

NT FARMERS



NT PLANT INDUSTRIES WORKFORCE DEVELOPMENT PLAN

2020 - 2025

ACKNOWLEDGMENTS

Thanks to the NT Farmers Board, Workforce Development Plan Reference Group and Aisla Connolly, Workforce Planning Coordinator, Leanne Kruss, Agricultural Workforce Manager, Queensland Agriculture Workforce Network, Far North Queensland, Rod Attwood, Facilitator, Joseph (Joe) Clarke Centrefarm, Consultant Sally Clayton.



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EXECUTIVE SUMMARY

As at date July 2020

NT Plant Industry workforce planning is a continual strategic action process used to align the needs and priorities of industry with those of its workforce to ensure it can meet enterprise production requirements and industry objectives.

A reference group led by NT Farmers Workforce Development Coordinator, Aisla Connolly in September 2019, through several focus meetings, workshops and teleconferences, established a strategic framework for industry to meet the workforce demands and needs in the plant industries across the Territory.

The NT Farmers Workforce Development Strategic Plan defines the challenges the industry faces with access to a workforce, including professional occupations. The plan has specific action plans in four focus areas where a whole of industry approach will be required, and identifies areas the Government should address for effective action to support NT Plant Industries as an economic driver of development in the Northern Territory.

The four strategic focus areas are:

GROW & ENGAGE - Industry capacity, capability and leadership building

SHARE - Industry led collaboration across Northern Australia

CREATE - Effective government policy and actions

LIVE - Promotions of the NT as a great, exciting place to work – full of opportunity.

This document was collated pre COVID-19, whilst the restrictions cause many challenges NT Farmers are working through them.





INTRODUCTION & OVERVIEW

The Northern Territory Farmers Association (NT Farmers) is the peak body for all the plant-based Industries in the Northern Territory and is an amalgam of the former Northern Territory Agricultural and Horticultural Associations. NT Farmers commenced operation on 1 July 2012 and is governed by a board of directors.

NT Farmers work with their members to support their Industries, projects and workforce for sustainable development and strong economic growth in the Territory. They are the trusted and effective representative for farmers in the NT and continue to support and represent established and emerging agribusinesses through:

- Effective Advocacy
- Driving Research, Development & Extension
- Marketing

VISION

Create an environment to make the Northern Territory a destination of choice for people passionate about working in plant industries.

MISSION

Harnessing the collective power of agriculture across Northern Australia to engage passionate people in plant industries through:

- Professional leadership
- Diverse opportunities
- Skill and personal development
- Cultural awareness and genuine inclusiveness
- All in a framework of government policy that fulfils industry and employee needs.

GOAL

Develop strategies and action plans to optimise NT Plant Industries access to sustainable and appropriately skilled workforce by 2025.

SCOPE

This Plan outlines the vision, key directions, needs and activities for workforce development in the plant industries of the Northern Territory.

The purpose of the Plan is to enhance the capacity and capability of the workforce to meet plant industry sector needs. Effective implementation of the Plan will result in improvements in how the sector operates and works together to attract and retain a strong and quality workforce.

Additionally, the plan seeks to engage all stakeholders to strengthen the Territory's economy and build education models for future sustainability.



METHODOLOGY

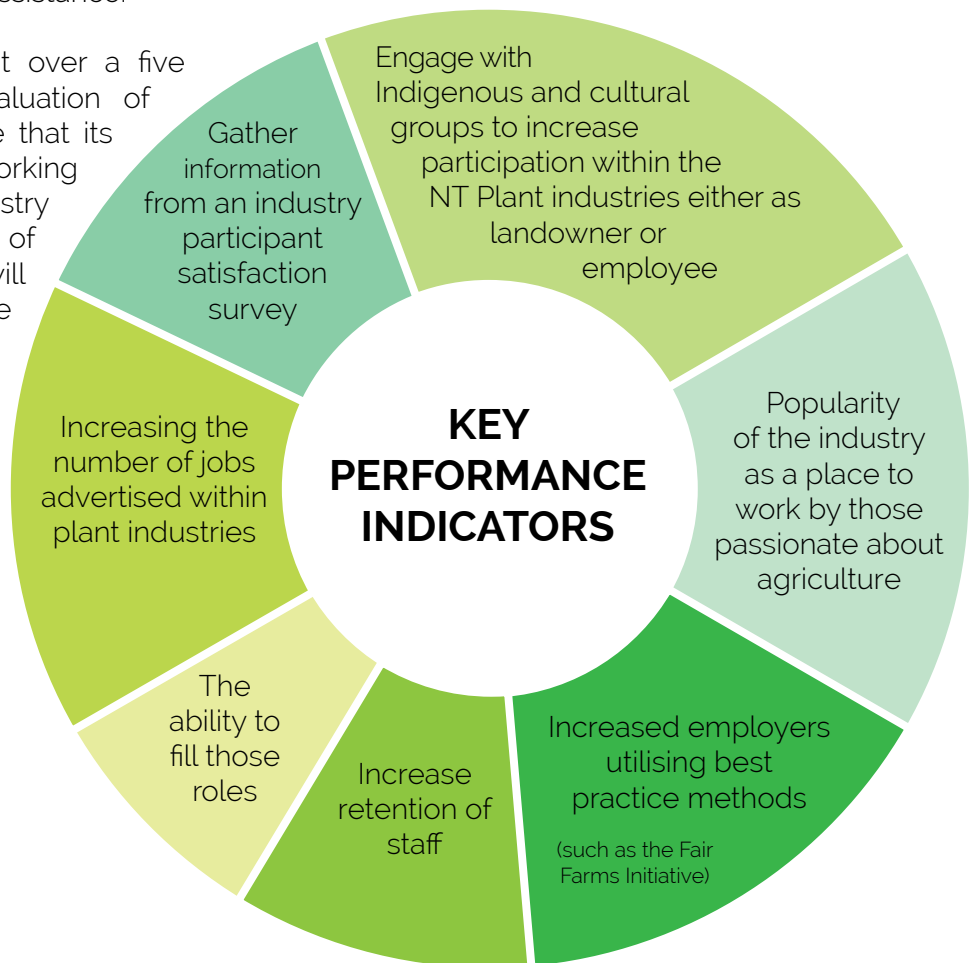
Consultation was undertaken with a wide range of stakeholders including industry members and consisted of:

- A Reference Group to oversee the strategic & action plan development and execution process.
- Check and adjust against KPI's
- Interviews with key stakeholders
- Group consultation workshops
- Membership discussions

IMPLEMENTATIONS & EVALUATION

NT Farmers will work closely with key partners and stakeholders to implement this plan. Collaboration with industries and stakeholders to establish a strategic workforce framework to guide and support industry will be implemented and reviewed. Industry members will have opportunities to provide feedback on the framework and plan and the Workforce Development Coordinator will be available to take comments and provide assistance.

The plan will be carried out over a five year period, continuous evaluation of the plan will occur to ensure that its activities are effectively working to improve the NT plant industry workforce. Prior to the end of the plan in 2025, a new plan will be developed to build on the original plan and to guide the industry forward.



STAKEHOLDERS

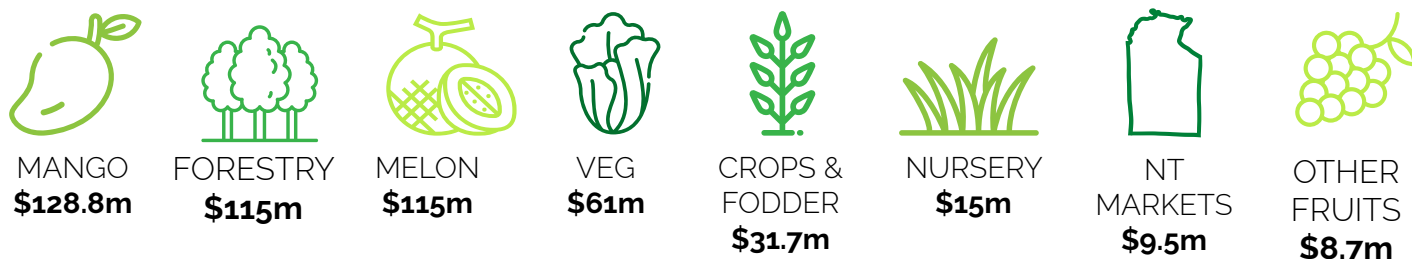
- NTFA Members (including Australian Mango Industry Association and Melons Australia)
- NT Farmers Association Board
- NT Farmers Association Staff
- NT Government Minister of Primary Industries and Resources
- NT Government Department of Primary Industries and Resources
- NT Government Minister of Trade, Business and Innovation
- NT Government Department of Trade, Business and Innovation
- Department of Employment Skills, Small & Family Business
- NT Government Minister of Education
- NT Government Department of Education
- Department of Home Affairs
- Department of Foreign Affairs and Trades
- NT Chamber of Commerce
- National Farmers Federation (NFF)
- AUSVEG
- Aboriginal Land Economic Development Agency (ALEDA)
- Industry Skills Advisory Committee NT (ISACNT)
- NT Aboriginal Land Councils
- Growcom
- Hort Innovation
- Centrefarm
- NT Local Governments
- Vietnamese Horticultural Association NT
- Cambodian Growers
- Registered Training Organisations (RTO)
- NT Seafood Council
- NT Cattleman's Association
- NT Livestock Exporters Association
- Labour Hire Companies
- Fair Work Australia
- Foreign Labour Sending Countries
- Regional Development Australia NT
- Unions
- Participating Employees
- Researchers
- Multicultural Groups
- NT Schools
- NT Isolated Children's and Parents Association
- International stakeholders

INDUSTRY OVERVIEW

The NT Farmers Association plays a key role as leaders of a unique, expanding and sustainable agribusiness sector.

Gross Value of NT Horticulture Production in 2019

The NT horticultural industry is comprised of fruit, vegetables, nursery products, turf and hay. Almost all production is sold interstate.



The value of horticulture production in the NT rose by \$27 million to \$278 million in 2018 (Source NT Farmers)

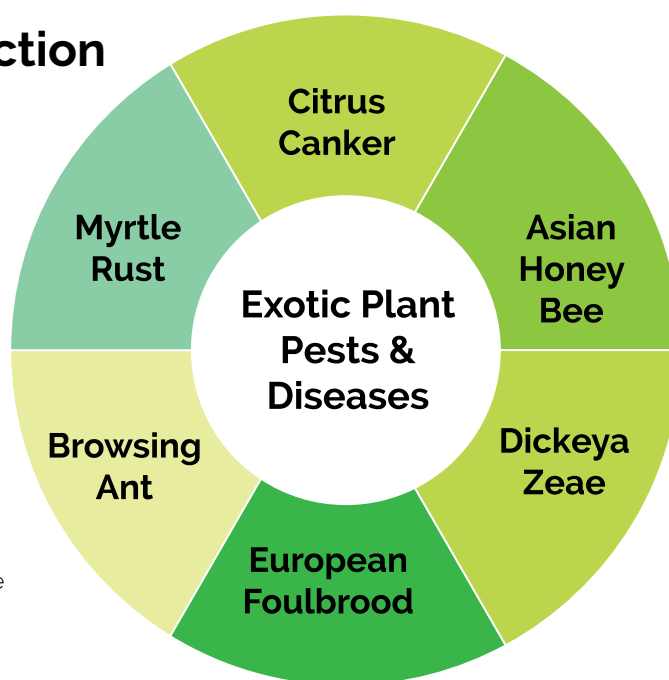
The industry's output can, however, vary significantly from year to year due to changes in production as well as seasonal conditions, and changes in global and domestic demand for NT commodities.

Threats to Horticulture Production

Various exotic plant pests and diseases found in the NT are currently impacting production for commercial fruit and vegetable growers:

In March 2020, fall armyworm moths (*Spodoptera frugiperda*) were detected in agricultural areas around the NT. Fall armyworms are an invasive pest that threaten more than 350 plant species, including maize, sorghum, corn, fruits and vegetables.


Source: Northern Territory Department of Treasury and Finance



Industry Highlights

1 **AGRICULTURE** is a major contributor to the national economy

The NFF vision is to grow to exceed **\$100billion** by 2030¹

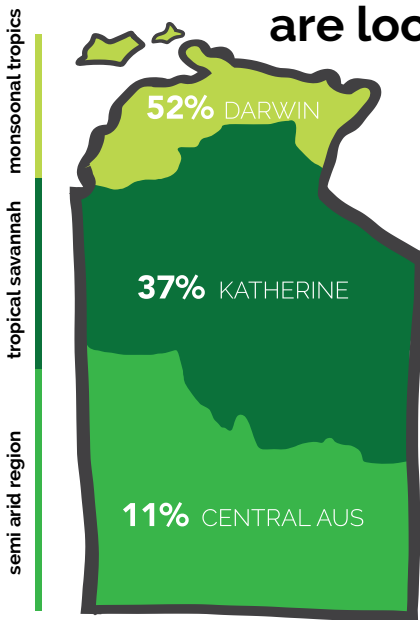


Source: National Farmers Federation 2030 Roadmap

The **NT Plant Industries** aim is to reach a minimum of **\$600million** in production by 2030 to **support** the NFF's national goal.

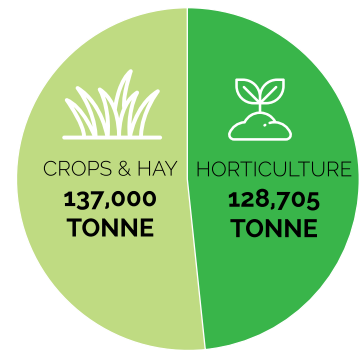
Source: NT Plant Industry Strategic Development Plan 2019- 2030

Where agri-businesses are located:

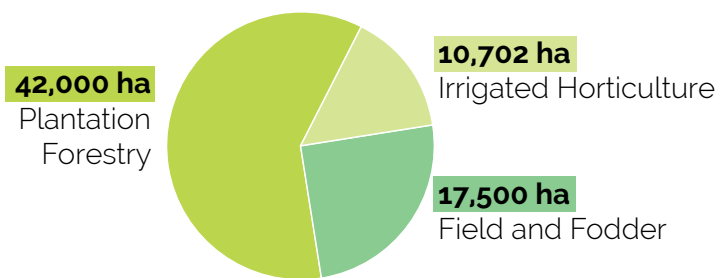


Source: 2019 Harvest Report

Total tonnage produced:
TOTAL: 265,705 TONNES



Total Estimated Farming Area:



Source: NT Farming Production 2019

Plant Industries

contributed an **estimated 32.2%** of the total value of Territory rural industries and fisheries production in the **2016-2017 financial year.**



2%

of the NT's population are employed in agriculture, forestry and fishing.



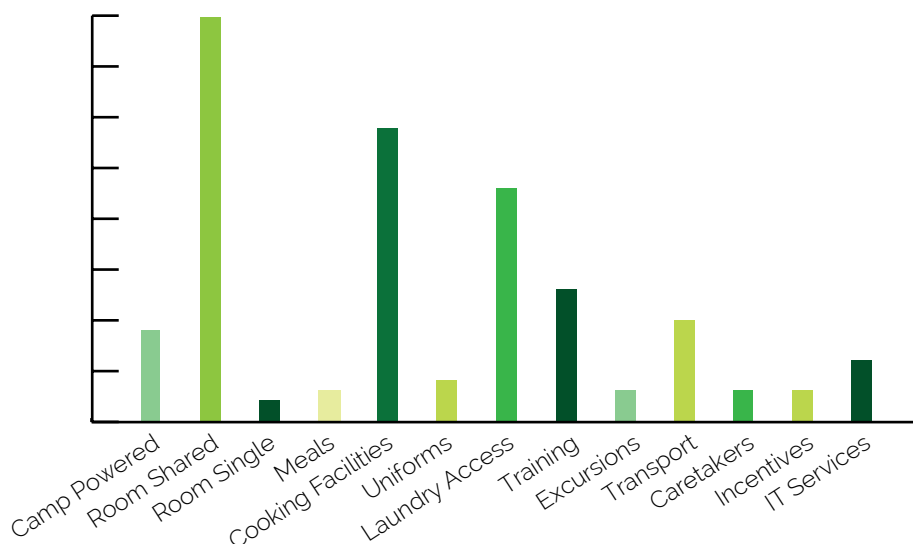
Source: Department of Primary Industries and Resources - Overview and outlook 2017

2019 HARVEST OVERVIEW

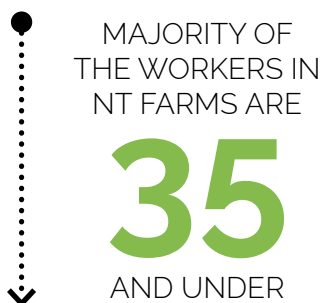
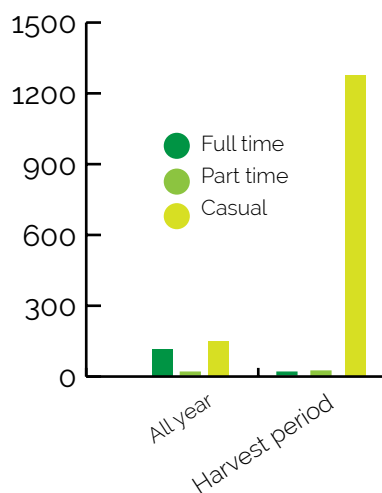
Produce Harvest Percentages



Staffing



Staffing Requirements



The 2019 Harvest Labour Report representation includes 50% of the Darwin mango growers, 80% of Katherine mango growers and 40% of the NT melon growers.

GROW & ENGAGE

INDUSTRY CAPACITY, CAPABILITY & LEADERSHIP

CURRENT OVERVIEW

Attraction and Retention

The industry is expanding thanks to investment from large corporations looking to increase their farm portfolios and to access new markets. Significant expansion of existing and emerging industries will create employment growth and will generate an increase in skill requirements. The expansion of pastoral leases into more intensive crops will generate demand for extra, skilled staff.

The development of a framework to attract and retain workers to the NT is essential for the industry and to the Territory as a whole. The recent 'Welcome to the Territory' initiatives by the NT Government is a positive step towards attracting workers. The promotion aims to help Territory businesses attract workers into hard to fill jobs. \$19 million over seven years has been committed to attract around 2,600 people to the Territory from interstate and retain them for at least five years. Incentives are available to early career females (aged 20 to 39 years) and late career workers (aged 55 to 65 years) identified as being in high demand or critical to the Northern Territory economy and industry. The high priority occupations list does not include plant industry skills.

Emerging Industries and Technology

Emerging and proposed future commodities in the Territory include dates, garlic, legumes, cotton, hemp, forestry, spices, nuts, pumpkins, bush-tucker and medicinal crops.

Broadacre farming expansions could provide opportunities for:

- Precision agriculture machinery operators
- Soil technicians
- Irrigation specialists
- Agronomy services



Indigenous farming development strategies are in the final development stages of the Joint Northern and Central Land Councils' Economic Development Strategy (EDS) via the Aboriginal Land Economic Development Agency (ALEDA). Fundamental to ALEDA is the establishment of a Capital Fund, which will evaluate whether leases and sub-leases from Aboriginal freehold land can be ruled as fungible. ALEDA is to act as a central agency for Aboriginal Landowners, investors and operators and will provide 'at-scale' commercial, turnkey development opportunities on the NT Aboriginal Land Estate.

ALEDA through its Work Experience Pilot Project(s) (WEPP) will provide opportunities for:

- Regional and remote employment schemes
- Training and skills
- Developing partnerships, economic and social outcomes
- Commercial scale opportunities

Example Aboriginal Land Economic Development Agency (ALEDA) and Work Experience Pilot Project (WEPP)

The WEPP is a unique training and commercial facility that aims to establish a pathway for Alekarenge community members to employment on the nearby Desert Springs Farm (DSF) and ALEDA's proposed horticultural developments on the Warrabri and Ilyarne Aboriginal Land Trusts.

The project's ambition is to provide a link between the Alekarenge community and nearby commercial developments to generate employment outcomes while addressing food security, welfare-to-work transition and poor health and socio-economic outcomes currently experienced.

The WEPP includes a 130ha lease area containing a training centre facility (commercial kitchen, cool rooms, classrooms, laundry, ablutions, demountable) and a 50 megalitre water licence. Activities include on-the-job training in fencing, horticultural plot development, irrigation, weeding and plant health, propagation and establishment. The facility provides education for primary and senior students as well as opportunities for job seekers.



GROW&ENGAGE



Example Cotton

The requirement for cotton production is 1 employee per 400ha for cotton production 45,000ha of land is expected to be developed by 2025 this equates to 112 staff.

A cotton gin is estimated to create 16 full-time equivalents (FTE) positions.

Example Seasonal Mango Workers

The NT Mango industry employs over 2,500 seasonal workers for the annual harvest; August through to the end of December. The sector is the Territory's most significant horticultural producer with approximately 40,000 tonnes of mangoes picked over 6,350 hectares annually. A specific agricultural visa would relieve the pressure of mango growers to access staff.

The gross value of mangoes to the Northern Territory's horticulture production is more than \$108 million (2018 NT Horticulture production).

Horticulture is another important sector. It provides high turnover per hectare and higher job creation intensity (from 10 to 30 FTE per 100ha).

For more ALEDA information contact Centrefarm Aboriginal Horticulture Ltd, admin@centrefarm.com or www.centrefarm.com

Turnkey describes projects that are developed to a point where they are ready to operate. This includes development of capital infrastructure like borefields, packing sheds, cool-chain, staff housing and tree crop establishment. It means that operations can commence immediately without having to provide capital. The only funds a farmer would bring are operational, which can be borrowed. Turnkey development allows the TO's to offer shorter time frame leases so they can take over all aspects of the farm as capacity emerges.

The increasing corporatisation of agriculture creates new opportunities for skilled labour in areas such as corporate governance, management, quality assurance and environmental systems. It is important to note that there are already considerable difficulties in attracting a skilled workforce to the NT. Labour mobility programs are available and can be utilised to assist the industry to meet their labour requirements.

Technological advances in robotics and spatial technologies will change farming practices and the skill sets of staff employed on NT farms. Farmers will need support and training to understand how to use and take advantage of cutting edge technology that will drive efficiency and productivity on their properties.

Internet of Things (IoT)

The IoT is revolutionising farming practices and will propel the industry into the future. High tech farming is quickly becoming the standard with the introduction of drones, sensors and microcomputers.

By incorporating technology into production practices, the IoT can enable businesses to be more profitable, efficient, safer, and environmentally friendly. It is predicted that the Internet of Things (IoT) device installations in agriculture will increase to \$75 million by 2022^{lii}.

This era of industrial revolution (Industry 4.0) will see the use of agtech becoming more prevalent in farms. Engaging with agtech specialists to better understand the technological capabilities and the benefits of investing in new technology is essential to the future of the industry in the Territory.

lii<https://www.agrifutures.com.au/wp-content/uploads/2019/01/18-048.pdf>

Indigenous Participation

Indigenous people have the opportunity to significantly benefit from the development of plant industries in the NT. Over 30% of the NT's population is indigenous however, only a small percentage currently work in the plant industry. There is a disconnect between employment in the industry and the Aboriginal workforce. However, partnerships with Aboriginal Peak Organisations, the government and industry to create employment and economic opportunities in remote communities could generate long term benefits for indigenous people and the plant industry.

The majority of the NT Landmass is Aboriginal, either through the Aboriginal Land Rights (Northern Territory) Act 1976 (ALRA) or the Native Title Act 1993 (NTA). With good soils, access to water and a growing need for food and fibre, Indigenous people are well placed to capitalise on these opportunities. There are unlimited opportunities for indigenous people to manage their land and potentially increase the Territory's agricultural output.

liiABS 3238.0.55.001.

Enterprise Challenges

Predominantly NT Employers (57% according to the 2019 Harvest Labour Report) do not use labour hire agencies, instead preferring to recruit directly and employ staff. In the past, many Territory horticulture employers have been left out of pocket or understaffed when the labour hire agent under-delivered the workforce requirements for the harvest season.

Farmers control many diverse areas of the business, including human resources. Many prefer to perform recruitment and payroll tasks, rather than pay a labour hire agent (at the cost of approximately 30% on top of wages). There are many risks to the enterprise if human resources are not managed correctly, for example, if visa checks are not performed, and the employee does not have working rights the employer can face hefty fines, jail and detrimental media coverage.

Employers must perform due diligence checks to ensure labour hire companies are accredited. Labour hire organisations are regulated in other states; labour hire licensing has been legislated in Queensland, South Australia and Victoria. NT Employers using labour hire agencies from these states must ensure that the agency is licenced by checking the applicable states public register.



Quality Assurance

Quality Assurance (QA) in fresh produce is mandatory. It is a method of risk assessment and mitigation. It comprises food safety compliance, traceability and chemical management and includes an annual audit to maintain certification.

Consumers are also seeking a guarantee that their produce has been ethically grown and harvested. Fair Farms is a training and certification program for Australian employers in the horticulture industry, which ensures that fair and responsible employment conditions are maintained. The program undertakes compliance and annual audit checks to ensure standards are being met and consistency is maintained.

Quality produce is paramount for most growers; they are willing to undertake QA measures incorporating additional expenses and obligations to meet the requirements.



Diversity

A significant proportion of the farm workforce come from diverse cultural backgrounds, many were born overseas and speak English as a second language. The 2019 NT Harvest Report states 52% of the workforce were backpackers. Diversity in the workforce creates great opportunities; however, cultural awareness, respect, flexibility and effective communication are essential for cohesion and productivity.

For example, a lack of comprehension of instructions for staff with limited English can result in non-compliance and cause complex legal issues for the farmer. Additional human resource management requirements can include increased behaviour management if cultural awareness, respect and flexibility are not practised.

A diverse range of people are required in the NT plant industries;

- Locals including those of Aboriginal and Torres Strait Islander descent
- Interstate residents including retirees
- Backpackers from all over the world, including extended visa or pathways to permanent residency
- New migrants
- Defence personnel partners
- Seasonal workers from the South Pacific and Timor Leste, through the Seasonal Worker Program.
- Disability networks such as Helping People Achieve
- Department of Correctional Services paid prisoner employment program, aiding low security prisoners on a pathway to return to society.

Farmers are challenged with the demands of the harvest and balancing such a diverse workforce. By providing a workplace and a workplace culture that accepts and encourages diversity, the challenges can be reduced.

Education

The National Agriculture Workforce Development Plan (June 2014) undertaken by the National Agribusiness, Education Skills & Labour Taskforce (NEST) reports between 60 and 64 per cent of growers do not possess any post high school qualifications. Many farmers are self-taught in administrative areas, including computers and have little time to participate in additional studies.

It is common for many Territory students to access the Vocational Education & Training (VET) programs or enter the workforce as opposed to continuing senior high schooling. The unemployment rate for the NT was 7.4% as of May 2020^[1]. Thirty-four per cent of those employed in the NT do not have post-school qualifications. Nationally forty-nine per cent of those employed in agriculture do not have post-school qualifications. ^[ii]

Language and business acumen are often barriers for horticultural operators with some being first-generation Australians arriving as refugees through the 1980s.

1. <https://nteconomy.nt.gov.au/labour-market#unemployment>

ii. Australian Government, Department of Jobs and Small Business, Australian Jobs 2019 publication

Skills and Qualifications

Establishing a career in horticulture has benefits over other industries with relatively low entry levels at any age and ability. Positions include:

Farm Hand	Pickers and Packers	Farm Manager
HR/Accounts	Office Administrator	Freight Controller
Cleaner	Cook	Warehousing Logistics
Supervisor	Operator	Truck Driver
Caretaker	Mechanic	Forklift Driver
Diesel Fitter	Quality Assurance	Irrigation Technician
IT Technician	Tractor Operator	Delivery Driver
Leading Hand	Hydroponics Specialist	Harvest Aid Operator
Ripener	Fertigation Technician	Work Health Safety Officer
Propogator	Nursery Hand	

RECRUITMENT METHODS

(57% Direct)

Reputation
 Word of mouth
 Gumtree
 Share with other farmers
 Facebook
 Noticeboard

Upskilling opportunities for both management and staff are available through various means both locally and online. There is local accredited and non-accredited training across a broad range of subjects, although uptake of these opportunities remains low.

Many positions during harvest are classified as unskilled by the government for visa applications, but farm owners and managers advocate that picking and packing of produce do require skill especially as quality assurance and traceability is imperative.

Some farmers are willing to train employees onsite in the various skills required for their business, e.g. correct picking techniques to ensure the produce is picked at the maturity needed, and quality is maintained throughout the process. Some employers do not want to invest the time or money in upskilling their workforce as the skills stay with the employee and they are lost if the employee leaves. The financial commitment for employers to train with the added threat of losing skilled labour is a barrier for employees who need support with innovative methods of training for themselves and others.

Regional areas are not well serviced by Registered Training Organisations (RTO's). Occupations that specialise in certain areas (both employees and service providers), for example, irrigation specialist, must travel interstate to upgrade skills due to the lack of availability of advanced training in the NT. While online learning is available, this method does not suit everyone. Low computer literacy and connectivity issues can also prevent success or completion.

Career Pathway

The Australian Qualifications Framework (AQF) is the national policy for regulated qualifications in Australian education and training. Currently, the Northern Territory has only one Registered Training Organisation (RTO) Charles Darwin University, that offers courses in horticulture. This training is available up to Certificate III, those interested in studying a higher qualification either do so online or leave the Territory to attend another Institution.

The career pathways diagram outlines the current pathways through the education and training systems in the Northern Territory. Strengthening these opportunities and increasing the early education programs to expose the workings of a farm and the exciting opportunities and places to work across the Territory in the plant industry are keys to developing a strong local workforce..

Indigenous programs similar to Learning on Country (LOC) could be considered around Indigenous farming establishments. LOC is a culturally relevant school based Indigenous Ranger facilitated program aimed at linking Australian curriculum subjects with field based experiential learning and data collection. It targets remote Indigenous students and disengaged young people eligible for enrolment. The program is community driven and supported by well-established local governance arrangements that ensure communities guide and control program delivery and outcomes.

PRIMARY SCHOOL

Help at Rural Show
 Help on farm
 School Gardens
 Excursions to farms, research stations, demonstrations plots.

SECONDARY SCHOOL

Work experience in industry (on farms)
 VET
 School based apprenticeships
 Ag Inspirations School based program
 Offer scholarships to graduate study
 Track to the Territory

GAP YEAR

Skills Training.
 E.g. Rural Operations modules such as operate tractor.
 Paid work experience on a farm or relevant workplace
 Social support
 The Cotton Gap

VOCATIONAL STUDY

Higher education/qualification.
 E.g. Certificate III in Horticulture is the highest available offered in the NT
 Territory Legends - Traineeships
 Work experience
 Track to the Territory

GRADUATE STUDY

Diploma of Applied Horticulture Science
 Bachelor of Sustainable Agriculture, Major in Agronomy
 Diploma of Horticulture
 Advanced Diploma of Horticulture
 Diploma of Agribusiness Management
 Offer Scholarships to graduate study
 Track to the Territory

ONGOING STUDY

Farm Business Management
 Fair Farms Training (Fair Work Compliance)
 Freshcare - annually (includes Chemchert)
 First Aid Training

EMPLOYMENT

Agronomist
 Agribusiness Manager
 Entomologist
 Plant Health Inspector

Summary of Recommendations

The NT has always had a low and transient population (including professionals, teachers, defence personnel and partners, backpackers and now seasonal workers). The cost of living is high, which makes it difficult for employers to attract and retain staff. Plant industry skill shortages need to be included in the high priority occupations list to attract extra financial incentives under the Welcome to the Territory campaign or other incentive programs developed.

As the industry's technology grows, so does the attraction to work in agriculture, farmers need to stay at the forefront and integrate diversity with quality. Additionally, skills and education pathways are vital for local people, including the Indigenous population. An untapped area is Aboriginal farming; mentoring and support services for the development of agriculture on Aboriginal lands would increase industry capacity and generate a new era of growth and leadership.

A strategy to improve the pathway to employment in the agriculture industries is recommended with an increased focus on regional and remote needs for the plant industry. The development should include the promotion of employment and career options, adoption of culturally appropriate recruitment and retention strategies that incorporate training and a professional development learning pathway framework.

Sharing data across industries to enhance the education opportunities in the Territory is required across sectors. Linking supply and demand through education and employment platforms, capacity and career conduits across industry sectors will be built in the NT. Adaptive learning measures will be required to coincide with the industry's demanding seasons and the Indigenous cultures to maintain the generation of higher participation numbers.

Several roles are not recognised as skills based, yet training or previous experience is paramount for the positions. Farmers and industry need to lobby to have these skills recognised. Adequate numbers of staff with the appropriate expertise who are well led using industry best practice methods will aid the growth of the industry.





GROW&ENGAGE

SHARE

INDUSTRY LED COLLABORATION ACROSS NORTHERN AUSTRALIA

CURRENT OVERVIEW

Promotion and Development

Promotion of the NT plant industries is fragmented and minimal. Multiple government agencies, industry and the private sector, operate predominately in isolation. A collaborative approach would bolster exposure and expand opportunities to explore joint ventures and attract investment and growth to plant-based industries.

Developing a collaborative approach to promote and establish cross-sector engagement and career pathways would build the strong foundations that are urgently required. The Territory is a key player in the Northern Australian agriculture sector and has the potential to continue its growth trajectory through expansion and diversification.



SHARE

Strategic Engagement

Across industry sectors in Northern Australia, there is a lack of strategic engagement with stakeholders. Organisations have their own unique and independent approaches to their programs and projects. There are two full-time industry development roles within NT Farmers, a Workforce Planning Coordinator, Darwin based and a Katherine and Regional Industry Development Officer. Both officers continue to collaborate on various projects with other member bodies inter and intra-state; National

Farmers Federation, AUSVEG, Queensland Agriculture Workforce Network and Growcom, NT Buffalo Council, Meat & Livestock Australia NT and NT Cattlemen's Association. Their roles are to support the development and implementation of projects that build NT Plant industry capability and support NT Farmers members. They conduct research and analysis of the needs and make recommendations to industry stakeholders. These roles are vital for the industry and the relationships they build are essential for aligning and advocating for the sector.

Networks

The 'Ag Inspiration' school-based program was piloted in October 2019. Fifteen year 9 and above students from Katherine High and Kintore Street Schools, learnt about how they can use their skills and interest in the plan industry. The pilot was a success with all fifteen students completing the 3-day program at a school in Katherine.

The Territory Legends Traineeship is currently hosting three trainees who are undertaking the Certificate III in Horticulture AHC30710. Traineeship contracts have been signed, and off farm training will commence early in 2020. An additional seven are waiting for farm opportunities.

Track the Territory is a subscription-based NT Farmers manual database. It aims to communicate with past employees that may have relocated to another state or those who are interested in the opportunities available in the NT horticulture industry. These roles are vital for the industry and the relationships they build are essential for aligning and advocating for the sector.

The NT Young Farmers Group was formed to offer a communication and support network of younger farmers in the Territory. The demographic is 35 years and under, which aligns with the demands and ambitions of young farmers and farmworkers. The group is supported by NT Farmers who provide professional accredited and non-accredited training within its funding capacity.

Summary of Recommendations

The development and promotion of a framework that assists industry in navigating the complex pathways to secure workforce incentive packages is required. A central resource hub would equip industry with guides and tools for attracting and retaining a skilled and reliable workforce.

More robust engagement across industries would reinforce the dialogue within the sectors. Better strategic development is required to improve current service models. A cross-sector Workforce Development Plan for North Australia Agriculture would improve employment across the industries. This plan could incorporate Track the Territory, include all agriculture sectors, and establish a professional electronic database that delivers participation growth through returning industry workers.

The established networks are demonstrating their individual needs. Feedback from teachers and students suggest further projects would be welcomed similar to the Ag Inspiration pilot program on a broader scale across the region that incorporates various ages, levels of engagement and provides resources for teachers. The Young Farmers network requires additional funding to support the demand for training, and the Territory Legends Traineeship needs to provide farmer support and development. An education framework that includes remote, rural and regional Territory including Indigenous students to support pathways into NT plant industries is needed..

CREATE

EFFECTIVE GOVERNMENT POLICY AND ACTIONS

CURRENT OVERVIEW

Industry Legislation

Regular changes to legislation and policies such as visa categories and the horticultural award make it difficult for farmers to keep up to date and comply with current regulations. The recent horticultural award changes have seen many farmers limiting casual hours to 38 per week to avoid the new inclusion of overtime allowance and night loading for casual workers. Several farmers have expressed concern that harvest is a season and therefore not a regular working week. The changes have reduced farmers economic ability to offer the additional hours that seasonal workers are accustomed to. Farmers and workers both loose under the new award.

Education and Training Systems

There are various gaps in the career pathways to horticulture in the NT. Through pilot programs, NT Farmers have identified some challenges and opportunities to develop further programs that attract positions.

Challenges identified include:

- Only Registered Training Organisations (RTO's) can apply for NT Government funding, Certificate III and higher through the strict eligibility criteria.
- There is no option currently in secondary schools for a school-based Vocational Education & Training (VET) apprenticeship program such as Certificate II or III in Horticulture, where students attend the worksite one day a week. This is only offered in agriculture, rural operations and conservation and land management.
- Some primary schools offer exposure via farms, although this is sporadic and usually dependent on the passion of the teacher.
- Production horticulture is not offered in the NT at all.
- The Certificate III in Horticulture course focuses on nursery and landscaping, which is not what the majority of the NT horticulture industry (commercial producers) require. Industry Skills Advisory Council of the NT are reviewing vocational qualifications, e.g. certificates in nursery production, members are given the opportunity to participate in this process, a representative from NT Farmers is on the Industry Reference Committee.
- Internships, scholarships and bursaries are not available within the industry.

Planning and Coordination

Plant industry enterprise owners need to promote themselves as business professionals contributing to the economy, supplying Australians international markets with quality products. To increase the enterprises' bottom line, the farmer must understand their own value and invest their time appropriately.

In order to run a productive and profitable business, farm managers, need to undertake a wide range of business and administration duties. It is no longer possible to simply manage agricultural activities, farmers must also market their products, undertake workforce planning, manage business relationships, look after recruitment and payroll, fix IT issues along with an endless list of other duties.

Forecasting for seasonal harvest requirements is an important opportunity for farmers to analyse their current and future business resources and to potentially invest in other crops to diversify their income through planning. Alternatively, forecasting helps farmers identify synergies and resources that can be shared within the industry. For example, for farmers who grow only one crop, there is the opportunity to share labour with other farms in the Territory as the harvest season progress south (mangoes/melons).

PRODUCT	REGION	HARVEST PERIOD (month)													
		J	F	M	A	M	J	J	A	S	O	N	D		
Mango (ripe)	Darwin/Pine Creek														
	Katherine/Mataranka														
Mango (green)	Darwin														
Citrus	All Regions														
Melons	Darwin/Katherine														
Vegetables	Darwin														
Tropical Fruits	Darwin														
Other	All Regions														

Connectivity

Telecommunications and internet are lacking in rural and regional areas with limited bandwidth and regular service drop outs. Mobile reception can be patchy or non existent, Australian telecommunications service and quality lags many parts of the world.

With a sparsely distributed network, farmers face high hardware costs and limited access to use internet resources, precision farming software and the Internet of Things (IoT). Advertising, interviewing, attracting and retaining staff all require some level of connectivity. As a result, some farmers are forced to rely on less advanced farming technologies and employment techniques which limits their productivity and labour reach.

It is common practice that employees look for work and contact farms direct as some farmers don't advertise dues to unreliable networks. When harvest seasons approach, a farm can be inundated with telephone calls and farm gate enquiries disrupting work asking if there are any positions. Reliable internet could offer solutions for farmers to streamline methods to control employment surges.



Millennials have grown up with an assumption that internet connectivity is a given on any worksite or accommodation. Agricultural producers, who recognise the importance of the internet to its employees are likely to retain staff over ones that don't.

Industrial Relations

The recent review of the Horticulture Award 2010 has resulted in some changes that are detrimental to both employees and employers. Several unions and a considerable number of growers have provided feedback on the negative impact of the recent Fair Work Commission changes to the industry.

The changes passed by the Fair Work Ombudsman in April 2019 restrict the number of hours an employee can work before overtime is paid. As few farmers can afford to pay overtime, this limits many harvest workers to only working 38 hours per week, when they prefer to work 55-65 per week. Harvest workers (backpackers and seasonal workers from overseas) want long hours to make the most of their earning capacity. This change to the award has reduced the attractiveness to the sector. Growers want a workforce that is motivated to work long hours.

Many employers cannot afford to pay overtime as the margins in food production are already low. The changes have created a massive administrative and logistical burden on employers. Some farms have negotiated for Enterprise Agreements. However, the Australian Workers Union (AWU) has appealed approximately 30 Enterprise Agreements over a range of industries in recent times and won every appeal.

Programs and Pathways

Several programs and pathways have been trialled or established; these include:

NT Young Farmers Group

The NT Young Farmers Group supports emerging industry leaders through professional accredited and non-accredited training.

Education Programs

Ag Inspirations was a successful pilot program launched in October 2019 that supported 15 high school students through a career pathway initiative.

Employment Pathways

Territory Legends Traineeship program is funded by the Department Trade Business and Innovation (DTBI) and an MOU with Charles Darwin University (CDU). The program has been successful in engaging ten trainees with three placements in 2019, Darwin Rural, Katherine and Mataranka.

Work Experience Pilot Project (WEPP)

The WEPP is a training and commercial facility that aims to establish a pathway for Alekarenge community members to employment on the nearby Desert Springs Farm (DSF) and ALEDA's proposed horticultural developments on the Warrabri and Ilyarne Aboriginal Land Trusts. The project's aim is to provide a link between the Alekarenge community and nearby commercial developments to generate employment outcomes while addressing food security, welfare-to-work transition and poor health and socio-economic outcomes currently experienced.

Cotton Australia

Cotton Gap is a unique opportunity for school leavers to experience a year working in rural and remote regions of Australia to understand the cotton industry, or those looking for a 12-month, paid gap year.

Summary of Recommendations

Support is essential for growers and farmers to lobby government on policies that are detrimental to their business. NT Farmers should continue to report on legislative planning and changes through the weekly eNews and more detailed in the bi-monthly Grow NT Magazine. It is essential that the notifications of proposed bills are communicated to members immediately for discussion and support of the industry. Advice should be sought through Industry bodies and Fair Work Australia.

To ensure clear, consistent, career pathways, to engage Territorians in the NT horticulture industry, it is recommended to develop an NT Agriculture Education Framework. It is suggested to include the support horticultural crop harvesting unit AHCPHT203 in the horticulture certificate III AHC30716.

The programs and pathways all require strategic planning and funding to strengthen the delivery. Each program has provided outcomes, with limited funding and achieved high return with success in participation. The continuation and development of these pathways will ensure there are skills across several sectors. The Young Farmers bring knowledge and passion, which provide retention if they can access their needs to training in the Territory. Education and employment programs offer career pathways for all demographics and inform students and job seekers of the prospects in horticulture. This is imperative to retain Territory workers, the need to educate about various roles on farms is critical, and the current industry portrayed does not include the STEM, mechanical, engineering or administrative roles.

Additionally, Indigenous development is highly overlooked. Opportunities for mentoring the establishment of horticulture development on Indigenous land provides clear education and employment programs for Indigenous communities. The scope of projects could include wholly Indigenous enterprises, joint ventures, employment outcomes and land leases. Currently, Indigenous employment programs for the plant industry are limited.

LIVE

PROMOTIONS OF THE NT AS A GREAT, EXCITING PLACE TO WORK – FULL OF OPPORTUNITY.

CURRENT OVERVIEW

Pathways

The NT plant industry sector is experiencing and will continue to experience skills challenges at all levels. Yet the industry offers potential workers an attractive career at any stage of life or level of education. Several positions consist of intensive physical outdoor roles and some may require limited skill; however, most roles require some degree of training, whether that be on the job or a more in-depth program. The plant industry offers dynamic career and job opportunities that can meet the aspirations and needs of individuals. It provides skills that can be used for life and comprises a broad spectrum of vocations and professions within the industry.

Several pathway programs are delivered by government and industry. NT Farmers have implemented or connected with several programs that include:

- The Sweetest Job Campaign
- Harvest Trail – The Job Shop
- Seasonal Worker Programme
- Australian Apprenticeship Support Network
- Seasonal Workers Incentive Trial
- Pacific Labour Scheme
- Career Harvest

Opportunities for partnerships and MOU's to develop support networks for farmers and workers is necessary for the growth of the industry's workforce.



The focus areas for reaching and attracting personnel include local, interstate and overseas.

Local

The 2019 Harvest Labour Report states 11% of the industry were locals. In 2018 "The Sweetest Job" campaign to attract more local seasonal workers for the mango season was introduced. The successful campaign provided growers with local workers and raised awareness of and connected people to seasonal work opportunities. The project resulted in employers listing 24 positions in the Greater Darwin area; those positions were filled with NT residents.

Limited education is focused on plant industry opportunities with the perception that work is all manual, outdoors and for harvest period only. The misconception of only the management roles is an ongoing career on farms with other roles seasonal is common. Indigenous engagement is extremely low with 11.8% working in Agriculture, forestry and fishing, (-10.3% 2001-2016)[ii].

[i.https://nteconomy.nt.gov.au/labour-market/aboriginal-labour-force-characteristics](https://nteconomy.nt.gov.au/labour-market/aboriginal-labour-force-characteristics)

Interstate

Farmers seek to employ labour that is experienced with farm working conditions direct through word of mouth. Several workers may have worked on the farm previously, and farmers prefer this, it ensures expectations are met between the two parties as past relationships are established.

The 2019 Harvest Labour Report's 57% of workers were interstate. The Northern Territory Government initiative 'Welcome to the Territory' incentive scheme does not include horticulture jobs on the high priority list and is therefore not available to interstate workers who choose farm work should they want to relocate permanently.

Overseas

International backpackers fulfil the current majority of farm work with 61% recorded in the 2019 Harvest Labour Report. Several established websites offer opportunities for farms to list vacancies direct and manage their labour requirements. The Job Shop, a regional recruitment agency offering a range of employment options for temporary workers and Australian residents, supported 431 placements in the Territory in 2019, of which 94% were international workers.

With most of the workers from out of the region, farmers face several challenges, including accommodation expectations, WiFi demands and competition across industries. Backpackers who come to the Territory can work in hospitality which is mostly located in the metropolitan areas and offers social and virtual connections.

Since July 2019, those on visa subclasses 417 and 462 can apply for a third year, if they complete six months of regional work in the second year. As the whole of the Northern Territory is classed as regional, this creates little incentive to leave the city for agriculture work to support their application.

Furthermore, lucrative employment in other industries that include machinery operators are driven by the attraction of higher salaries in mining or urban construction roles. Several skills are transferable to the primary sectors with similar working environments; outdoors, isolation, wages and working conditions.

Working visas are connected to skilled occupations lists and are reviewed annually, usually by an agency contracted by the federal government. The engagement level varies between agencies. The

timeframe to access employees through personal sponsorship is not consistent and can take up to several months. Given the remoteness of many farms, it is often challenging to engage with relevant persons face to face, the paperwork and process can be costly and stressful for both the farmers and potential employee. The permits to work are for qualified or trained occupations, several farm roles, including crop farm workers, are not recognised as skilled professions under this listing.

The Australian and New Zealand Standard Classification of Occupations (ANZSCO) provides information on the skill level of jobs, qualifications or experience needed to work. The Designated Area Migration Agreement (II) (DAMA) was signed in December 2018 and implemented in January 2019. The NT DAMA is a program that provides NT employers with greater access to overseas labour, to fill skill shortages in their businesses. It has an expanded occupations list and concessions to the standard English language and salary threshold criteria for some occupations. Sponsored employees can obtain a 4-year visa, with a pathway to permanent residence after completing three years of employment with a DAMA-endorsed employer, subject to meeting eligibility criteria.

Future Skills

The critical skills needed by Territory farmers include technology and business acumen. These skills were identified in the 2019 Harvest Labour Report due to the increased need for automation systems. Future farming will rely on employees with a different skill set and attributes with roles identified in

- High tech agronomy
- Computer management and programming
- Apiarist
- Specialised technician automation fields
- IT skills
- Drones
- Non-Destructive Testing (NDT) Inspection - Infrared thermography

Current Indigenous employment figures are minimal. Working on Country can provide economic and social benefits to First Nations people.

According to the Australian Jobs 2019 publication demand in the future (across industries) include:

- Creativity, originality and initiative
- Analytical thinking and innovation
- Active learning
- Technology design and programming
- Complex problem-solving
- Critical thinking and analysis
- Leadership and social influence
- Emotional intelligence
- Reasoning
- Resilience, stress tolerance and flexibility
- Technical skills required for emerging technologies include robotics, information technology, computer programming, mapping and spatial data, GPS, irrigation specialists and natural power specialists.

Promotion

The image of farming is particularly unsophisticated and undesirable, and the need to improve its reputation is vital. The industry misses the mark to attract the younger population yet identifies several technical skills and fieldwork activities that may appeal to that demographic.

The National Farmers Federation have commenced a "Telling our story" Campaign to improve the reputation of the national agriculture industry. The promotion is part of the 2030 Roadmap, to reach \$100bn in farm gate output nationally by 2030.

Marketing on a national level is focused on tourism and immigration for population drives. Farming promotion in the Territory is limited and does not target a workforce agenda; typically, biosecurity measures or sustainability stories are published. Industry trends in the past have shown little response to traditional advertising methods with employers choosing to manage the recruitment internally.

Summary of Recommendations

The pathway programs have shown success at various levels, and it is recommended to continue and build on these programs, amongst other new initiatives. Enterprise development programs to support Traditional Land Holders with industry development, pathways include:

- Forestry
- Agriculture
- Buffalo
- Fisheries

Opportunities exist to link with other industries to attract regular seasonal workers and develop partnerships with university students, linking skills in the annual Harvest Labour Reports with graduates.

Future incentive schemes should identify some of the horticultural jobs to attract permanent workers.

Education programs starting in primary schools to tell the stories of Territory farms should be developed. The industry would welcome opening dialogue with youth about the farm work and the opportunities on farms.

As the engagement level for the skilled occupations lists varies between agencies, it is suggested that farmers collectively lobby for skills needed of their future workforce. It should also be expressed that farmers need to complete the annual Harvest Report by NT Farmers. The data collected will support applications and provide a yearly overview of how industry employment needs are tracking.

Promotion of farming stories to support this campaign highlighting the pathways and opportunities in the Territory are needed. Financial assistance in the plant industries sector would enable the creation of material to target specific demographics. Different methods and strategies will need to be developed for an awareness and engagement campaign. Collaboration across departments with targeted marketing to showcase the opportunities available in the NT plant industries would be beneficial to all. Building partnerships with established workplace recruitment systems would be more robust and generate a more significant impact on the campaign.

A collaborative marketing and promotional plan developed with extensive reach attracting passionate personnel from overseas, interstate and locally to work in an exciting place.

GROW & ENGAGE

INDUSTRY CAPACITY, CAPABILITY & LEADERSHIP

	AIM	OUTCOME
1	Develop a continuous improvement culture within the NT Plant industries with upskilling and leadership training.	Industry enterprise owners that value their leadership worth.
2	Create a toolkit of resources including templates for Managers to conduct workforce planning, business planning, succession planning and human resource coordination.	An industry that is proactive.
3	Increase Aboriginal participation and education within the NT plant industries either as landholder or employee.	Increased use of Aboriginal land for plant industries and increased local employment outcomes.
4	Build the local workforce by improving the NT plant industries career pathway with various educational programs and youth development.	A larger participation rate of local employment within the NT plant industries.
5	Promote investment opportunities in NT plant industries.	Attract investment in industry and farm infrastructure (including accommodation).

SHARE

INDUSTRY LED COLLABORATION ACROSS NORTHERN AUSTRALIA

	AIM	OUTCOME
1	Collaborate with all NT primary industries to create a labour alliance to advocate for change.	Common labour issues across all NT primary industries resolved.
2	Collaborate with industry across Northern Australia and other areas to create a North Australia Agriculture Workforce Development Plan	Attract and retain the workforce required to develop the north including Indigenous workforce through Land estates.
3	Share promotional activities with others by utilising local content to showcase the real Northern Australia.	Attract skilled, qualified and experienced personnel passionate about the agriculture industry.
4	Create an NT Agriculture Education Framework by collaborating with Regional Training Organisations, Government, community, Aboriginal Organisations and industry.	Streamlined agricultural education will create a clear career pathway of NT horticulture.

CREATE

EFFECTIVE GOVERNMENT POLICY AND ACTIONS

	AIM	OUTCOME
1	Maintain a cross commodity Workforce Development Coordinator at NT Farmers to perform the required actions of the Workforce Development Plan.	Supported agri-businesses will meet workforce requirements utilising best practice methods.
2	Advocate on behalf of industry to support growth regarding; Horticultural Award, Industrial Relations, Visa policy, Internet Connectivity, Indigenous Development, Accommodation Standards, Drivers Licensing for seasonal workers and Agricultural Education.	Policy that meets industry requirements.
3	Represent industry on various Industry Reference Committees such as skills reference committees.	Current and local industry knowledge will provide appropriate options, e.g. emerging industry knowledge will inform to ensure future skills needs are met.
4	Increase awareness of the high priority internet connectivity needs; it is a necessary utility for business.	Ensure the business can prosper with reliable and fast internet connectivity and staff are provided with internet access.

LIVE

PROMOTIONS OF THE NT AS A GREAT, EXCITING PLACE TO WORK - FULL OF OPPORTUNITY

	AIM	OUTCOME
1	Cultivate the NT plant industry widely and positively through the National Farmers Federation, Federal and NT Government promotional programs.	A developed marketing collaborative and promotional plan will provide coverage across various sectors to attract interest.
2	Attract and retain staff: local (Indigenous and non-Indigenous), Interstate and overseas.	Invest in qualified, experienced and passionate personnel by providing them with upskilling and career advancement opportunities.
3	Mentor, advocate and identify opportunities for Indigenous enterprise developments.	Develop an Indigenous Food Futures network to include educational field days and mentor and advocate on behalf of Traditional Owners.
4	Promote career pathways available within NT plant industries as part of the Agriculture Education Framework	Mentor and advocate on their behalf.



References

Government and Stakeholders Publications
Our North, Our Future: White Paper on Developing Northern Australia
National Agriculture Workforce Development Plan (June 2014)
National Farmers Federation 2030 Road Map
Australian Curriculum, Work Studies
Pacific Labour Scheme Factsheet
Pacific Labour Mobility Factsheet
NT Economic Development Framework
NT Government Population Growth Strategy 2018-2028
NT Government Skilling the Territory Annual Investment Plan 2018/2019
NT Government Education Excursions policy and guidelines
NT Government Apprenticeship & Traineeship policy
User Choice Funding Policy
NT Government Big Rivers Agribusiness Hub
International Education & Training
NT Government Aboriginal Employment Program Policy
Territory Inbound Worker Strategy 2019 - 2028
Tasmania Agriculture Education Framework
Agricultural education and dam statistic Dr James Pratley 2015
HARPS Decision Graphic
NT Farmers Association Strategy and NTPISDP September 2019 – Combined validation
NT Farmers Association Labour & Workforce Policy
NT Farmers Association Workforce Planning Coordinator Job Description
NT Farmers Association Workforce Planning Coordinator Workplan
The Sweetest Job Campaign report
Pick me Project Plan - Territory Legends Traineeship
Case study on the successful use of the SWP in NT production horticulture
NT Farmers Association 2018 Harvest Labour Report
Workforce Development Reference Group Workshop

Annexures

Annexure A Horticulture Occupations List - AUSVEG
Annexure B Horticulture Supply Chain Opportunities



NT FARMERS