/research>

³⁵ CAHRC LMI Update “Job vacancies in selected agri-related occupations: Update to the 4th quarter of 2017”. <https://www.cahrc-ccrha.ca/programs-services/agrilmi/research>

³⁶ Job Vacancy and Wage Survey (285-0004).

³⁷ Job Vacancy and Wage Survey (285-0004).

Similar to farm-related workers, most of the vacancies for landscaping and grounds maintenance labourers required no minimum levels of education or little experience.³⁸

Different from farm-related workers, duration of the vacancies for landscaping and ground services labourers tend to be shorter, and therefore a smaller proportion of employers need to be constantly recruiting.³⁹

4.2 LABOUR SHORTAGES

Labour shortages are evident across all skill levels and all subsectors. Whether looking to employ a skilled arborist, a crew supervisor, or a labourer – employers are struggling. Some regional trends were noted, in that highly skilled specialists were more difficult to recruit in rural or remote areas, and unskilled labour more difficult to come by in urban areas where there are more competing opportunities and a higher cost of living. These differences, were only a matter of degrees, however, as all employers interviewed and surveyed for this project noted they were impacted by labour shortages at some level.

In order to recruit for their labour needs, most employers are trying hard. Employment opportunities are posted across all possible online platforms, and advertisements are placed on company trucks and in local newspapers. Some employers build relationships with training institutions and local high schools in the hopes of attracting summer students and new graduates.

The survey of industry associations and HR managers indicated that employers have the most success hiring permanent full-time workers; however, the industry as a whole struggles with hiring low-skilled seasonal workers.

The most common reasons identified by HR managers in the survey for these struggles include:

- Not enough applicants
- Opportunities with other industries or employers
- The working conditions do not appeal to most potential workers, which includes:
 - relatively low wages;
 - physical outdoor work;
 - competition from other industries; and
 - seasonal employment.

See the figure below for more details.

³⁸ Job Vacancy and Wage Survey (285-0004).

³⁹ Job Vacancy and Wage Survey (285-0004).

Figure 13: Barriers to Attract Applicants - HR Managers Survey



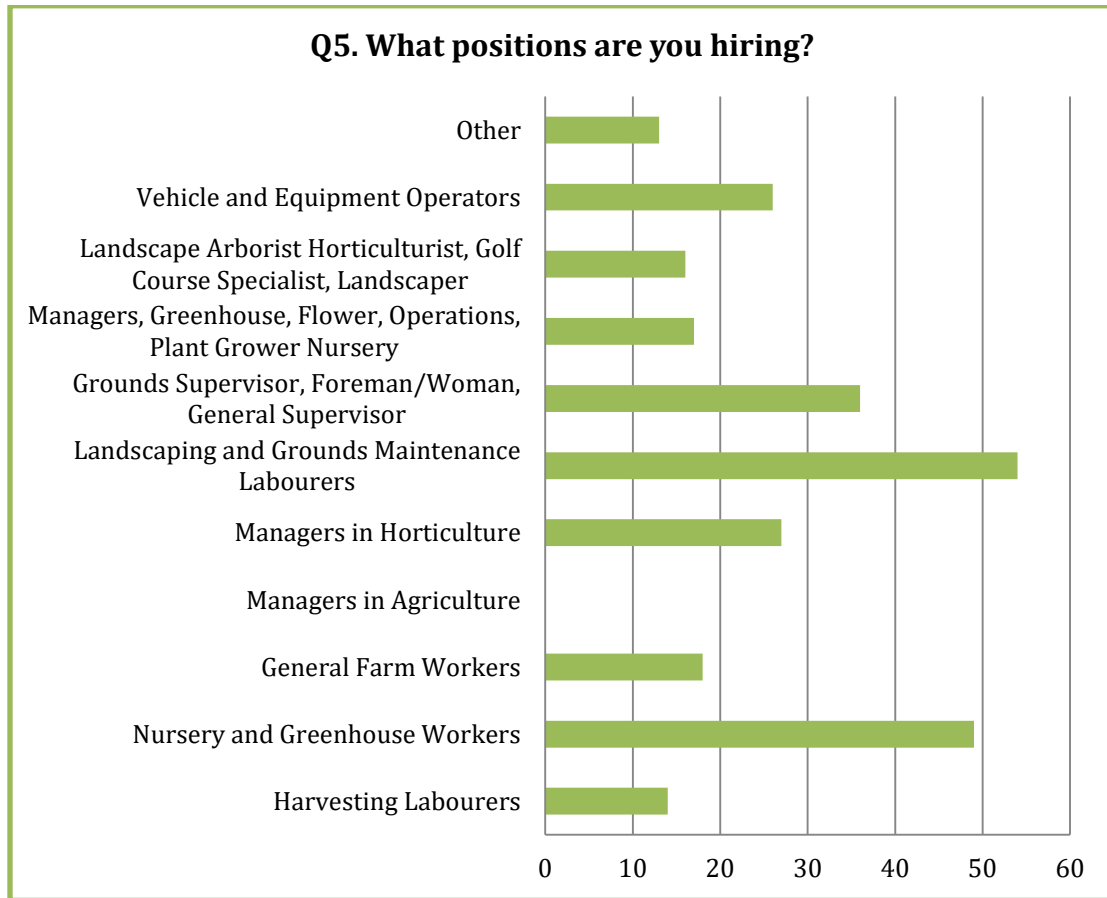
(Source: Survey of HR Managers. n=109.)

Recruitment of skilled labour presented challenges for landscapers in that workers with specific skill sets, especially around hard-scaping and installation, tend to favour self-employment. Once a worker has achieved a certain level of skill or expertise, they often choose to go into business for themselves, and either become a competitor for their previous employer, or a subcontractor. In fact, some landscaping companies have changed their business model to exclusively use sub-contractors for skilled jobs rather than face the challenge of recruiting and retaining skilled labour.

Within the agriculture-horticulture sectors the demand for skilled workers far outpaced supply. One grower noted having spent over two years trying unsuccessfully to recruit an arborist. While several growers indicated that they currently had an adequate supply of skilled labour at the supervisory and management level, many also expressed concern that this labour force was approaching retirement age.

Unskilled labourers are in short supply in all landscape and agriculture-horticultural sectors. Many employers relate the experience of hiring a labourer and putting in the time to train them, only to lose them to a sector requiring less physically strenuous, indoor work, or offering higher waged work. Competition from the construction sector which offers higher pay, and from the hospitality and retail sectors which offer more comfortable work environments – are pulling much of the available domestic labour pool away from landscape and agriculture-horticulture.

Figure 14: Positions for Hiring - HR Managers Survey



(Source: Survey of HR Managers. n=110.)

When recruitment of labour is successful, the challenge of retention presents itself. Those same industries competing to recruit labour continue to compete when faced with the reality of all-season outdoor work that is often repetitive, thus making opportunities outside the industry look more attractive. As a result, there is very low retention of domestic workers.

The seasonality of the work compounds retention issues as good workers may not return to their position season after season. This creates an annual cycle of onboarding and training followed by the loss of some workers not suited to the work conditions and expectations, which can create another round of recruiting, onboarding and training all under pressures of unforgiving seasonal cycles – if crops go unpicked, and landscaping contracts are refused to lack of labour, then employers face financial losses, businesses cannot grow and may shrink.

When domestic workers are recruited and prove suited to the work conditions and expectations, employers in this industry willingly to invest in them and help them move up the career ladder into crew leader and higher supervisory positions. Within the landscaping sector, this progression often leads to a further type of attrition where talented labour leave to start their own company.

4.3 SKILL GAPS

The vast majority of employment opportunities in the landscape and agriculture-horticulture sector are unskilled. When asked what skills they were looking for one employer commented “at this point, upright and breathing would do”. For most employers looking for unskilled workers, the main qualities they listed as in demand and hard to come by were related to work ethic, specifically, positive attitude towards hard work in all weather conditions, reliability, commitment and punctuality.

The survey of HR Managers also indicated that one-third of the respondents identified “transportation issues” as a key barrier to retaining workers. The ability to get to work dependably and on time was critical, but transportation barriers are not limited to simply getting to work. Indeed, several employers expressed challenges finding unskilled labour with driver’s licenses. Having enough staff to drive work trucks loaded with equipment to various work sites was especially important in the landscape sector, although some growers also noted a lack of workers who could drive trucks when needed.

Specific skill sets in demand including familiarity with various plants, crops, equipment, materials, chemicals, and techniques, but again almost all employers interviewed expressed a willingness to provide training for these types of skills in house, given willing workers. A potential employee with these skills was seen as beneficial, and would be expected to come in at a crew leader or supervisor level where they would be responsible for training inexperienced workers.

Workers coming out of training programs often have limited hands on experience, and often expect to move directly into supervisory or management roles. Unfortunately, these expectations do not reflect a realistic career trajectory as all workers are expected to learn the ropes to a certain degree. As with unskilled labour, key challenges include finding people who are physically capable of performing manual labour, and willing to work in all weather conditions for the wages offered. Many newer graduates express that they are not prepared for how physically demanding the work is or how challenging the all-weather conditions can be.

This is a gap in training and development which falls to employers to try to resolve. Fortunately, the majority of managers interviewed and surveyed indicated a clear willingness to work with new hires and offer new learning opportunities and experiences.

Specialists are also in short supply. As consumer trends drive demand, the high level skills in demand can shift as well. The type of skills and knowledge needed to care for ornamental shrubs can differ from those needed for Indigenous or drought-resistant plants. That said, the number of specialists needed are much smaller than the need for unskilled labour which consumes much of the human resource energy across the sector.

4.4 IMPLICATIONS FOR THE SECTORS

In this section, the data presented pertains to the types of labour shortages and the type of skills gaps that are impacting the sectors negatively.

Both the agricultural-horticulture and landscaping services sectors are experiencing labour shortages. These shortages are more severe within the agricultural-horticulture sector than within the landscaping sector. In both sectors, unskilled

labour constitutes 90% of the workforce, and this is the labour pool within which employers experience the most significant challenges in recruitment and retention.

Although the size of the skilled labour gap is much smaller, both agriculture-horticulture and landscaping services owner/operators and managers noted through interviews and surveys that managers and supervisors with the needed skills, work ethic, and attitudes were also hard to find. With the age profile of existing supervisors and managers across both sectors showing a significant number nearing retirement, the need to find suitable candidates to fill these positions in the near future is increasingly important.

The labour shortage for the three occupations for which job vacancy data is available is sizeable. In 2017, there were anywhere between 150 and 590 nursery and greenhouse worker vacancies unfilled in a quarter; up to 2,350 harvesting labourer vacancies unfilled in the peak season; and more than 1,000 landscaping and grounds maintenance labourer vacancies unfilled during the busy season.

The potential economic loss due to labour shortages is significant. The CAHRC report estimated that in 2014, there were 3,000 unfilled jobs in the entire agriculture sector in BC, resulting in \$70 million loss of sales revenue.⁴⁰ Proportionally, the tree fruit, greenhouse, nursery and floriculture sub-sectors could account for about 48% of this loss, or \$33.6 million.

The other key skills for which a gap was perceived across both agriculture-horticulture and landscaping sectors include familiarity with various plants, crops, equipment, materials, chemicals, and techniques. However, managers interviewed and surveyed emphasized their willingness to train good workers as needed.

The lack of transportation and lack of ability to drive vehicles as sometimes required by employers in both sectors, was among the most commonly noted barriers to work identified by workers and managers in the surveys.

From the worker perspective, the key challenge in both sectors identified is low wages. This is compounded by the seasonality of the work and the challenges of the physical outdoor work. While some sector managers interviewed suggested that new hires have unrealistic perceptions towards pay and working conditions, they also recognize the need for newcomers to the industry to be supported. Workers expressed the desire that their work is interesting, fulfilling, and that they are part of a team.

⁴⁰ Canada Agricultural Human Resources Council. May 2016. British Columbia Agricultural Labour Market Forecast to 2025. Available online: https://cahrc-ccrha.ca/sites/default/files/files/Labour-Employment/BC_reportE.pdf

5.0 TRAINING SUPPLY AND GAPS

This section focuses on addressing research component #3:

- *An analysis of training supply and training gaps;*

5.1 TRAINING IN AGRICULTURE-HORTICULTURE AND LANDSCAPE SECTORS

Currently, BC has general training available for both sectors, as identified in the *Phase 1 Agriculture-Horticulture and Landscape Labour Market Information Report*, with varying degrees of specialized training where the size of the industry can support it. As well, the industry tends to provide the bulk of training through short certificates and on-the-job. For entry-level unskilled labourers, there are accessible workplace certificates (WHMIS, Pesticide Certification, First Aid, etc.) and provided by training institutions and employers.

Of the specific sectors, only the nursery, floriculture, greenhouse vegetable and grapes sectors have longer-term training available to build their skilled workforce. There are one-year certificate programs able to provide general training in agriculture-horticulture, providing the core training for knowledge for this broad sector. For the grape industry, Okanagan College offers a continuing studies Viticulture certificate⁴¹ and they are also currently piloting a two-year Viticulture technician diploma program.⁴²

The University of the Fraser Valley (UFV) offers a variety of programs⁴³ to support the agriculture and horticulture sectors. UFV also has the Agriculture Centre of Excellence.⁴⁴ Foundation training (pre-apprenticeship), certificate, diploma, and degree programs exist for the landscape industry. Diploma programs are offered for golf and sports turf professionals. Additionally, new programs around sustainability and green infrastructure are becoming increasingly available and important to the landscape sector, where there is now increasing overlap between the sector and allied occupations, especially in the urban and municipal setting. Many training programs are available throughout the province, apart from block training for Red Seal Landscape, which is offered in the Lower Mainland, Okanagan, and Vancouver Island areas.

Colleges, universities and other institutions with agriculture-horticulture, landscape and other related programs include:

- Burnaby School District's Community & Continuing Education Division, Burnaby
- Camosun College, Victoria
- College of New Caledonia, Quesnel
- Electrical Industry Training Institute, Mission
- Kwantlen Polytechnic University, Langley

⁴¹ See <http://www.okanagan.bc.ca/Page26748.aspx> for more details.

⁴² See <http://webapps-5.okanagan.bc.ca/ok/Calendar/viticulture-technician-diploma> for more details.

⁴³ UFV Agriculture programs include: Agriculture Technology Diploma, 2 agriculture-related baccalaureate degrees, Horticulture programs: Horticulture Crop Production and Protection certificate, Berry Production Essentials Certificate, Field Vegetable Production Essentials Certificate, Integrated Pest Management Essentials Certificate, Floral Design Certificate, Current Agriculture Practice essentials certificate. See <https://ufv.ca/agriculture/programs/> for more details.

⁴⁴ See <https://www.ufv.ca/ace/> for more details.

- North Island College, Courtenay
- Okanagan College
- Pacific Horticulture College, Victoria
- Thompson Rivers University, Kamloops
- Thompson Rivers University, Williams Lake
- UBC Botanical Garden & Centre for Plant Research, Vancouver
- University of the Fraser Valley
- Vancouver Island University, Nanaimo

Interviews with the education sector indicate that institutions do not actively recruit participants for their programs or pre-screen candidates for job suitability, but mostly act in response to interest and enquiries. This means program eligibility focuses on having the prerequisite requirements. Discussions about working conditions and career pathways are left to the student to initiate. During the course of studies, most students practice their knowledge and skills through some type of work experience and become more aware of actual working conditions.

A trend which is not specifically career-related, but still an aspect of education and training is that of ‘urban agriculture’, which is of emerging interest to the public. It is not realistic to anticipate this group will become significant contributors or members of the workforce due to the small volume. However, over time, the broad spectrum training for the budding horticulturist will make the population more informed and may encourage some ‘hobbyists’ and ‘urban farmers’ to consider agriculture-horticulture as a career choice.

Some of the educational institutions providing ‘urban agriculture’ courses are included in the listing below. The table shows the number of individuals who obtained credentials in agriculture-horticulture and landscape-horticulture in BC’s post-secondary training system.

Figure 15: Credentials Related Ag-Hort & Landscaping, 2011/12 - 2015/16

CIP Description	Credential	2011/12	2012/13	2013/14	2014/15	2015/16
Agricultural Production Operations, General	Certificate	*	5	10	15	10
	Diploma	10	10	10	15	15
Agroecology and Sustainable Agriculture	Certificate				*	*
Agricultural Production Operations, Other	Certificate	30	*	15	25	25
Applied Horticulture/ Operations, General	Certificate	70	45	55	45	40
	Diploma				*	*

CIP Description	Credential	2011/12	2012/13	2013/14	2014/15	2015/16
Ornamental Horticulture	Certificate	5	10	*	15	15
Greenhouse Operations and Management	Certificate			*		
	Diploma	5	10	10	10	10
Landscaping and Groundskeeping	Certificate	*	*		*	25
	Diploma	5	15	10	15	5
Turf And Turfgrass Management	Diploma	10	*	5	10	5
Plant Sciences, General	Doctorate	*			*	*
	Masters	*	*	*	*	*
Agronomy and Crop Science	Bachelors	5	*	*		
Horticultural Science	Bachelors					5
	Certificate	*	*		*	*
Plant Protection and Integrated Pest Management	Certificate	*	*	5	10	15
	Masters		5		*	*
Total ^		155	115	130	180	195

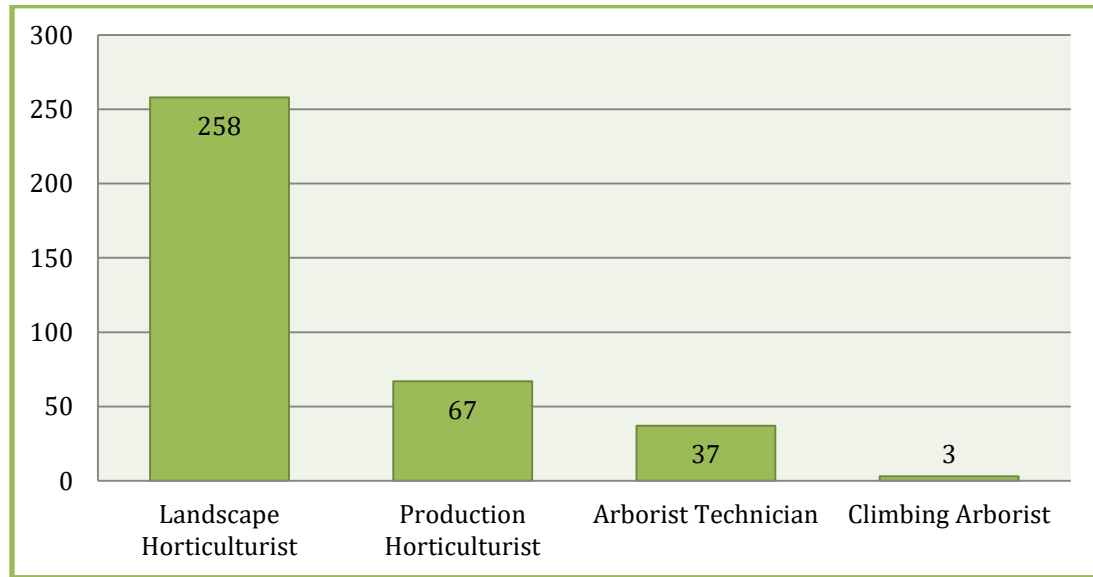
^ Note that data exclude apprenticeship, short certificate, and programs that do not offer a credential or have no evaluative components. The Apprenticeship credential type is excluded because Apprenticeship credentials are not awarded by post-secondary institutions, but are awarded by the Industry Training Authority.

(Source: Student Transitions Project, Fall 2016 Submission)

A limited apprenticeship system exists for Nursery Production Horticulturist, which overlaps with the landscape sector Red Seal Landscape Horticulturist apprenticeship. Currently, Production Horticulturist apprentices attend the same training program as Landscape Horticulturists for the first two years and go into specialized production training in the third year. Foundation training (pre-apprenticeship), certificate, diploma, and degree programs exist for production.

The figure below shows the number of active apprenticeship registrants in BC’s post-secondary training system.

Figure 16: BC Active Apprenticeship Registrants (January-November 2017)



(Source: Industry Training Authority)

During the past five years, the number of individuals who obtained a Certificate of Qualification in landscape horticulture ranged between 39 and 46 per year, a fairly steady figure. Those who obtained a Certificate of Qualification in Production Horticulture ranged between 1 and 9 per year, while those who obtained a Certificate of Qualification in Arborist Technician ranged between 13 and 35 per year. There were few in each year who obtained a Certificate of Qualification in Climbing Arborist (in some years there were none while in other years, 5 or 6 per year).

The following table presents information on those who obtained trades qualification in specific years from 2012/13 to 2016/17.

Figure 17: Certificate of Qualifications for Selected Trades, 2012/13 to 2016/17

Trade	Certificate of Qualification: Apprentice / Challenge				
	2012-13	2013-14	2014-15	2015-16	2016-17
Landscape Horticulturist	27 / 15	21 / 18	27 / 19	26 / 10	28 / 18
Production Horticulturist	1 / -	1 / -	1 / 8	2 / -	4 / -
Arborist Technician	10 / 25	4 / 9	11 / 10	9 / 8	6 / 18
Climbing Arborist	-	- / 8	- / 6	- / 5	-
Field Arborist	-	-	-	-	-

(Source: Industry Training Authority)

5.2 PROJECTED TRAINING SUPPLY

Based on post-secondary training enrollment patterns, graduation rates, as well as labour market outcomes, BC Stats has produced a publication *B.C. Post-Secondary Supply Model—2017/18 to 2026/27* with projections of annual supply of labour by occupation. The table below presents the supply of those from formal post-secondary training programs in the occupations concerned in this study.

Figure 18: Occupational Supply Projections from BC’s Post-Secondary Training and Education, 2017/18 to 2026/27⁴⁵

Occupation	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
0821 Mgrs in ag	28	28	27	27	27	26	26	26	27	27
0822 Mgrs in hort	3	3	3	3	3	3	3	3	3	3
2225 Landscape & hort techs & specialists	97	97	98	97	96	96	95	95	95	95
8255 Contractors & supers, landscape, grds maint. & hort	43	43	43	42	42	43	42	42	42	42
7522 Public works maint. equip. ops	3	3	3	3	3	3	3	3	3	3
8432 Nursery & greenhouse workers	16	16	16	16	15	15	15	15	14	14
8612 Landscaping & grds maint. labourers	130	130	129	127	126	124	123	122	122	121

(Source: BC Stats, *B.C. Post-Secondary Supply Model (PSSM)*)

It is noted that these are fairly conservative estimates as the study excludes graduates from a number of sources.⁴⁶ It is also noted that occupational supply is not only from graduates of post-secondary training, it is also from other sources such as from non-formal education training, occupational mobility, etc. The number of graduates in these programs is not projected to grow significantly over the next ten years and this is a topic which requires serious consideration.

⁴⁵ B.C. Post-Secondary Supply Model—2017/18 to 2026/27

⁴⁶ It is noted in the study that the B.C. Post-Secondary Supply Model (PSSM) provides projections of the new supply of skilled labour for three age groups (17 to 29, 30 to 44, and 45 to 64) that will exit B.C.’s public post-secondary education system between 2017/18 and 2026/27 with a credential that takes three months or longer to complete. International students and not for credit or skills upgrading programs are not included. Likewise, the graduate projections do not include students who complete certificate, diploma, advanced certificate, advanced diploma, post-degree certificate, post-degree diploma, graduate certificate, or graduate diploma programs at public research universities or Royal Roads University. However, it is further noted that occupation projections of apprenticeship graduates include graduates from B.C.’s private post-secondary institutions.

5.3 IN-HOUSE TRAINING

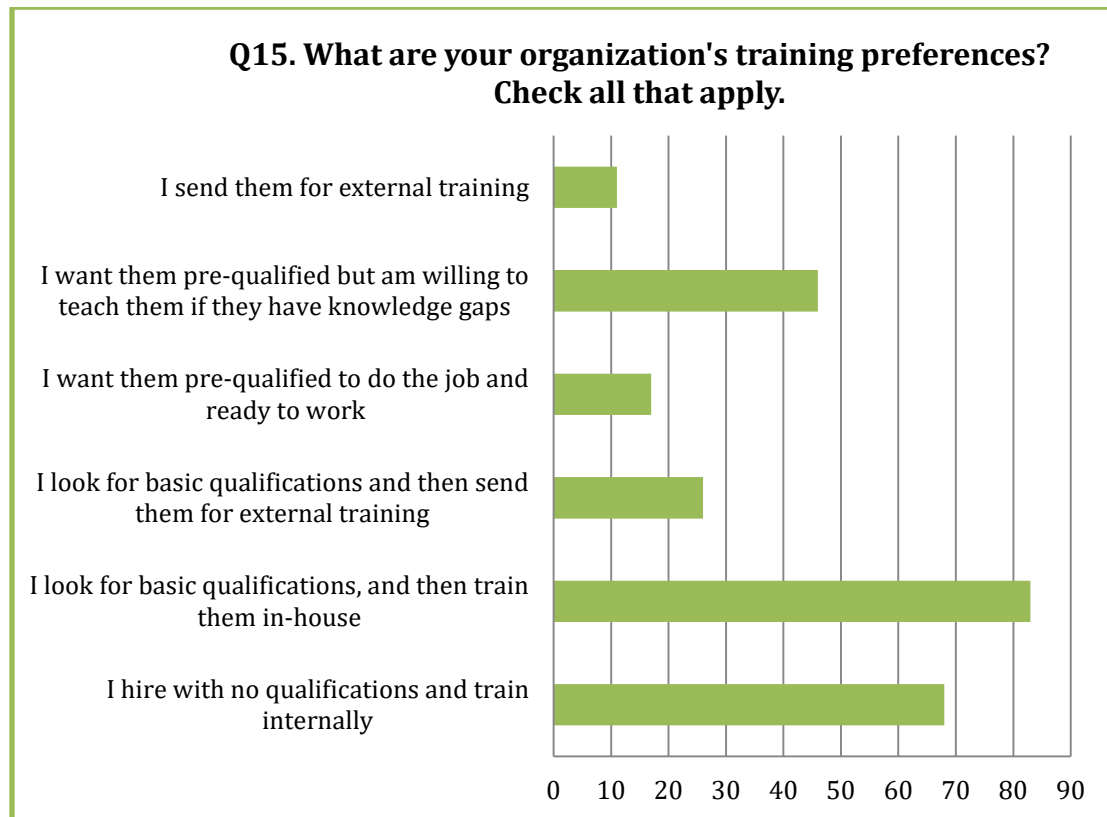
From the survey data for this research, both domestic workers and foreign workers receive some basic training on key occupational requirements. Domestic workers also report access to in-house training opportunities, which employers prefer, as well as incentives to participate in external training.

In the survey of HR Managers, almost 70% of the respondents reported some type of training plan within their company, although many of the comments indicated that their plans are limited, outdated, or not used. At the same time, 73% reported that they had no budget associated with the training plan. Only a few HR Managers identified any type of succession plan, or HR expansion plan for their worker base, even when they had plans to expand their operations.

The offering of baseline but otherwise limited in-house training was acknowledged during the interviews also, thus overall the industry needs to address and improve current employee engagement and job satisfaction as it can lead to higher levels of retention and better productivity, as well as make a difference to prospective new workers.

Most employers surveyed expressed significant preference for training workers in-house, or upgrading specific gaps in skill sets, rather than external training. See the figure below from the survey of HR Managers. While many employers do prefer basic safety certificates such as WHMIS and First Aid, only small proportions require industry certifications or apprenticeship.

Figure 19: Company Training Preferences - HR Managers Survey



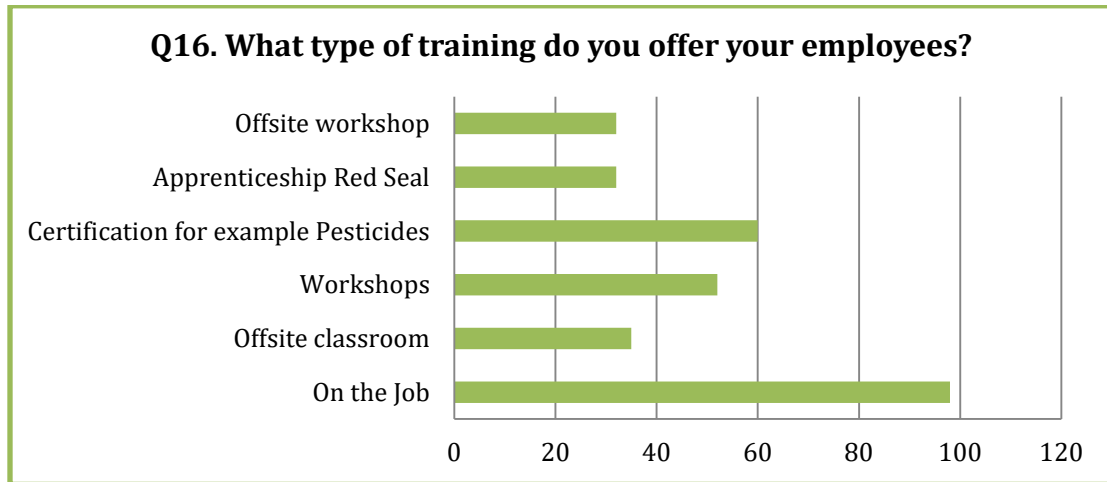
(Source: Survey of HR Managers. n=102.)

Many HR Managers also reported that they assist with training workers, both in-house, and provide incentives for external training, such as:

- Flexible hours
- Some or all of the training costs
- Other financial incentives

However, most of the training offered by employers tends to be in-house, mostly on-the-job, but also workshops, and specialty certifications. See the figure below.

Figure 20: Company Training Offered - HR Managers Survey



(Source: Survey of HR Managers. n=102.)

The workers who responded to the survey expressed high levels of satisfaction with the training opportunities within their companies, as shown in the figure below. As well, 89% of the respondents indicated they have accessed that training.

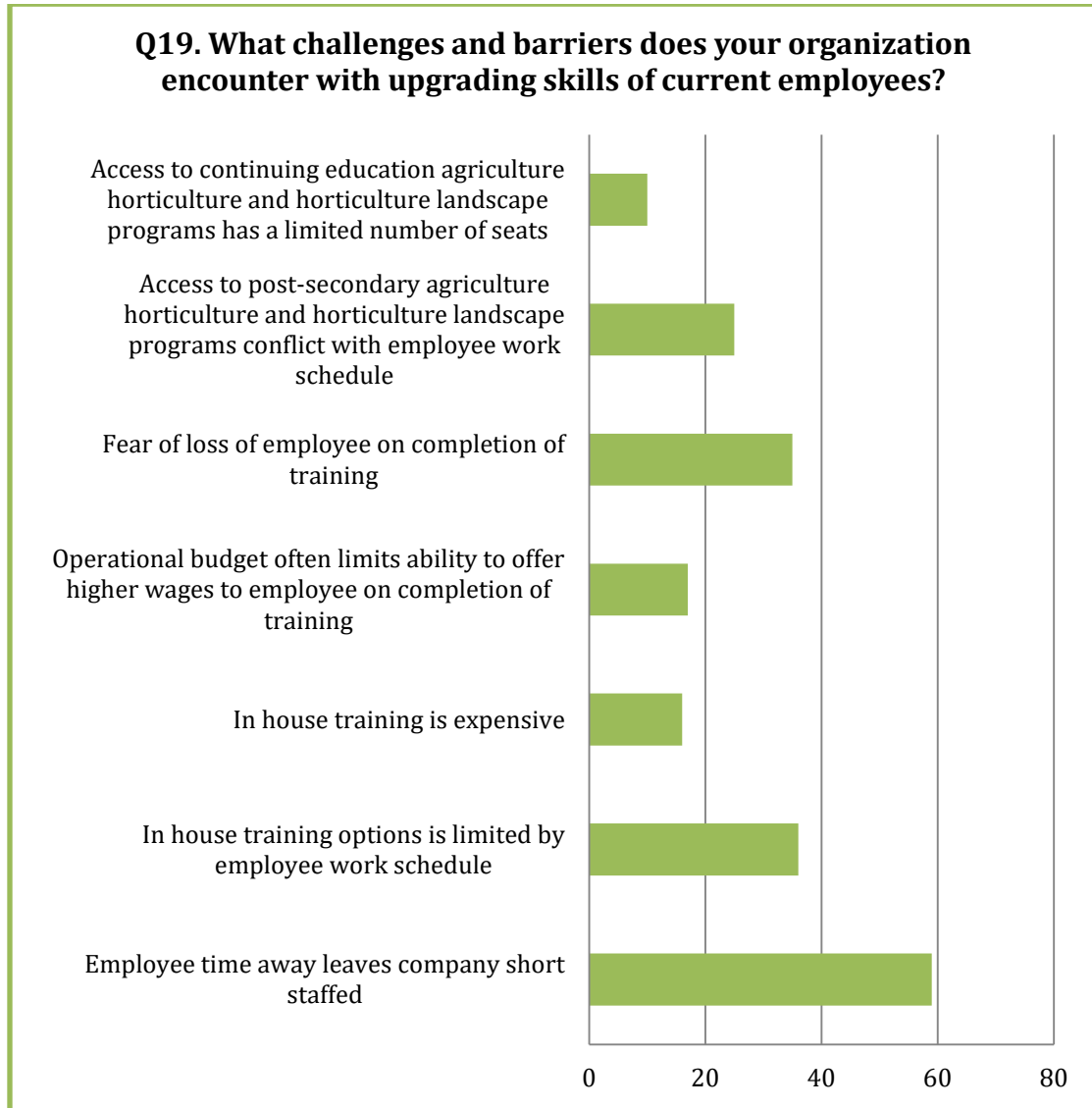
Figure 21: Satisfaction with Training Opportunities – Domestic Workers Survey



(Source: Survey of Domestic Workers. n=35.)

Training workers, whether in-house or external, does still present challenges and barriers for employers. The survey of HR Managers identified the most common challenge as the departure of staff member despite having provided training and thus leaving the company short-staffed. Finding time to schedule training for staff and coping with them being away from their job were other significant challenges according to the survey data and shown in the figure below.

Figure 22: Challenges with Upgrading Skills - HR Managers Survey



(Source: Survey of HR Managers. n=87.)

5.4 CAREER DIRECTIONS

A common challenge for both employers and students graduating is to find the right fit and balance between employers’ needs for getting the work done, particularly during key planting and harvesting periods and graduates expectations for interesting work, responsibility, wages reflective of their period of study and advancement opportunities. Private sector employers including growers, producers

and landscape business are sometimes unable to meet immediate and long-term career hopes, particularly when it comes to salary and working conditions such as stimulating and challenging work at the early stages of a career. Cost-of-living realities, especially in the increasingly expensive Lower Mainland, can over-ride graduates' sincere intentions for stimulating and rewarding.

From the survey of workers, those who responded expressed reasonably high levels of satisfaction with their opportunities for promotion and the career paths offered by their employers:

- 9/35 indicated somewhat satisfied, and 20/35 extremely satisfied with career path opportunities in organization (Q9. Domestic Workers Survey)
- 10/35 somewhat satisfied and 19/35 extremely satisfied with training opportunities in the organization (Q8. Domestic Workers Survey)

When it comes to succession, moving employees into supervisory roles and supervisors into management roles is attractive to both workers and employers, although it is often not part of a formal staff training or development plan.

The interviews with both industry members and educators provided the information that municipal employers tend to offer higher wages, more benefits and better job security than operators in the private sector, according to education stakeholders. Some graduates from the agriculture and horticulture disciplines similarly turn to the "supply" side of the industry, such as fertilizer or tractor sales, to earn higher salaries. It becomes clear the industry must explore cost-effective incentives to retain graduates within their area of study.

5.5 TRAINING GAPS

The research indicates that the external training and education sector provides programs which are well-received by both students and industry. Those working in the education sector describe their students as highly motivated and keen to build a career in their chosen fields of agriculture, horticulture and/or landscape. All the programs combine both classroom and hands-on/out-in-the field training via apprenticeship training periods, co-op, or work experience. In some cases, employers hire students before they complete the training. The gap appears to lie in the understanding of the industry with which some students enter these programs regarding actual working conditions, remuneration and career pathways after they complete. To address this gap, education and training institutes can do a better job in promoting staying active and working outdoors as a positive aspect of the career.

Understanding the extent to which the industry itself values, provides and supports both in-house and external training seems variable. AgSafe, WorkSafe, and basic skills training are most often provided by employers. Still there is potential to further increase and enhance HR practices around all levels of baseline and career building education pathways for workers. On the employer side, there is room for improvement with regards to on-site training and coordination with external training providers. The landscape-horticulture sector suggested a series of ready-made training templates would be helpful to bring new staff up to speed in terms of being job-ready. This concept can likely be applied to the agriculture-horticulture sector as well.

5.6 IMPLICATIONS FOR THE SECTORS

BC's education and training institutions offer a wide range of general foundation training in all sectors of agriculture, horticulture and landscape including turf and golf course management. They comprise apprenticeship, certificate, diploma and degree programs and vary in length from one year, two years and four years. Representatives of both industry and education sectors indicate that colleges and universities in BC are producing educated, well-trained, employable, good quality graduates.

Program entrance requirements focus on academic pre-requisites. Although most students practice their knowledge and skills through some type of work experience and become familiar with working conditions during the course of their studies, some are still unprepared for the physical rigors of the work long-term. Once graduated, their career choices are also influenced by wages due to cost of living realities (especially in the Lower Mainland especially), as well as potential for advancement.

With the number of graduates in all programs not projected to grow substantially over the next ten years, despite growth in population and demand for all the industry's products and services, there is further need for educators and employers to work together to better meet the requirements of its future workers. The industry must find ways to encourage more students to enter programs to fill its labour roles and doing so means making the jobs more attractive to students, graduates and employees. There may be government programs that can tie these pieces together into a comprehensive strategy.

New programs around sustainability, green infrastructure and urban gardening tie in with "healthy living" and are becoming increasingly available and important and this is also a topic where there has been growth of interest from students and the general public. It is a potential opportunity for the industry overall to find new applicants.

Most employers within agriculture-horticulture and landscape provide new employee training; however, this is an area of human resources which the industry acknowledges it needs to improve, including providing the fundamentals of AgSafe and WorkSafe on a consistent basis. At the same time, educational institutions and employers need to work together with staff and students to find ways to prepare and support workers to maintain their health so that they can handle the working conditions and maintain viable careers long term.

A lack of consistent HR planning with regards to both expansion and succession suggests a strong need for members of the industry to more fully understand human resources matters at the operational level. This leads to better planning for the industry overall.

6.0 IMPACT OF CHANGING CONSUMER DEMAND ON LABOUR MARKET

This section focuses on addressing research component #4:

- *An analysis of the impact of changing consumer demands on the sub-sectors' labour market conditions;*

6.1 CHANGING CONSUMER DEMAND

Consumer preferences are always changing, and as they change, they present new opportunities and challenges for the agriculture-horticulture and landscape-horticulture sectors. While the industry has always managed to adapt to changing consumer demands, it does require an adequate labour supply to do so successfully.

AGRICULTURE-HORTICULTURE SECTOR

Interviews with managers in the agriculture-horticulture sector suggest the most impactful consumer-driven trends are connected to demographic shifts and the values-based shift towards environmental sustainability and health consciousness. This confirms the conclusions Agriculture and Agri-Food Canada (AAFC) reached in their report on food trends and emerging opportunities for innovation from 2015 projecting through 2020.⁴⁷

AAFC suggests that Baby-Boomers and Millennials are driving the trend towards health-conscious preference for food products perceived as offering enhanced nutrition. This is reflected in the rise of “superfood” crops like blueberries, cranberries and pulses, all of which constitute crops with significant and expanding market share for Canada.^{48 49} As the second largest vegetable producing province in the country⁵⁰, BC is also experiencing growth related to the demand for nutritious ready-to-eat foods, such as: bagged salads, single-serving prepared fruits and vegetables, and miniature cucumbers and peppers.

These trends do not have any specific impacts on the skills required for workers; rather they compound the already existing demand for unskilled workers, in order to allow for the growth needed to capitalize on increasing consumer demand. Regardless of the food crop, the need for planting and harvesting remains constant.

⁴⁷ Agriculture and Agri-food Canada. Nov. 2015. Emerging Food Innovation: Trends and Opportunities. www.agr.gc.ca/eng/industry-markets-and-trade/market-information-by-sector/processed-food-and-beverages/trends-and-market-opportunities-for-the-food-processing-sector/emerging-food-innovation-trends-and-opportunities/?id=1449236177345

⁴⁸ Agriculture and Agri-food Canada Oct 2017 Commodity Innovation Series: Blueberries in Food, Drink, and Pet Food. www.agr.gc.ca/eng/industry-markets-and-trade/international-agri-food-market-intelligence/commodity-innovation-series-blueberries-in-food-drink-and-pet-food/?id=1507753928453

⁴⁹ Agriculture and Agri-food Canada July 2017 Commodity Innovation Series: New Products Containing Pulse Ingredients in North America. www.agr.gc.ca/eng/industry-markets-and-trade/international-agri-food-market-intelligence/canada/commodity-innovation-series-new-products-containing-pulse-ingredients-in-north-america/?id=1499950769666

⁵⁰ Agriculture and Agri-food Canada. Fall 2014. What's New in British Columbia – Spotlight on Greenhouse Vegetables and Floriculture. www.agr.gc.ca/eng/industry-markets-and-trade/international-agri-food-market-intelligence/canada/what-s-new-in-british-columbia-spotlight-on-greenhouse-vegetables-and-floriculture/?id=1417451549842

Automation is helping some employers expand their operations, in particular bunching, packing, and sleeving. However, agricultural sector managers and industry associations interviewed and surveyed indicated that much of the production process remains, by necessity, hand work.

AAFC also reports on a trend towards locally grown produce.⁵¹ This is strongly connected to the Millennial focus on ethical consumer choices and environmental stewardship and sustainability. Millennials want to know where their food comes from and how it was produced. As such, there has been a clear shift towards a preference for organic and heirloom produce. The impact on the demand for labour for this trend is an increase in the need for unskilled labourers as organic and heirloom crops are generally more labour intensive to produce.

The current revival of BC hops farming is driven by the Millennial thirst for locally crafted beer. Where BC once dominated the hops market globally, the industry had nearly died out completely in the 1980's.⁵² Now, a comeback is underway. The newly formed BC Hop Growers Association reports thirty hop growers are now operating in the province, which is up from three a decade ago.⁵³ If growth keeps on pace, there will be growth in demand for the unskilled workers needed to support this labour intensive crop. While automation for this sub-sector is possible, the costs are prohibitive for most new operators.

Another burgeoning market that has captured a lot of attention around its potential for exceptional growth is cannabis. While federal legalization processes leave complex issues and provincial level decisions to be worked out, Deloitte estimates that the market value could be worth more than \$22.6 billion.⁵⁴ Meeting consumer demand for cannabis and cannabis products will likely require both skilled and unskilled workers, although the specific needs are still unfolding. It is possible, however, that this new market may attract new workers to the sector.

LANDSCAPE-HORTICULTURE SECTOR

The landscape-horticulture sector is also experiencing demographic driven changes and new consumer trends. New consumer demands identified by managers in the landscape sector include the increased value placed on urban and suburban garden spaces. Gardens have transformed from places of toil for homeowners, to places of rest and relaxation or spaces for recreation and entertaining. This coupled with real estate values ballooning has created an appetite for more ambitious garden spaces.

⁵¹ Agriculture and Agri-food Canada. (Nov. 2015). Emerging Food Innovation: Trends and Opportunities. www.agr.gc.ca/eng/industry-markets-and-trade/market-information-by-sector/processed-food-and-beverages/trends-and-market-opportunities-for-the-food-processing-sector/emerging-food-innovation-trends-and-opportunities/?id=1449236177345

⁵² Agriculture and Agri-food Canada. (Winter 2016). What's New in British Columbia – Spotlight on Craft Beer. www.agr.gc.ca/eng/industry-markets-and-trade/international-agri-food-market-intelligence/canada/what-s-new-in-british-columbia-spotlight-on-craft-beer/?id=1458845396199

⁵³ BC Hop Growers Association. www.bchopgrowersassociation.com/index.php/history-of-hop-growing-in-bc/

⁵⁴ Zochodne, Geoff. (Nov. 3, 2017). Amid the 'green rush,' suits are taking over Canada's cannabis industry. Financial Post. <http://business.financialpost.com/commodities/agriculture/amid-the-green-rush-suits-are-taking-over-canadas-cannabis-industry>

More complex gardens, outdoor living spaces require increased planning and technical skills to execute – which has created a demand for skilled landscapers and designers. Along with raised expectations around complexity, clients also have higher expectations for knowledge, service and response time, which requires a higher caliber of customer service. Many of the landscape managers and owner-operators interviewed stated that they would like to hire workers with technical skills around hard-scaping, soft-scaping skills, and equipment use.

Other trends identified through interviews with landscaping managers and owner-operators is the growing desire for low maintenance options including man-made turf, indigenous plants, and drought resistant options. Increasingly environmentally conscious clients also want “bee-friendly” plants, and plants that are beneficial to the environment. There is an understanding that climate change is having an impact on what can and should be grown.

Meeting the needs of informed customers requires workers with more sophisticated knowledge and skills around installation, design, maintenance, plant knowledge, and customer service. In some cases, this has led employers to seek more unskilled labour so as to free up their existing skilled employees to focus exclusively on the more complex work.

According to landscape managers, customers are also showing an increasing desire to grow food themselves, and are looking to landscapers to provide support in planning their food gardens, as well as maintaining them. Smaller fruit trees are also in demand. These trends are creating some cross-over with the skills needed in the agriculture-horticulture sector.

6.2 LABOUR IMPACTS AND ALTERNATIVES

There are significant opportunities for growth across the agriculture-horticulture and landscape sector. Consumer trends identify areas of opportunity for growth amongst BC agriculture producers, as the key types of local products (i.e., blueberries, vegetables, hops, and cannabis) are all trending upwards for both domestic consumption and export. With this projected increase in demand for the products, comes the need for at least a stable if not an increasing number of workers at all levels.

Therefore, in order to best capitalize upon these significant economic opportunities in the agricultural sector, the BC sector requires a stable and reliable labour force of both full-time domestic, seasonal and foreign workers. Without access to these labour pools, the economic opportunities will surely be capitalized by other jurisdictions outside of BC and Canada.

As indicated in the previous section, labour demand grew slowly between 2004 and 2014 over the entire agricultural sector in Canada, on average at the rate of 0.1% per year. In BC labour demand actually declined at the rate of 1.4% per year during the same period, resulting in an agricultural workforce of 40,200 in 2014, compared with 54,000 in 2005. The weak labour demand in BC’s agricultural sector during this period was due to efficiencies realized as Canadian farms went through consolidation, as well as less demand in the grain and oilseed and field fruit and vegetable industries.⁵⁵

⁵⁵ Canada Agricultural Human Resources Council. May 2016. British Columbia Agricultural Labour Market Forecast to 2025. Available online: https://cahrc-ccrha.ca/sites/default/files/files/Labour-Employment/BC_reportE.pdf

The CAHRC report confirmed that looking forward BC's agricultural sector is expected to face a bright production outlook. For example, the output in the greenhouse, nursery and floriculture industry is projected to grow at the rate of 2.5% per year between 2015 and 2025 – with consumer demand as the driving force.

Traditionally, agricultural-horticulture production is very labour intensive, relying much on manual labour. It is not clear from existing literature the extent to which labour-reducing automation technology and process has been applied in BC's horticulture sector. However, automation techniques and technologies are being developed around the world. An article in the Economist described a new generation of "agribots" under development, with improvements in vision and other sensing systems, coupled with the increase in the power of computing.⁵⁶ In Ontario, Vineland Research and Innovation Centre's researchers have worked on robotics and automation projects ranging from mushroom harvesting machines that can detect ripeness, to automated tulip planting technology to cucumber packaging machines. Their latest effort is to try to commercialize a smart irrigation system.⁵⁷

Recognizing the horticultural production growth potential in the province, the CAHRC report pointed to potential growth in labour demand. However, labour demand is projected to grow only modestly, due to improved labour productivity in the sector through economies of scale and automation. Today's farms are much larger in size than they were a decade ago, and consolidation has made it possible for each worker to produce more output. With technological advancement, automation in horticulture can bring a meaningful solution to the chronic labour shortage, although that solution may not necessarily come to realization in the near future.

Interviews with managers in agriculture-horticulture revealed a great interest in the potential of automation to help address labour challenges. Those managers who work for companies with a high-level of automation expressed that this had helped increase production; however, all continued to struggle to recruit and retain a stable labour force. For those whose companies had not yet invested in automation, cost was the key barrier, especially for smaller operators. Additionally, some managers expressed concern that while equipment may be able to replace some unskilled workers, it would also increase the need for skilled workers to operate and maintain the equipment.

Human resource managers across the two sectors were surveyed about their plans, if any, for automating their processes or services. Of those respondents from the agriculture-horticulture sectors, 50% indicated they had no plans for automation; 31% indicated they were exploring options for automation, and only 19% indicated they were actively pursuing automation.

Of the landscape managers surveyed, 60% indicated they had no plans to pursue automation. Those within the sector who were open to automation noted that while there are few options for automating most landscape tasks, efficiencies could be achieved by automating administrative tasks, using automated tracking of maintenance tasks, and using higher-efficiency equipment.

The overall message received from industry managers through interviews and surveys is that the agriculture-horticulture and landscape-horticulture sectors are all

⁵⁶ The Economist. December 10th 2009. "Field of Automation". Available online: www.economicst.com/node/15048711.

⁵⁷ Reported in Greenhouse Management, February 2017 issue. "The State of Automation in Horticulture."

labour intensive - and while automation can help improve production and lower labour costs – a steady supply of unskilled and skilled workers will always be required.

6.3 IMPLICATIONS FOR THE SECTORS

The agriculture-horticulture and landscape-horticulture sectors are subject to shifts driven by consumer preferences. These shifts present clear opportunities for growth, but capitalizing on these opportunities will require a stable and reliable labour force of skilled and unskilled workers both seasonally and year-round.

Key consumer trends in agriculture-horticulture include health and environmental consciousness, which translate to a demand for nutrient dense crops like blueberries and pulses, as well as local, organic, heirloom, drought-resistant, and indigenous products. These trends do not have any significant impacts for the kinds of skills in demand, but rather represent the continued need for a dependable labour pool.

Key consumer trends within the landscape-horticulture sector include a growing demand for more complex outdoor living spaces and gardens, as well as more sophisticated clients making ethically driven decisions around their yards. This combined with a boom in real estate has led to a willingness to spend more money for higher-skilled landscaping services that include complex design, hard-scaping, and soft-scaping. These trends are driving the demand for workers with specific skills around installation, design, plant knowledge, and customer service. There also continues to be a demand for unskilled workers who can free up the workers with more skills and training to be able to do the higher-level work.

While many operations across the agriculture-horticulture and landscape-horticulture sectors are interested in pursuing automation as a potential avenue for addressing labour shortages, currently owner/operators do not see it as a panacea. In particular, they believe increased automation may be too costly for many smaller operators, and many larger operators report that they are already as automated as the technology allows. This presents an avenue for further education and exploration of ways to reduce costs and increase production.

In addition to the impacts that consumer preferences have on the demand for labour, these trends also present opportunities through which to attract new workers to the sector. In agriculture-horticulture, the interest in working with local, organic, heirloom, and indigenous products, as well as new markets around hops and cannabis, may be more attractive to the Millennials who are driving the demand for them in the first place. Connecting the need for labour to these niche markets, may help with recruitment.

Where the demographic shifts are placing a higher value on the environment and on personal health, there is an opportunity to promote agriculture, horticulture, and landscape as offering career paths that allow people to work in a field that enable a connection to nature, foster environmental sustainability, and provide the opportunity for health promoting physical work.

Within the landscape-horticulture sector, the increasing value placed on outdoor living spaces and the desire for more complex landscape design could function to raise the status of landscaping as a desirable career. Landscaping could be promoted as a key facet of residential and commercial construction projects, and thus landscape employment opportunities could be viewed through this lens as on par with other construction trades – trades that are seen as direct competition for labour.

7.0 FOREIGN WORKER PROGRAMS

This section focuses on addressing research component #5:

- *An analysis of the role of guest worker programs played in the sub-sectors;*

7.1 ROLE OF THE TEMPORARY FOREIGN WORKER PROGRAMS

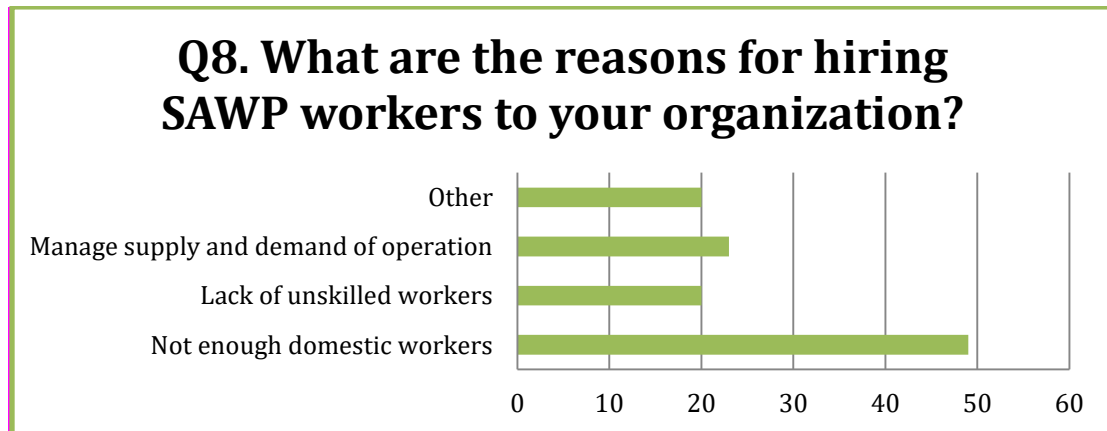
The Temporary Foreign Worker (TFW) Program is designed to facilitate economic growth by responding to labour market needs that are not met by the Canadian workforce. The key TFW stream for agriculture-horticulture employers is the Seasonal Agricultural Worker Program (SAWP). SAWP is exclusively for primary agriculture, and it allows employers to hire foreign workers from Mexico and the Caribbean for a maximum of eight months, from January to mid-December. Landscape sector employers cannot access workers through SAWP.

SAWP has played a vital role in helping agriculture-horticulture employers meet their labour needs. This labour mobility program is overseen by Employment and Social Development Canada (ESDC) and administered by Service Canada. In order for employers to be approved to bring workers into Canada under the SAWP permit stream, they must pass a labour market test known as the Labour Market Impact Assessment (LMIA) which determines that Canadian workers were not available to fill the demand for workers.

Currently, all individuals, households, and other employers seeking to hire foreign nationals as caregivers under the TFW Program must pay the \$1,000 per position LMIA processing fee. Once approval is obtained, depending on the program, employers may be required to recruit workers and pay for their travel and housing. Foreign workers, once recruited, must apply for a work permit, which can also take weeks or months to be issued.

The survey revealed that 72% of HR Managers in the agriculture-horticulture sectors hire seasonal agricultural workers to complement their domestic workforce, and a full 46% have done so for ten years or more. According to interviews with agriculture-horticulture managers and owner/operators, the numbers of foreign workers needed are increasing as fewer local workers apply for job openings. The figure below presents the reasons for employing foreign workers identified by HR Managers.

Figure 23: Reasons for Hiring SAWP Workers - HR Managers Survey



(Source: Survey of HR Managers. n=71.)

Some possible reasons for the lack of appeal that jobs in this sector have for local workers include travel requirements, entry-level pay rates, the physical demands and seasonal nature of the work.

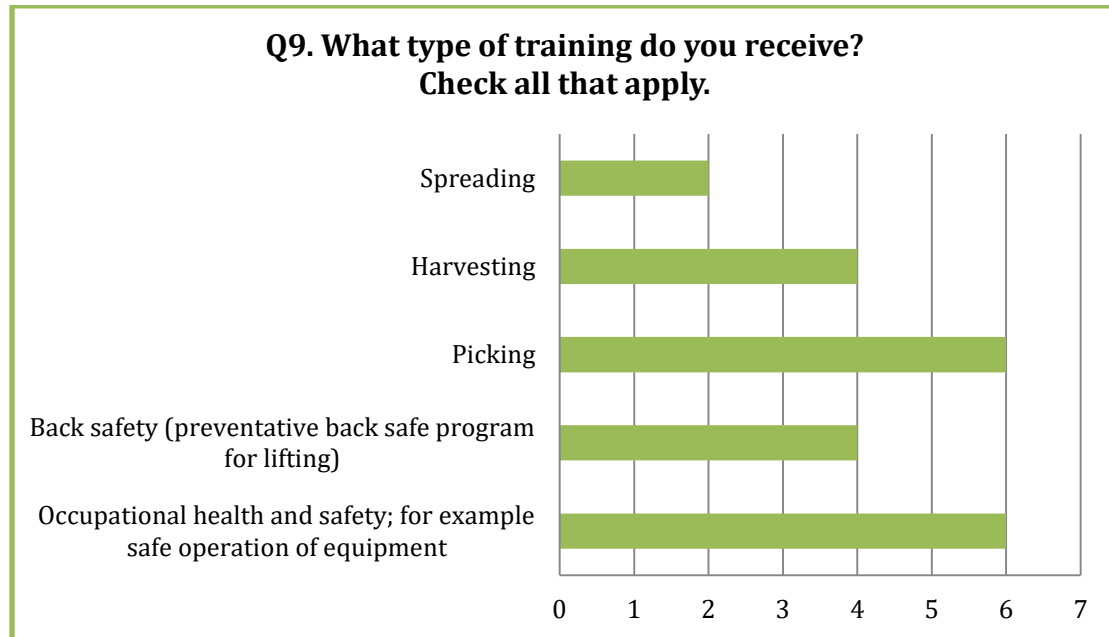
All agriculture-horticulture managers and owner/operators interviewed agreed that foreign workers are essential to the industry and that without them the industry would not be able to continue at current production levels. Some owner/operators noted that while foreign workers cost them more because of the need to provide translators, transportation, and housing, there was simply no choice as they received minimal or no applications from domestic workers.

The managers and owner/operators interviewed expressed a high-level of commitment to SAWP, as well as a significant level of frustration navigating program challenges including paperwork and processing times.

Interviews with agriculture-horticulture managers and owner/operators revealed a high degree of respect and appreciation for the experience and skills offered by foreign workers. Interview respondents confirmed high rates of worker retention with 77% reporting that they request the same workers return year after year. Likewise, 100% of foreign workers surveyed reported that they had returned to the same company each year for five or more years. This finding is supported by a survey of SAWP employers in Ontario and the Atlantic provinces which found that 59% of the SAWP workforce returned to the same farms for between 5 and 15 years.⁵⁸

As well, the foreign workers surveyed all identified that they had access to relevant and related training, specifically for health and safety, as shown in the figure below.

Figure 24: Types of Training Received – Foreign Workers Survey



(Source: Survey of Foreign Workers. n=6.)

⁵⁸ Canadian Agricultural Human Resource Council. Dec. 2017. [A Review of Canada’s Seasonal Agricultural Worker Program.](#)

While high retention rates combined with a steady supply of foreign workers can support the conclusion that foreign workers are a benefit from the SAWP program, there are indications that there are areas in need of improvement from a worker's perspective.

In 2017, Mexican officials suspended nineteen growers across BC for violations including bullying, harassment, and sub-standard housing conditions. Mexican consular officer Hugo Velazquez, in charge of overseeing the SAWP program in BC, reported that incidents are reported at approximately 30% of the visited farms.⁵⁹ While warnings are often issued, suspensions are a last resort.

The report of Standing Committee on Human Resources, Skills and Social Development and the Status of Persons with Disabilities (HUMA) in its report on the Temporary Foreign Worker Program tabled in the House of Commons in 2016 also revealed some challenges around working and living conditions for workers.⁶⁰

HUMA heard testimony about the vulnerable position of temporary foreign workers who are subject to employer-specific work permits while their employers have "discretionary power to repatriate workers when they do not comply with some aspect of the work."

HUMA reports that workers related a climate of fear on some farms where uncertainty over whether they will be able to come back to work the following year leads foreign workers to withstand certain labour violations and avoid seeking additional supports for conflict resolution or health and safety concerns.

The foreign workers surveyed for this study indicated that they were somewhat satisfied or extremely satisfied with:

- Instructions from their supervisors;
- Attention to workplace safety;
- Opportunities to participate in training; and
- Conflict resolution.

None of the foreign worker survey respondents reported having experienced or witnessed harassment of any kind.

7.2 KEY ISSUES OF THE FOREIGN WORKER PROGRAMS

The interviews with HR Managers indicated that SAWP is only available for the agriculture sector, so this program does not serve the landscape sector at all. However, landscape companies have used the Temporary Foreign Worker (TFW) Program to sponsor foreign workers who have extensive schooling or certification, specific experience and/or supervisory skills. This has been accomplished through other TFW Program streams, but with very limited success. There is a need for expansion of the definition of "primary agriculture" and "farm" to ensure all agricultural operations have access to the SAWP.

⁵⁹ Dan Walton. June 7, 2017. [Mexican Consulate Suspends Local Farms](http://www.oliverchronicle.com/mexican-consulate-suspends-local-farms/). Oliver Chronicle.

⁶⁰ Standing Committee on Human Resources, Skills and Social Development and the Status of Persons with Disabilities. Sept. 2016. Report: [Temporary Foreign Worker Program](http://www.ourcommons.ca/DocumentViewer/en/42-1/HUMA/report-4).

For those agricultural businesses that rely on SAWP for unskilled labour, there is continuous stress as, “Every farmer that employs temporary foreign workers is vulnerable to losing access to labour due to inconsistent interpretation and application of rules and a lack of understanding of primary agriculture.”⁶¹

Interviews with agriculture-horticulture managers and owner/operators revealed administrative challenges within the foreign worker programs. Foreign worker applications, processing time, and arrival and departure requirements are not in sync with normal farming cycles such as spring planting and harvest work months.

Navigating the application processes can be stressful for employers. Interviews with managers and owner/operators in the sector revealed the turnaround time for approval varied anywhere from two to 20 weeks. This results in additional stress and pressure for the managers and owner/operators in planning their human resources and production schedules.

In 2017/18, at the time of writing this report, the uncertainty around processing and approval times is of particular concern for the 2017-18 year. Some growers interviewed were still uncertain if their SAWP workers would be permitted to enter the country in time to harvest.

Employer interviews indicate that while the compliance and auditing work performed by Service Canada is key and aligned with HUMA’s infraction reports, the timing of the reviews and audits could be coordinated more effectively with industry to take place at the shoulder seasons of the shipping and harvest times, rather than during the peak.

Foreign workers, who are in the vulnerable position of needing to go along in order to retain their employment, are not able to advocate effectively for the changes they wish to see in the system. As such, it is the responsibility of managers and owner/operators to ensure compliance with program standards and to ensure that foreign workers are treated the same as their Canadian counterparts – as they do hold the same rights.

The Federal Government through HUMA and other initiatives is aware of the issues related to foreign worker programs, and has invested significant resources into a review of the programs.⁶² At the time of writing this report, consultations are currently underway looking specifically at the challenges around:

- Program eligibility and structure;
- Wages and deductions;
- Housing in primary agriculture; and
- Labour Market Impact Assessment processes.

A report highlighting the findings from the consultations taking place throughout the country is expected to be made available in the fall of 2018.

⁶¹ Canadian Agricultural Human Resource Council. Dec. 2017. [A Review of Canada’s Seasonal Agricultural Worker Program](#).

⁶² Canadian Federation of Agriculture Roundtable. May 3, 2018. [Notes: Fostering Trust & Compliance in International Farm Worker Programs](#).

7.3 IMPLICATIONS FOR THE SECTORS

TFW Programs enables employers in the agriculture-horticulture sector to access workers and fill critical gaps in labour supply. The landscape sector, on the other hand, is not able to avail itself of temporary foreign workers through this program stream, and other program streams are not easily accessible to landscape employers.

The challenges outlined in this section are indicative of a high level of pressure experienced by employers requiring time and money on their part and often leaving crops unharvested.⁶³

From the perspectives of the Mexican Consulate, several areas of improvement for the SAWP were identified. These include issues around working conditions, including concerns around health and safety, length of hours worked, and workplace harassment and bullying. Likewise, there are also issues around living conditions with some employers providing sub-standard and/or overcrowded housing. These issues are all compounded by the vulnerability created by employer-specific work permits.

⁶³ CHARC Briefing Report. February 8, 2018.

8.0 HUMAN RESOURCES PRACTICES: IMPACTS ON LABOUR MARKET

This section focuses on addressing research component #6 and #8:

- *A description and analysis of the impact of recruitment, retention and other human resource management practices;*
- *A description and analysis of the perception of the industry by current and potential labour supply.*

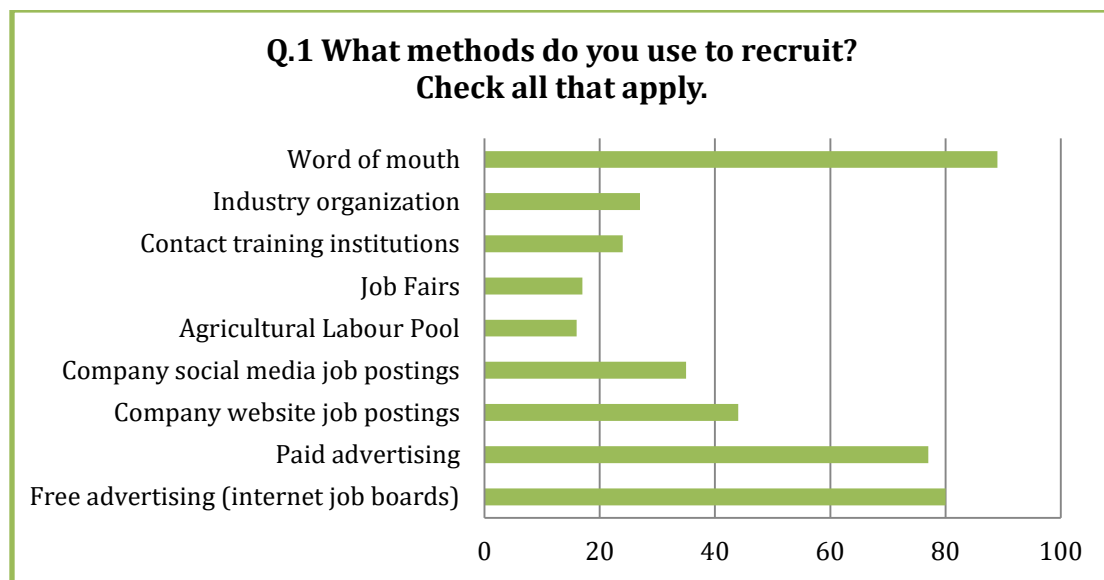
8.1 HUMAN RESOURCES PRACTICES IN BC

Producers, growers, and landscape businesses across all sectors of the agriculture-horticulture and landscape sectors who were interviewed, surveyed and/or consulted with for the purpose of this research consistently spoke of a significant shortage of willing domestic workers for unskilled labour positions. This is despite the wide-range of education and training opportunities which are valued by employers, but have not solved the problem of lack of labour. Nor have extensive recruitment and hiring efforts on the part of employers to seek local employees. All sectors appear to be seriously impacted by the ability to attract and retain necessary labour. There are many instances where there have been no local applicants for positions.

Vegetable, tree fruit, berry, greenhouse and nursery growers are highly dependent on the TFW to fill the void of unskilled labourers. The landscape industry has no access to the employment of foreign labour outside the country; however, the sector does employ foreign workers already in Canada with a working visa, including young people travelling from abroad.

Most employers utilize traditional means of hiring to recruit domestic workers, including free advertising (such as Craigslist and job boards), some paid advertising and word-of-mouth, with the latter often the most successful. The figure below shows the results of the survey of HR Managers, and the most common recruitment methods.

Figure 25: Recruitment Methods - HR Managers Survey

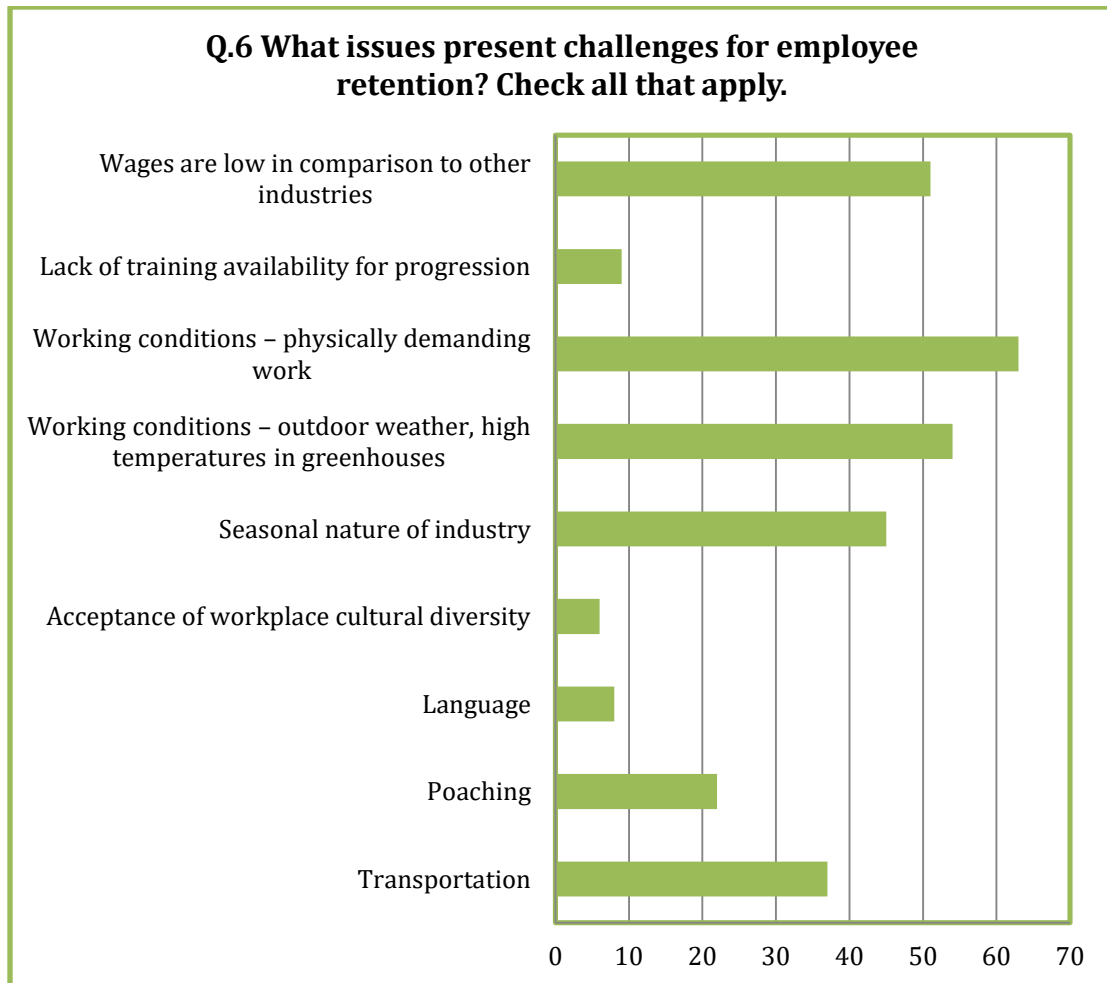


(Source: Survey of HR Managers. n=113.)

Some employers offer a financial incentive to existing employees who refer a suitable worker that stays in the job for a period of time. In the interviews and surveys, most of the industry associations identified some type of assistance they provide to members for recruitment, including advertising on their websites, as well as training and/or safety awareness. The associations also provide information regarding the foreign worker programs.

The HR Managers identified the physical working conditions and wages as the main challenges to retaining workers, along with the seasonal nature of the industry, transportation, and poaching as other reasons. See the figure below with the responses in descending order.

Figure 26: Challenges for Employee Retention - HR Managers Survey



(Source: Survey of HR Managers. n=102.)

Workers themselves identified other sets of reasons for why they chose a job. The survey of domestic workers identified reputation as important, along with the work and recognition, as seen in the figure below.

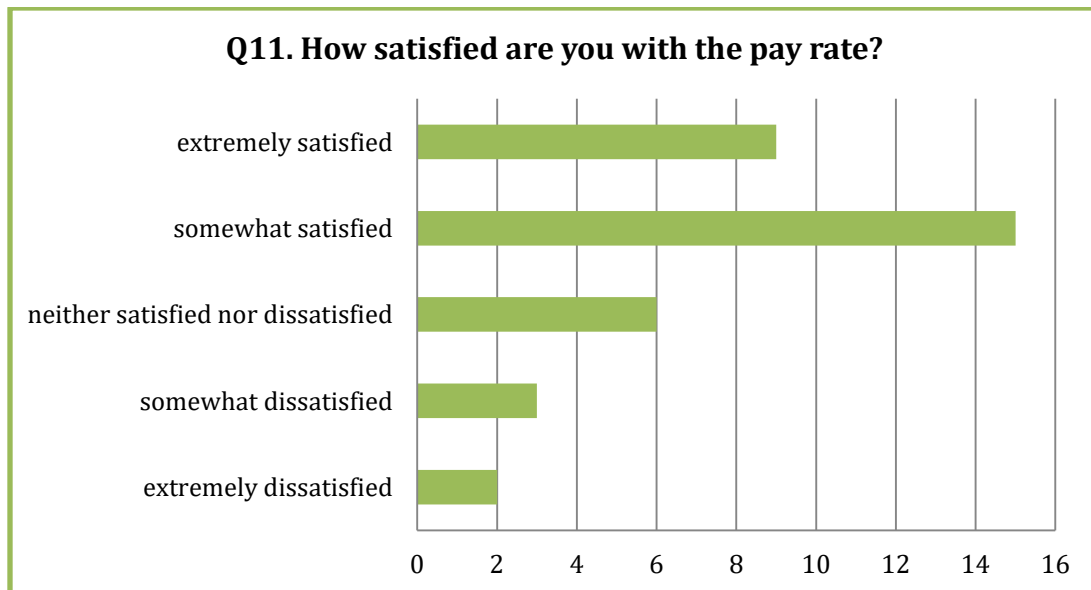
Figure 27: Attraction to Company – Domestic Workers Survey



(Source: Survey of Domestic Workers. n=39.)

For survey respondents, the rate of pay was not a main issue for the domestic workers surveyed. Only 14% of those surveyed expressed dissatisfaction with their pay rate, while 70% expressed some level of satisfaction (see the figure below). There were similar levels of overall satisfaction on other issues surveyed including benefits, sick days, leadership, and conflict resolution. While 91% of the survey respondents did not observe or experience harassment at their current workplace, three identified gender discrimination, two identified sexual harassment, and one identified racial discrimination.

Figure 28: Satisfaction with Pay Rate – Domestic Workers Survey



(Source: Survey of Domestic Workers. n=35.)

Some sectors have found partial relief from domestic hiring issues. In the Fraser and Okanagan valley, the hiring of middle-age and older generation immigrant women for berry and tree fruit picking, as well as for jobs in processing facilities, is a niche source. Growers who can accommodate these workers' schedules (i.e., when children are in school), have benefited from this able and willing source of labour; however, this segment of workers is expected to age out with the current generation.

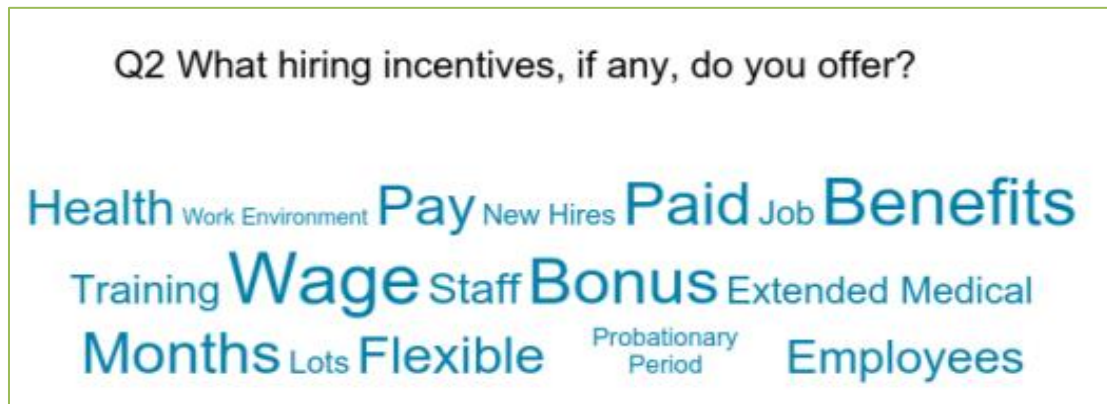
Nursery operators who can accommodate family and other time commitments of their staff have similarly filled part-time labour needs with hours that suit mothers and students. This is also an opportunity to develop talent and skill and potentially retain and promote these workers as they have more time and interest. As much as possible, the nursery sector is actively "grooming" workers to fill future vacancies.

The B.C. Tree Fruit Growers Association (BCTFGA), located in the Okanagan Valley, described a unique source their members have utilized for many years, which is young Quebecois labour pool. The BCTFGA actively recruits workers in Quebec, and provides training and translation services for these workers while in BC. There has been an historic pattern of young Quebecois travelling across the country to work a summer season in the Okanagan Valley. The experience is highly valued as a "rite of passage" amongst young people in Quebec and the association has worked hard to continue to nurture and maintain this tradition.

Within the landscape sector, the domestic workforce is described as highly transient. The typical profile is further depicted as a young person who seeks a temporary job for four to five months but does not necessarily see the work as a "career". Landscape operators identified the same challenge as those in agriculture-horticulture regarding workers' commitment to the job and work ethic, often due to the physical nature of the work and/or alternate opportunities. Within the Lower Mainland, poaching staff has become commonplace among landscape companies, thus making the retention challenge even greater.

While almost half of the HR Managers surveyed identified no specific hiring incentives offered to workers, many employers provided incentives focused on monetary items such as: hiring or stay bonuses, benefits, and training allowance. Non-monetary incentives were also identified, including: flexible schedules, good working environments, and simple things such as a Friday beer and bar-b-que. The figure below shows a word cloud of the survey responses.

Figure 29: Hiring Incentives Word Cloud - HR Managers Survey



(Source: Survey of HR Managers. n=90.)

One way some businesses within the landscape sector have tried to respond to workers' needs and to improve retention is to offer "flexibility" in terms of time-off. This appeals to younger people especially. For example, a work week may consist of four longer work days rather than the typical five days. However, because the demand for landscape services is consistently higher than the supply of labour and timelines are tight due to the season, companies are still challenged to find the balance between clients' needs and the desires of their staff.

The landscape sector has experienced some relief from labour issues with the growth of women working in the sector. New sources identified by the sector to further explore and expand include older population workers who are retraining, ex-military personnel and indigenous people.

A positive work environment offering safe and healthy working conditions, capable and supportive leadership, open communications to the needs of staff and possibilities for employee growth and development are identified by employers who have experienced the greatest success from hiring, retaining and developing domestic workers.

8.2 HUMAN RESOURCES PRACTICES FROM SELECTED JURISDICTIONS

This part of the research reviews what select jurisdictions in North America are doing to address labour market issues and challenges and how BC may be able to learn from their experience and best practices. In Canada, Alberta and Ontario are examined, and in the United States of America (USA), the states of Colorado and Texas are identified as being particularly proactive. The following are highlights of what these geographic jurisdictions are facing and addressing.

ALBERTA

Landscape Alberta Nursery Trades Association (LANTA) is a voluntary trade association for businesses in the ornamental horticultural industry across Alberta. Its members are involved in all sectors of the industry, representing landscape contractors, arborists, lawn care providers, tree nurseries, garden centres, and sod producers as well as suppliers of equipment, horticulture and landscape products, and business services.

The Alberta industry conducted a survey of labour shortages in 2014. As many as 82% of respondents said their labour situation was either severe or serious. That study estimated that close to one-third of the landscape and horticulture businesses in the province made use of the TFWP. Since that time, the economic situation in Alberta has changed and the unemployment rate has doubled so that finding workers has become less challenging, however the labour situation is not expected to remain stable long term.

The provincial minimum wage in Alberta increased to \$13.60 per hour in 2017 and \$15.00 per hour in 2018. LANTA was involved in consultations on this topic and, like many small business groups in the province, advocated for a more flexible timeline and for the option of a youth or training wage. Those parts of the sector which compete directly with other provinces and states, especially on nursery production, are most likely to be impacted by the competitive pressure faced by lower cost imports. Even with the wage increase, landscape and horticulture compete directly with higher paying trades and when the oil industry strengthens in the province, the labour shortage will intensify once again.

The LANTA works with its members to educate and attract young people to the industry at the high school level. There has also been slow movement among some businesses to implement changes to address workers' concerns regarding seasonality by offering year-round employment, benefits, company vehicles and bonuses for completing the season.

ONTARIO

Landscape Ontario and the Landscape Ontario Horticultural Trades Association (LOHTA) operate as one unit to support the industry in Ontario. A shortage of both skilled and unskilled labour exists and is similarly heavily reliant on foreign workers.

In 2007, the government of Ontario passed the *Learning to Age 18 Act*. Its purpose was "to amend the school leaving age from 16 to 18. From that, the "Specialist High Skills Major" (SHSM) program was developed for high schools. An SHSM is a ministry-approved specialized program that allows students to focus their learning on a specific economic sector while meeting the requirements to graduate from secondary school.

LOHTA assists Ontario schools to offer the SHSM–Horticulture and Landscaping program as a strong foundation for a wide variety of careers in the landscape and horticulture sector. The purpose is to teach students baseline sector-focused knowledge and skills before graduating and entering apprenticeship training, college, university, or an entry-level position in the workplace. LOHTA targets other under-represented sectors including: newcomers, women, youth-at-risk, and, the indigenous population.

In 2018, a key labour and business issue for Ontario has been to prepare businesses for the minimum wage increase to \$14.00 per hour (a \$2.40 per hour increase to be followed by a second \$1.00 increase in 2019). Many other changes under the same Bill (148) will have an impact, including overtime and holiday pay, sick days, vacation pay and on-call pay.

COLORADO

Colorado is represented by the Colorado Nursery & Greenhouse Association (CNGA) and the Associated Landscape Contractors of Colorado (ALCC). Currently, unemployment is at record low levels in the state and employers in the green industry are finding it difficult to attract workers with relevant skills. A 2015 industry poll revealed that two thirds of landscape companies could take on more work if they had more skilled employees

The ALCC, whose members include horticulturists, landscape designers and architects, arborists and installation/maintenance and irrigation specialists, is working to promote the fact that employees can move up through their industry from entry-level labourers, starting in high school. During the winter of 2014-15, ALCC volunteers in three task forces met with representatives of the Colorado Community College System to identify: entry-level jobs and skills; the content and experience high school students should have to prepare them for jobs; and, the work-based experiences that would enhance classroom training. New state supported initiatives and funding introduced in 2016 led to the *Career Pathways program*. The Landscape Career Pathway is in place in several high schools throughout the state and other schools are in the process of getting involved with Pathways.

The grass roots initiative uses ALCC members as resources to help train high school teachers who will in turn teach students. The program also provides students with exposure to careers in the industry from entry level positions to owner and manager levels, to landscape design and project management, equipment operation and office support through job shadowing and internship opportunities. In 2016 landscape professionals taught teachers *Irrigation 101* using irrigation in a Box system developed by ALCC member companies.

In 2017, teachers learned basics of irrigation design and hands-on skills involved in installing landscapes--how to shoot grades, lay pavers, plant trees and install turf according to industry best management practices. As the program grows, the need has been identified for volunteers to act as ambassadors for the industry by speaking to students, to share testimonials about their path to the landscape industry, and to provide work-related experience through job shadowing and internships.

TEXAS

The Texas Nursery and Landscape Association (TNLA) is the authority on issues impacting the Texas green industry. Its mission is to enhance members' business success through legislative/regulatory advocacy, education, networking and the promotion of professionalism.

Texas' horticulture and landscaping sector has traditionally relied heavily on foreign workers, especially those in neighbouring Mexico, for the past decades, with estimates being as high as 75% of the workforce. Recent change to the H-2A visa program, which allows a foreign national entry into the United States for temporary or seasonal agricultural work, has forced the TNLA to move quickly to develop and initiate a number of programs to find new recruits for its members.

TNLA has been resourceful in targeting new sources of labour and developing programs which make participants "job ready" through certification. TNLA has also been extremely proactive in recognizing new ways to communicate with the current generation of workers (Millennials), and to design programs, jobs and ways to communicate and share information that resonates with younger workers.

In recent years, TNLA has commenced the following:

- **Certification of high school students** – Also in the last year, TNLA has been working with vocational teachers in the high schools to similarly offer landscape/horticultural studies which lead to certification, starting with students as early as grade 9. The schools use the TNLA curriculum and incorporate it into the classroom over one or two semesters so that students graduate with certification. Vocational programs in agriculture, particularly ag-mechanics and floral design have been in place in Texas for over 20 years. There is a general push throughout the education sector to produce students with job ready skills. Schools that produce graduates with certification are rewarded with state education funding. More trades are following the example of TNLA.
- **Judging Junior Competitions** – For the last 3 years, TNLA has participated as a judge in competitions where the prize is scholarship money towards education in the landscape and/or horticulture sector. For 3 years TNLA has been a judge for the San Antonio Rodeo. The junior (for 13-18 year olds) landscape competition offered prize money of \$22,000. These competitions draw a wider audience than traditional rodeos which have focused on being stock shows about raising animals

only. An agriculture-robotics competition at the rodeo in Austin, Texas brought in and touched over 100 high school students, while informing, engaging and rewarding them in an industry they would otherwise know little about.

- **Women in Leadership** – Texas already has a high proportion of female business owners in the landscape and horticulture sector. At its annual industry expo, TNLA make it a priority to highlight female business leaders and connect them with female college students for learning, mentoring and networking.
- **Veterans program** – This is a 10-week program for veterans of all ages (mostly 27-40 years) designed to train and prepare them to enter the industry with certification. Most participants have been out of the military for a few years. The program offers small class size instruction for veterans only (8-10 participants) rather than online learning which is available widespread and has been well-received because of its personalized nature. This program is just one year old and the TNLA certification is eligible for funding through veterans' benefits, though the processing speed requires improvement.
- **Prison Program** – This program is also just one year old and targets light offenders, i.e. those serving 1-6 years. TNLA is working closely with one of the prisons in particular which has 8 different facilities and has a college associated with a horticultural program. They have instructors teaching TNLA certification. Upon completion participants are ready to work in the industry and/or continue their studies at college or the university level. Not all companies will hire individuals who have a record, however, for those that do, this program provides a particularly good pool for wholesale nurseries (less so for retail) and commercial landscape labourers.

8.3 PERCEPTIONS OF THE SECTOR: CURRENT, FORMER, AND POTENTIAL WORKERS

There are several challenges to hiring and retaining domestic workers as recognized by the industry itself, often based on the perception of the sector. The type and nature of work that must be performed in a large number of the jobs in agriculture-horticulture and landscaping is a major factor which cannot be underestimated. Employers seek workers who are prepared both physically and in terms of personal commitment to meet the requirements of the jobs that must be filled. These labourer jobs are known to involve sometimes working in severe weather conditions, such as: heat, cold, wind, as well as physically demanding strenuous activities including heavy lifting, repetitive motions and monotonous tasks. From the employers' perspective, both punctuality and commitment to the full season are key employee expectations.

Planting, growing and harvesting timelines are critical and often require long days. These are high expectations for relatively low wages and a lack of steady work due to seasonality. Some workers only fully realize the extent of these job demands after starting work in the sector. Given the difficult working conditions, the industry competes with other occupations such as those in the retail and hospitality sectors which may offer a more comfortable working environment. Evidence through survey and interviews suggests that there is a need to find a balance between employers' necessity to get tasks completed and meeting workers' aspirations.

For those with formal training but limited experience who seek to pursue a long-term career in one of the sectors, there is typically on-the-job training time required to put training into practice and to understand the role(s) in an operation. In the Lower

Mainland, and similarly in the Okanagan, the increasingly high cost of living and housing makes wages a crucial part of employment decisions. Most agriculture-horticulture operations are in rural locations away from public transit, so often there is both a commute time and vehicle expense to consider.⁶⁴

Depending on the size and nature of operations as well as the level of experience required, many jobs in the industry do not offer a rapid career path with increased pay levels. For some in horticulture and the landscape sector in particular, including golf and turf golf management, the municipal sector is able to offer higher wages and benefits and slightly more job security. These realities draw workers.

The industry acknowledges the perception challenges it faces amongst potential workers. The research indicates the work is labour intensive, the pay is low and many of the tasks are repetitive and monotonous. Additionally, most of the work is seasonal. Employers are aware of the need to secure human labour to maintain and sustain the industry.

For the most part, the industry feels that from an overall public perception, occupation in the sectors are not highly regarded or viewed as long-term career options. As one interview participant commented, “A lot of people think there is no future in farming. They wonder, ‘where can I go from here?’”

Work within the landscape sector is often perceived as short-term work, with spring/summer positions often filled by students. Landscaping is physically demanding and is not considered to pay well. Even for workers that have obtained formal training, the perception is that it is not a job or career that is as highly valued as other trades such as plumbers, electricians, carpenters.

While demanding physical labour and relatively low wages do comprise a significant component of the low skill occupation profiles, there are also career possibilities within agriculture, horticulture and landscape occupations for workers that present talent and commitment and willingness to engage in some aspects of physical and/or outdoor work, along with enthusiasm to learn and develop professionally.

There is an emerging movement towards a social agenda of holistic or alternative living, and an emergent interest in growing healthy food, which was noted by both the education sector and the industry representatives consulted.

Employer interviews identified an opportunity for the agriculture-horticulture and landscape-horticultural sectors to reassess what and how they offer employment and career possibilities and realign. New labour force entrants may be attracted by the possibility of healthy work outdoors, being physical, close to the land, and making a difference in the esthetic quality of peoples’ lives when appropriately positioned and genuinely delivered.

The industry can utilize this opportunity to turn around the negative notion of the physical work by ensuring they provide a healthy work environment which takes into account and values workers bodies, minds and lifestyle needs.

⁶⁴ www.vancourier.com/news/cost-of-living-stats-indicate-tough-road-ahead-for-vancouver-families-1.23281129

8.4 IMPLICATIONS FOR THE SECTORS

The agriculture-horticulture and landscape-horticulture sectors face challenges in finding sufficient labour to fill the needs of their operations. Working conditions unique to the horticulture and landscape sectors constitute barriers to recruitment and retention of workers. BC employers who are in a position to offer workers more attractive wages, healthy working conditions and growth opportunities for those who seek them have better potential to find staff domestically.

Employers understand that in order to attract domestic workers in the current and projected BC labour market, the agriculture, horticulture and landscape employers must consider shifts in business and human resource practices. This includes the following considerations:

- Recognize the importance of the reputation of each individual operation as an employer;
- Make improvements to worker incentives and benefits, including wage structures, on-call, sick days, vacation pay, and/or seasonal staying bonuses;
- Find ways to alleviate the stresses associated with physical work and to increase the diversity of otherwise monotonous occupation profiles. This might include better break structures and job rotations;
- Improve working conditions such as providing flexible work schedules where possible;
- Provide transportation/commuting solutions to workers that require them;
- Build team spirit through good employee relations and communications;
- Develop career pathways for staff;
- Encourage and support the development of talent through continued education and training;
- Invest in new technologies; and
- Address the perception of the industry overall and working towards making it more positive.

9.0 THE IMPACT OF LABOUR SHORTAGE FOR THE INDUSTRY

9.1 THE IMPACT OF LABOUR SHORTAGES

This sub-section focuses on addressing research component #7:

- *A description and analysis of the impact of labour shortages.*

Agriculture in Canada is an important, labour intensive sector contributing to both domestic and export markets. It is labour intensive. In British Columbia, the agriculture-horticulture and landscaping sector is a significant component of the overall agriculture industry and of the BC economy. It generates both consumer goods and services and also some exports. It has an important and growing role as we 'green' our economy.

The growth potential can, however, not be achieved until the issues of attracting and retaining enough well-matched workers are dealt with.

- Current labour shortages are having a serious impact on the sector. Traditionally, agricultural horticulture production is very labour intensive, relying much on manual labour. The lack of labour supply has limited growth for most business owners.
- Nurseries, greenhouses and orchards have experienced some moderate success in applying technology to reduce their reliance on manual labour. There is great interest and potential to gain further relief from labour strain via technology.
- As always, the financial investment in technology is significant. It will require strong leadership and coordination, especially given the diversity and complexity of the industry's many sectors but the potential to alleviate the stresses of labour shortages and the potential benefits from increased productivity are not to be overlooked.
- Work in agriculture-horticulture and landscape-horticulture sectors have many similarities – potential applicants need to face physically challenging and seasonal work, and they should be willing to work in all-weather condition. There is the need for new comers to the industries to feel that the work is interesting, fulfilling, and to feel that they are part of a team.

9.2 COMMON THEMES

Both the agriculture-horticulture and landscape-horticulture sectors are facing critical shortages of labour, with anticipated increased shortages in the future: in part due to demographic pressures (low numbers of young people entering the workforce, and high levels of impending retirements), and in part due to high levels of competition for workers from other industries, many of which offer clear and direct opportunities for advancement and career building.

The agriculture-horticulture sector faces its most critical shortages of seasonal labourers for harvesting, which is mostly conducted by foreign workers through government programs. The landscape-horticulture sector faces its most critical shortages of seasonal labourers, which is mostly conducted by domestic workers.

As the sectors are diverse and consist primarily of smaller employers, human resource systems are underdeveloped and best practices are often absent. This lack

exacerbates difficulties in recruitment and retention. It is a major barrier to dealing with the further challenge of replacing the aging and retiring workers that make up a high proportion of the workforce. By working together, the industry and its members can develop and implement the kinds of HR systems and best practices to greatly improve attraction, retention and other labour issues.

Formal training programs exist and are expanding to include factors like sustainability. However, there is a need for better bridging between formal education and on the job realities. Basic training on safety and related issues is also well provided. Immigrant and foreign workers may need very basic training in order to get a driver's license or use a mobile phone. Employers and workers would both benefit from more in-house training, not only to improve skills; but also to enable workers to develop career paths and move into more supervisory and managerial positions.

The agricultural-horticultural and landscape sector has an image problem. While societal trends and changing consumer demands are moving to a sustainable, green environment, well landscaped and fed with local foods, the organizations that supply those needs are not seen as attractive places to work or offering careers. It is the industry's collective responsibility to work together to replace this negative image by developing recognized training plans and career paths and by marketing and communicating the valuable contribution the industry makes and the opportunities it offers.

9.3 RECOMMENDATIONS

Based on a review of the Labour Market Information Research, the Steering Committee, Labour Market Partnership Committee and key industry stakeholders, representative of the agriculture-horticulture and landscape-horticulture sectors is satisfied with the outcome of the research.

The labour market shortages are multifarious and require multifaceted strategies to address the challenges illustrated throughout this report. The industry has determined the following recommendations in response to the research data.

I. SUPPORT INDUSTRY OWNERS, OPERATORS AND MANAGERS

Key Findings: A lack of consistent human resources planning with regard to both expansion and succession suggests a strong need for the industry to more fully understand human resources matters at the operational level. This leads to better planning for the industry overall, more effective workers and improved odds of attracting non-traditional labour groups.

Strategies should be developed to increase awareness and skill for industry owner, operators, managers in the areas of Human Resource Systems and best practices such as:

- Recruitment, selection, retention and succession plan;
- In-house training and development programs;
- Track and manage human resources systems and worker turnover;
- Scheduling, wage-benefits, monetary and non-monetary incentives;
- Training in management – business development, leadership, communication and other interpersonal skills; and

- Administrative support for foreign worker processes.

II. SUPPORT INDUSTRY WORKERS

Key Findings: Current basic in-house training must be addressed to improve current employee engagement and job satisfaction.

Given the reliance on both domestic and foreign workers the strategies developed should promote:

- A positive work environment and culture;
- Worker recruitment and retention with a particular focus on women, immigrants and Indigenous workers;
- Flexible schedules, job sharing, job rotation ;
- Training to support skill development for managers, including leadership, and communication;
- Monetary incentives such as hiring bonus, stay bonuses, training allowances;
- Non-monetary incentives like socials; and
- Community connectedness initiatives for foreign workers.

III. IMMIGRANT WORKFORCE STRATEGY

Key Findings: Consumer trends could be leveraged to attract new workers to the sectors. The agriculture-horticulture and landscape-horticulture sectors rely on key types of occupations; labourers, technicians, and supervisors/managers.

BC welcomes close to 40,000 new immigrants each year; strategies should be developed to welcome an immigrant workforce through coordinated tactics such as:

- Increased industry awareness immigrant demographics;
- Understanding of community demographics;
- Link immigrant consumer demand trends to opportunities to recruit in the sector;
- Partner with immigrant serving organizations;
- Communication strategy targeting immigrant labour force ;
- Industry career training program for immigrants (English and other language); and;

IV. INDUSTRY COMMITMENT TO EXCELLENCE

Key Finding: For both sectors, the challenges are to find people willing to work in all-weather conditions, and willing to take on physical work. The work is seasonal. The agriculture-horticulture sector relies heavily on Foreign Workers. The landscape-horticulture industry consists predominantly of small businesses which will need to work together to achieve excellence, with strategies to:

- Improve the perception of the industry by introducing strategies to improve and change the perception of the industry;

- Develop good news stories that highlight the value and worth of the industry;
- Develop well targeted marketing and communication campaigns;
- Develop proactive systems and solutions to respond to key industry issues; and
- Put into practice and communicate widely industry certification standards to showcase the professionalism of the sector.

9.4 CONCLUSION

This report demonstrates unambiguously that labour shortages are negatively impacting the agriculture-horticulture and landscape-horticulture sectors. Their growth and even their long term survival are threatened by the lack of workers. The nature of the work, the perception of the industry and competition from other industries in a tight labour market all contribute to the difficulties in generating an adequate supply of workers, while consumer and societal trends increase the demand for the sectors products and services; and exacerbate demand for even more workers.

To deal with this problem, employers and organizations in the sector must work together to accomplish what each cannot achieve on its own. To develop HR systems and best practices that will support industry employers to attract, train, and retain workers, this can be achieved through the coordinated efforts of subject matter experts working collaboratively through one organized infrastructure. The result will be better and more attractive working conditions for both domestic and foreign workers. Such a collaborative approach will enable the industry to strive for excellence, improve its image and attract and retain the people it needs to grow and thrive.

APPENDIX A: FINAL REPORT SIGN-OFF

An email was sent to the BCLNA Board of Directors on Thursday May 10, 2018. Two emails were sent out to the Steering Committee on Friday May 11, 2018. The first email was recalled because the copy of the Final Report for review by the Steering Committee had been revised.

The following is the email that was sent to the BCLNA Board of Directors on Thursday May 10, 2018.

Hi Everyone,

I have attached the close to final report for your reference and review. This report is a collaborative effort of the research team and myself. We are close to finalizing the report and I am feeling happy with the end product. We are currently writing the Executive Summary (What you see in the report currently is just a placeholder) more detail will be added to Sections 2.0, 7.0 and 9.0.

Take a look at this report in its entirety and send back your comments if any along with a note stating you support the findings. If you can do this by Tuesday, May 15, 2018 Noon it is appreciated.

Sincerely,

Ann Walsh

BCLNA BOARD OF DIRECTORS

Len Smit
Chair

Craig Stewart
1st Vice Chair

Shannon Claypool
2nd Vice Chair

Garfield Marshall
Treasurer

Heike Stippler
Landscape Chair

Michael Mills
Retail Chair

Steven Folkerts
Growers Chair

The following is the content of the second email sent to the Steering Committee.

Hi everyone,

A revised final draft for your review. The research team and I were able to make the changes within the document. If you have started to read the first copy sent earlier not too worry; if not read this one.

This report is a collaborative effort of the research team and myself. It is important you read this report and follow the tasks identified below.

- Read the report in its entirety.
- Make a note beside the highlighted statement in the email: I have read the report fully and I support the findings. Yes or No and include the date read.
- Reply All to the email by May 15, 2018 Noon.

LMP PROJECT STEERING COMMITTEE

Cable Baker

Down to Earth Landscapes

Ken Denbok

Greenhouse Floriculture

Hedy Dyck

BC Landscape and Nursery Association

Reg Ens

BC Agriculture Council

Jeff Foley

Para Space Landscaping Inc.

Bruce Hunter

Hunter Landscape Design

Jacob Kerkhoff

Calais Farms

Giuseppe Pagano

Davey Tree

Randy Sihota

Appointed representative BC Potato Farmers' Association

Leisa Yee

BC Potato Farmers' Association

Bill Zylmans

Chair BC Potato Farmers' Association

LMP BCLNA BOARD AND PARTNERSHIP STEERING COMMITTEE REPORT SIGN-OFF

I have read the report fully and I support the findings:

Cable Baker

Down to Earth Landscapes

Ken Denbok

Greenhouse Floriculture

United Flower Growers

Hedy Dyck

Chief Operating Officer, BC Landscape and Nursery Association

Steven Folkerts

Growers Chair, BC Landscape and Nursery Association

Jacob Kerkhoff

Calais Farms

Garfield Marshall

Treasurer, BC Landscape and Nursery Association

Giuseppe Pagano

District Manager

Davey Tree Expert Co. of Canada Limited

Len Smit

Board Chair, BC Landscape and Nursery Association

Heike Stippler

Landscape Chair, BC Landscape and Nursery Association

Leisa Yee

BC Potato Farmers' Association

APPENDIX B: TERMS OF REFERENCE-STEERING AND VALIDATION COMMITTEES

LMP PARTNERSHIP: STEERING COMMITTEE: MEMBERSHIP AND TERMS OF REFERENCE

The purpose of the Labour Market Information Research phase is to inform the design of labour force strategies that address the underlying causes of widespread labour shortages being experienced across the horticultural sector, through a detailed analysis of current labour market conditions and trends in British Columbia.

LMP PARTNERSHIP MEMBERSHIP

The established Ag-Hort Partnership and Landscape Partnership Committee will continue in its role to support the LMP Project. The members of the Partnership Committee are:

- BC Blueberry Council
- BC Cherry Association
- BC Cranberry Growers, BC Grape Growers Association
- BC Golf Superintendents Association (BCGSA)
- BC Greenhouse Growers Association
- BC Honey Producers Association
- BC Landscape & Nursery Association (BCLNA)
- BC Potato & Vegetable Growers Association
- BC Raspberry Industry Development Council
- BC Strawberry Growers Association
- BC Tree Fruit Growers Association
- Pacific Northwest Chapter of the International Society of Arboriculture (PNW ISA)
- United Flower Growers Cooperative
- Western Canada Turfgrass Association (WCTA)

The following individuals from the Agriculture Horticulture and Landscape sectors have been identified to participate on the Labour Market Information Research Phase 2 Steering Committee:

The Steering Committee representatives are:

1. Cable Baker
Down to Earth Landscapes
2. Ken Denbok
Greenhouse Floriculture
3. Hedy Dyck
BC Landscape and Nursery Association
4. Jeff Foley
Para Space Landscaping Inc.
5. Jacob Kerkhoff
Calais Farms

6. Giuseppe Pagano
Davey Tree
7. Randy Sihota
Appointed representative BC Potato Farmers' Association
8. Leisa Yee
BC Potato Farmers' Association
9. Bill Zylmans
Chair BC Potato Farmers' Association

Ex-Officio

- Reg Ens
BC Agriculture Council
- Bruce Hunter
Hunter Landscape Design Ltd.
- Pascale Knoglinger
Ministry of Advanced Education, Skills and Training
- Ann Walsh
Solstice Consulting

TERMS OF REFERENCE

1. General Purpose

This Committee is established for the purpose of supporting and guiding the Agriculture Horticulture and Landscape Labour Market Partnership Project to complete effectively the Phase 2 Labour Market Information Research component. The Committee is to provide project governance and quality control of the contract deliverables, and for the oversight of any contractors engaged to complete the project.

This committee is assisting the Project Manager and BC Landscape and Nursery Association in its function of governance by:

- Participating in regular correspondence and meetings as required by the project manager to review and provide input on project activities and deliverables;
- Informing and collaborating with the partnership association on project activities and deliverable progress; and
- Ensuring project deliverables are consistent with sector-specific Research.

2. Duties & Assignments

- To review the statistics, information and reports as requested by the Project Manager.
- To communicate and cooperate with all member associations.
- To participate in conference calls and/or meetings to review and provide input.
- To consider options for continuance of the program to develop Phase 3 based on information gathered in Phase 2.

3. Appointments and Composition

The Steering Committee will be representative of senior staff and/or a representative appointed by the respective association.

4. Duration of Appointment

The term of appointment will be for the duration of Phase 2. Should the Steering Committee agree to participate in subsequent project phases, the appointment may extend to future phases.

5. Resources

The Steering Committee is provided with funding for meeting expenses and conference calls as per the project work plan and budget.

VALIDATION COMMITTEE: MEMBERSHIP AND TERMS OF REFERENCE

MEMBERSHIP

The following individuals from the Agriculture Horticulture and Landscape sectors have been identified to participate on the Labour Market Information Research Phase 2 Validation Committee:

- Lisa Craig
Raspberry Industry Development Council and BC Strawberry Growers Association
- Hedy Dyck
BC Landscape and Nursery Association
- Kevin Scollon
Thompson Rivers University
- Heike Stippler
Heike Designs Inc.
- Bill Van Belle
Van Belle Nursery Inc.

Ex-Officio

- Pascale Knoglinger
Ministry of Advanced Education, Skills and Training
- Ann Walsh
Solstice Consulting

TERMS OF REFERENCE

1. General Purpose

This Committee is established for the purposes of supporting and guiding the Agriculture Horticulture and Landscape Labour Market Partnership Project to complete effectively the Phase 2 Labour Market Information Research component. The Committee is to provide project governance and quality control of the contract deliverables, and for the oversight of any contractors engaged to complete the project.

This committee is assisting the Project Manager and BC Landscape and Nursery Association in its function of governance by:

2. Duties & Assignments:

- To review the research tools (questionnaires, surveys, interviews) and methodology;
- To communicate and provide feedback on research tools;
- To participate in conference calls and/or meetings to review and provide input; and
- To consider options for continuance of the program to develop Phase 3 based on information gathered in Phase 2.

3. Appointments and Composition

The Validation Committee will be representative of senior staff and/or a representative appointed by the respective association.

4. Duration of Appointment

The term of appointment will be for the duration of Phase 2. Should the Validation Committee agree to participate in subsequent project phases, the appointment may extend to future phases.

5. Resources

The Validation Committee is provided with funding for meeting expenses and conference calls as per the project work plan and budget.

APPENDIX C: SECONDARY SOURCES

ARTICLES, REPORTS AND STUDIES

Agriculture and Agri-food Canada (July 2017) Commodity Innovation Series: New Products Containing Pulse Ingredients in North America.

www.agr.gc.ca/eng/industry-markets-and-trade/international-agri-food-market-intelligence/canada/commodity-innovation-series-new-products-containing-pulse-ingredients-in-north-america/?id=1499950769666

Agriculture and Agri-food Canada (Oct 2017) Commodity Innovation Series: Blueberries in Food, Drink, and Pet Food.

www.agr.gc.ca/eng/industry-markets-and-trade/international-agri-food-market-intelligence/commodity-innovation-series-blueberries-in-food-drink-and-pet-food/?id=1507753928453

Agriculture and Agri-food Canada. (2012). Socially Conscious Consumer Trends.

www.agr.gc.ca/eng/industry-markets-and-trade/international-agri-food-market-intelligence/socially-conscious-consumer-trends-sustainability/?id=1410083148827

Agriculture and Agri-food Canada. (April 2017). Final Report: Agricultural Awareness Baseline Survey.

http://epe.lac-bac.gc.ca/100/200/301/pwgsc-tpsgc/por-ef/agriculture_agri-food/2017/091-16-e/report.pdf

Agriculture and Agri-food Canada. (Fall 2014). What's New in British Columbia – Spotlight on Greenhouse Vegetables and Floriculture.

www.agr.gc.ca/eng/industry-markets-and-trade/international-agri-food-market-intelligence/canada/what-s-new-in-british-columbia-spotlight-on-greenhouse-vegetables-and-floriculture/?id=1417451549842

Agriculture and Agri-food Canada. (Nov. 2015). Emerging Food Innovation: Trends and Opportunities.

www.agr.gc.ca/eng/industry-markets-and-trade/market-information-by-sector/processed-food-and-beverages/trends-and-market-opportunities-for-the-food-processing-sector/emerging-food-innovation-trends-and-opportunities/?id=1449236177345

Agriculture and Agri-food Canada. (Winter 2016). What's New in British Columbia – Spotlight on Craft Beer.

www.agr.gc.ca/eng/industry-markets-and-trade/international-agri-food-market-intelligence/canada/what-s-new-in-british-columbia-spotlight-on-craft-beer/?id=1458845396199

BC Greenhouse Growers' Association. Challenges Facing The BC Vegetable Greenhouse Industry (2018).

Canada Agricultural Human Resources Council. (April 2018). LMI Update “Job Vacancies on Farms and in Food Manufacturing: Update to the 4th quarter of 2017”. Available online:

www.cahrc-ccrha.ca/programs-services/agrilmi/research

Canada Agricultural Human Resources Council. (May 2016). Agriculture 2025: How the Sector's Labour Challenges Will Shape Its Future. Available online:

https://cahrc-ccrha.ca/sites/default/files/files/Labour-Employment/NAT_reportE_final.pdf

- Canadian Agricultural Human Resource Council. (December 2017.) A Review of Canada's Seasonal Agriculture Worker Program
<https://cahrc-ccrha.ca/sites/default/files/Emerging-Issues-Research/A%20Review%20of%20Canada%27s%20SAWP-Final.pdf>
- Canadian Agricultural Human Resource Council. (February 2018.) Agriculture and Agri-Food Labour Market Information Update – Job vacancies in selected agri-related occupations: update to the 3rd quarter of 2017. Available online:
[www.cahrc-ccrha.ca/sites/default/files/files/Labour-Employment/CAHRC%20LMI%20Update%20Job%20Vacancies%20by%20Type%20of%20Job%20\(NOCS\)%20to%203rd%20quarter%202017.pdf](http://www.cahrc-ccrha.ca/sites/default/files/files/Labour-Employment/CAHRC%20LMI%20Update%20Job%20Vacancies%20by%20Type%20of%20Job%20(NOCS)%20to%203rd%20quarter%202017.pdf)
- Canada Agricultural Human Resources Council. (May 2016). British Columbia Agricultural Labour Market Forecast to 2025. Available online:
https://cahrc-ccrha.ca/sites/default/files/files/Labour-Employment/BC_reportE.pdf
- Canadian Agricultural Human Resource Council. CAHRC Briefing Note, February 8, 2018.
- Canadian Agricultural Human Resource Council (released 2016-17.) Primary Agriculture Vacancies and Labour Shortage Information. Available online:
[www.cahrc-ccrha.ca/sites/default/files/files/Labour-Employment/VacanciesPerCommodity-En\[2\].pdf](http://www.cahrc-ccrha.ca/sites/default/files/files/Labour-Employment/VacanciesPerCommodity-En[2].pdf)
- Canadian Agricultural Human Resource Council (undated) Canadian Agriculture and Agri-Food Workforce Action Plan. Available online:
www.cahrc-ccrha.ca/sites/default/files/AFutureforCdnFarmersAndFoodProduction_0.pdf
- Canadian Agricultural Human Resource Council. Dec. 2017. A Review of Canada's Seasonal Agricultural Worker Program.
- Canadian Federation of Agriculture. Letter to Honourable Lawrence MacAulay, Minister of Agriculture and Agri-Food. February 9, 2018.
- Canadian Federation of Agriculture Roundtable. May 3, 2018. Notes: Fostering Trust & Compliance in International Farm Worker Programs.
- Carter, Amy. (2017). What's Hot for Horticulture for 2017: New and Continuing Trends for the New Year. GGS Structures Inc.
<http://ggs-greenhouse.com/blog/whats-hot-for-horticulture-new-continuing-trends-for-new-year>
- Darling, Ian. (December 2017). BC Post-Secondary Supply Model 2017/18 to 2026/27 Methodology Highlights. Prepared by BC Stats for Ministry of Advanced Education, Skills and Training. Available online:
www.bcstats.gov.bc.ca/Files/2dd7cdba-d33c-4b30-83e9-6be47e75cc49/BCPost-SecondarySupplyModel2017-18to2026-27MethodologyHighlights.pdf
- Gerlsbeck, Robert. (February 6, 2017). Surge in craft breweries fuels hop farming revival. Globe and Mail.
www.theglobeandmail.com/report-on-business/small-business/sb-growth/surge-in-craft-breweries-fuels-hop-farming-revival/article33905921/
- Gibbon, P. and L. Riisgaard. (April 2014). 'Labour Management on Contemporary Kenyan Cut Flower Farms: Foundations of an Industrial–Civic Compromise'. Journal of Agrarian Change, 14 (2): 260–285. Available online:
<http://onlinelibrary.wiley.com/doi/10.1111/joac.12064/abstract>

Greenhouse Management, February 2017 issue. "The State of Automation in Horticulture."

International Society for Horticultural Science. (February 2016.) Harvesting the Sun A Profile of World Horticulture. Available online:

www.harvestingthesun.org/sites/default/files/ISHS-Harvesting-the-Sun-full-profile.pdf.

Marshall, W. Zachary. (August 2015). Seasonal Agricultural Workers in Canada: Understanding the Socio-Political Issues. MA Research Paper, Western University.

http://ir.lib.uwo.ca/cgi/viewcontent.cgi?article=1003&context=sociology_masrp

Meyer, M. H., Needham, D., Dole, J., Trader, B., Fox, J., Conley, M., Neff, M., & Shaw, J. (2015). Importance of Horticulture and Perception as a Career. Seed Your Future.

www.seedyourfuture.org/sites/default/files/HT-SYF.pdf

Meyer, M.H., D. Needham, J. Dole, B. Trader, J. Fox, M. Conley, M. Neff, and J. Shaw (April 2016). Importance of Horticulture and Perceptions as a Career. HortTechnology 26(2) 114:120. This is an open access article distributed under

www.creativecommons.org/licenses/by-nc-nd/4.0/

Mwangi, J. (August 2017). Influence of Occupational Health and Safety on Employees' Performance in the Flower Industry in Kenya: a Case Study of Penta Flowers Limited, Thika Sub-County. The Strategic Journal of Business & Change Management Volume 3 Issue 3 Article 15. Available online:

<http://strategicjournals.com/index.php/journal/article/view/490/529>

Odhong', E, and J Omolo. (October 2014). An Analysis of the Factors Affecting Employee Relations in the Flower Industry in Kenya, a Case of Waridi Ltd., Athi River. International Journal of Business and Social Science Vol. 5, No. 11(1). Available online:

https://ijbssnet.com/journals/Vol_5_No_11_1_October_2014/16.pdf

Phoenix Strategic Perspectives Inc. (Phoenix SPI). (April 2017). Agricultural Awareness Baseline Survey, Prepared for: Agriculture and Agri-food Canada. Available online:

http://epe.lac-bac.gc.ca/100/200/301/pwgsc-tpsgc/por-ef/agriculture_agri-food/2017/091-16-e/report.pdf

Schaer, L. (June 2017). Growing a New Floral Market: New Canadians are Looking for Plants from their Home Countries. Greenhouse Canada.

www.greenhousecanada.com/business/trends/growing-a-new-floral-market-31945

Standing Committee on Human Resources, Skills and Social Development and the Status of Persons with Disabilities (HUMA). (September 2016). Temporary Foreign Worker Program. Available online:

www.ourcommons.ca/DocumentViewer/en/42-1/HUMA/report-4.

The Economist. (December 10, 2009). "Field of Automation". Available online:

www.economicst.com/node/15048711.

Walton, Dan Walton. (June 7, 2017). Mexican Consulate Suspends Local Farms. Oliver Chronicle.

www.oliverchronicle.com/mexican-consulate-suspends-local-farms/

Zochodne, Geoff. (November 3, 2017). Amid the 'green rush,' suits are taking over Canada's cannabis industry. Financial Post.

<http://business.financialpost.com/commodities/agriculture/amid-the-green-rush-suits-are-taking-over-canadas-cannabis-industry>

STATISTICAL DATA SOURCES

BC Government's statistics on crop production, available at

www2.gov.bc.ca/gov/content/industry/agriculture-seafood/animals-and-crops/crop-production/field-vegetables?keyword=horticulture&keyword=production&keyword=statistics

BC Government Central Data Warehouse (2018).

Statistics Canada (2012.) Occupation - National Occupational Classification (NOC) 2011 (691), Class of Worker (5), Age Groups (13B) and Sex (3) for the Employed Labour Force Aged 15 Years and Over, in Private Households of Canada, Provinces, Territories, Census Metropolitan Areas and Census Agglomerations, 2011 National Household Survey.

Statistics Canada (2017.) Employment Income Statistics (7), Occupation - National Occupational Classification (NOC) 2016 (193A), Work Activity During the Reference Year (9) and Sex (3) for the Population Aged 15 Years and Over in Private Households of Canada, Provinces and Territories and Census Metropolitan Areas, 2016 Census - 25% Sample Data.

Statistics Canada. CANSIM Tables related to the Annual Greenhouse, Sod and Nursery Survey.

Statistics Canada. Table 552-0006 - Canadian business counts, location counts with employees, by employment size and North American Industry Classification System (NAICS), Canada and provinces, June 2017, semi-annual (number)

Statistics Canada. Table 553-0006 - Canadian business counts, location counts without employees, by North American Industry Classification System (NAICS), Canada and provinces, June 2017, semi-annual (number)

WEBSITES

Associated Landscape Contractors of Colorado

www.alcc.com
www.denverpost.com/2016/03/11/colorado-in-the-throes-of-worst-shortage-of-skilled-landscaping-workers-since-2009/

Colorado Nursery & Greenhouse Association

www.coloradonga.org

International Society for Horticultural Science

www.ishs.org

Landscape Alberta Nursery Trades Association

www.landscape-alberta.com

Landscape Ontario Horticultural Trades Association

<https://horttrades.com/landscape-profession-prepares-for-minimum-wage-increase>

Landscape Ontario

<https://landscapeontario.com>

Texas Nursery & Landscape Association

www.tnlaonline.org

Washington State Nursery and Landscape Association

www.wsnla.org

APPENDIX D: INTERVIEW RESPONDENTS

INDUSTRY ASSOCIATIONS

Ray D. Bollman, LMI Program Advisor
Canadian Agriculture Human Resource Council

Lisa Craig
Raspberry Industry Development Council and BC Strawberry Growers Association

Linda Delli Santi
BC Greenhouse Growers Association

Ken Denbock
United Flower Growers Cooperative

Hedy Dyck
BC Landscape and Nursery Association

Steven Folkerts
Linnaea Nurseries Ltd. / Growers Chair

Glen Lucas
BC Tree Fruit Growers Association

Randy Sihota
BC Potato and Vegetable Growers Association

Len Smith
Bradner's Growing Concern / Chair

Heike Stippler
Heike Designs Inc. / Landscape Chair

COMPANIES

Growers

Fred Elsaesser, Owner
Advance Nursery Co. Ltd.

Sylvia Mosterman, Owner
Mosterman Plants Inc.

Theo Mosterman, Owner
Mosterman Plants Inc.

Kim North, Manager
Split Rock Sekw'el'was Native Plant
Nursery

John Schroeder, Owner
Valleybrook Gardens Ltd.

Landscape

Desmond Early
Contour Landscaping Ltd.

Bruce Hunter
Hunter Landscape Design Limited

Michelle Johnson, Owner
Anderson Garden Services

Anne Kulla, Owner
Huckleberry Landscape Design

Chris Mehuys, Owner
Trillium Landscape Design

Kevin Slack, Owner
Vista Ltd.

GOVERNMENT/FOREIGN WORKER ORGANIZATIONS

Fionan Griffin, Projects Coordinator
Immigrant Employment Council of BC

Anita Ibarra, Human Resources Administrator
Van Belle Nursery

Bunvir Nijjer, Corporate Secretary
British Columbia Fruit Grower's Association

Jesse Thiessen, Employment Specialist
DiverseCity

TRAINING PROVIDERS

Laura Biggs, College Director
Horticulture College of the Pacific

Betty Cunnin, Co-Chair, Horticulture Programs
Kwantlen Polytechnic University

Catherine Dale, Coordinator and Chief Instructor
Burnaby Continuing Education

Jessica Gemella, Chair, Horticulture Technician Foundation Program
Vancouver Island University

Gary Jones, Co-Chair, Horticulture Programs
Kwantlen Polytechnic University

Kevin Scollon, Coordinator, Horticulture Programs
Thompson Rivers University

OTHER JURISDICTIONS

Joel Beatson, Executive Director
Landscape Alberta Nursery Trades Association

Becky Garber, Communications
Associated Landscape Contractors of Colorado

Sally Harvey, Director of Education & Labour Development
Landscape Ontario

James Theiss, Director, Industry Education and Certifications
Texas Nursery & Landscape Association

APPENDIX E: INTERVIEW GUIDES

INDUSTRY ASSOCIATIONS

INTERVIEW SUBJECTS

Interview targets are industry associations related to the BC Landscape and Nursery sectors.

INTERVIEW METHOD

These structured interviews will be conducted via telephone. Where scheduling a telephone interview proves difficult, an email version of the interview guide will be provided.

INTERVIEW INTRODUCTION

The BC Landscape & Nursery Association (BCLNA) secured funds from the Ministry of Advanced Education, Skills and Training through the *Canada-British Columbia Labour Market Development Agreement*. BCLNA hired Roslyn Kunin & Associates to conduct the research and analysis for this study. This project will identify the current labour market shortages and trends in the landscape, agriculture horticulture and turf sectors.

This research will offer a comprehensive examination and analysis of:

- A detailed description of the sector including the types and numbers of businesses by sub-sector, types of occupations by NOC and NAICS characteristics of the workforce in these sub-sectors;
- Labour shortages and of key skills gaps;
- Training supply and training gaps;
- The impact of changing consumer demands on the sub-sectors/labour market conditions;
- The role of Seasonal Agriculture Worker Program (SAWP) in the sub-sectors;
- The impact of recruitment, retention and other human resource management practices;
- A description of the impact of the labour shortages; and
- The perception of the industry by current and potential labour supply.

The research will provide deeper insights into alleviating the labour shortages of workers in the landscape, agriculture horticulture and turf sectors.

As a result of this important research BCLNA will have current data and analysis with insight into alleviating the labour shortages. BCLNA will reference this research to identify potential solutions or options to address the labour shortages. In doing so, a proposal and application will be made to the Canada-British Columbia Labour Market Program for funding to participate in a Strategy Development project.

The study is directed by an industry Steering Committee and is managed by the BCLNA. The BCLNA is 'the voice' for the industry and thanks you in advance of your participation and commitment to participate and complete this interview.

These interviews are being conducted as the 2nd step in a 5-step Labour Market Information Study, to better inform the industry and employers on key issues of labour supply in both the ag-hort and landscape sectors.

The interview is expected to take no more than 20 minutes, and responses will be kept confidential, that is not attributed to any specific individual, but rather presented only as amalgamated data.

RESEARCH TEAM

These interviews are conducted by the research firm of Roslyn Kunin and Associates (www.rkunin.com). Should you have any questions or concerns, please contact Dr. Roslyn Kunin directly at rkunin@rkunin.com, or (604) 736-0783.

RESPONDENT INFORMATION

◆ Name, Organization, Title:

INTERVIEW QUESTIONS

1. What type of work is the main focus of your association?
 1. Agriculture Horticulture Landscape Horticulture
 2. Main Products:
2. In which region of BC does the company primarily operate?
3. Can you describe the typical cycle of the labour force of your members?
4. Can you describe typical issues for your members with recruitment?
 - Domestic
 - SAWP
 - Onboarding practices
5. Can you describe typical challenges for your members with retaining workers?
6. Do your members utilize the SAWP or other international worker programs?
 - Challenges
 - Areas for improvement
7. Can you describe typical challenges for your members' training workers?
8. What are your members' typical HR practices for building career paths for workers?
 - Differences between members or sub-sectors?
9. How have consumer demands changed over the last 5 years for your sector?
10. How do you expect consumer demand to change over the next 5 years?
11. In which skills do your members experience a shortage?
12. In which jobs do your members experience a shortage?
13. How do labour issues affect business decisions?
 - Growth
 - Technology

- Domestic workers
- SAWP
- Other

14. Are you aware of any efforts by other associations or jurisdictions that have had success affecting labour shortages in yours or related industries?
15. Can you direct us to any studies, research, or articles that describe the labour issues of your industry?
16. Is there anything else you would like to comment upon regarding the labour force of your industry?

COMPANIES

INTERVIEW SUBJECTS

Interview targets are Ag Hort and Landscape Horticulture managers.

INTERVIEW METHOD

These structured interviews will be conducted via telephone. Where scheduling a telephone interview proves difficult, an email version of the interview guide will be provided.

INTERVIEW INTRODUCTION

The BC Landscape & Nursery Association (BCLNA) secured funds from the Ministry of Advanced Education, Skills and Training through the *Canada-British Columbia Labour Market Development Agreement*. BCLNA hired Roslyn Kunin & Associates to conduct the research and analysis for this study. This project will identify the current labour market shortages and trends in the landscape, agriculture horticulture and turf sectors.

This research will offer a comprehensive examination and analysis of:

- A detailed description of the sector including the types and numbers of businesses by sub-sector, types of occupations by NOC and NAICS characteristics of the workforce in these sub-sectors;
- Labour shortages and of key skills gaps;
- Training supply and training gaps;
- The impact of changing consumer demands on the sub-sectors/labour market conditions;
- The role of Seasonal Agriculture Worker Program (SAWP) in the sub-sectors;
- The impact of recruitment, retention and other human resource management practices;
- A description of the impact of the labour shortages; and
- The perception of the industry by current and potential labour supply.

The research will provide deeper insights into alleviating the labour shortages of workers in the landscape, agriculture horticulture and turf sectors.

As a result of this important research BCLNA will have current data and analysis with insight into alleviating the labour shortages. BCLNA will reference this research to identify potential solutions or options to address the labour shortages. In doing so, a proposal and application will be made to the Canada-British Columbia Labour Market Program for funding to participate in a Strategy Development project.

The study is directed by an industry Steering Committee and is managed by the BCLNA. The BCLNA is 'the voice' for the industry and thanks you in advance of your participation and commitment to participate and complete this interview.

These interviews are being conducted as the 2nd step in a 5-step Labour Market Information Study, to better inform the industry and employers on key issues of labour supply in both the ag-hort and landscape sectors.

The interview is expected to take no more than 20 minutes, and responses will be kept confidential, that is not attributed to any specific individual, but rather presented only as amalgamated data.

RESEARCH TEAM

These interviews are conducted by the research firm of Roslyn Kunin and Associates (www.rkunin.com). Should you have any questions or concerns, please contact Dr. Roslyn Kunin directly at rkunin@rkunin.com, or (604) 736-0783.

RESPONDENT INFORMATION

- ◆ Name, Organization, Title:

INTERVIEW QUESTIONS

1. What type of work is the main focus of your company?
 - Agriculture Horticulture Landscape Horticulture
 - Main Products:
2. In which region of BC does the company primarily operate?
3. How many people are employed at the company?
 - FT PT Seasonal Contract
4. Describe the cycle of your labour force.
5. In which jobs do you experience a shortage?
6. In which skills do you experience a shortage?
7. Describe your challenges with recruitment.
 - Domestic
 - SAWP
 - Onboarding
8. Describe your challenges with retaining workers.
 - Skilled, unskilled
 - Advancing workers
9. How does your company utilize the SAWP?
 - Challenges
 - Areas for improvement
10. Describe your challenges training your workers.
11. Describe your concerns with the training workers receive prior to working for you.
 - Challenges, gaps
12. What are your companies HR practices for building career paths for workers?

13. How have consumer demands changed over the last 5 years?
14. How do you expect consumer demand to change over the next 5 years?
15. How have labour shortages affect business decisions?
 - Growth
 - Technology
 - Domestic workers
 - SAWP
 - Other
16. Why do you think people seek employment in your sector?
17. Are you aware of any efforts by other companies or jurisdictions that have had success affecting labour shortages in your industry?
18. Can you direct us to any studies, research, or articles that describe the labour issues of your industry?
19. Is there anything else you would like to comment upon regarding the labour force of your industry?

GOVERNMENT – FOREIGN WORKERS

INTERVIEW SUBJECTS

Interview targets are managers of government foreign worker programs related to the Ag-Hort Landscape industry

INTERVIEW METHOD

These structured interviews will be conducted via telephone. Where scheduling a telephone interview proves difficult, an email version of the interview guide will be provided.

INTERVIEW INTRODUCTION

The BC Landscape & Nursery Association (BCLNA) secured funds from the Ministry of Advanced Education, Skills and Training through the *Canada-British Columbia Labour Market Development Agreement*. BCLNA hired Roslyn Kunin & Associates to conduct the research and analysis for this study. This project will identify the current labour market shortages and trends in the landscape, agriculture horticulture and turf sectors.

This research will offer a comprehensive examination and analysis of:

- A detailed description of the sector including the types and numbers of businesses by sub-sector, types of occupations by NOC and NAICS characteristics of the workforce in these sub-sectors;
- Labour shortages and of key skills gaps;
- Training supply and training gaps;
- The impact of changing consumer demands on the sub-sectors/labour market conditions;
- The role of Seasonal Agriculture Worker Program (SAWP) in the sub-sectors;
- The impact of recruitment, retention and other human resource management practices;
- A description of the impact of the labour shortages; and
- The perception of the industry by current and potential labour supply.

The research will provide deeper insights into alleviating the labour shortages of workers in the landscape, agriculture horticulture and turf sectors.

As a result of this important research BCLNA will have current data and analysis with insight into alleviating the labour shortages. BCLNA will reference this research to identify potential solutions or options to address the labour shortages. In doing so, a proposal and application will be made to the Canada-British Columbia Labour Market Program for funding to participate in a Strategy Development project.

The study is directed by an industry Steering Committee and is managed by the BCLNA. The BCLNA is 'the voice' for the industry and thanks you in advance of your participation and commitment to participate and complete this interview.

These interviews are being conducted as the 2nd step in a 5-step Labour Market Information Study, to better inform the industry and employers on key issues of labour supply in both the ag-hort and landscape sectors.

The interview is expected to take no more than 20 minutes, and responses will be kept confidential, that is not attributed to any specific individual, but rather presented only as amalgamated data.

RESEARCH TEAM

These interviews are conducted by the research firm of Roslyn Kunin and Associates (www.rkunin.com). Should you have any questions or concerns, please contact Dr. Roslyn Kunin directly at rkunin@rkunin.com, or (604) 736-0783.

RESPONDENT INFORMATION

- ◆ Name, Organization, Title:

INTERVIEW QUESTIONS

1. Please describe the foreign worker programs available to the Ag-Hort Landscape sectors in BC and Canada.
2. How do the programs work?
3. Can you provide data of the numbers of applicants, workers, sectors, provinces, etc.
4. Do you track repeat companies, workers, etc?
5. Do you track skills, occupations, etc.?
6. What are common concerns raised amongst the companies?
7. Are there any plans to change?
8. What is your understanding of the demand for foreign workers in this sector?
9. Can you direct us to any studies, research, or articles that describe the foreign worker programs?
10. Is there anything else you would like to comment upon regarding the labour force of your industry?

TRAINING PROVIDERS

INTERVIEW SUBJECTS

Interview targets are managers of training programs related to the Ag-Hort Landscape industry

INTERVIEW METHOD

These structured interviews will be conducted via telephone. Where scheduling a telephone interview proves difficult, an email version of the interview guide will be provided.

INTERVIEW INTRODUCTION

The BC Landscape & Nursery Association (BCLNA) secured funds from the Ministry of Advanced Education, Skills and Training through the *Canada-British Columbia Labour Market Development Agreement*. BCLNA hired Roslyn Kunin & Associates to conduct the research and analysis for this study. This project will identify the current labour market shortages and trends in the landscape, agriculture horticulture and turf sectors.

This research will offer a comprehensive examination and analysis of:

- A detailed description of the sector including the types and numbers of businesses by sub-sector, types of occupations by NOC and NAICS characteristics of the workforce in these sub-sectors;
- Labour shortages and of key skills gaps;
- Training supply and training gaps;
- The impact of changing consumer demands on the sub-sectors/labour market conditions;
- The role of Seasonal Agriculture Worker Program (SAWP) in the sub-sectors;
- The impact of recruitment, retention and other human resource management practices;
- A description of the impact of the labour shortages; and
- The perception of the industry by current and potential labour supply.

The research will provide deeper insights into alleviating the labour shortages of workers in the landscape, agriculture horticulture and turf sectors.

As a result of this important research BCLNA will have current data and analysis with insight into alleviating the labour shortages. BCLNA will reference this research to identify potential solutions or options to address the labour shortages. In doing so, a proposal and application will be made to the Canada-British Columbia Labour Market Program for funding to participate in a Strategy Development project.

The study is directed by an industry Steering Committee and is managed by the BCLNA. The BCLNA is 'the voice' for the industry and thanks you in advance of your participation and commitment to participate and complete this interview.

These interviews are being conducted as the 2nd step in a 5-step Labour Market Information Study, to better inform the industry and employers on key issues of labour supply in both the ag-hort and landscape sectors.

The interview is expected to take no more than 20 minutes, and responses will be kept confidential, that is not attributed to any specific individual, but rather presented only as amalgamated data.

RESEARCH TEAM

These interviews are conducted by the research firm of Roslyn Kunin and Associates (www.rkunin.com). Should you have any questions or concerns, please contact Dr. Roslyn Kunin directly at rkunin@rkunin.com, or (604) 736-0783.

RESPONDENT INFORMATION

- ◆ Name, Organization, Title:

INTERVIEW QUESTIONS

1. Please describe the training programs your organization operates for the Ag-Hort Landscape sectors in BC.
2. How do the programs work?
3. Can you provide data of the numbers of applicants, graduates, sectors, etc.
4. Do you track repeat companies, workers, outcomes, etc?
5. Do you track skills, occupations, etc.?
6. How do you recruit new students?
7. Are there any splits amongst students or focus?
8. What are the typical career paths for which the training prepares the students?
9. How do you take in and utilize industry input?
10. Are there any plans for change?
11. Is there anything else you would like to comment upon regarding the training for the sector?

OTHER JURISDICTIONS

INTERVIEW SUBJECTS

Interview targets are industry associations in other jurisdictions related to the Ag-Hort Landscape industry.

INTERVIEW METHOD

These structured interviews will be conducted via telephone. Where scheduling a telephone interview proves difficult, an email version of the interview guide will be provided.

INTERVIEW INTRODUCTION

The BC Landscape & Nursery Association (BCLNA) secured funds from the Ministry of Advanced Education, Skills and Training through the *Canada-British Columbia Labour Market Development Agreement*. BCLNA hired Roslyn Kunin & Associates to conduct the research and analysis for this study. This project will identify the current labour market shortages and trends in the landscape, agriculture horticulture and turf sectors.

This research will offer a comprehensive examination and analysis of:

- A detailed description of the sector including the types and numbers of businesses by sub-sector, types of occupations by NOC and NAICS characteristics of the workforce in these sub-sectors;
- Labour shortages and of key skills gaps;
- Training supply and training gaps;
- The impact of changing consumer demands on the sub-sectors/labour market conditions;
- The role of Seasonal Agriculture Worker Program (SAWP) in the sub-sectors;
- The impact of recruitment, retention and other human resource management practices;
- A description of the impact of the labour shortages; and
- The perception of the industry by current and potential labour supply.

The research will provide deeper insights into alleviating the labour shortages of workers in the landscape, agriculture horticulture and turf sectors.

As a result of this important research BCLNA will have current data and analysis with insight into alleviating the labour shortages. BCLNA will reference this research to identify potential solutions or options to address the labour shortages. In doing so, a proposal and application will be made to the Canada-British Columbia Labour Market Program for funding to participate in a Strategy Development project.

The study is directed by an industry Steering Committee and is managed by the BCLNA. The BCLNA is 'the voice' for the industry and thanks you in advance of your participation and commitment to participate and complete this interview.

These interviews are being conducted as the 2nd step in a 5-step Labour Market Information Study, to better inform the industry and employers on key issues of labour supply in both the ag-hort and landscape sectors.

The interview is expected to take no more than 20 minutes, and responses will be kept confidential, that is not attributed to any specific individual, but rather presented only as amalgamated data.

RESEARCH TEAM

These interviews are conducted by the research firm of Roslyn Kunin and Associates (www.rkunin.com). Should you have any questions or concerns, please contact Dr. Roslyn Kunin directly at rkunin@rkunin.com, or (604) 736-0783.

RESPONDENT INFORMATION

- ◆ Name, Organization, Jurisdiction, Title:

INTERVIEW QUESTIONS

1. What type of work is the main focus of your company?
 1. Sector
2. What is the size of the sector?
 - \$, companies, workers
3. Can you describe the typical cycle of the labour force of your sector?
4. In which skills does your sector experience a shortage?
5. In which jobs does your sector experience a shortage?
6. Describe your challenges with recruitment.
7. Describe your challenges with retaining workers.
8. How does your company utilize foreign workers?
 - Programs
 - Challenges
 - Areas for improvement
9. What are your sectors HR practices for building career paths for workers?
 - Describe
 - Success factors
10. How have labour shortages affected business decisions?
 - Growth
 - Technology
 - Domestic workers
 - SAWP
 - Other
11. Are you aware of any efforts by other companies or jurisdictions that have had success affecting labour shortages in your industry?

12. Can you direct us to any studies, research, or articles that describe the labour issues of your industry?
13. Is there anything else you would like to comment upon regarding the labour force of your industry?

APPENDIX F: SURVEY GUIDES

INDUSTRY ASSOCIATIONS

BC Landscape and Nursery Association
Labour Market Information Research - INDUSTRY ASSOCIATIONS

About the Survey

The survey is part of a comprehensive analysis of the labour market shortages within the agriculture horticulture and landscape sectors. The research will identify common and distinctive trends for the various subsectors within the industry. This is an important project for the industry. The results of the survey will be used to develop strategies to address labour shortages in the agriculture horticulture and landscape horticulture industry. The survey is being conducted by Roslyn Kunin and Associates on behalf of the BC Landscape and Nursery Association (BCLNA).

Your participation in this survey is voluntary. A total of nine \$50.00 gift cards are available to be won by random draw by those who complete one of the four surveys for this project. To be eligible to win, you must complete the survey and enter your name and contact information at the end of the survey.

About Roslyn Kunin and Associates:

Roslyn Kunin and Associates (www.rkunin.com) is a highly regarded and experienced consulting firm with the skill, competence and experience to meet all of the research and analytical requirements of this project. Should you have any questions or concerns, please contact Dr. Roslyn Kunin directly at rkunin@rkunin.com, or (604) 736-0783.

BC Landscape and Nursery Association
Labour Market Information Research - INDUSTRY ASSOCIATIONS

1. What association do you represent?

2. How many members are represented in your association?

3. What is the role of your association?

BC Landscape and Nursery Association
Labour Market Information Research - INDUSTRY ASSOCIATIONS

4. Do you provide support to your membership on any of the following? Check all that apply.

- | | |
|---|------------------------------------|
| <input type="checkbox"/> Recruitment | <input type="checkbox"/> Training |
| <input type="checkbox"/> Retention | <input type="checkbox"/> Workshops |
| <input type="checkbox"/> Human Resources management practices (policy and procedures, operations for example) | <input type="checkbox"/> Advocacy |
| <input type="checkbox"/> Other (please specify) | |

5. If yes to training or workshops, what kind of support with training does your association provide? Check all that apply.

- Bring in training institutions at job fairs
- Contact training institutions
- Organize industry organization workshops
- Coordinate industry conferences
- Other (please specify)

6. If yes to recruitment, what kind of support does your association provide? Check all that apply?

- | | |
|---|---|
| <input type="checkbox"/> Free advertising | <input type="checkbox"/> Company social media |
| <input type="checkbox"/> Paid advertising | <input type="checkbox"/> Agricultural labour pool |
| <input type="checkbox"/> Company websites | <input type="checkbox"/> Job fairs |
| <input type="checkbox"/> Other (please specify) | |

7. Do you access the BC Agriculture Council Labour Committee for resources on recruitment of Seasonal Agricultural Workers Program (SAWP) workers?

Yes

No

Comment

8. Do your members hire workers through the Temporary Foreign Worker - Agricultural Stream (for workers to live and work in Canada for up to 2 years)?

Yes

No

Other (please specify)

9. Do your members hire directly from educational institutions, training programs, or other skill development programs like apprenticeship?

Yes

No

If yes, please list the training programs

BC Landscape and Nursery Association
Labour Market Information Research - INDUSTRY ASSOCIATIONS

Definitions for Skilled and Unskilled Labour

Skilled labour requires workers to have specialized training or skill set for the work.

Unskilled labour does not require workers to have special training or skills for the work.

10. What jobs do your members experience difficulty in when hiring local workers? Check all that apply.

- Skilled
- Unskilled
- Permanent full-time
- Other (please specify)
- Permanent part-time
- Seasonal full-time
- Seasonal part-time

11. Based on comments and information received from your members, which skills are lacking in the domestic workers? List 3.

12. How many workers do your members typically hire through the Seasonal Agricultural Workers Program (SAWP)?

Less than 20	<input type="text"/>
21 - 50	<input type="text"/>
51 - 80	<input type="text"/>
More than 80	<input type="text"/>

13. How many workers do your members typically hire through the Temporary Foreign Worker Agricultural Stream?

Less than 20	<input type="text"/>
21 - 50	<input type="text"/>
51 - 80	<input type="text"/>
More than 80	<input type="text"/>

14. To your knowledge, which countries or region are your members SAWP workers coming from?

- Caribbean
- Guatemala
- Mexico
- Philippines
- Other (please specify)

15. How do you rank the process to hire temporary foreign worker (SAWP) workers?

Very difficult Moderately difficult Neutral Less difficult Not difficult



16. To your knowledge, what are your members' operating challenges? Check all that apply.

- Skilled labour shortage
- Unskilled labour shortage
- Training options
- Training availability
- Cost of Training
- Competition with other sectors (i.e. construction)
- Seasonality of work

Other (please specify)

17. Please comment on how labour shortages have affected business decisions in terms of the industry's ability to grow, transition to mechanization and new technologies, recruitment and retention of domestic workers, and other aspects.

18. Do you have any other related comments, questions, or concerns?

BC Landscape and Nursery Association
Labour Market Information Research - INDUSTRY ASSOCIATIONS

Confidentiality

The BCLNA is committed to maintaining the security, confidentiality and accuracy of the personal information we collect to provide the highest level of service to our industry partners. BCLNA is aware of the principles within the Personal Information Protection and Electronic Documents Act. The BCLNA has a commitment to ensure that all industry partners feel comfortable and secure in completing the survey and providing us with personal information.

Roslyn Kunin and Associates is acting as an independent third party in this study. The results will be reported collectively and in aggregate with no ability to identify individual respondents or businesses. Individual survey responses will be retained by Roslyn Kunin and Associates, and will not be shared with project partners including BCLNA. When the final report has been accepted by the BCLNA Steering Committee, Validation Team and Ministry of Advanced Education Skills and Training, all individual information will be destroyed.

By completing this survey you are consenting to the collection of personal information by Roslyn Kunin and Associates. This information will be used only for the purposes of this study and will not be disclosed to anyone, including study partners, for any reason without your further prior consent.

19. Please enter your contact information so you can be eligible and entered to win one of nine randomly drawn \$50.00 gift cards from: Save On Foods; Mark's Work Warehouse; and Best Buy):

Name	<input type="text"/>
Email Address	<input type="text"/>
Phone Number	<input type="text"/>

BC Landscape and Nursery Association
Labour Market Information Research - INDUSTRY ASSOCIATIONS

Thank you for your participation in this important study.

BC Landscape and Nursery Association
Labour Market Information Research - INDUSTRY ASSOCIATIONS

HR MANAGERS - COMPANIES

BC Landscape and Nursery Association
Labour Market Information Research - HR MANAGERS

About the Survey

The survey is part of a comprehensive analysis of the labour market shortages within the agriculture horticulture and landscape sectors. The research will identify common and distinctive trends for the various subsectors within the industry. This is an important project for the industry. The results of the survey will be used to develop strategies to address labour shortages in the agriculture horticulture and landscape horticulture industry. The survey is being conducted by Roslyn Kunin and Associates on behalf of the BC Landscape and Nursery Association (BCLNA).

Your participation in this survey is voluntary. A total of nine \$50.00 gift cards are available to be won by random draw by those who complete one of the four surveys for this project. To be eligible to win, you must complete the survey and enter your name and contact information at the end of the survey.

About Roslyn Kunin and Associates:

Roslyn Kunin and Associates (www.rkunin.com) is a highly regarded and experienced consulting firm with the skill, competence and experience to meet all of the research and analytical requirements of this project. Should you have any questions or concerns, please contact Dr. Roslyn Kunin directly at rkunin@rkunin.com, or (604) 736-0783.

BC Landscape and Nursery Association
Labour Market Information Research - HR MANAGERS

1. What methods do you use to recruit? Check all that apply.

- | | |
|---|--|
| <input type="checkbox"/> Free advertising (internet job boards) | <input type="checkbox"/> Job Fairs |
| <input type="checkbox"/> Paid advertising | <input type="checkbox"/> Contact training institutions |
| <input type="checkbox"/> Company website job postings | <input type="checkbox"/> Industry organization |
| <input type="checkbox"/> Company social media job postings | <input type="checkbox"/> Word of mouth |
| <input type="checkbox"/> Agricultural Labour Pool | <input type="checkbox"/> Other |

Comment:

2. What hiring incentives, if any, do you offer?

3. What on-boarding processes, if any, do you offer to new employees? Check all that apply.

- Before first day hire package
- First day orientation
- First week orientation
- First 90 days
- First year

Other - please describe:

BC Landscape and Nursery Association
Labour Market Information Research - HR MANAGERS

4. What are the main barriers your organization has encountered in trying to attract applicants? Check all that apply.

- Not enough applications
- Industry pay is low compared to other wages
- Industry work is seasonal – employees want permanent full-time work
- Industry work hours are long with no overtime pay
- The physical requirements of the job
- Industry perception
- Extreme weather conditions (for example, heat, rain and cold)
- Gender stereotype perception
- Competition with the industry sector
- Competition from other industries
- Other

Comment:

2

5. What positions are you hiring? Check all that apply.

- Harvesting Labourers
- Nursery and Greenhouse Workers
- General Farm Workers
- Managers in Agriculture
- Managers in Horticulture
- Landscaping and Grounds Maintenance Labourers
- Grounds Supervisor, Foreman/Woman, General Supervisor
- Managers, Greenhouse, Flower, Operations, Plant Grower Nursery
- Landscape Arborist Horticulturist, Golf Course Specialist, Landscaper
- Vehicle and Equipment Operators
- Other

List positions:

6. What issues present challenges for employee retention? Check all that apply.

- | | |
|---|---|
| <input type="checkbox"/> Transportation | <input type="checkbox"/> Working conditions – outdoor weather, high temperatures in greenhouses |
| <input type="checkbox"/> Poaching | <input type="checkbox"/> Working conditions – physically demanding work |
| <input type="checkbox"/> Language | <input type="checkbox"/> Lack of training availability for progression |
| <input type="checkbox"/> Acceptance of workplace cultural diversity | <input type="checkbox"/> Wages are low in comparison to other industries |
| <input type="checkbox"/> Seasonal nature of industry | <input type="checkbox"/> Other |

Comment:

BC Landscape and Nursery Association
Labour Market Information Research - HR MANAGERS

Temporary Foreign Workers

7. Do you require Seasonal Agriculture Workers to augment the domestic workforce?

- Yes
- No

Comment:

8. What are the reasons for hiring SAWP workers to your organization?

- Not enough domestic workers
- Lack of unskilled workers
- Manage supply and demand of operation
- Other

Comment:

9. What are the countries of origin for your Seasonal Agriculture Workers Program (SAWP) employees?

10. How many years has your company been using the SAWP?

- 1-4
- 5-9
- 10+years

Comment:

11. Do you ask for a named SAWP to return to your organization?

- Yes
- No
- Some

Comment:

BC Landscape and Nursery Association
Labour Market Information Research - HR MANAGERS

Training

12. Does your organization have a training plan?

- Yes
- No

Comment:

13. Does your company have a training budget?

- Yes
- No

Comment:

14. What support, if any, do you provide to your employees who want to pursue formal certification? Check all that apply.

- Flexible work schedule
- Financial incentives
- Covering some of the cost of training
- Covering all of the cost of training

Other, please describe:

15. What are your organizations training preferences? Check all that apply.

- I hire with no qualifications and train internally
- I look for basic qualifications, and then train them in-house
- I look for basic qualifications and then send them for external training
- I want them pre-qualified to do the job and ready to work
- I want them pre-qualified but am willing to teach them if they have knowledge gaps
- I send them for external training
- Other

Comment:

16. What type of training do you offer your employees?

- On the Job
- Offsite classroom
- Workshops
- Certification for example Pesticides
- Apprenticeship Red Seal
- Offsite workshop
- Other

Comment:

BC Landscape and Nursery Association
Labour Market Information Research - HR MANAGERS

17. Do you require employees to have any of following training prior to hire?

- | | |
|--|---|
| <input type="checkbox"/> WHMIS | <input type="checkbox"/> Landscape Industry Certification |
| <input type="checkbox"/> First Aid | <input type="checkbox"/> Apprenticeship Red Seal |
| <input type="checkbox"/> Pesticide Certification | <input type="checkbox"/> Other |

Comment:

18. What is the optimal time to offer training to your employees?

- | | |
|--------------------------------------|-------------------------------|
| <input type="radio"/> Before work | <input type="radio"/> Evening |
| <input type="radio"/> After work | <input type="radio"/> Weekend |
| <input type="radio"/> During the day | <input type="radio"/> Other |

Comment:

19. What challenges and barriers does your organization encounter with upgrading skills of current employees?

- | | |
|--|---|
| <input type="checkbox"/> Employee time away leaves company short staffed | <input type="checkbox"/> Fear of loss of employee on completion of training |
| <input type="checkbox"/> In house training options is limited by employee work schedule | <input type="checkbox"/> Access to post-secondary agriculture horticulture and horticulture landscape programs conflict with employee work schedule |
| <input type="checkbox"/> In house training is expensive | <input type="checkbox"/> Access to continuing education agriculture horticulture and horticulture landscape programs has a limited number of seats |
| <input type="checkbox"/> Operational budget often limits ability to offer higher wages to employee on completion of training | <input type="checkbox"/> Other |

Comment:

20. Do you have any Production Horticulturist Apprenticeship employees on staff? If so, how many:

Women

Men

21. Has your organization sponsored employees for the Production Horticulturist Apprenticeship certification?

Yes

No

Comment:

22. Do you have any Landscape Horticulturist Apprenticeship employees on staff? If so, how many:

Women

Men

23. Has your organization sponsored employees for the Landscape Horticulturist Apprenticeship certification?

Yes

No

Comment:

24. Do you hire landscape industry certified employees?

Yes

No

Why? Comment:

BC Landscape and Nursery Association
Labour Market Information Research - HR MANAGERS

Future Growth

25. Do you expect your business to expand in the next five years?

- Yes
- No

Comment:

26. How many people may you require to expand your business?

- 1-10
- 11-25
- 26-40
- More than 40
- Don't know

27. What type of staff do you require to expand your business?

- Unskilled
- Skilled
- Administration
- Supervisor
- Manager
- Other

Comment:

BC Landscape and Nursery Association
Labour Market Information Research - HR MANAGERS

28. What positions do you expect to be hiring in the next five years? Check all that apply.

- Harvesting Labourers
- Nursery and Greenhouse Workers
- General Farm Workers
- Managers in Agriculture
- Managers in Horticulture
- Landscaping and Grounds Maintenance Labourers
- Grounds Supervisor, Foreman/Woman, General Supervisor
- Managers, Greenhouse, Flower, Operations, Plant Grower Nursery
- Landscape Arborist, Horticulturist, Golf Course Specialist, Landscaper
- Vehicle and Equipment Operators
- Other - List specific titles you use in recruitment

Other (please specify)

29. Where will you be looking for these workers?

- Domestic
- Foreign
- Anywhere I can find them

Comment:

BC Landscape and Nursery Association
Labour Market Information Research - HR MANAGERS

30. Do you have a succession plan for employees to move into a supervisory role?

- Yes
- No

Comment:

31. Do you have a succession plan for supervisors to move into a management role?

- Yes
- No

Comment:

32. What plans, if any, do you have in automating your production and/or services?

33. Is your inability to access workers limiting your business growth & productivity? If yes, please describe how.

- No
- Yes

Describe

34. Would you consider a new immigrant to Canada to work at your organization?

- Yes
- No

Comment:

35. Do you have any other comments on the challenges you face around labour?

BC Landscape and Nursery Association
Labour Market Information Research - HR MANAGERS

Demographic Information

The following are a number of demographic questions that will help us for classification purposes.

36. Which of the following best describes your sector?

- Landscape
- Agriculture/Horticulture

37. As an agriculture horticulture sector manager, what sub-sector do you oversee/manage?

- Fruit
- Vegetables
- Flowers
- Ornamental Plants
- Other

Comment:

38. As a landscape sector manager, what sub-sector do you oversee/manage?

- Residential
- Strata
- Commercial
- Parks
- Maintenance
- Installation
- Design
- Irrigation
- Lighting
- Pruning
- Planting
- Clean Up
- Demolition
- Other

Comment:

39. How many people do you currently manage?

BC Landscape and Nursery Association
Labour Market Information Research - HR MANAGERS

40. How many regular year round workers (total number) does your company employ?

- No paid employees
- 1-50 employees
- 51-100 employees
- 101-200 employees
- 201 employees or more

Comment:

41. How many additional workers does your company employ at peak season?

- No additional employees
- 1-50
- 51-100
- 101-200
- 201 employees or more

Comment:

42. Where is the company you currently manage located?

- North Coast/Nechako
- Northeast
- Cariboo
- Vancouver Island/Coast
- Mainland/Southwest
- Thompson/Okanagan
- Kootenay

43. What percentage of regular, year round workers you manage are women?

44. What percentage of SAWP workers, if any, you manage are women?

BC Landscape and Nursery Association
Labour Market Information Research - HR MANAGERS

Confidentiality

The BCLNA is committed to maintaining the security, confidentiality and accuracy of the personal information we collect to provide the highest level of service to our industry partners. BCLNA is aware of the principles within the Personal Information Protection and Electronic Documents Act. The BCLNA has a commitment to ensure that all industry partners feel comfortable and secure in completing the survey and providing us with personal information.

Roslyn Kunin and Associates is acting as an independent third party in this study. The results will be reported collectively and in aggregate with no ability to identify individual respondents or businesses. Individual survey responses will be retained by Roslyn Kunin and Associates, and will not be shared with project partners including BCLNA. When the final report has been accepted by the BCLNA Steering Committee, Validation Team and Ministry of Advanced Education Skills and Training, all individual information will be destroyed.

By completing this survey you are consenting to the collection of personal information by Roslyn Kunin and Associates. This information will be used only for the purposes of this study and will not be disclosed to anyone, including study partners, for any reason without your further prior consent.

45. Please enter your contact information so you can be eligible and entered to win one of nine randomly drawn \$50.00 gift cards from: Save On Foods; Mark's Work Warehouse; and Best Buy):

Name	<input type="text"/>
Email Address	<input type="text"/>
Phone Number	<input type="text"/>

BC Landscape and Nursery Association
Labour Market Information Research - HR MANAGERS

Thank you for your participation in this important study.

DOMESTIC WORKERS

BC Landscape and Nursery Association
Labour Market Information Research - DOMESTIC WORKERS

About the Survey

The survey is part of a comprehensive analysis of the labour market shortages within the agriculture horticulture and landscape sectors. The research will identify common and distinctive trends for the various subsectors within the industry. This is an important project for the industry. The results of the survey will be used to develop strategies to address labour shortages in the agriculture horticulture and landscape horticulture industry. The survey is being conducted by Roslyn Kunin and Associates on behalf of the BC Landscape and Nursery Association (BCLNA).

Your participation in this survey is voluntary. A total of nine \$50.00 gift cards are available to be won by random draw by those who complete one of the four surveys for this project. To be eligible to win, you must complete the survey and enter your name and contact information at the end of the survey.

About Roslyn Kunin and Associates:

Roslyn Kunin and Associates (www.rkunin.com) is a highly regarded and experienced consulting firm with the skill, competence and experience to meet all of the research and analytical requirements of this project. Should you have any questions or concerns, please contact Dr. Roslyn Kunin directly at rkunin@rkunin.com, or (604) 736-0783.

1. Which sector do you currently work in?

- Landscape Horticulture
 Agriculture Horticulture

2. Can you briefly describe your job duties with your current company?

3. What attracted you to work with your current company? Check all that apply.

- | | |
|---|--|
| <input type="checkbox"/> The company values my contribution | <input type="checkbox"/> The company has a positive reputation |
| <input type="checkbox"/> My work gives me a feeling of accomplishment | <input type="checkbox"/> I like the creative and artistic nature of the work |
| <input type="checkbox"/> I have the training to do the job | <input type="checkbox"/> Other |
| <input type="checkbox"/> Comment: | |

BC Landscape and Nursery Association
Labour Market Information Research - DOMESTIC WORKERS

On-the-job duties and responsibilities

Rank the following according to the scale.

4. How satisfied are you when instructions are communicated by your supervisor or project lead?

extremely dissatisfied somewhat dissatisfied neither satisfied nor dissatisfied somewhat satisfied extremely satisfied

5. When a job duty or task is changed how satisfied are you with how it is explained?

extremely dissatisfied somewhat dissatisfied neither satisfied nor dissatisfied somewhat satisfied extremely satisfied

6. How satisfied are you with the attention to workplace safety?

extremely dissatisfied somewhat dissatisfied neither satisfied nor dissatisfied somewhat satisfied extremely satisfied

BC Landscape and Nursery Association
Labour Market Information Research - DOMESTIC WORKERS

Job progression/promotion

Rank the following according to the scale:

7. How satisfied are you with the career path opportunities at this organization?

extremely dissatisfied somewhat dissatisfied neither satisfied nor dissatisfied somewhat satisfied extremely satisfied

8. How satisfied are you with the opportunities for promotion at this organization?

extremely dissatisfied somewhat dissatisfied neither satisfied nor dissatisfied somewhat satisfied extremely satisfied

9. How satisfied are you with the opportunities to participate in training at this organization?

extremely dissatisfied somewhat dissatisfied neither satisfied nor dissatisfied somewhat satisfied extremely satisfied

10. Have you participated in any training opportunities?

- Yes
- No

Comment:

BC Landscape and Nursery Association
Labour Market Information Research - DOMESTIC WORKERS

Compensation

Rank the following according to the scale:

11. How satisfied are you satisfied with the pay rate?

extremely dissatisfied somewhat dissatisfied neither satisfied nor dissatisfied somewhat satisfied extremely satisfied

12. How satisfied are you with the benefits plan?

extremely dissatisfied somewhat dissatisfied neither satisfied nor dissatisfied somewhat satisfied extremely satisfied

13. How satisfied are you with the sick day policy?

extremely dissatisfied somewhat dissatisfied neither satisfied nor dissatisfied somewhat satisfied extremely satisfied

BC Landscape and Nursery Association
Labour Market Information Research - DOMESTIC WORKERS

Workplace Culture/Conflict Resolution

14. Have you observed or experienced any forms of discrimination or harassment at this company? Check all that apply.

- Racial discrimination
- Sexual harassment
- Gender discrimination
- Sexual orientation discrimination
- None observed

15. Are you aware of a policy/procedure related to conflict resolution in your organization?

- Yes
- No

Comment:

BC Landscape and Nursery Association
Labour Market Information Research - DOMESTIC WORKERS

Workplace Culture/Conflict Resolution

Rank the following according to the scale:

16. How satisfied are you with the conflict resolution process?

extremely dissatisfied	somewhat dissatisfied	neither satisfied nor dissatisfied	somewhat satisfied	extremely satisfied
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. How satisfied are you with the skill and competence of the supervisor or project lead to resolve employee conflict?

extremely dissatisfied	somewhat dissatisfied	neither satisfied nor dissatisfied	somewhat satisfied	extremely satisfied
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

BC Landscape and Nursery Association
Labour Market Information Research - DOMESTIC WORKERS

18. What recommendations would you give to a friend or family member who is interested in pursuing employment in this industry?

19. What plans do you have with respect to your future in this industry?

BC Landscape and Nursery Association
Labour Market Information Research - DOMESTIC WORKERS

The following are a number of demographic questions that will help us to meet our sample target requirement.

20. What is your age?

- Under 18
- 18 to 24
- 25 to 34
- 35 to 44
- 45 to 54
- 55 to 64
- Age 65 or older

21. Which best describes your gender identity?

- Female
- Male
- Non-Binary

22. Do you identify yourself as an Indigenous person?

- Yes
- No

Comment:

23. What is the highest level of education you have attained?

- Less than high school
- High School
- Trades
- College
- University Degree
- Other

Comment:

BC Landscape and Nursery Association
Labour Market Information Research - DOMESTIC WORKERS

24. Do you have any trades certification / professional designation? Select all that apply.

- Landscape Industry Certified
- Landscape Horticulturist Apprenticeship
- Production Horticulturist Apprenticeship
- Other

Comment:

25. How long have you worked at your current company?

- Less than 6 months
- 6 months - 1 year
- 1 - 3 years
- 3 - 5 years
- More than 5 years

26. Are you classified as: (check all that apply)

- Full time (30 hours or more per week)
- Part time (less than 30 hours per week)
- Casual (on-call, as needed)
- Seasonal (peak)

BC Landscape and Nursery Association
Labour Market Information Research - DOMESTIC WORKERS

Confidentiality

The BCLNA is committed to maintaining the security, confidentiality and accuracy of the personal information we collect to provide the highest level of service to our industry partners. BCLNA is aware of the principles within the Personal Information Protection and Electronic Documents Act. The BCLNA has a commitment to ensure that all industry partners feel comfortable and secure in completing the survey and providing us with personal information.

Roslyn Kunin and Associates is acting as an independent third party in this study. The results will be reported collectively and in aggregate with no ability to identify individual respondents or businesses. Individual survey responses will be retained by Roslyn Kunin and Associates, and will not be shared with project partners including BCLNA. When the final report has been accepted by the BCLNA Steering Committee, Validation Team and Ministry of Advanced Education Skills and Training, all individual information will be destroyed.

By completing this survey you are consenting to the collection of personal information by Roslyn Kunin and Associates. This information will be used only for the purposes of this study and will not be disclosed to anyone, including study partners, for any reason without your further prior consent.

27. Please enter your contact information so you can be eligible and entered to win one of nine randomly drawn \$50.00 gift cards from: Save On Foods; Mark's Work Warehouse; and Best Buy):

Name	<input type="text"/>
Email Address	<input type="text"/>
Phone Number	<input type="text"/>

BC Landscape and Nursery Association
Labour Market Information Research - DOMESTIC WORKERS

Thank you for your participation in this important study.

FOREIGN WORKERS

BC Landscape and Nursery Association
Labour Market Information Research - FOREIGN WORKERS

About the Survey

The survey is part of a comprehensive analysis of the labour market shortages within the agriculture horticulture and landscape sectors. The research will identify common and distinctive trends for the various subsectors within the industry. This is an important project for the industry. The results of the survey will be used to develop strategies to address labour shortages in the agriculture horticulture and landscape horticulture industry. The survey is being conducted by Roslyn Kunin and Associates on behalf of the BC Landscape and Nursery Association (BCLNA).

Your participation in this survey is voluntary. A total of nine \$50.00 gift cards are available to be won by random draw by those who complete one of the four surveys for this project. To be eligible to win, you must complete the survey and enter your name and contact information at the end of the survey.

About Roslyn Kunin and Associates:

Roslyn Kunin and Associates (www.rkunin.com) is a highly regarded and experienced consulting firm with the skill, competence and experience to meet all of the research and analytical requirements of this project. Should you have any questions or concerns, please contact Dr. Roslyn Kunin directly at rkunin@rkunin.com, or (604) 736-0783.

1. What is your country of origin?

- Caribbean
- Guatemala
- Mexico
- Philipines
- Other country - please specify

2. What is the name of the company or farm you worked for in 2017?

3. What is the name of the company or farm you work for in 2018?

4. Do you work for the same company or farm year after year?

- Yes
- No

Comment:

BC Landscape and Nursery Association
Labour Market Information Research - FOREIGN WORKERS

5. How were you recruited to work in Canada?

- Company Recruits
- Association Recruits
- Mexican Consulate
- Consulate General of Jamaica
- Other
- Don't Know

Comment:

6. What month do you arrive in Canada?

7. What month do you leave Canada?

8. What type of work do you do?

- Harvest
- Plant
- Pick
- Propagate
- General Farm Labour
- General Agriculture Labour
- Other

Comment:

9. What type of training do you receive? Check all that apply.

- Occupational health and safety; for example safe operation of equipment
- Back safety (preventative back safe program for lifting)
- Picking
- Harvesting
- Spreading
- Other

Comment:

BC Landscape and Nursery Association
Labour Market Information Research - FOREIGN WORKERS

On-the-Job Duties and Responsibilities

Rank the following according to the scale:

10. How satisfied are you when instructions are communicated by your supervisor or project lead?

extremely dissatisfied	somewhat dissatisfied	neither satisfied nor dissatisfied	somewhat satisfied	extremely satisfied
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. When a job duty or task is changed, how satisfied are you with how it is explained?

extremely dissatisfied	somewhat dissatisfied	neither satisfied nor dissatisfied	somewhat satisfied	extremely satisfied
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. How satisfied are you with the attention to workplace safety?

extremely dissatisfied	somewhat dissatisfied	neither satisfied nor dissatisfied	somewhat satisfied	extremely satisfied
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

BC Landscape and Nursery Association
Labour Market Information Research - FOREIGN WORKERS

Job Progression/Promotion

Rank the following according to the scale:

13. Are you satisfied with the opportunities to participate in training at this organization?

extremely dissatisfied somewhat dissatisfied neither satisfied nor dissatisfied somewhat satisfied extremely satisfied

14. What training opportunities if any have you participated in?

15. Are you aware of the policies and procedures at this company?

- Yes
 No

Comment:

16. Have you observed or experienced any forms of discrimination or harassment at this company? Check all that apply:

- Racial Discrimination
 Sexual Harassment
 Gender Discrimination
 Sexual Orientation Discrimination
 None Observed

17. Are you aware of a policy/procedure related to conflict resolution in your organization?

- Yes
 No

Comment:

Rank the following according to the scale:

18. How satisfied are you with the conflict resolution process?

extremely dissatisfied somewhat dissatisfied neither satisfied nor dissatisfied somewhat satisfied extremely satisfied

19. How satisfied are you with the skill and competence of the supervisor or project lead to resolve employee conflicts?

extremely dissatisfied somewhat dissatisfied neither satisfied nor dissatisfied somewhat satisfied extremely satisfied

BC Landscape and Nursery Association
Labour Market Information Research - FOREIGN WORKERS

The following are a number of demographic questions about you for classification purposes only.

20. What is your age?

18 to 24 45 to 54
 25 to 34 55 to 64
 35 to 44 65 or older

21. Which best describes your gender identity?

Female
 Male
 Non-Binary

22. How long have you worked at the company?

Less than 6 months 3 - 5 years
 6 months - 1 year More than 5 years
 1 - 3 years

BC Landscape and Nursery Association
Labour Market Information Research - FOREIGN WORKERS

23. How many hours do you work per day?

24. Do you know where the company you worked for in 2017 was located?

- | | |
|--|--|
| <input type="radio"/> North Coast/Nechako | <input type="radio"/> Mainland/Southwest |
| <input type="radio"/> Northeast | <input type="radio"/> Thompson/Okanagan |
| <input type="radio"/> Cariboo | <input type="radio"/> Kootenay |
| <input type="radio"/> Vancouver Island/Coast | <input type="radio"/> Don't Know |

BC Landscape and Nursery Association
Labour Market Information Research - FOREIGN WORKERS

Confidentiality

The BCLNA is committed to maintaining the security, confidentiality and accuracy of the personal information we collect to provide the highest level of service to our industry partners. BCLNA is aware of the principles within the Personal Information Protection and Electronic Documents Act. The BCLNA has a commitment to ensure that all industry partners feel comfortable and secure in completing the survey and providing us with personal information.

Roslyn Kunin and Associates is acting as an independent third party in this study. The results will be reported collectively and in aggregate with no ability to identify individual respondents or businesses. Individual survey responses will be retained by Roslyn Kunin and Associates, and will not be shared with project partners including BCLNA. When the final report has been accepted by the BCLNA Steering Committee, Validation Team and Ministry of Advanced Education Skills and Training, all individual information will be destroyed.

By completing this survey you are consenting to the collection of personal information by Roslyn Kunin and Associates. This information will be used only for the purposes of this study and will not be disclosed to anyone, including study partners, for any reason without your further prior consent.

25. Please enter your contact information so you can be eligible and entered to win one of nine randomly drawn \$50.00 gift cards from: Save On Foods; Mark's Work Warehouse; and Best Buy):

Name	<input type="text"/>
Email Address	<input type="text"/>
Phone Number	<input type="text"/>

BC Landscape and Nursery Association
Labour Market Information Research - FOREIGN WORKERS

Thank you for your participation in this important study.