

## Cotton in the NT – Irrigation v’s Rainfed (2019-2026)

### Background Information

**624** granted licences (including agricultural/horticultural/forestry)

**409** Agricultural Beneficial Use (**383** Aquifer Resource **26** Waterway Resource **12** Declined Applications)

**1** (total 40ML/yr) surface water extraction licence granted from the *Daly River* resource for Agricultural Beneficial Use

**0** surface water extraction licences granted from the *Roper River* resource for Agricultural Beneficial Use

**1** (total 731ML/yr) surface water extraction licence granted from the *Victoria River* resource for Agricultural Beneficial Use

**Breakdown of Water Allocation Plan (WAP) licences specific to existing and potential broadacre cropping regions:**

WAP Region	Licences Granted
Ooloo	42
Katherine Tindal	59
Flora Tindal	4
Georgina Wiso	1
Western Davenport	6
Mataranka Tindal	13
Adelaide River	0
Ti Tree	10
Alice Springs	2

Source: [Water Licences in the NT, April 2025](#)

Primary Land Use Class	Examples of Land Uses	Area (ha)	% NT
Conservation and natural environments	National Parks, conservation & indigenous protected areas	71,842,079	53
Production from relatively natural environments	Cattle production on native vegetation	56,588,012	42
Production from dryland agriculture and plantations	Non irrigated pastures, crops & forestry such as Jarra grass, forage sorghum & African mahogany plantations	288,035	0.2
Production from irrigated agriculture and plantations	Irrigated pastures, horticulture & cropping such as Rhodes grass, mangoes & maize	24,021	0.02
Intensive uses	Peri-urban, urban & industrial areas, road reserves & mines	434,246	0.3
Water	Natural wetlands, major rivers & reservoirs	6,015,264	4.5

Source: [Land Use Mapping Project of the Northern Territory, 2016 - 2022 \(LUMP\)](#)

## NT Irrigated Cotton v's NT Rainfed Cotton Plantings (hectares)

Year	Irrigated	Rainfed	Total
2019/20	150	650	800
2020/21	150	3,050	3,200
2021/22	150	7,850	8,000
2022/23	962	10,404	11,366
2023/24	575	12,407	12,982
2024/25	520	10,662	11,183
2025/26	TBC	TBC	TBC

- Any irrigation used for cotton production has been from ground water extraction, not rivers
- Rainfall across the regions typically experience a mean annual rainfall of 800 mm to 1,500 mm.
- In the 7 years of production only **9** licensee holders from the **407** agricultural beneficial use licences granted in the NT have chosen to allocate some their WEL to produce cotton under irrigation
- All cotton was grown under pivot irrigation systems
- In 2024/25 an average of **3-4ML/ha** was used to supplementary irrigate cotton
- Annual irrigation totals are dependent on the in-crop rainfall events, typically pivot plantings occur in the later end of the mandated 8-week planting window

### Final Notes

- 0.02% of agricultural plant-based production is irrigated in the NT, including cotton
- In the 2024/25 season 10,662 hectares of cotton was grown across the NT using a rainfed dependent system (95% of total production)
- 5% of crop was grown using pivot irrigation systems used to supplement rainfall events experienced during the growing period (December-May/June)
- Irrigation crops remain at less than 10% currently with no water extracted directly from the rivers
- WEL granted will specify its beneficial use (agriculture, mining, domestic supply, etc)
- Opportunities to use irrigation methods for crop production across the NT will evolve as the broadacre cropping industry develops
- 83% of cotton grown in 2025 is in the Douglas Daly Region with remainder in the Katherine region

### Simone Cameron

Northern Australia Manager  
Cotton Australia



**Senator McDonald:** Do you have any information on what it costs to send a container of cotton out of Wyndham port versus Darwin port versus Brisbane port?

**Senator McDonald:** Formalise the question on notice? Yes. I'm formally asking you, Mrs Cameron, to take that on notice and get that information. Should you find that you're having any pushback like, 'That's very difficult,' or, 'That's commercial in confidence,' or similar, please ask of the committee that you table that information as not for publication so that the committee has a very clear understanding of why northern Australian ports are not—to my mind—assisting with the facilitation of trade. I'm keen that we be very clear eyed about this.

Industry Contacts who provided information:

Darwin Port Authority

ADM Trading Australia Pty Ltd *on behalf* Australian Cotton Shippers Association (ACSA)

Northern Cotton Pty Ltd

Informative Marketing of Agricultural Commodities (IMAC Queensland)

### **Responses provided (as of March 2026)**

As a rule, a merchants supply chain or export costs are commercially sensitive information.

Domestic supply chain costs in the North are equal to or cheaper than the south primarily because of two reasons:

- a) location of the production region to Port and
- b) the freight efficiency of triples in the North

The much bigger story here is Ocean Freight Rates or “OFRs”. Avg. rates per 40' container say for example ex. Brisbane to China main Ports are currently circa USD 100/container.

Ex. Darwin OFR's are circa USD 1,000-USD 1,100/container. There are approx. 2,500 TEU's leave Darwin each empty each year. These containers are scheduled to be repositioned prior to them arriving in Darwin at a COST to the Shipping Company.

So if we assume that domestic supply chain costs in the Eastern States are at least equivalent or more expensive than the northern production area because of the efficiency of triples (i.e., more bales per single truck movement) then the big story here is the OFR's that Shipping Companies are charging out of the Port of Darwin are exorbitantly more expensive than the East.

The disadvantages growers in the North to the tune of about AUD 12/bale. In other words, the prices paid by merchants to growers in the North are approx. AUD 12 per bale less than Eastern States and this is solely attributable to uncompetitive OFR's out of the Port of Darwin.

The historical competitive dynamics of container movements at a Port play a very important role in the competitiveness of container rates. In the East, the south bound FMCG cargoes out of ASIA to Australia have subsidised the container movement back North to the more profitable trade routes to the US and Europe. That competitive dynamic exists in Darwin, but volumes to leverage freight rates lower remain the challenge. *If Govt. could help support our developing industry by lobbying Shipping Companies out of the North that could help a lot to ensure growers are getting the best possible returns.*

Terminal handling fees are the same in Darwin as they are in Sydne/Brisbane and Melbourne – about A\$650/40' container. Darwin Port Authority Tariffs chart and container shipping lines attached separately.

NT 227 kg bales	2020	2021	2022	2023	2024	2025	2026
Irrigated	2,138	3,000	15,000	4,500	5,625	400	400
Dryland	1,869	26,400	35,000	37,067	41,569	17,025	23,800
<b>Total</b>	<b>4,007</b>	<b>29,400</b>	<b>50,000</b>	<b>41,567</b>	<b>47,194</b>	<b>17,425</b>	<b>24,200</b>

Supplied: Northern Cotton PL (March 2026)

Origin	Destination	Kilometres	Bales per Truck movement	Freight Efficiency Ratio
LDC Dalby	Port of Brisbane	236	220	0.93
WANT Gin	Port of Darwin	275	330	1.20
KCC Gin	Port of Wydham	118	330	2.80

Port	Empty Repositioning (TEU)	Imports (TEU)	Empty Repositioning Ratio (TEU)	Container Shipping Lines
Brisbane	298,000	693,000	43%	30
Darwin	2,282	13,889	16%	3
Wyndham	-	1,818	-100%	1

Supplied: Northern Cotton PL (March 2026)

- *High paying southbound container cargoes to Australia are primarily retail consumer goods or “FMCG’s” i.e., furniture, appliances, clothing/foot ware and electronics. In high volume Australian ports along the east coast the profitable southbound FMCG movement has historically subsidized the northbound container movement.*
- *shipping companies want to get containers back to the most profitable global container routes from Asia to western markets (i.e., the US & Europe). Because of the Asia western market demand for example in the Port of Darwin we do see container re-positioning back to Asian ports up to two to three weeks prior to arrival.*



**Schedule of Port Charges as at 1st December 2025**

Rates stated herein are applied per the charging Unit and are subject to review on or around 1 July each year

"The schedule of Port Charges (below) apply to Standard Services offered by Darwin Port (as defined in the Access Policy), fees for Non-Standard Services will be applied in accordance with the applicable Access Agreement. If a port user's access request involves new capital investment then the price information below may require adjustments to reflect the additional capital costs and the parties will need to discuss such access request in good faith. It is likely that such a request will constitute a request for a Non-Standard Service and the Port User should have regard to the relevant terms of the Access Policy."

<b>WHARFAGE</b>				
CARGO TYPE	Unit	Ex GST \$AUD	Inc GST \$AUD	
Wharfage fees are charged per unit of quantity, volume or weight of cargo for all cargoes loaded on or discharged from vessels or between vessels in the Port of Darwin. Wharfage fees pay for landside facilities and services such as maintenance of infrastructure, access to shorebase power and water, storage facilities for cargo clearance, port wide security and coordination of whole of port emergency management.				
<b>LIQUID BULK</b>				
Bulk Liquid Fuels - Out bound	Kilolitre	10.06	11.07	
Bulk Liquid Fuels - In bound	Kilolitre	7.84	8.63	
Other Bulk Liquids - In bound and Out bound	Kilolitre	7.66	8.42	
<b>OTHER BULK PRODUCTS (excludes Bulka Bags)</b>				
Clinker, Cement, Gypsum, Sulphur or similar, Scrap Metal	tonne	7.77	8.55	
Bulk Minerals (Using Shiploader)	tonne		POA	
<b>CONTAINERS</b>				
Full - 10ft	Container	61.23	67.35	
Full - 20ft	Container	119.58	131.54	
Full - 40ft	Container	229.07	251.97	
Empty - 10ft	Container	18.82	20.70	
Empty - 20ft	Container	36.66	40.33	
Empty - 40ft	Container	73.35	80.68	
Includes high cube containers, flat racks, ISO tanks etc.				
<b>NON CONTAINERISED GENERAL CARGO*</b>				
Whichever is greater				
Per tonne	tonne	14.55	16.01	
Per cubic metre	m <sup>3</sup>	14.55	16.01	
*Includes motor vehicles, heavy vehicles, heavy machinery and mining trucks, over 4.5 tonnes				
<b>LIVESTOCK</b>				
Per Head	Head	2.97	3.27	
Livestock includes live cattle, buffalo, horses, camels, donkeys, sheep or goats. Fodder is charged as non containerised general cargo				
<b>MOTOR VEHICLES &lt;4.5 tonnes</b>				
Whichever is greater				
Per tonne	tonne	6.77	7.45	
Per cubic metre	m <sup>3</sup>	6.77	7.45	
Motor Vehicles include trucks, forklifts, buses, motor cycles and chassis				
<b>TRANSHIPMENT</b>				
Rate is 50% of non containerised general cargo - per tonne or Cubic metre, whichever is greater.				
Transshipment is charged 50% to the vessel loading and 50% to the vessel unloading and refers to Ship to Ship transfer within Port limits.				
The loading or discharging of large items such as drill rigs or vessels directly to or from the waters of Darwin Harbour while at anchor is charged at 50% of the non containerized general cargo rate per tonne. The cubic measurement comparison will not be used for these items.				
<b>OTHER</b>				
Goods which are not listed elsewhere in this schedule will be charged as Non Containerised General Cargo per tonne or M <sup>3</sup> whichever is greater.				
<b>PORT DUES</b>				
	Unit	Ex GST \$AUD	Inc GST \$AUD	
<i>Port Dues is a fee for the provision and maintenance of shipping channels for use by vessels in Darwin Harbour, harbor control services and navigational aids. Port dues are charged for the entry and movement within the Port of commercial vessels, yachts and pleasure motor crafts per vessel on the gross tonnage GT as per the Ports Management Act.</i>				
Vessels < or= 1,000 GT or Coastal Barges servicing NT Communities with < or= 1000 GT	Per movement	228.72	251.59	
Vessels > 1,000 GT - rate per GT	GT	0.2851	0.3136	
Coastal Barges that are frequent callers are capped at the rate equivalent to 10 vessel calls per year.				

BERTHAGE AND MOORINGS				
	Unit		Ex GST \$AUD	Inc GST \$AUD
<i>Berthage is a time-based fee charged for the use of berths for the purpose of loading or discharging cargo and passengers, lay up or other purpose approved by Darwin Port. A fixed charge per visit applies plus daily (or part thereof) per GT charge. One day minimum charge applies at all Darwin Port wharves*.</i>				
<b>Berthage at East Arm Wharf, Fort Hill Wharf</b>				
Fixed charged		Per berthing	2,609.98	2,870.97
Daily charge per GT		GT	0.3849	0.4234
<b>Moorings and Anchorage</b>				
Kitchener Bay		MONTH	287.46	316.21
Anchorage fees within Darwin Harbour - daily charge per GT, a day's minimum charge applies		GT	0.1242	0.1366
* A day equals a 24 hour period from when the first line a shore from the vessel is secured and finishes when the last line from the vessel is cast off.				
PILOTAGE				
	Unit		Ex GST \$AUD	Inc GST \$AUD
<i>Pilotage charge is a fee for piloting a vessel to or from a safe berthing or anchor position upon entry and departure from the Darwin Harbour as well as for inner harbour movements. Pilotage charge includes the provision of pilot transfer vessel.</i>				
<b>PILOTAGE INWARD</b>				
Per pilotage movement*				
Vessels < or = 2,500 GT - Fixed Minimum charge		Per movement	1,060.49	1,166.54
Vessels > 2,500 up to 4,500 GT - Fixed charge		Per movement	1,325.61	1,458.17
Vessels > 4,500 GT - Minimum Charge plus rate per GT		GT	0.1927	0.2120
<b>PILOTAGE OUTWARD</b>				
Per pilotage movement*				
Vessels < or = 2,500 GT - Fixed Minimum charge		Per movement	1,060.49	1,166.54
Vessels > 2,500 up to 4,500 GT - Fixed charge		Per movement	1,325.61	1,458.17
Vessels > 4,500 GT - Minimum Charge plus rate per GT		GT	0.1927	0.2120
<b>ADDITIONAL PILOTAGE MOVEMENTS</b>				
Pilot services to move vessels between berths or from berth to anchor and vice versa				
Vessels < or = 2,500 GT		Per movement	795.36	874.89
Vessels > 2,500 up to 4,500 GT		Per movement	1,060.49	1,166.54
Vessels > 4,500 GT		Per movement	1,325.61	1,458.17
* A pilotage movement is the whole pilotage task commencing from when a Pilot boards the vessel and ends on disembarkation of the pilot. Where a pilotage movement within Darwin Harbour exceeds 5 hours, the rate is to be agreed.				
<b>PILOT EXEMPTIONS</b>				
Exempt Vessel Charge - where a valid Pilot Exemption Certificate (PEC) is held by vessel master. This charge relates to the administration of the PEC Master records in the Port Management System and the operational checks that are required each time a PEC Master exercises his or her right to use their PEC.		Per PEC Master per movement	244.73	269.20
<b>PILOT DETENTION AND CANCELLATION</b>				
Detention of Pilot for a period > 1/2 hr - charged at 25% of the standard pilotage for each successive half hour block.				
Cancellation of Pilot at less than 2 hours notice - charged at 80% of the standard pilotage charge applicable for the movement.				
<b>CHANNEL LEVY</b>				
Bladin Channel* Large Vessel Levy (> 20,000 GT)		GT	0.0387	0.0426
* To the east of Beacon-B03.				



MISCELLANEOUS CHARGES				
	Unit		Ex GST \$AUD	Inc GST \$AUD
<b>DARWIN PORT INDUCTION ACCESS FEES</b>				
<i>The fee is charged to recover the cost of port induction processes and card production</i>				
New Application		Valid for 2 years	75.00	82.50
Renewal		Valid for 2 years	75.00	82.50
Replacement of Lost Card			30.00	33.00
<b>NON PORT CRANES OPERATING ON EAST ARM AND FORT HILL WHARVES</b>				
Private operators providing crane services to stevedores or any other businesses at EAW and FHW will be charged an access fee as follows:				
All cranes.		Per day	41.18	45.30
<b>BUNKER LEVY</b>				
<i>Bunker levy is charged to the Supplier of fuel to vessels using port facilities on a per litre basis including ship to ship refuelling within the Port. The levy is charged for the provision of fuelling infrastructure and maintenance as well as the cost of maintaining fire fighting systems and capabilities.</i>				
Bunker Levy		Litre	0.0108	0.0119
<b>PROFESSIONAL SERVICES FOR ASSISTANCE WITH PROJECT, DANGEROUS GOODS, UNUSUAL CARGO MOVEMENT ADVICE AND OIL SPILL AND INCIDENT MANAGEMENT</b>				
Port Management or Pilot professional input when requested (includes Port Enforcement Officers)		Hour	299.80	329.78
<i>Other Port personnel are charged at Port Labour rate plus administration fee of 17.5%</i>				
<b>ELECTRICITY AND WATER</b>				
Charged on consumption at the rate required to be charged at law or otherwise the amount the supplier of the Service charges the Port Manager.				
Electricity Connection		Per connection	152.49	167.74
Electricity Adaptor		Per day	22.86	25.15
Water Connection		Per connection	152.49	167.74
<b>WASTE HANDLING</b>				
<b>Domestic Waste</b>				
Per Skip Bin		3m <sup>3</sup> Bin	183.99	202.38
<b>OIL SPILL CLEAN UP COST</b>				
<i>Charged on the basis of full cost recovery plus administration fee. Port's plant and equipment is charged at the full hire rate</i>				
<b>SECURITY CHARGE</b>				
<i>Charged per number of security personnel provided per hour and applies to any vessels berthed alongside which requires security</i>				
Security Personnel - per person between 8.00am to 4.30pm Mon-Fri*		Per hour	152.49	167.74
<i>* After hours labour hire will attract an additional \$49.15/hr/person.</i>				
<i>* Public Holiday labour hire will attract an additional \$20/hr/person.</i>				
<b>RAIL SPUR USAGE</b>				
Use of rail spur line that crosses main port access road (incl. opening of gates)		Per request	152.49	167.74

BIOSECURITY CHARGES				
	Unit		Ex GST \$AUD	Inc GST \$AUD
<b>BIOSECURITY CONTAINER INSPECTION FEES</b>				
Rural tailgate inspection*		Per 15 minutes	65.07	71.58
<i>* After hour and Public Holiday inspections will attract an additional \$12/15 minutes</i>				
<b>OTHER BIOSECURITY RELATED FEES</b>				
Biosecurity Wash Bay*		Day	99.13	109.05
Biosecurity Wash Bay*		Half Day	49.57	54.52
Biosecurity Wash Down Charge		Each	15.26	16.79
Biosecurity Unpack		Day/Bay	99.14	109.06
<b>Port Inspection Stands and/or Cages</b>				
- 40 FT, rate per day		Each	263.07	289.38
- 20 FT, rate per day		Each	197.28	217.01
- Pallet, rate per day		Each	65.77	72.35
Fumigation Yard Storage, EAW - daily charge		m2	3.05	3.35
<i>* All cancelled bookings will be charged unless a minimum of 24 hours notice is provided.</i>				

EQUIPMENT, FACILITIES HIRE AND STORAGE				
	Unit	Ex GST \$AUD	Inc GST \$AUD	
<b>PORT MEETING FACILITIES HIRE</b>				
<i>All Port rooms will have a minimum of 3 hours hire charge.</i>				
East Arm Wharf Training Room	Day (8 Hours)	271.05	298.15	
	Hour	64.55	71.00	
Fort Hill Wharf Cruise Terminal	Day (8 Hours)	450.00	495.00	
	Hour	80.00	88.00	
<b>EQUIPMENT HIRE - All Location, Equipment Only except stated otherwise</b>				
Franna Crane - 15T (incl. Operator)*	Hour	247.94	272.73	
Mobile Crane - 12T or 20T (incl. Operator)*	Hour	258.79	284.67	
Forklift (incl. Operator)*	Hour	247.94	272.73	
Cattle Race and/or Stands	Day	305.00	335.50	
Marker Buoys	Day	758.75	834.63	
Work site & Storage Fencing	m per Day	3.22	3.54	
Motorised Gangway	Day	381.21	419.33	
Gangway and/or Stands	Day	167.71	184.48	
Pilot Boat (vessel only, labour charges will apply for 2 vessel operators for a minimum of 4 hours)*	Hour	784.64	863.11	
Yokahama Fender	Day	762.45	838.69	
Port Labour Charge*	Hour	152.49	167.74	
Port Administration Fee on Cost Recovery Activities		17.5%	19.3%	
Weed Spraying Equipment including Chemicals (incl. Operator)*	Hour	192.63	211.89	
Wheel Wash Facility - During Export Operations	Day	2,461.37	2,707.50	
Wheel Wash Facility	Each	107.02	117.72	
<i># All cancelled bookings will be charged unless a minimum of 24 hours notice is provided.</i>				
<i>* After hour equipment or labour hire will attract an additional \$49.15/hr/person. Should hire commence outside of DPO's normal business hours (8.00am to 4.30pm Mon - Fri). A minimum of 4 hours charge will apply.</i>				
<i>* Public Holiday equipment or labour hire will attract an additional \$20/hr/person.</i>				
<b>IMPORT/EXPORT STORAGE CHARGES</b>				
<i>First 4 days of storage is allowed free of charge for inwards and outwards cargo clearance. Free time for storage charges for inwards cargo commences on the day the vessel departs. Electricity is charged from time of connection to Darwin Port power grid.</i>				
<b>Reefer Container Storage</b>				
<b>1 to 4 calendar days - Electricity Only Per Day</b>				
20 FT Refrigerated Containers	Each	35.38	38.91	
40 FT Refrigerated Containers	Each	70.73	77.81	
<b>5 to 7 calendar days - Electricity and Storage Per Day</b>				
20 FT Refrigerated Containers	Each	48.52	53.37	
40 FT Refrigerated Containers	Each	97.04	106.75	
<b>8 calendar days and over - Electricity and Storage Per Day</b>				
20 FT Refrigerated Containers	Each	61.58	67.73	
40 FT Refrigerated Containers	Each	123.15	135.47	
<b>Storage for Cargo Clearance under Customs Control</b>				
<b>1 to 4 calendar days - no charge</b>				
<b>5 to 7 calendar days - Storage Only Per Day</b>				
Motor Vehicles (cars, motor cycles and chassis up to 4.5 tonnes)	Each	22.86	25.15	
Other (including tractors, farm equipment, heavy machinery, mining trucks)	m <sup>2</sup>	1.53	1.69	
<b>8 calendar days and over - Storage Only Per Day</b>				
Motor Vehicles (cars, motor cycles and chassis up to 4.5 tonnes)	Each	30.50	33.55	
Other (including tractors, farm equipment, heavy machinery, mining trucks)	m <sup>2</sup>	3.05	3.35	
<b>Other Storage</b>				
Undercover Storage - up to 60 days*	m <sup>2</sup> per Day	0.6338	0.6971	
Open Air Storage - up to 60 days*	m <sup>2</sup> per Day	0.4225	0.4648	
Storage over 60 days*	m <sup>2</sup> per Day		POA	
<b>Note that:</b>				
<b>1 x 20' Container = 14.76m<sup>2</sup></b>				
<b>1 x 40' Container = 29.74m<sup>2</sup></b>				
<i>* Non-Standard Service not on Standard Terms</i>				



# Container Shipping Lines

Agent	Route (Aisa Pacific)	Frequency	Vessel	Capacity (TEU)
ANL	Singapore - Surabaya - Dili - Darwin	Once every 10 days	Scion Mafalada / ANL Darwin Trader / Tacoma Trader	1,102 / 629 / 1,103
Cosco	Yangpu Port - Hong Kong - Townsville - Brisbane - Lae - Port Moresby - Darwin	Once every 21 days	HANSA FREYBURG / TOKYO TRADER / ESL WINNER	1,400 / 1,103 / 1,819
PIL	Singapore - Dili - Darwin - Surabaya	Once every 10 days	KOTA HIDAYAH / KOKOPO CHIEF	1,170 / 981
Swire	Singapore - Dili - Darwin - Surabaya	Once every 10 days	KOTA HIDAYAH / KOKOPO CHIEF	1,170 / 981