

## NIAA Standard Nursery Trolley Survey

Towards the end of 1993, NIAA (in conjunction with a major Australian hire company) formulated and dispatched a questionnaire seeking information on the interest of industry in adopting a national standard nursery trolley system. Details of plant production and transport requirements were also requested. Replies to the survey were received during January-February 1994 and the results were analysed by engineering staff of the QDPI at Redlands Research Station. This report presents the results of the analysis.

Figure 1 shows the response of industry to the survey. Co-operation varied between states, however the national figure was an overall response of 26%.

Wholesale nurseries constituted 60% of the national reply with high percentages in each state, as shown in Figure 2.

Figure 3 shows the response of nurserymen surveyed to the question of whether they would be interested in hiring a national standard nursery trolley as a benefit to their business.

As can be seen, the response was very positive with an overall national figure of 47.5% interested in being involved with a standard trolley. This was much higher amongst certain groups in certain states, indicating either previous good experience with standard trolleys, or a better understanding of what is proposed for a national system. Of the nurserymen surveyed who were not interested in a national trolley system, a very high level of misunderstanding was found in every state, as shown in Figure 4. This is also a very positive result of the survey, indicating potential for much greater trolley acceptance following a concerted education program. The degree of misunderstanding highlights the importance of conducting this education. nationally, of the nurserymen not interested in the standard trolley system, 86% did not understand what is proposed or appreciate benefits available (both to individuals and the industry as a whole).

Of nurserymen showing an interest in the use of trolleys, practically all wholesalers saw benefit in using them for forwarding plants to customers (Figure 5). A much lower percentage saw benefits in using the trolleys for handling plants around the nurseries. It is believed that this is largely due to unavailability of equipment for transporting trolleys over gravel paths. Such equipment shall be developed by QDPI as part of their nursery mechanisation project, providing funding is forthcoming from HRDC.

Compared with the high percentage of wholesalers who would use trolleys to forward plants to customers (96%, Figure 5), a slight discontinuity was illustrated in Figure 6 where it can be seen that only 52% of retailers would like to receive plants on trolleys. This demonstrated the need for greater education of retailers as to benefits of using a national standard trolley.

Figure 7 shows the degree to which the larger chain stores (Big W, Coles, Woolworths etc) dominate the plant buying market place. In all states, most nurseries sell between 10 and 50% of their stock to major chains, making them very important players in a national standard trolley system. Figure 7 illustrates the need to involve the chains in all plans for a national system.

Figure 8 shows that a high proportion (73%) of nurseries regularly handle orders of less than 100 plants, whereas Figure 9 shows that over 40% of nurseries also regularly handle orders of greater than 1000 plants. Figure 9 indicates that in many situations whole or multiple trolleys will be required for sales to a single buyer, but Figure 8 illustrates that on many occasions trolleys will not be filled for a single buyer and that there is currently a need for a plant transport depot system to co-ordinate orders onto trolleys.

Figures 10 to 17 give information on requirements which a national trolley system for plant transport must satisfy in terms of plant quantities and distance of transport.

In Figures 14-17, an 'average nursery' is defined as follows: Production is an 'average nursery' for a state (or nationally) is the total production divided by the number of nurseries. In other words, figures given for an 'average nursery' may be converted to total figures for the state or nation by multiplying by the total number of nurseries.

In Figure 17, when 1 x trolley spends 1 x hour on the road in transport, that is referred to as one trolley-hour. The number of trolleys required for the 'average nursery' in each state has been calculated based on the % break-up of production (Figure 15) and the total number of plants produced during the busiest week (Figure 14). As can be seen from Figure 17, because the average Queensland nursery produces a high number of plants, and because the average distance a Queensland plant travels is proportionally very high, then the average Queensland nursery will require a proportionately high number of trolley-hours in their busiest week. Whereas NSW and Victoria are both producing high quantities of plants, the transport distances involved are smaller hence lower trolley-hours.

## Conclusion

This survey provides a positive outlook on the potential for a national standard nursery trolley system. Probably the most important fact revealed was that although about 50% nurserymen surveyed were interested in involvement and 50% weren't, 86% of those who weren't simply didn't understand what is being proposed or how it may help them. This highlights the importance of embarking on a national education program on the operation of a national trolley exchange system and benefits available from it. This survey has highlighted groups which should be targeted in such an education program, as well as providing figures on likely trolley requirements.

Don Jaydon

25/5/94

Figure 1 : SURVEY RESPONSE

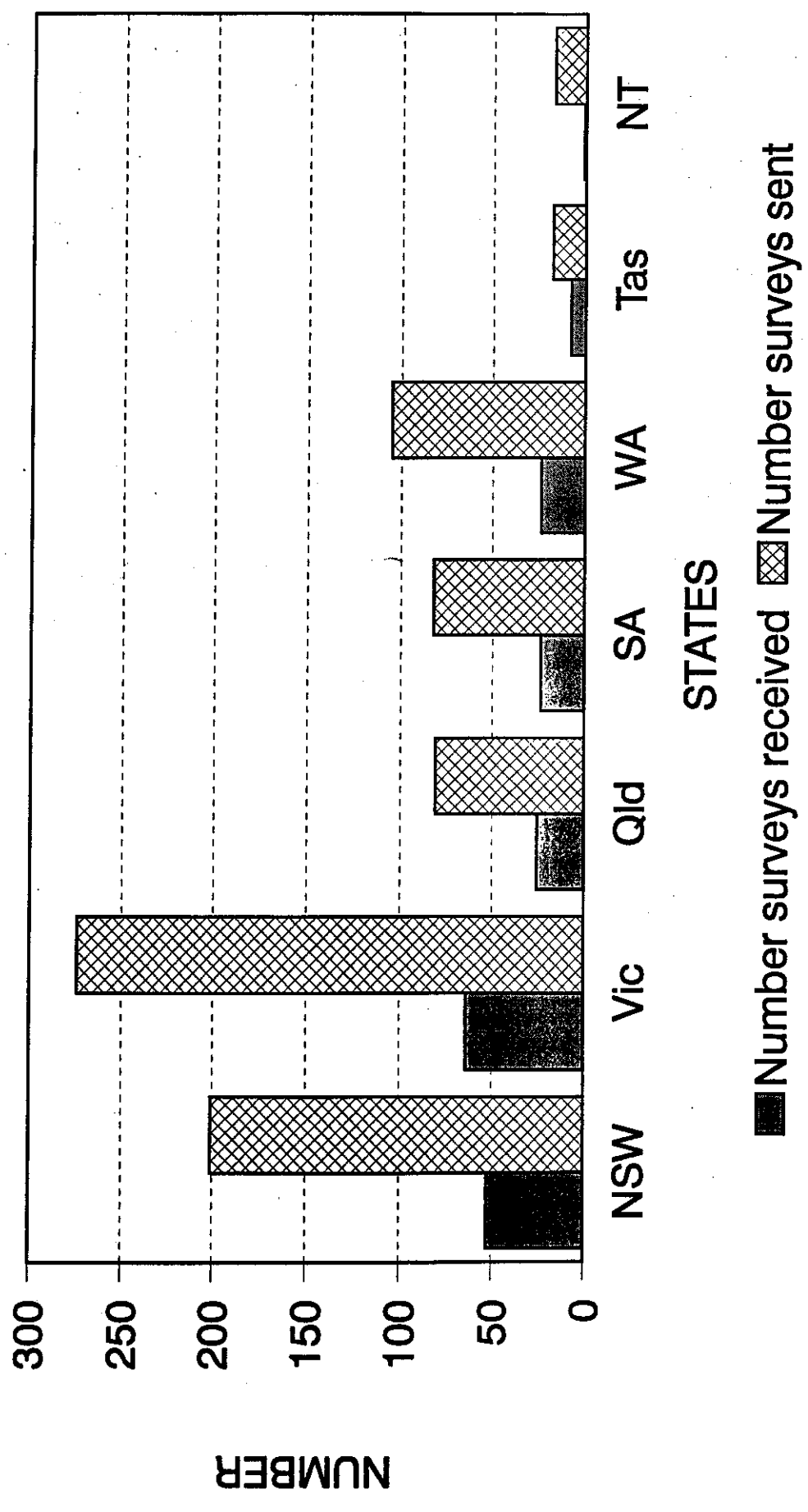


Figure 2: RESPONSE COMPOSITION

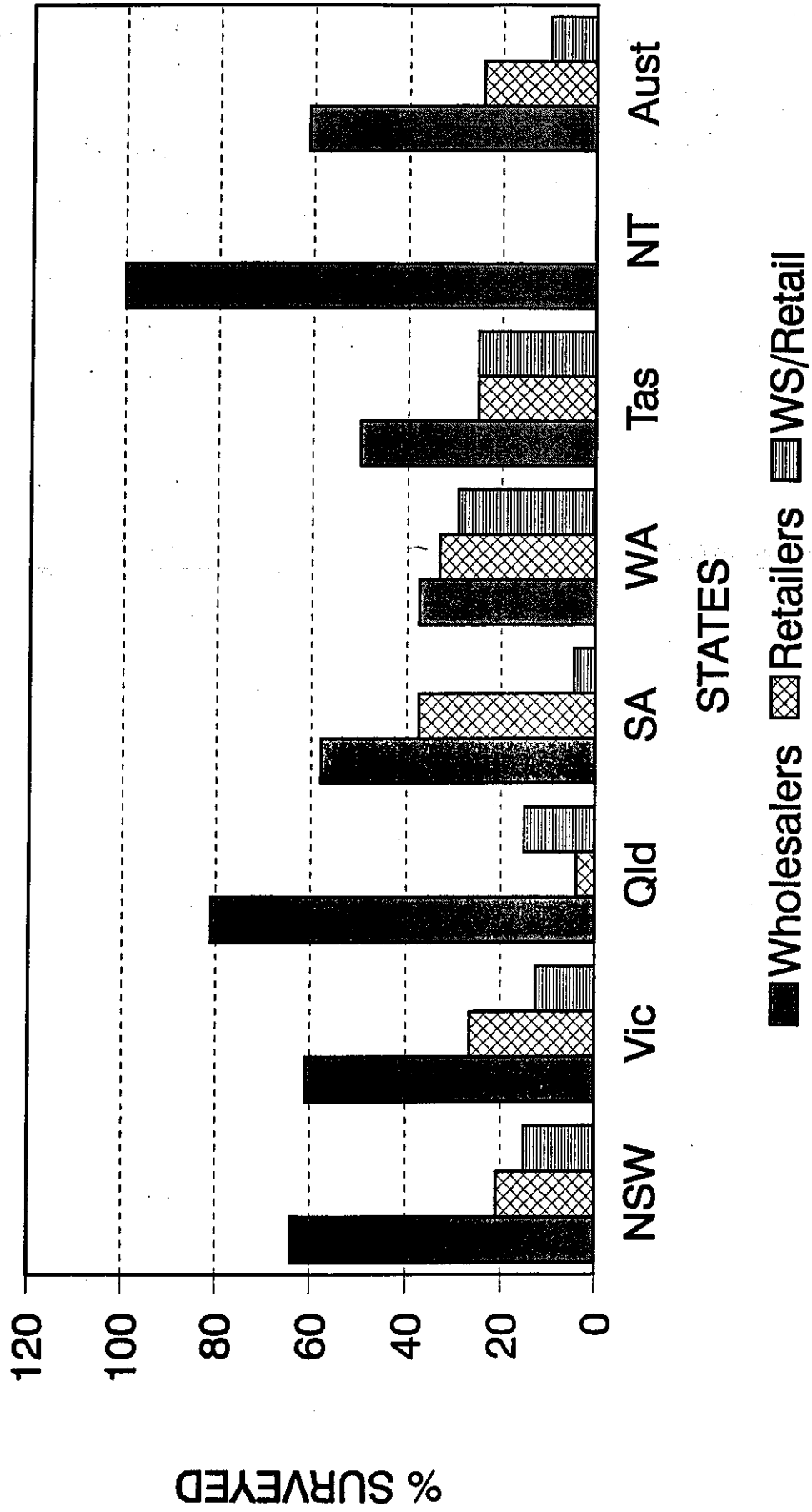


Figure 3: INTEREST IN HIRING STANDARD TROLLEY

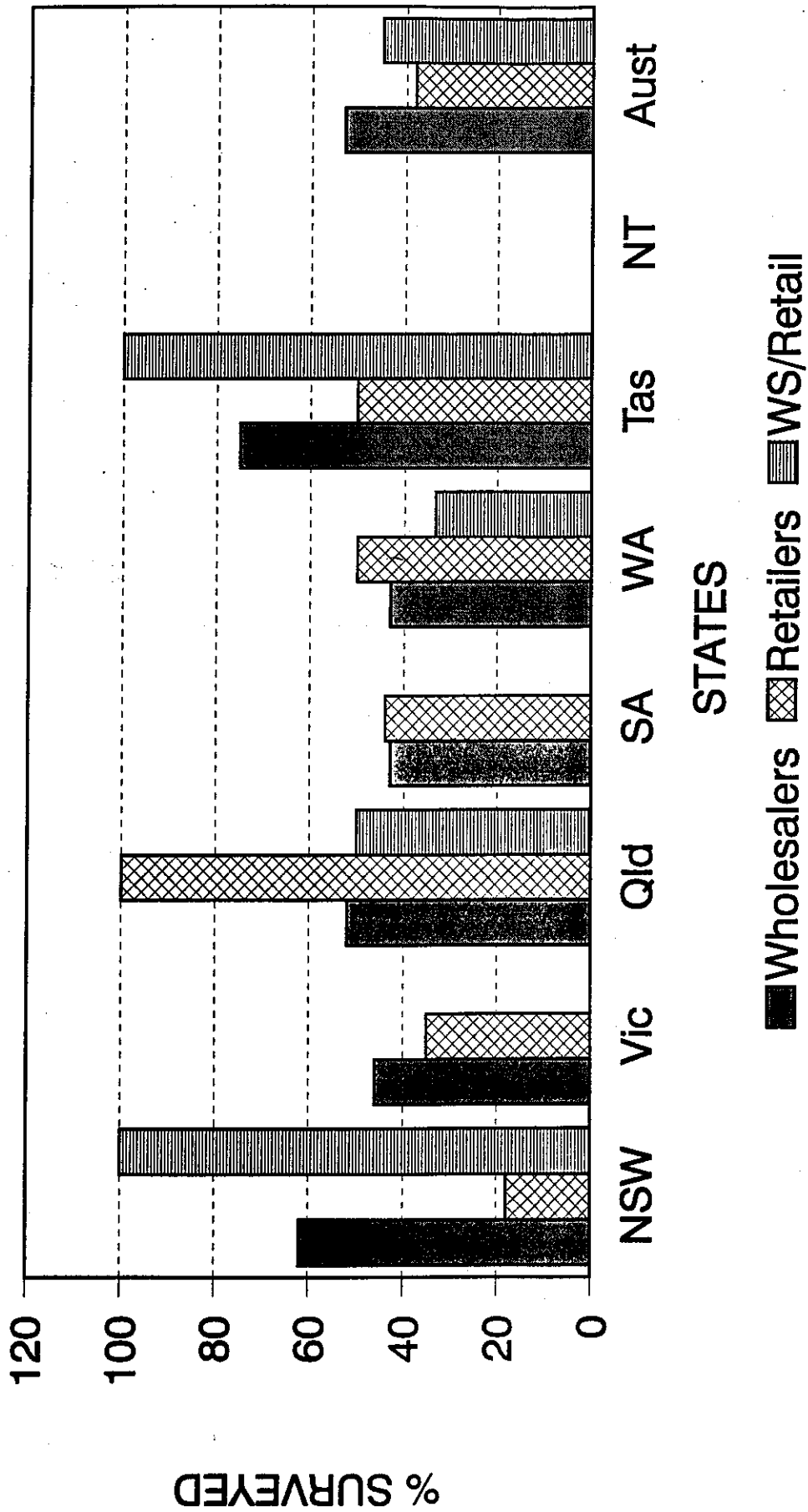
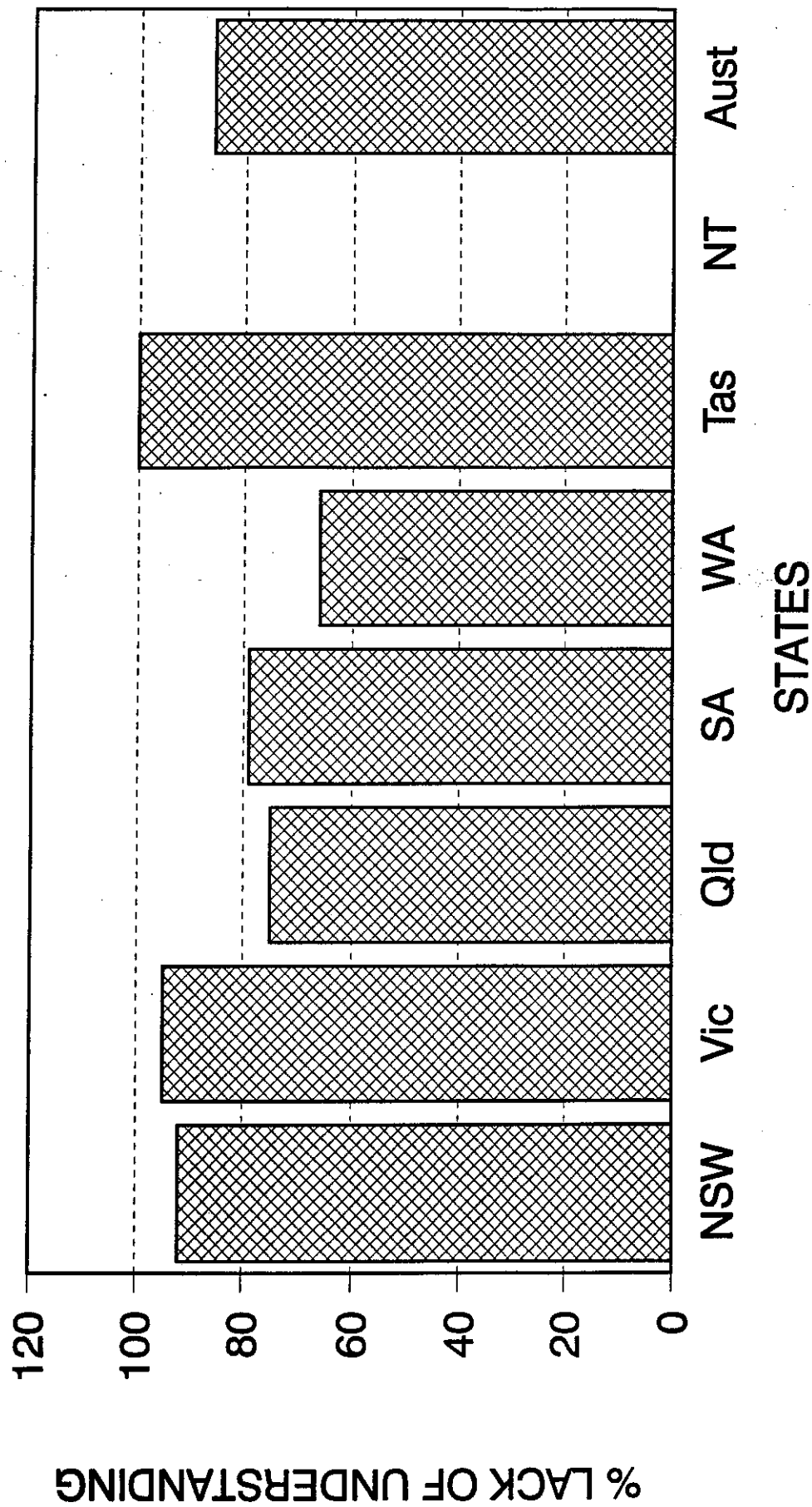
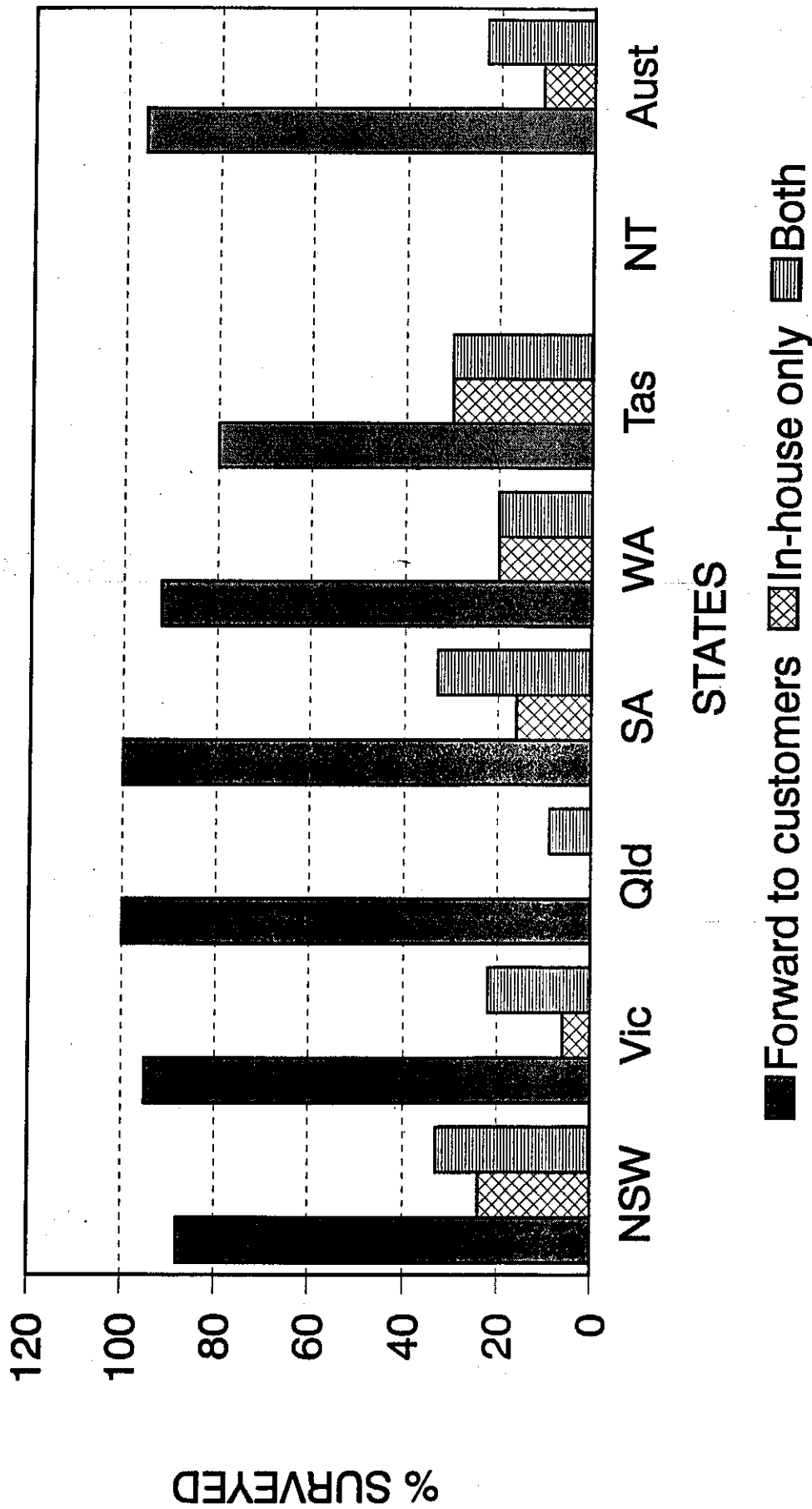


Figure 4: LACK OF UNDERSTANDING AMONGST  
NEGATIVE RESPONSES



**Figure 5 : WHOLESALERS' ANTICIPATED APPLICATION FOR TROLLEYS**



**Figure 6 : RETAILERS' ANTICIPATED APPLICATION FOR TROLLEYS**

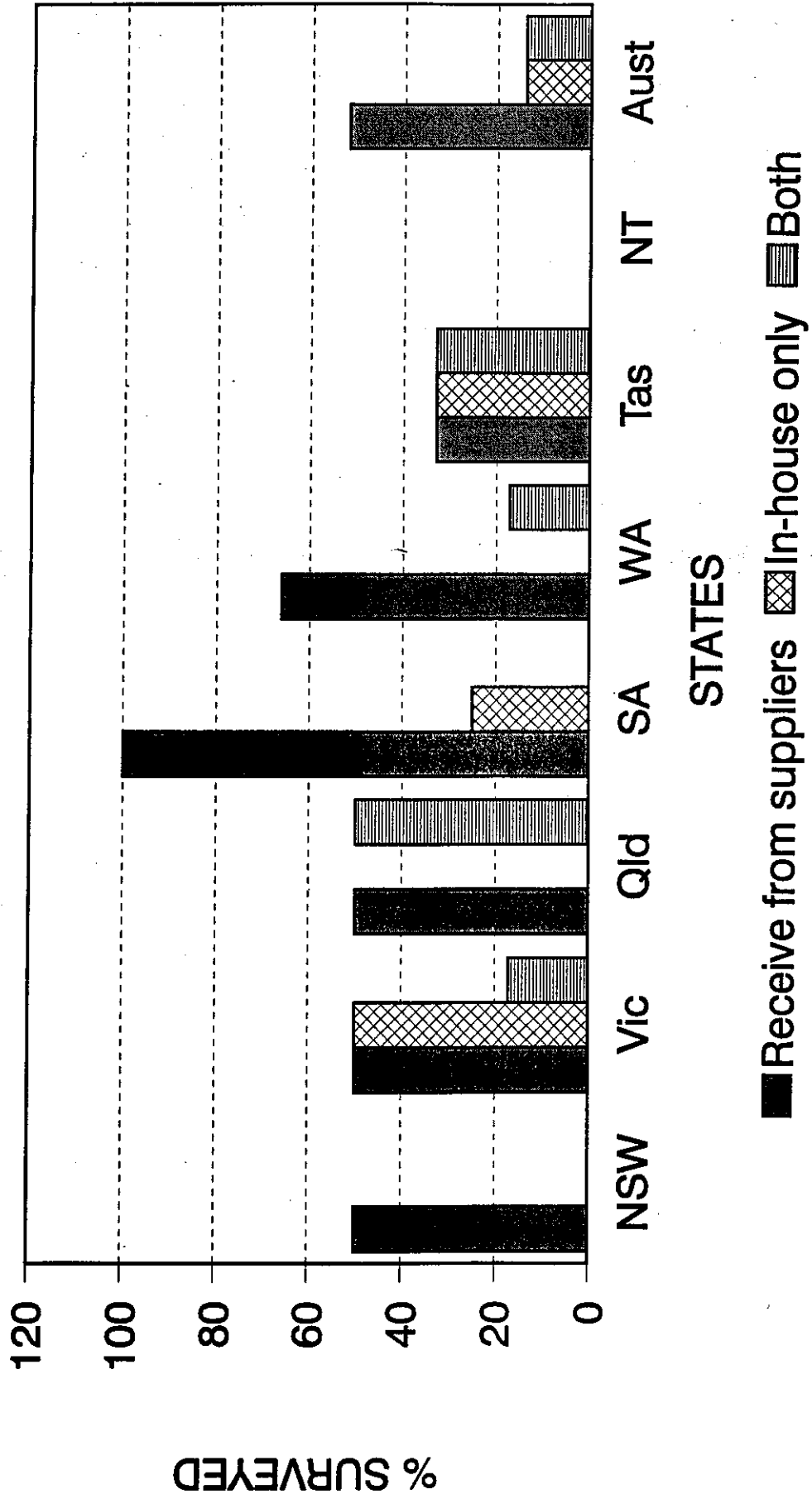




Figure 7 : WHOLESALER SALES TO CHAIN STORES

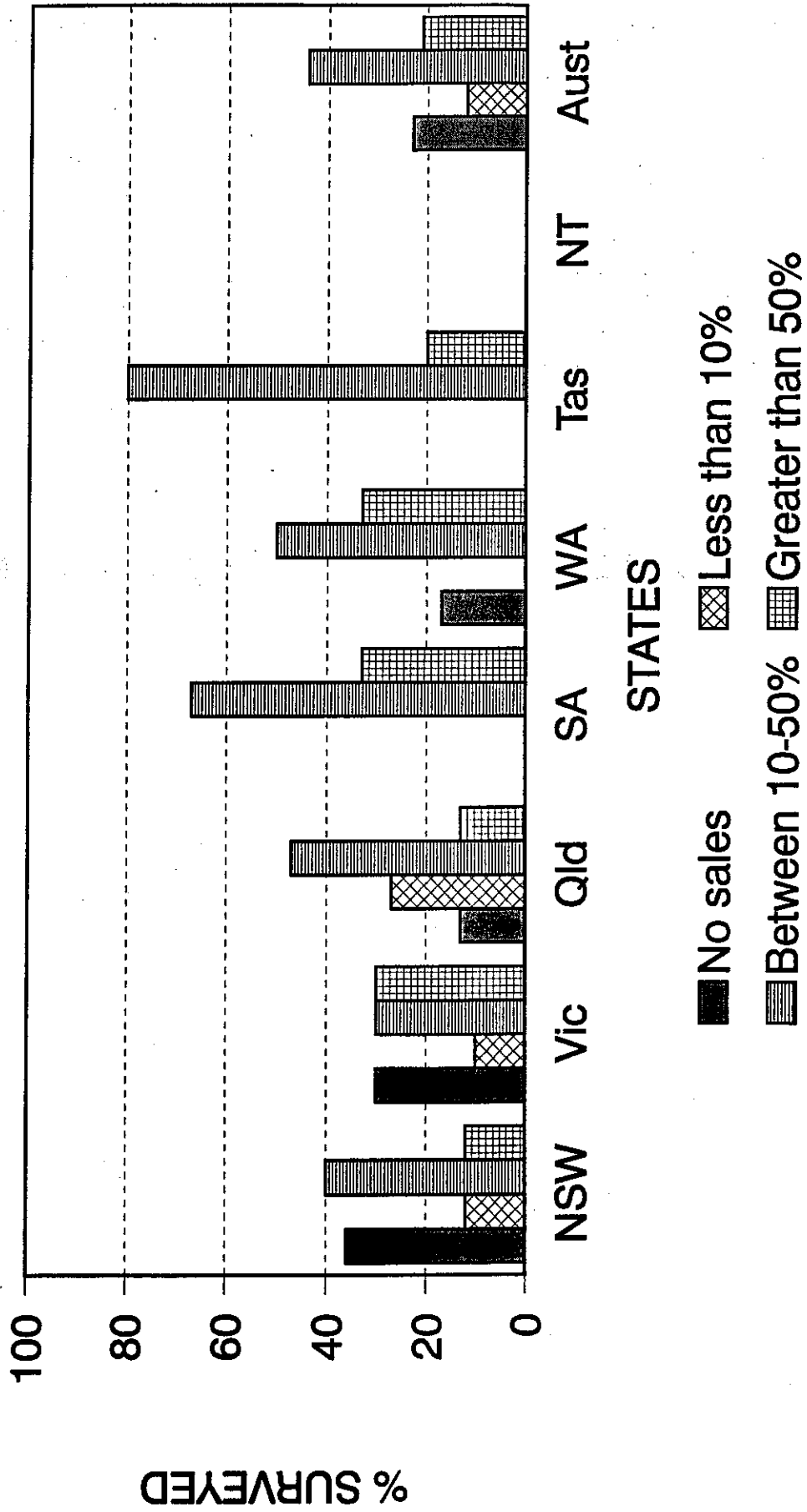


Figure 8 : SMALL CONSIGNMENT SIZE

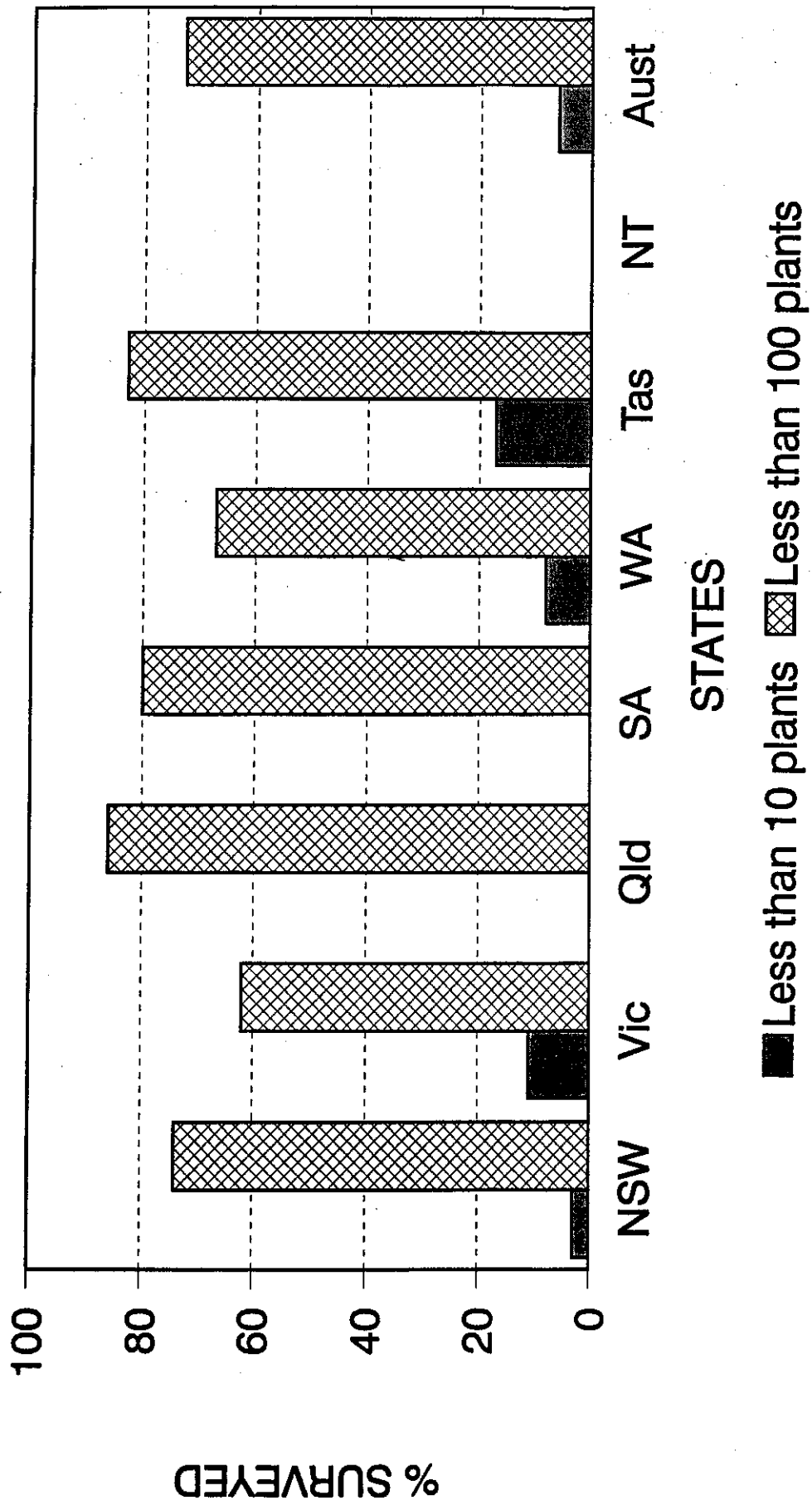


Figure 9: LARGE CONSIGNMENT SIZE

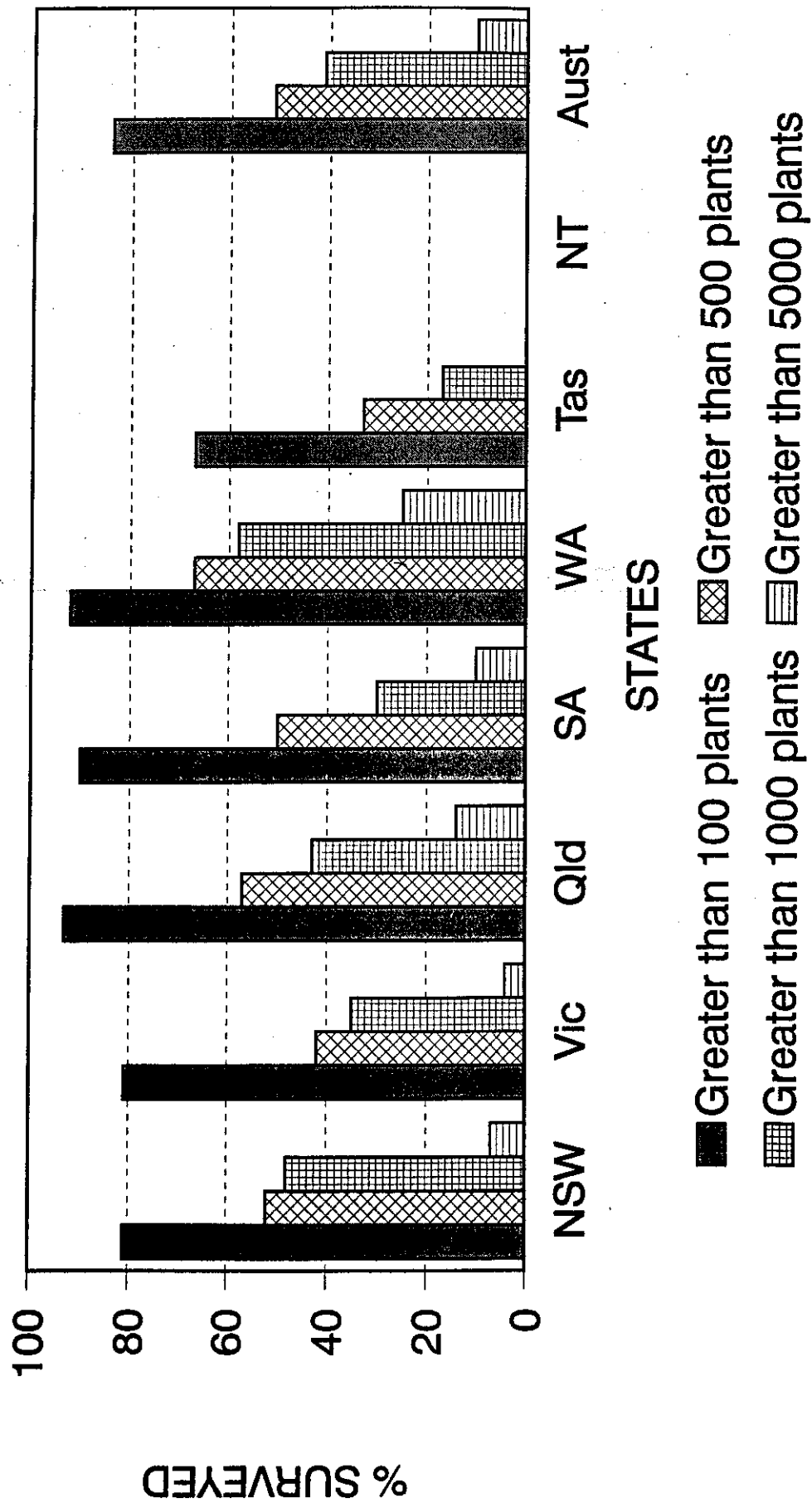


Figure 10: AVERAGE DISTANCE TRAVELLED BY EACH PLANT TRANSPORTED

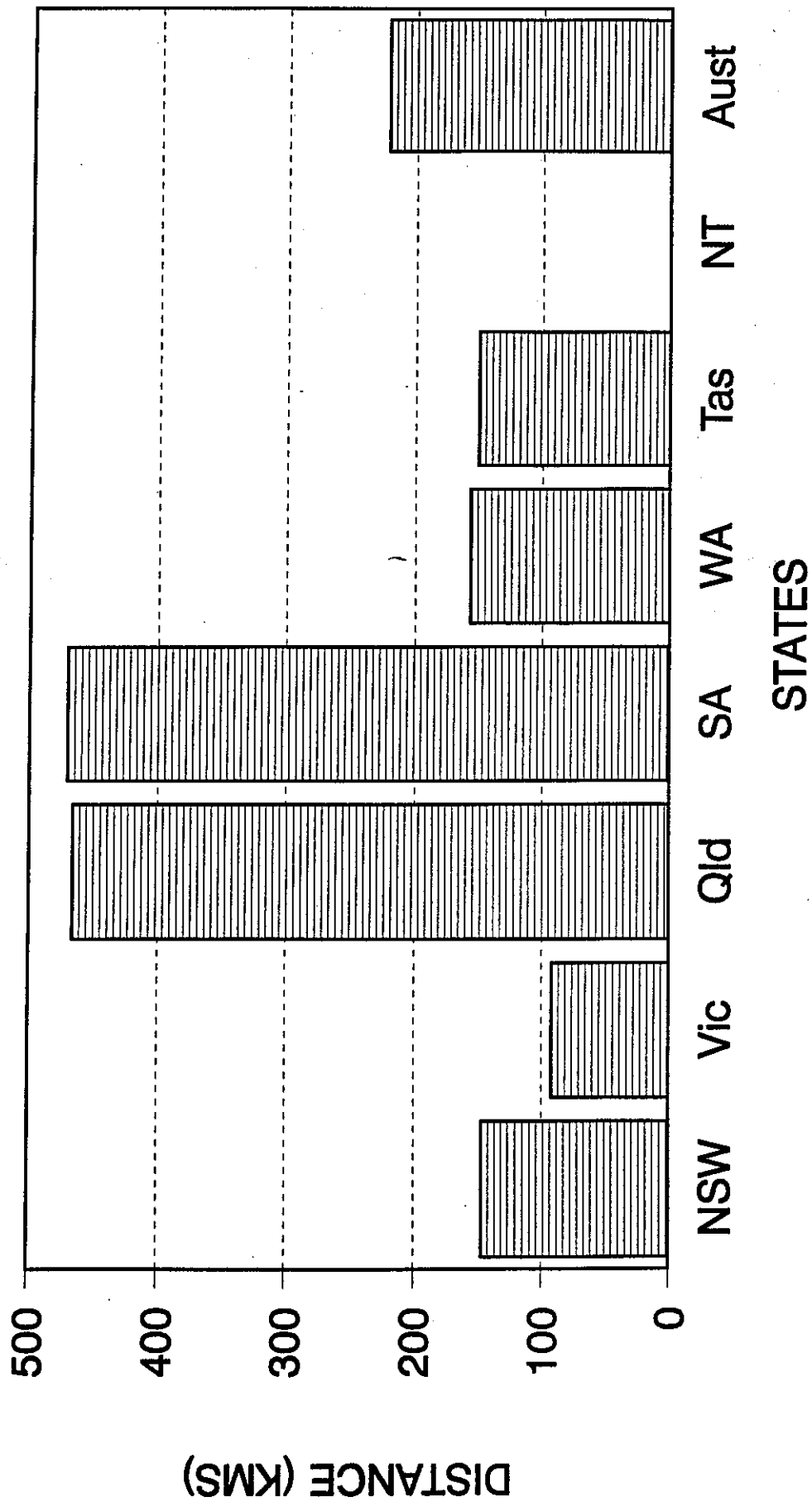


Figure 11: AVERAGE DISTANCE TRAVELLED BY PLANTS SENT INTERSTATE FROM EACH STATE

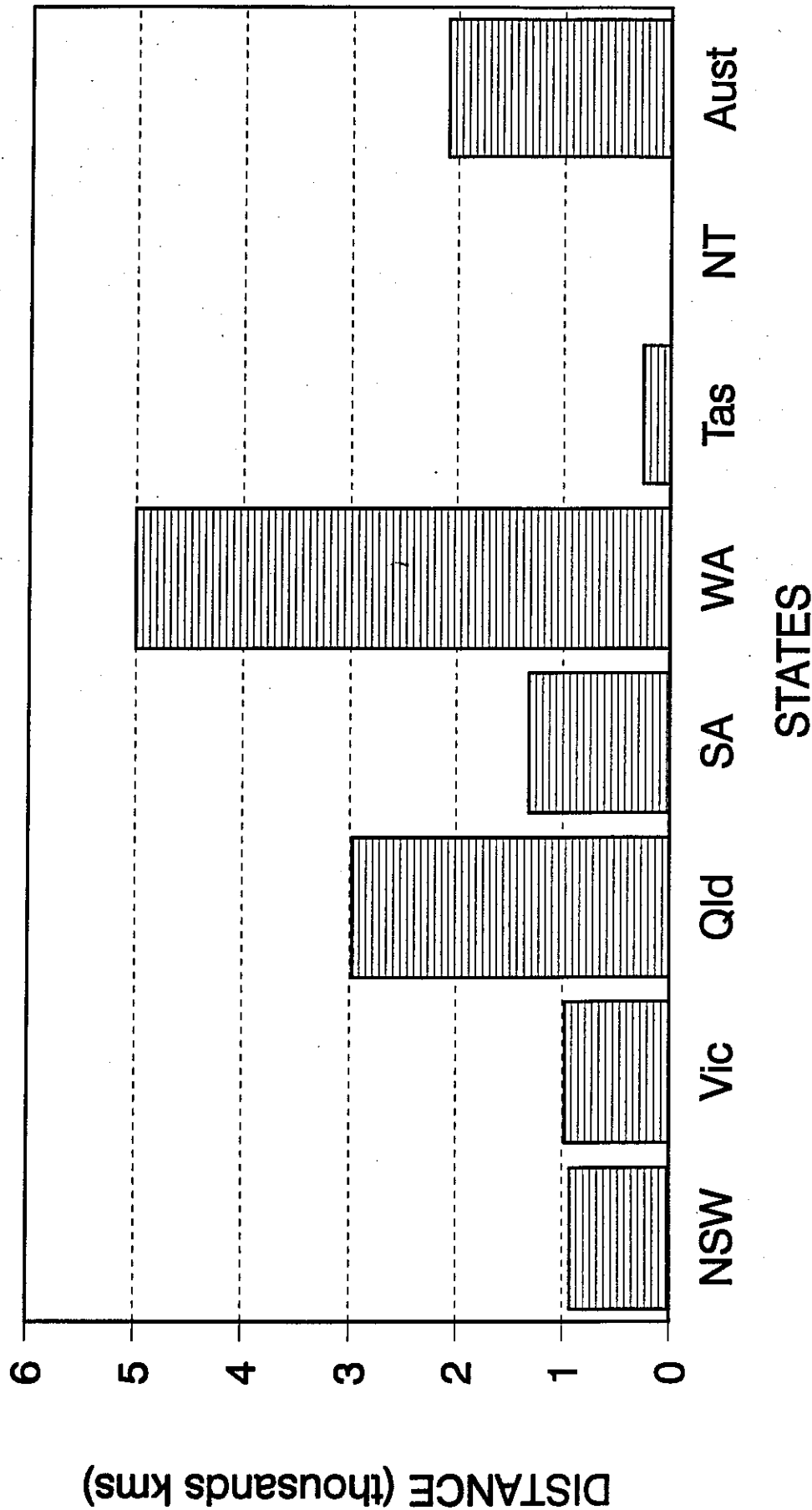


Figure 12: AVERAGE DISTANCE TRAVELLED BY PLANTS SENT INTRASTATE

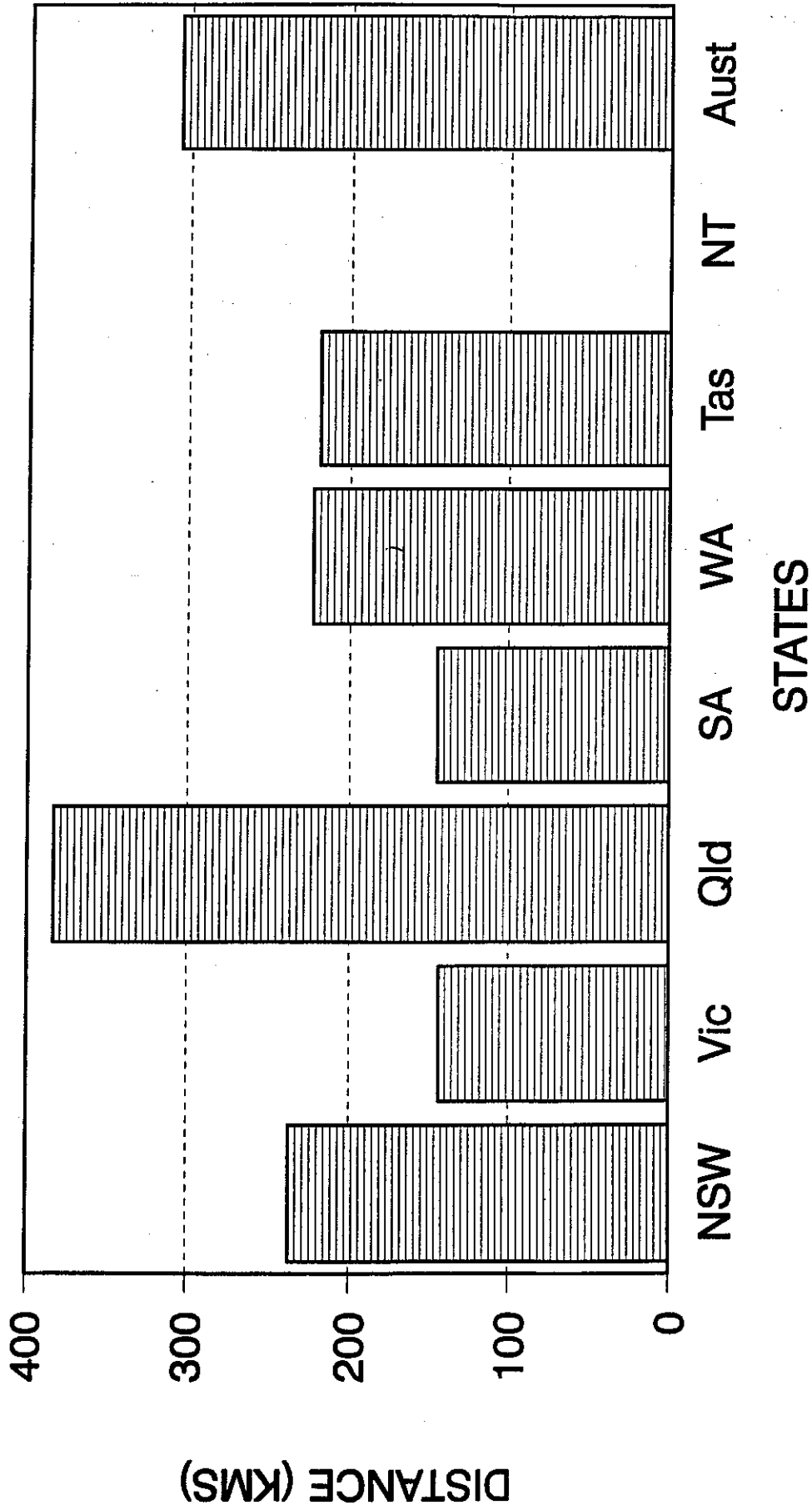
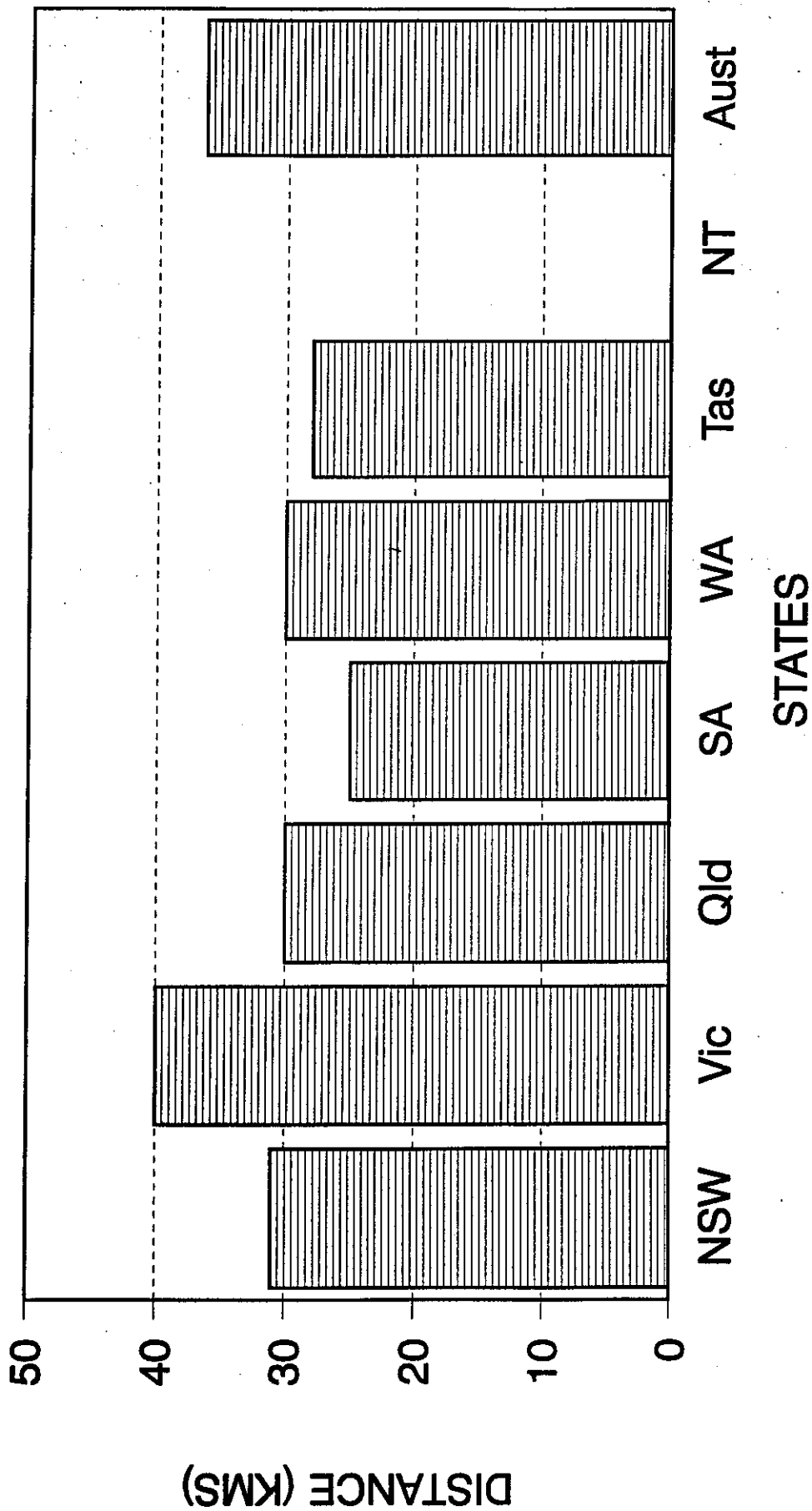
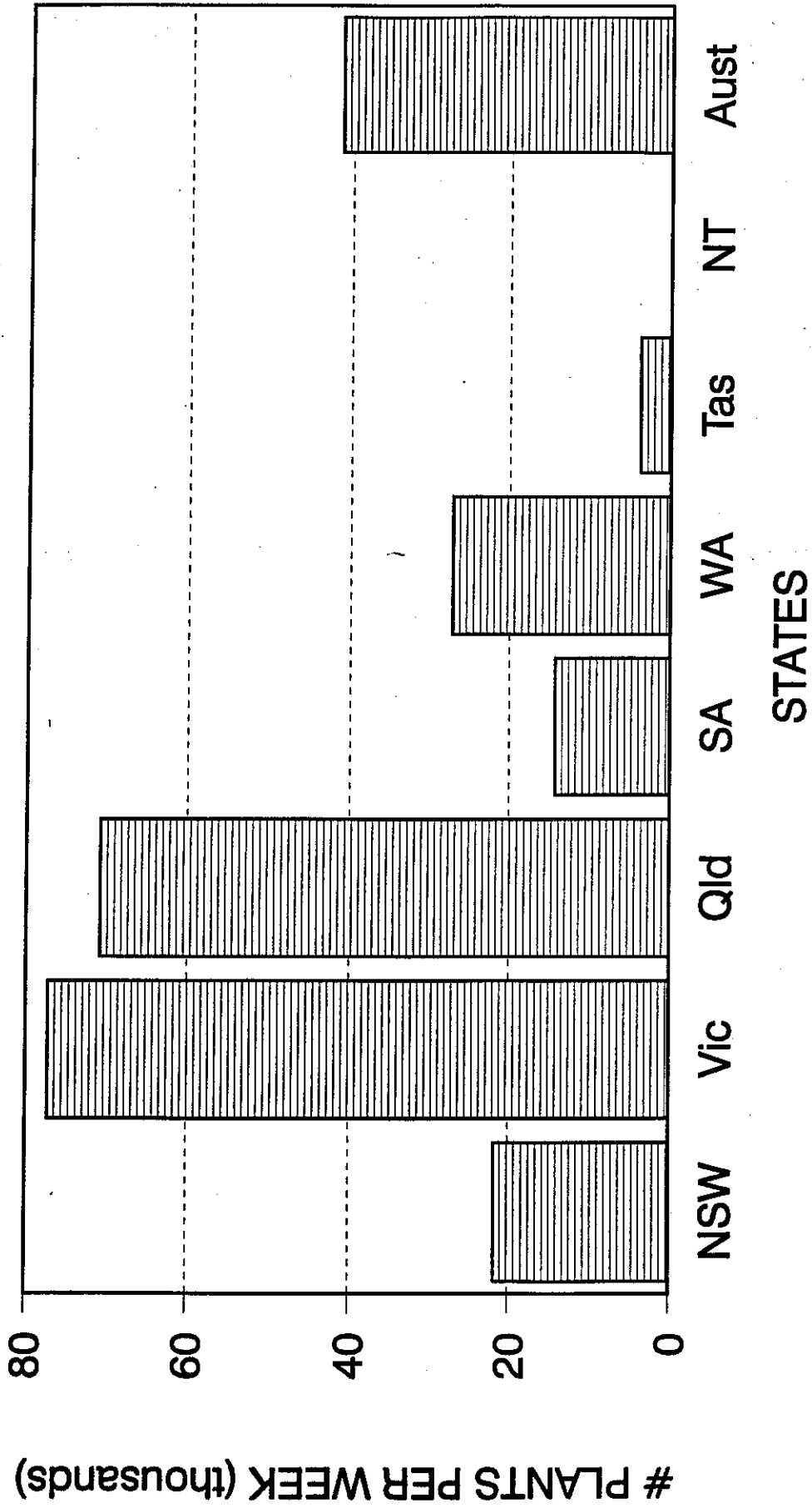


Figure 13: AVERAGE DISTANCE TRAVELLED BY EACH  
PLANT LOCALLY



**Figure 14: AVERAGE NURSERY SIZE**

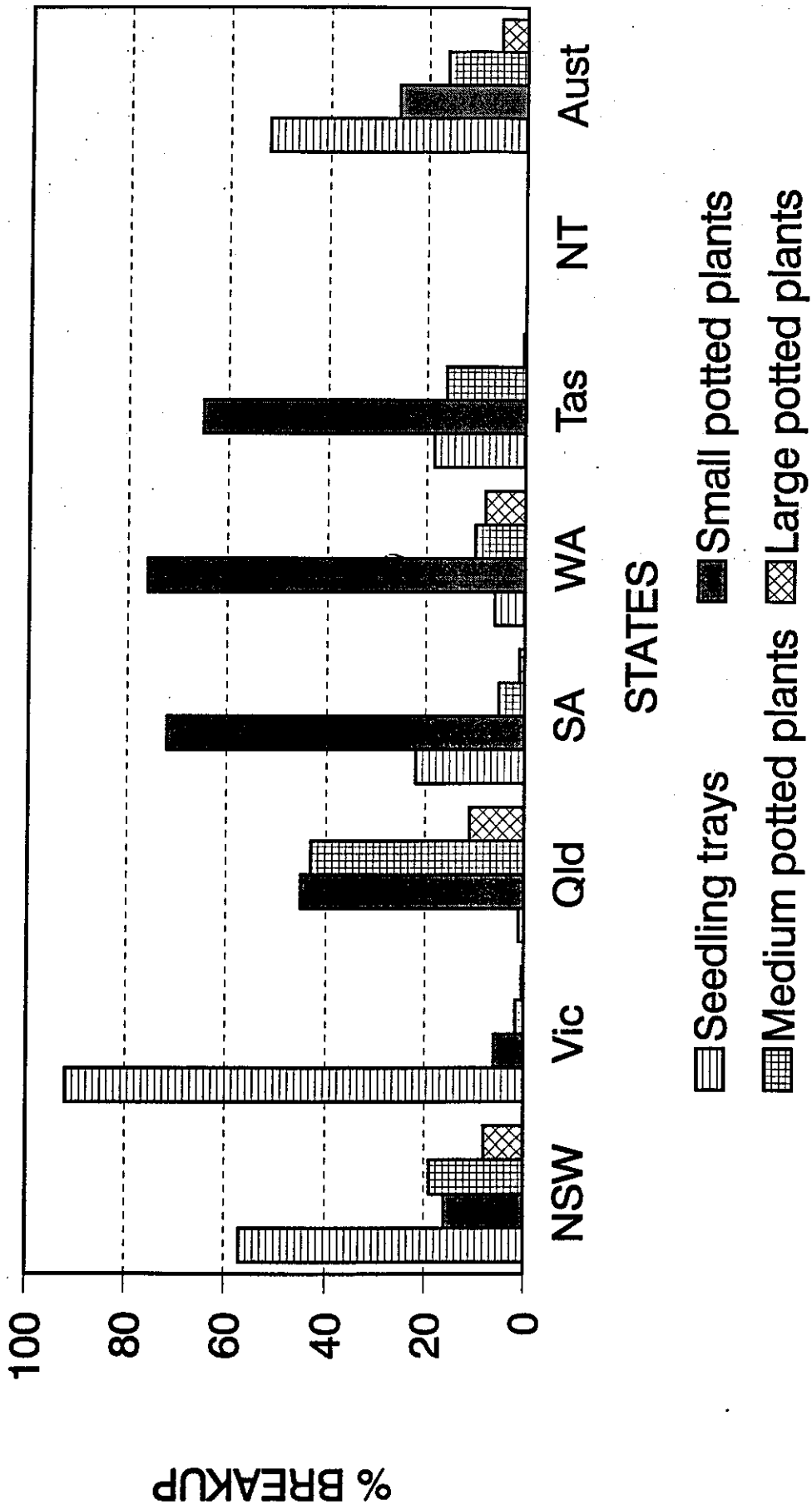
(Number of plants moved in busiest week from 'average nursery')





# Figure 15: AVERAGE NURSERY PRODUCTION

(Percentage breakup of figure 14)



**Figure 16: AVERAGE NURSERY PLANT MOVEMENT**

(Percentage breakup of figure 14)

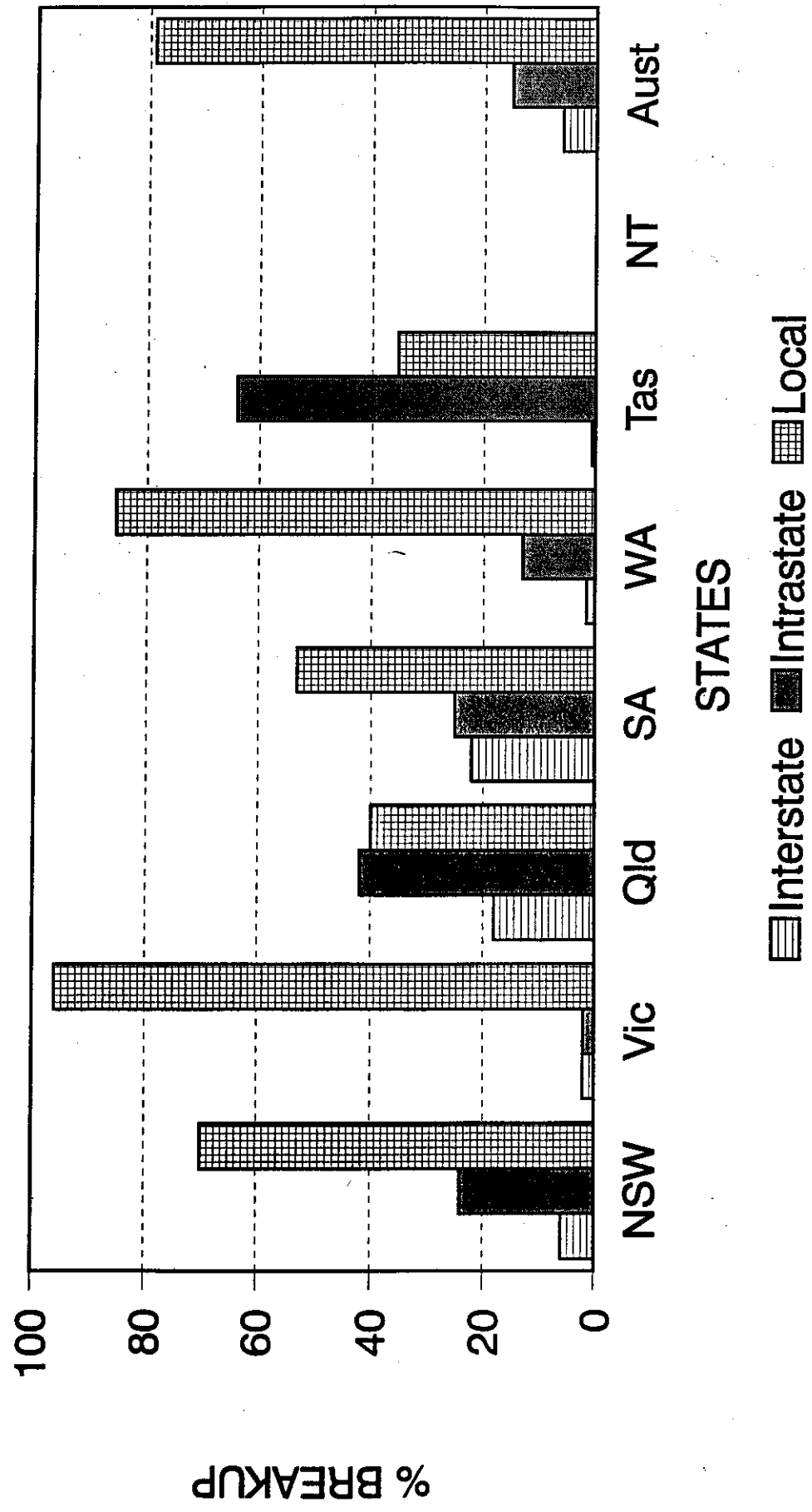
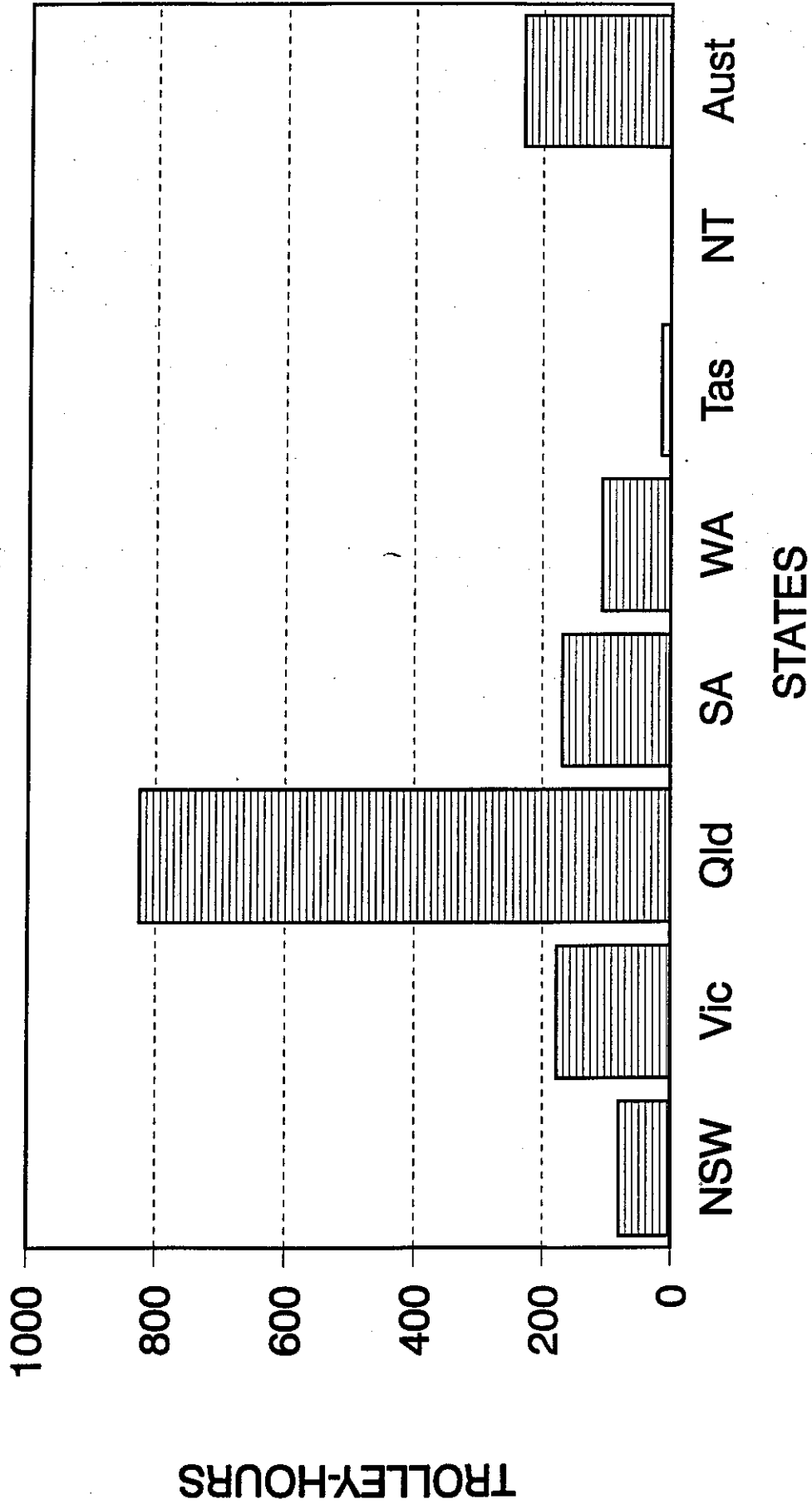


Figure 17: 'AVERAGE NURSERY' TROLLEY TRANSPORT HOURS DURING BUSIEST WEEK



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Australian Co. No. 001 318 136 Incorporated in New South Wales

Suite 402  
16-18 Cambridge Street  
Post Office Box 907  
Epping, New South Wales 2121

Dear Member,

**RE: NURSERY INDUSTRY STANDARD TROLLEY - A SURVEY**

The survey document included with this letter is important and we would ask for your co-operation and time to complete the document, which has been developed in conjunction with a major hire company at no cost to NIAA or the Horticultural Research and Development Corporation (HRDC).

The results of the survey will be published and made available to companies that show an interest in manufacturing the design under HRDC/NIAA arrangements, or developing a hire scheme for the benefit of industry members under an agreement with the HRDC/NIAA.

To assist in the finalisation of the project, please return the survey document to the HRDC in the envelope provided.

If you have any queries, please contact the NIAA National Office.

Thank you for your co-operation.

Yours sincerely,



Warren F. Bassam  
Chief Executive Officer

17 January 1994

3. With respect to volumes handled, would your business "benefit" in handling a standard 'industry' nursery trolley? i.e., whether in a forwarding or receiving capacity, would a nursery trolley substantially lessen the manual work involved in the movement of plants. (Please tick box.)

Yes

No

If you have answered 'No' in questions 2 and 3 above, please discontinue questionnaire. Any other combination, please continue.

4. **Line of Involvement:** How would you use the nursery trolley?

Would you:

Forward trolleys to customers  
(ie: full trolleys leave your operation, destined for customer)

or

Receive trolleys from transporter/supplier  
(ie: full trolleys enter your operation, from transporter/supplier)

or

Both  
(ie: forward and receive full trolleys from other users)

or

"In house use" only  
(ie: trolleys would not leave your premises)

5. **Plant Size Breakdown**

Given the following:

0-150 mm diameter are defined as small potted plants; and  
150-250 mm diameter are defined as medium potted plants; and  
Greater than 250 mm diameter are defined as large potted plants;

please indicate, by percentages, the composition of a typical consignment.

Seedling Trays	Small Potted Plants	Medium Potted Plants	Large Potted Plants	
_____ %	+ _____ %	+ _____ %	+ _____ %	= 100%

(Please fill in each % shown above.)

8. Distribution

(a) Currently, your operation is involved in:

<u>Summer</u>	<u>Autumn</u>	<u>Winter</u>	<u>Spring</u>
___% Interstate transactions	___% Interstate transactions	___% Interstate transactions	___% Interstate transactions
___% Intrastate transactions (outside of metropolitan area or town <i>but</i> within same state)	___% Intrastate transactions (outside of metropolitan area or town <i>but</i> within same state)	___% Intrastate transactions (outside of metropolitan area or town <i>but</i> within same state)	___% Intrastate transactions (outside of metropolitan area or town <i>but</i> within same state)
___% Local transactions (metropolitan or same town)	___% Local transactions (metropolitan or same town)	___% Local transactions (metropolitan or same town)	___% Local transactions (metropolitan or same town)
<b>100% Total Summer</b>	<b>100% Total Autumn</b>	<b>100% Total Winter</b>	<b>100% Total Spring</b>

(Please fill in each % shown above.)

(b) By way of volumes of plants involved, please list 5 of the more common cities or towns (*not* business names) in each of the above transaction categories:

i. Interstate: \_\_\_\_\_

ii. Intrastate: \_\_\_\_\_

iii. Local (Suburban locations): \_\_\_\_\_

(c) Please indicate by approximate percentage, the volume of plants involved in sales to the larger retailers (eg: K-Mart, Target, Coles, Big W, Franklins, etc.) \_\_\_\_\_%

[eg: 10% of my plant volumes move to the larger retailers, 90% move to other outlets.]



Nursery Industry  
Association  
of Australia

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Yours sincerely,

Warren F. Bassam  
Chief Executive Officer

17 January 1994

# NURSERY TROLLEY MARKET SURVEY

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**Company**

**Name:** \_\_\_\_\_

**Contact:** \_\_\_\_\_

**Position:** \_\_\_\_\_

**Phone:** \_\_\_\_\_

**Fax:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Postcode:** \_\_\_\_\_

1. What best describes the business you're in? *(Please tick box.)*

- Grower       Transport       Chainstore       Garden store       Retail nursery       Other      \_\_\_\_\_ Please specify

2. If savings can be demonstrated, would you be interested in hiring nursery trolleys? *(Please tick box.)*

- Yes       No

If you have answered **NO** in Question 2 above, please state why below.

**Why:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



3. With respect to volumes handled, would your business "benefit" in handling a standard 'industry' nursery trolley? i.e., whether in a forwarding or receiving capacity, would a nursery trolley substantially lessen the manual work involved in the movement of plants. (Please tick box.)

                       
 Yes                              No

If you have answered 'No' in questions 2 and 3 above, please discontinue questionnaire. Any other combination, please continue.

4. **Line of Involvement:** How would you use the nursery trolley?

Would you:

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 (ie: full trolleys leave your operation, destined for customer)
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- Receive trolleys from transporter/supplier  
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0-150 mm diameter are defined as small potted plants; and  
 150-250 mm diameter are defined as medium potted plants; and  
 Greater than 250 mm diameter are defined as large potted plants;

please indicate, by percentages, the composition of a typical consignment.

Seedling Trays	Small Potted Plants	Medium Potted Plants	Large Potted Plants
_____ %	_____ %	_____ %	_____ %
+                      +                      +                      = 100%			

(Please fill in each % shown above.)

**6. Level of Involvement  
Relative to your operation**

Relative to your busiest month, what do you call ....

- 1. A small consignment? = \_\_\_\_\_ number off potted/packageged plants  
[all sizes] (write number)
- 2. A medium consignment? = \_\_\_\_\_ number off potted/packageged plants  
[all sizes] (write number)
- 3. A large consignment? = \_\_\_\_\_ number off potted/packageged plants  
[all sizes] (write number)

And approximately, how many of each consignment size would you handle per week? (Again, relative to your busiest month.)

- 1. A small consignment = \_\_\_\_\_ number off handled per week  
(write number)
- 2. A medium consignment = \_\_\_\_\_ number off handled per week  
(write number)
- 3. A large consignment = \_\_\_\_\_ number off handled per week  
(write number)

**7. Seasonal Analysis**

Please indicate by percentages, the **volume** cycles of your operation:

<b>Autumn</b> (Mar to May)	<b>Winter</b> (June to Aug)	<b>Spring</b> (Sept to Nov)	<b>Summer</b> (Dec to Feb)	
_____ %	+ _____ %	+ _____ %	+ _____ %	= 100%

(Please fill in each % shown above.)

8. Distribution

(a) Currently, your operation is involved in:

<u>Summer</u>	<u>Autumn</u>	<u>Winter</u>	<u>Spring</u>
___% Interstate transactions	___% Interstate transactions	___% Interstate transactions	___% Interstate transactions
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___% Local transactions (metropolitan or same town)	___% Local transactions (metropolitan or same town)	___% Local transactions (metropolitan or same town)	___% Local transactions (metropolitan or same town)
<u>100% Total Summer</u>	<u>100% Total Autumn</u>	<u>100% Total Winter</u>	<u>100% Total Spring</u>

(Please fill in each % shown above.)

(b) By way of volumes of plants involved, please list 5 of the more common cities or towns (**not** business names) in each of the above transaction categories:

i. Interstate: \_\_\_\_\_

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iii. Local (Suburban locations): \_\_\_\_\_

(c) Please indicate by approximate percentage, the volume of plants involved in sales to the larger retailers (eg: K-Mart, Target, Coles, Big W, Franklins, etc.) \_\_\_%

[eg: 10% of my plant volumes move to the **larger** retailers, 90% move to other outlets.]

### 9. Business Growth

Please indicate your anticipated growth, relative to volume of plants handled, for the next 3 years:

Growth Prediction	1994	1995	1996
- 10%			
- 5%			
No growth			
+ 5%			
+ 10%			
More than 10%			

10. If there is any other information or detail which you consider to be relevant, please feel free to provide details:

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Should you have any queries relating to the questionnaire please do not hesitate in contacting:

**Nursery Industry Association  
of Australia**

Warren F. Bassam  
C.E.O. - N.I.A.A.

876 5200

Thank you for your assistance in completing the questionnaire.

**On completion, please return to:** (Postage Free)

**Mr Jolyon Burnett  
H.R.D.C.  
(Program Manager)  
c/o Reply Paid No. 78  
PO Box 968  
CROWS NEST NSW 2065**