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A survey of remote Aboriginal horticulture and community gardens in the Northern Territory

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A significant proportion of the excess mortality and morbidity found in Australia's Aboriginal and Torres Strait Islander population is attributable to poor fruit and vegetable consumption.¹ Fruit and vegetables are more expensive in remote Northern Territory (NT) Aboriginal communities than in larger centres² and Aboriginal people eat less fruit and vegetables in these places.³ In overseas settings, community food gardens have been linked to increased fruit and vegetable intake.^{4,5} There has been a call to investigate and promote remote Aboriginal community gardens in Australia.⁶⁻⁸

Our study aimed to locate and survey all remote Aboriginal community food gardens (gardens) in the NT 'top end'.⁹

During 2011, a snowball search for gardening stakeholders was undertaken within the boundaries of the Northern Land Council.⁹ A subsequent call was made to every remote or very remote locality within the survey area⁹⁻¹¹ to locate community-oriented gardens involving at least one Aboriginal person or organisation. This resulted in 112 phone calls to 78 of 86 (91%) of localities in the area.⁹

Thirty-one gardens (four planned, 24 running and three dormant) were found. Eighteen were visited and surveyed for their funding sources, profitability, manager Aboriginality, manager pay, number of Aboriginal and non-Aboriginal people employed, garden area, crops grown, and produce distribution.

Two planned, 15 running, and one dormant garden were surveyed. The greatest number of running gardens was found in East Arnhem Shire (10) followed by Victoria Daly Shire (7). Fifteen of the 18 surveyed gardens were funded either wholly or partially through the Community Development and Employment Program (CDEP).¹²

Two 'for profit' enterprises were surveyed. One was a large farm owned by an Aboriginal corporation but not employing any Aboriginal people. The other was a CDEP farm employing Aboriginal people and managed by a non-Aboriginal manager. It produced commercial quantities for regional sale. Both enterprises were in less remote areas with access to commercial markets and transport hubs, and neither produced food for local consumption.

Of 15 running gardens surveyed, three had paid Aboriginal managers, one had an unpaid Aboriginal manager and 10 had paid non-Aboriginal managers. There were no gardens with unpaid non-Aboriginal managers. There were 98 Aboriginal and 17 non-

Aboriginal workers surveyed as employed in gardens. One of the 'for profit' farms employed no Aboriginal manager or workers, but was funded by an Aboriginal corporation.

The total surveyed garden area was 70.7 hectares, with a minimum area of 0.005 hectares (50 square metres), median of 0.75 hectares and a maximum area of 40 hectares.

Forty-seven varieties of fruit and vegetables were identified. Watermelon, banana, pawpaw, passionfruit and mango were the most frequently grown fruits, and sweet potato, tomato, cucumber, pumpkin and sweet corn were the most commonly grown vegetables.

Twelve of the 15 running and surveyed gardens reported the consumption of produce either in the garden, at home or in the broader community (Table 1).

The mixed operational status of the gardens may reflect the regional drive to start new gardens and support existing ones, as well as the existence of gardens that have failed.

Widespread CDEP funding of gardens may mean training and employment outcomes are being prioritised over food production. There may be merit in attempting a regional shift in focus toward production, given the potential for dietary quality improvement.

The reasons behind the non-profit nature of the majority of gardens are unknown, although the location of the two surveyed profitable gardens close to labour and food markets may be implicated. It could be assumed that profitable remote community horticulture has either historically failed or been inadequately trialled.

The reasons behind the inequitable number of non-Aboriginal managers are unknown. It is an issue that needs addressing across the survey area. The lack of volunteer managers probably reflects the need for remuneration when working remotely for extended periods.

The number of garden workers shows large numbers of Aboriginal people listed as employed, which may demonstrate a significant workforce.

The variability in garden size likely reflects the multiplicity of aims, funding structures, and groups responsible for setting up gardens.

The variety of produce probably represents a regional commitment to trialling new crops. The list of common varieties likely reflects their long-term success and popularity with managers, gardeners and communities.

The high number of gardens in which food is eaten in the garden, taken home or given away in the community is encouraging. It suggests that gardens may be contributing to improving diet quality in remote communities and reflects the international evidence.^{4,5}

The remoteness of gardens made them difficult to find by phone search. The number of dormant gardens may not reflect the true number because community members were often unaware of dormant gardens. Future work may locate more gardens by visiting and engaging with communities for longer periods.

The garden area measured in each survey was the area fenced off for gardening, not the area under cultivation, which was sometimes smaller.

The employment data does not reflect hours worked or the nature of the work. There is also no information on pay rates or arrangements.

Future work could focus on the contribution of remote food gardens to community diet quality, the cost-benefit of local food production, or the reasons behind garden sustainability.

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Table 1: Produce distribution.

Shire	Garden	Garden and Home	Community and Home	Garden Community and Home	Shop and Elsewhere	Elsewhere
Belyuen				1		
East Arnhem	1		3		1	
Katherine		1				1
Roper Gulf			1			
Tiwi Islands				1		
Victoria Daly						
West Arnhem		2				