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COMBAT RATION (ONE MAN) 1976/77  
Packaging Programme Trialled at  
EXERCISE TOP POINT

10 D. J. LICHTENSTEIN

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DEPARTMENT OF DEFENCE  
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FIELD EVALUATION OF AUSTRALIAN RATION PACKS  
COMBAT RATION (ONE MAN) 1976/77 PACKAGING PROGRAMME  
TRIALLED AT EXERCISE TOP POINT

D. J. LICHTENSTEIN

SUMMARY

Menus A, B, C and D of the Combat Ration (One Man) 1976/77 packaging programme were trialled at Exercise Top Point and compared with results from previous trials.

With 2 exceptions these results confirmed previous findings on the acceptability, adequacy and Service suitability of the ration components on trial.

These results suggest the need for designing mock-up ration packs for further field evaluation.

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Menus A, B, C and D of the Combat Ration (One Man) 1976/77 packaging programme were trialled at Exercise Top Point and compared with results from previous trials.

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FIELD EVALUATION OF AUSTRALIAN RATION PACKS  
COMBAT RATION (ONE MAN) 1976/77 PACKAGING PROGRAMME  
TRIALLED AT EXERCISE TOP POINT

*INTRODUCTION*

The evaluation of rations in the field is a regular activity undertaken by the Armed Forces Food Science Establishment (AFFSE) to ensure that ration items conform, among other things, to satisfactory requirements for user acceptability, adequacy, and Service suitability. Once these parameters have been quantified, changes can be recommended for implementation in the subsequent ration packing programme undertaken by the Services. This occurred for the 1976/77 ration packing programme for the Combat Ration (One Man) following the survey on the 1975/76 ration packing programme (Badcock and Lichtenstein, 1978). Consequently, an initial field user trial of the 76/77 pack was undertaken at Exercise Brahman Drive (Lichtenstein, 1979). The purpose of the present trial was to confirm these previous results.

*TRIAL AND EVALUATION*

A preliminary report on the trial organisation and procedures adopted for the conduct of the trial, has already been detailed (Lichtenstein, 1978). Briefly, there were some administrative problems associated with the conduct of the trial which may have affected the outcome of the trial objectives.

Two (understrength) infantry rifle platoons were selected as user trial subjects. These subjects were drawn from 3 PI A Coy and 5 PI B Coy 2/4 RAR during Exercise Top Point. The trial itself was conducted over a 4 day period to enable each platoon member to have access to and thereby consume each of the 4 varieties of the Combat Ration (One Man) being evaluated – menus A, B, C and D respectively.

Prior to commencing the trial, all sources of food, other than the specific trial ration issue, were removed from the subjects. After allowing for a free interchange of ration components among individual members of each separate platoon, all unconsumed (unopened) ration components which were discarded during the course of the trial, were returned for computation. This produced a consolidated platoon ration discard figure—each platoon operated as a separate entity during the trial period.

Questionnaires were issued for completion and return at the end of the trial for subsequent analyses. These questionnaires were evaluated as previously described (Badcock and Lichtenstein, 1978). A sample questionnaire is set out at Annex A.

The activities undertaken by the subjects during the trial period were quite strenuous—typical of what could be expected from infantry soldiers engaged in either continental defence or counter revolutionary warfare.

## RESULTS AND DISCUSSION

### Analysis of Data

Answers to questions relating to the acceptability, quantity provided and the nature of the packaging of each ration component under investigation, are detailed in Table 1 for both platoons. The computed preference ratings are detailed in Table 2, shown in descending order of decreasing preference. Furthermore, Table 2 also compares actual discards with stated discards determined from answers to individual questionnaires.

Tables 3, 4 and 5 compare the summary acceptability, percent dislike and percent discard data for each of the trial platoons in both Exercises Top Point and Brahman Drive. Comparative data from the previous comprehensive survey on the 75/76 packing programme are also shown.

The similarities or differences in acceptability of each component as evaluated in the major surveys are emphasised in Figure 1.

Generally the data for the platoons in the present trial suggest that they were more critical of the 76/77 pack than their counterparts during Exercise Brahman Drive. This may have been a reflection of the administrative problems encountered during Exercise Top Point. All the new (76/77) items in the pack were rated lower during Exercise Top Point. In fact two of these items, Butter Concentrate and Butterscotch were found to be unacceptable. This is confirmed by other criteria (see Table 2).

Nevertheless, this trial continued to confirm the unacceptability of the Survival Biscuits, Cereal Block and fruit flavoured Drink Powders.

In contrast to the Brahman Drive survey, the actual consolidated platoon discard figures were lower than the users individually thought they were. Accordingly, this aspect of the survey was encouraging, as it indicated that in this instance the users were quite reliable in answering this aspect of the questionnaires.

### User Comments

The comments from each platoon have been combined to reduce the complexity of this aspect of the questionnaire. Only 26% of the respondents failed to make a written comment. Generally the comments were similar to those reported previously (Badcock and Lichtenstein, 1978; Lichtenstein, 1979). Only those not noted previously are considered here.

As reflected by the data on the packaging, the respondents were rather critical of Butterscotch in this respect with 9% including a further comment in the comments section. Two percent considered Butterscotch as a poor replacement for Candy Creamy Fudge. Two percent considered that the Beef and Vegetables were too dry. Two percent, whilst admitting their preference for both the Rice and Potato with Onion Powder, were critical of the time set aside to prepare these items.

In support of some of their criticisms on the packaging, it was recommended by 26% of the respondents that all items should be packaged in camouflage coloured materials. Seven percent recommended the packaging of cheese in a container with a ring pack lid to make it easier to open. A lesser proportion of respondents (2%) suggested that all cans should have this facility. Two percent suggested that canned desserts such as custard, chocolate pudding and banana pudding should be introduced into the pack.

### *RECOMMENDATIONS*

These recommendations should be considered along with previous recommendations (Badcock and Lichtenstein, 1978) not yet implemented. Because of the general improvement to the pack, as a result of previous implementations, effort should now be directed to the preparation of mock-up packs with particular emphasis on the incorporation of different canned and snack items not recently incorporated into ration packs.

These packs should then be trialled using a similar group of subjects, but ensuring far more satisfactory technical control over the proceedings.

### *ACKNOWLEDGEMENTS*

My thanks are to the members of 3 Platoon and 5 Platoon 2/4 RAR for their forbearance in having to consume their ration pack meals in the vicinity of their colleagues consuming a fresh equivalent. Special thanks are accorded to HQ 6 TF and D Trials in particular Maj. M. Johnson.

I was ably assisted in the field by Lt. Col. D. Harveson (Det) AFFSE. I acknowledge also the assistance of Messrs. W. Badcock and D. Dunkley for their analyses of the questionnaires.

### *REFERENCES*

- Badcock, W.E and Lichtenstein, D.J. (1978) AFFSE Report 4/78.
- Lichtenstein, D.J. (1978) R841/1/3
- Lichtenstein, D.J. (1979) AFFSE Report 2/79.

TABLE 1

Exercise: Top Point

## COMBAT RATION (ONE MAN) QUESTIONNAIRE RESULTS

Units:— 3 Pl, A Coy, 2/4 RAR

5 Pl, B Coy, 2/4 RAR

No. of Subjects = 43

Average Age = 22.6

S.D. = 3.8

Av Yrs Service = 3.6

S.D. = 3

ITEMS	ACCEPTABILITY					AMOUNT					% Alright
	Acceptability Score		%Dis- like	%Not tried	%Not replied	% Alright	%Not enough	%Too much	%Dis- card	%Not replied	
	Mean	S.D.									
Cereal Block	-0.64	1.32	53	2	0	51	0	9	40	0	77
Survival Biscuits	-0.02	1.14	30	0	0	58	19	2	21	0	72
Sweet Biscuits	0.76	1.24	16	2	2	51	21	12	16	0	63
Butter Concentrate	0.05	1.26	28	7	0	51	9	9	28	2	74
Cheese	1.47	0.91	2	0	0	44	53	2	0	58	37
Chocolate	1.05	1.05	9	0	0	65	26	0	9	63	14
Chewing Gum	0.29	1.35	26	2	0	58	21	2	19	53	19
Butterscotch	-0.33	1.43	49	2	0	28	9	14	49	23	23
Sweetened Condensed Milk	1.60	0.85	2	0	0	49	49	0	2	84	0
Sugar	1.50	0.86	2	2	0	51	33	12	5	44	23
Tea Bags	1.30	0.96	9	0	0	70	28	0	2	70	19
Instant Coffee	1.58	0.91	5	0	0	40	56	0	5	63	33
Salt	1.08	0.96	5	9	0	72	12	2	14	51	30
Instant Rice	1.17	1.14	14	5	0	53	30	5	12	91	2
Potato with Onion Powder	1.10	1.32	16	5	0	56	28	2	14	91	2
Curry Powder	1.26	0.94	7	7	2	79	9	0	12	88	7
Orange Drink Powder	-0.82	1.40	49	21	0	21	7	2	70	86	2
Lemon Drink Powder	-1.03	1.17	53	21	0	26	0	5	70	86	2
Lime Drink Powder	-0.88	1.32	49	23	0	26	2	2	67	86	2
Peaches	1.83	0.54	2	0	5	33	63	0	2	40	44
Pears	Item not issued										
Two Fruits	1.77	0.72	2	0	0	30	67	0	2	0	40
Ham and Eggs	0.56	1.40	23	0	0	51	35	5	9	0	44
Plum Jam	1.00	1.01	7	2	0	65	26	0	9	0	98
Beef and Vegetables	1.40	0.93	7	0	0	58	42	0	0	0	47
Pork and Beans	1.10	1.19	12	2	0	49	40	2	7	2	51
Raspberry Jam	1.10	1.03	7	2	0	67	23	0	9	0	91
Corned Beef Hash	0.81	1.22	16	0	0	58	28	5	7	2	49
Camp Pie	0.74	1.14	16	0	0	60	30	0	9	0	53
Apricot Jam	0.90	1.08	9	2	0	63	28	2	7	0	91
Beef with Gravy	0.79	1.28	16	0	0	49	37	7	7	0	51
Sausages & Vegetables	1.00	1.38	14	0	0	44	47	0	9	0	47
Blackberry Jam	1.21	1.00	7	2	0	70	21	2	7	0	95
Beef Soup Powder	1.27	1.12	7	5	0	60	26	5	9	0	74
Luncheon Meat	0.28	1.40	30	0	0	63	14	7	14	2	49
Beef and Eggs	Item not issued										
Peach Jam	Item not issued										
Chicken Soup Powder	Item not issued										
Corned Beef	Item not issued										

Overall Average = 0.77

76/77 RPP

% Married = 26

PACKAGING

% right	%Too shiny	%Too crackly	%Too flimsy	%Too bulky	%Not replied
77	5	5	5	2	7
72	5	5	12	0	7
63	5	5	21	0	7
74	5	5	5	7	5
37	0	0	0	0	5
14	14	14	5	0	5
19	7	7	16	0	5
23	35	35	5	7	7
0	2	2	7	2	5
23	5	5	23	0	5
19	7	7	0	0	5
33	0	0	0	0	5
30	2	2	9	0	7
2	0	0	0	2	5
2	0	0	0	2	5
7	0	0	0	0	5
2	2	2	0	2	7
2	2	2	0	2	7
2	2	2	0	2	7
44	0	0	7	0	9
40	47	0	9	0	5
44	51	2	0	0	2
98	0	0	2	0	0
47	51	2	0	0	0
51	49	0	0	0	0
91	5	2	2	0	0
49	49	2	0	0	0
53	44	0	2	0	0
91	2	2	2	0	2
51	42	5	0	0	2
47	51	2	0	0	0
95	2	0	2	0	0
74	16	2	5	2	0
49	49	2	0	0	0

TABLE 2

Exercise: Top Point

## COMBAT RATION (ONE MAN)

Units: 3 Pl, A Coy, 2/4 RAR 5 Pl, B Coy, 2/4 RAR

## PREFERENCE RATINGS AND OBJECTIVE DISCARDS

No. of Subjects = 43

ACCEPTABILITIES	(Mean Score)	DISLIKES	(%Users)	DISCARDS	(%Users)
Peaches	1.8	Peaches	2	Cheese	0
Two Fruits	1.8	Two Fruits	2	Beef and Vegetables	0
Sweetened Condensed Milk	1.6	Sweetened Condensed Milk	2	Two Fruits	2
Instant Coffee	1.6	Cheese	2	Peaches	2
Cheese	1.5	Sugar	2	Sweetened Condensed Milk	2
Sugar	1.5	Instant Coffee	5	Tea Bags	2
Beef and Vegetables	1.4	Salt	5	Instant Coffee	5
Beef Soup Powder	1.3	Beef and Vegetables	7	Sugar	5
Curry Powder	1.3	Beef Soup Powder	7	Blackberry Jam	7
Tea Bags	1.3	Blackberry Jam	7	Pork and Beans	7
Blackberry Jam	1.2	Raspberry Jam	7	Apricot Jam	7
Instant Rice	1.2	Plum Jam	7	Beef with Gravy	7
Salt	1.1	Curry Powder	8	Corned Beef Hash	7
Raspberry Jam	1.1	Tea Bags	9	Beef Soup Powder	9
Pork and Beans	1.1	Chocolate	9	Raspberry Jam	9
Potato with Onion Powder	1.1	Apricot Jam	10	Plum Jam	9
Plum Jam	1.0	Pork and Beans	12	Chocolate	9
Chocolate	1.0	Sausages & Vegetables	14	Sausages & Vegetables	9
Sausages & Vegetables	1.0	Instant Rice	15	Camp Pie	9
Apricot Jam	0.9	Beef with Gravy	16	Ham and Eggs	9
Beef with Gravy	0.8	Corned Beef Hash	16	Curry Powder	12
Corned Beef Hash	0.8	Camp Pie	16	Instant Rice	12
Sweet Biscuits	0.8	Potato with Onion Powder	17	Salt	14
Camp Pie	0.7	Sweet Biscuits	17	Potato with Onion Powder	14
Ham and Eggs	0.6	Ham and Eggs	23	Luncheon Meat	14
Chewing Gum	0.3	Chewing Gum	26	Sweet Biscuits	16
Luncheon Meat	0.3	Luncheon Meat	30	Chewing Gum	19
Survival Biscuits	0.0	Survival Biscuits	30	Survival Biscuits	21
Butter Concentrate	0.0	Butter Concentrate	30	Butter Concentrate	28
Butterscotch	-0.3	Butterscotch	50	Cereal Block	40
Cereal Block	-0.6	Cereal Block	55	Butterscotch	49
Orange Drink Powder	-0.8	Orange Drink Powder	62	Lime Drink Powder	67
Lime Drink Powder	-0.9	Lime Drink Powder	64	Orange Drink Powder	70
Lemon Drink Powder	-1.0	Lemon Drink Powder	68	Lemon Drink Powder	70

DISCARDS	(%Components)
Peaches	0
Two Fruits	0
Cheese	0
Beef and Vegetables	0
Pork and Beans	0
Potato with Onion Powder	0
Sausages & Vegetables	0
Corned Beef Hash	0
Beef with Gravy	0
Camp Pie	0
Ham and Eggs	0
Luncheon Meat	0
Sweetened Condensed Milk	1
Chocolate	1
Sweet Biscuits	2
Blackberry Jam	3
Raspberry Jam	3
Beef Soup Powder	5
Sugar	7
Instant Rice	7
Apricot Jam	7
Instant Coffee	8
Plum Jam	8
Curry Powder	9
Tea Bags	10
Chewing Gum	10
Survival Biscuits	12
Salt	15
Cereal Block	20
Butter Concentrate	25
Butterscotch	27
Orange Drink Powder	28
Lime Drink Powder	47
Lemon Drink Powder	49

TABLE 3

## EXERCISE TOP POINT—SUMMARY: ACCEPTABILITY—COMPARISONS WITH PREVIOUS SURVEYS

Ration Packing Programme Exercises	75/76		76/77		76/77	
	All Other Exercises		Brahman Drive		Top Point	
Sub-units	Average All Units	Average Battalions	5 Pl, B Coy 6 RAR	8 Pl, C Coy 8/9 RAR	3 Pl, A Coy 2/4 RAR	5 Pl, B Coy 2/4 RAR
Average Age	23.8	22.9	20.8	22.3	23.0	22.1
Av Yrs Service	4.7	4.0	2.9	3.1	4.1	3.1
Percent Married	41	31	25	32	27	24
No of Subjects	2346	1398	20	22	22	21
Cereal Block	-0.28	-0.56	-0.85	-0.68	-0.92	-0.40
Survival Biscuits	-0.36	-0.56	-0.60	0.32	0.32	-0.40
Sweet Biscuits	0.84	0.80	0.76	0.96	0.68	0.84
Butter Concentrate	****	****	0.84	0.80	-0.16	0.24
Cheese	1.56	1.52	1.20	1.56	1.68	1.24
Chocolate	1.00	0.84	0.96	0.92	1.00	1.08
Chewing Gum	0.92	0.88	0.32	0.60	0.20	0.40
Candy Creamy Fudge	-0.28	-0.60	****	****	****	****
Butterscotch	****	****	1.20	1.00	-0.04	-0.64
Sweetened Condensed Milk	1.64	1.72	1.16	1.44	1.52	1.72
Sugar	1.64	1.76	1.20	1.28	1.52	1.52
Tea Bags	1.32	1.28	1.44	1.08	1.36	1.24
Instant Coffee	1.56	1.60	1.36	1.32	1.40	1.76
Salt	1.20	1.28	0.72	0.64	1.20	0.96
Instant Rice	1.12	1.12	0.28	1.40	1.32	1.00
Potato with Onion Powder	****	****	1.36	1.68	1.04	1.16
Curry Powder	0.84	0.92	0.48	0.64	1.32	1.16
Orange Drink Powder	0.44	0.20	1.00	-0.16	-1.20	-0.48
Lemon Drink Powder	0.40	0.16	0.72	-0.08	-1.08	-1.00
Lime Drink Powder	0.32	0.12	1.00	-0.08	-1.12	-0.68
Peaches	****	****	2.00	2.00	1.92	1.76
Pears	****	****	2.00	2.00	****	****
Two Fruits	****	****	2.00	2.00	1.92	1.60
Ham and Eggs	0.44	0.28	0.56	0.08	0.28	0.84
Plum Jam	0.96	0.84	1.24	1.20	1.24	0.76
Beef and Vegetables	1.32	1.32	0.92	1.52	1.56	1.24
Pork and Beans	1.04	1.04	0.64	0.64	1.08	1.12
Raspberry Jam	1.08	0.96	1.32	1.36	1.40	0.76
Corned Beef Hash	0.68	0.52	0.76	0.36	0.96	0.68
Camp Pie	0.52	0.56	0.40	-0.04	0.80	0.68
Apricot Jam	0.96	0.84	1.32	1.04	1.04	0.76
Beef with Gravy	1.04	0.92	0.64	1.36	0.60	1.00
Sausages and Vegetables	0.84	0.76	0.76	1.52	0.60	1.44
Blackberry Jam	1.08	0.96	1.24	1.08	1.36	1.04
Beef Soup Powder	1.08	0.96	0.76	0.92	1.32	1.20
Luncheon Meat	0.40	0.32	-0.64	0.00	0.24	0.32
Beef and Eggs	0.52	0.36	0.52	0.24	****	****
Peach Jam	0.92	0.80	1.20	1.08	****	****
Chicken Soup Powder	1.16	1.04	1.00	1.20	****	****
Corned Beef	0.36	0.00	0.00	-0.04	****	****
Overall Average	0.83	0.73	0.85	0.88	0.78	0.76

TABLE 4

## EXERCISE TOP POINT—SUMMARY: PERCENT DISLIKE—COMPARISONS WITH PREVIOUS SURVEYS

Ration Packing Programme Exercises	75/76 All Other Exercises		76/77 Brahman Drive		76/77 Top Point	
	Average All Units	Average Battalions	5 Pl, B Coy 6 RAR	8 Pl, C Coy 8/9 RAR	3 Pl, A Coy 2/4 RAR	5 Pl, B Coy 2/4 RAR
Sub-units						
Average Age	23.8	22.9	20.8	22.3	23.0	22.1
Av Yrs Service	4.7	4.0	2.9	3.1	4.1	3.1
Percent Married	41	31	25	32	27	24
No of Subjects	2346	1398	20	22	22	21
Cereal Block	47	55	60	55	59	48
Survival Biscuits	47	54	50	18	23	38
Sweet Biscuits	17	18	15	14	18	14
Butter Concentrate	**	**	10	9	36	19
Cheese	3	4	10	0	0	5
Chocolate	13	17	10	14	9	10
Chewing Gum	12	14	20	14	27	24
Candy Creamy Fudge	49	58	**	**	**	**
Butterscotch	**	**	0	14	45	52
Sweetened Condensed Milk	3	2	5	0	5	0
Sugar	2	1	0	0	5	0
Tea Bags	9	10	0	5	9	10
Instant Coffee	7	6	5	0	9	0
Salt	3	3	5	5	5	5
Instant Rice	11	11	20	5	9	19
Potato with Onion Powder	**	**	5	0	18	14
Curry Powder	17	16	15	18	5	10
Orange Drink Powder	28	34	5	36	50	48
Lemon Drink Powder	29	35	15	36	45	62
Lime Drink Powder	31	36	5	36	45	52
Peaches	**	**	0	0	0	5
Pears	**	**	0	0	**	**
Two Fruits	**	**	0	0	0	5
Ham and Eggs	29	32	30	32	32	14
Plum Jam	10	13	0	5	0	14
Beef and Vegetables	7	7	20	0	5	10
Pork and Beans	14	15	25	23	18	5
Raspberry Jam	8	10	0	5	0	14
Corned Beef Hash	23	27	20	32	18	14
Camp Pie	26	26	30	41	14	19
Apricot Jam	10	12	0	9	5	14
Beef with Gravy	14	17	20	5	27	5
Sausages and Vegetables	20	23	25	0	23	5
Blackberry Jam	9	11	0	9	0	14
Beef Soup Powder	9	11	10	14	5	10
Luncheon Meat	29	32	55	36	32	29
Beef and Eggs	27	31	30	36	**	**
Peach Jam	11	14	0	5	**	**
Chicken Soup Powder	9	10	5	9	**	**
Corned Beef	32	41	40	41	**	**
Overall Average	18	21	14	15	18	18

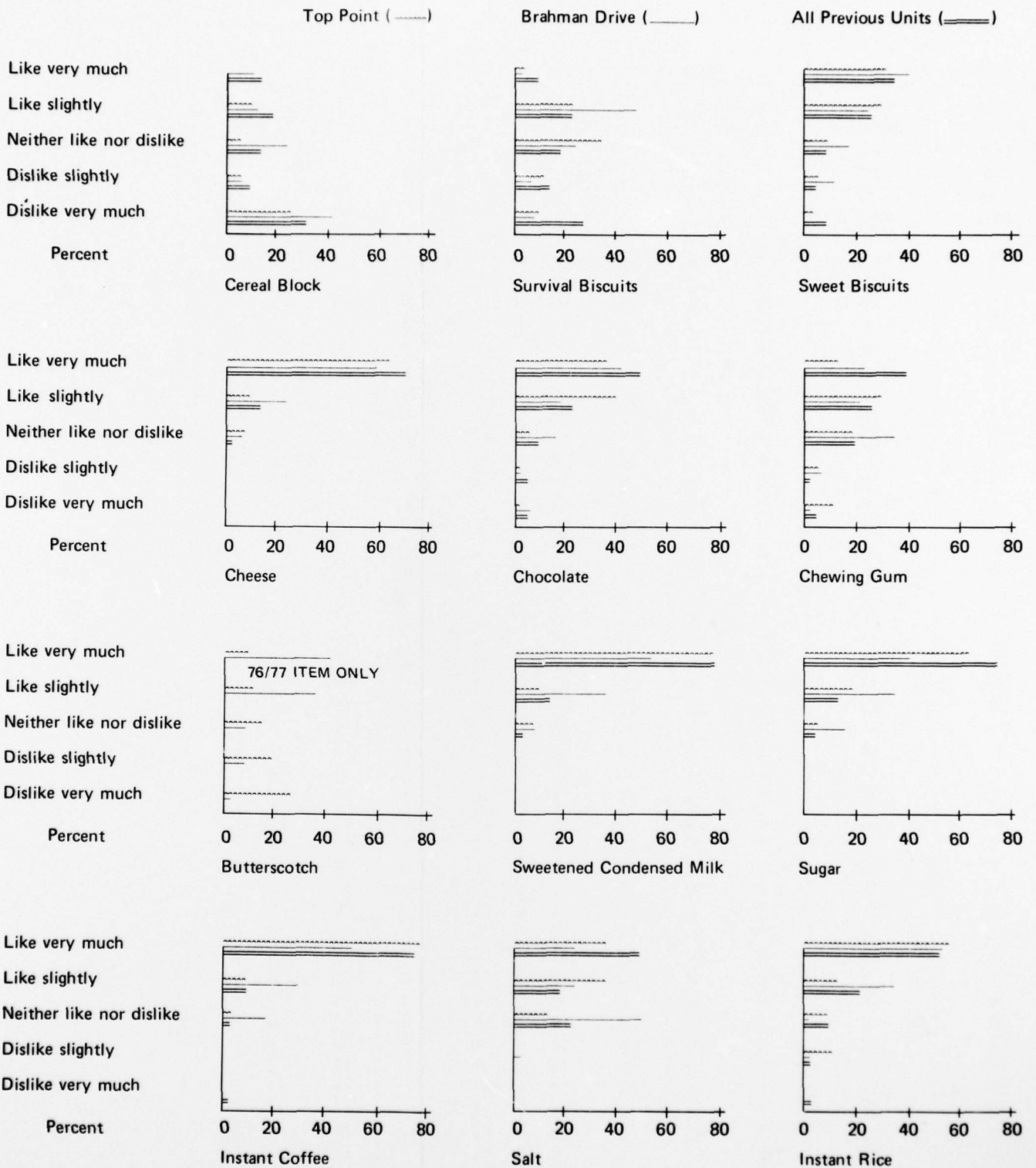
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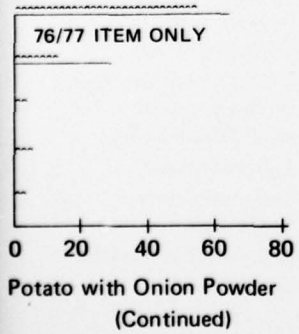
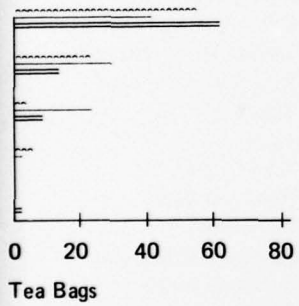
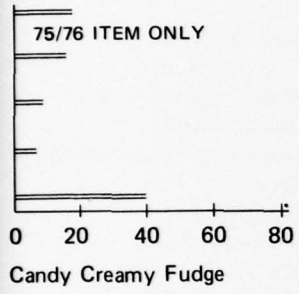
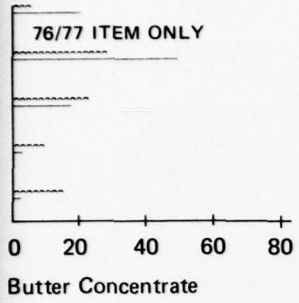
EXERCISE TOP POINT—SUMMARY: PERCENT DISCARD—COMPARISONS WITH PREVIOUS SURVEYS

Ration Packing Programme Exercises	75/76 All Other Exercises		76/77 Brahman Drive				76/77 Top Point			
	Average All Units	Average Battalions	5 Pl, B Coy 6 RAR		8 Pl, C Coy 8/9 RAR		3 Pl, A Coy 2/4 RAR		5 Pl, B Coy 2/4 RAR	
Sub-units										
Average Age	23.8	22.9	20.8		22.3		23.0		22.1	
Av Yrs Service	4.7	4.0	2.9		3.1		4.1		3.1	
Percent Married	41	31	25		32		27		24	
No of Subjects	2346	1398	20		22		22		21	
	Ques	Ques	Ques	Count	Ques	Count	Ques	Count	Ques	Count
Cereal Block	38	44	40	54	50	58	50	16	29	23
Survival Biscuits	22	27	40	41	9	48	18	0	24	23
Sweet Biscuits	8	8	0	14	0	15	27	2	5	2
Butter Concentrate	**	**	10	35	14	16	41	18	14	31
Cheese	2	3	5	5	0	3	0	0	0	0
Chocolate	7	9	10	7	14	16	9	1	10	1
Chewing Gum	14	17	10	45	18	41	18	10	19	10
Candy Creamy Fudge	36	39	**	**	**	**	**	18	**	35
Butterscotch	**	**	0	3	14	7	45	**	52	**
Sweetened Condensed Milk	2	2	0	5	0	13	5	2	0	0
Sugar	3	1	0	26	0	27	5	6	5	7
Tea Bags	9	9	0	19	9	10	5	11	0	8
Instant Coffee	4	3	0	19	5	9	5	14	5	1
Salt	7	6	5	35	0	25	9	10	19	20
Instant Rice	10	9	20	57	5	12	9	0	14	13
Potato with Onion Powder	**	**	5	5	0	5	18	0	10	0
Curry Powder	15	14	25	45	9	35	14	7	10	11
Orange Drink Powder	25	28	10	20	32	48	86	27	52	29
Lemon Drink Powder	25	30	10	15	32	36	86	41	52	57
Lime Drink Powder	25	30	5	20	32	41	82	32	52	62
Peaches	**	**	0	0	0	0	0	0	5	0
Pears	**	**	0	0	0	0	**	**	**	**
Two Fruits	**	**	0	0	0	0	0	0	5	0
Ham and Eggs	15	19	15	5	23	5	18	0	0	0
Plum Jam	11	12	0	25	5	14	5	5	14	10
Beef and Vegetables	2	2	5	0	0	0	0	0	0	0
Pork and Beans	6	8	0	0	9	0	14	0	0	0
Raspberry Jam	10	12	0	15	0	0	0	0	19	5
Corned Beef Hash	8	11	5	0	5	0	9	0	5	0
Camp Pie	11	14	15	10	18	15	9	0	10	0
Apricot Jam	12	14	0	30	0	27	0	0	14	14
Beef with Gravy	7	8	10	0	0	0	14	0	0	0
Sausages and Vegetables	8	11	0	0	0	0	14	0	5	0
Blackberry Jam	10	13	0	20	0	8	0	0	14	5
Beef Soup Powder	12	13	5	45	9	14	0	5	19	0
Luncheon Meat	14	18	25	10	18	0	14	0	14	0
Beef and Eggs	13	18	5	10	23	9	**	**	**	**
Peach Jam	13	15	0	25	0	32	**	**	**	**
Chicken Soup Powder	11	12	10	50	9	22	**	**	**	**
Corned Beef	16	21	15	15	18	5	**	**	**	**
Overall Average	13	15	8	19	10	16	19	7	15	11

FIGURE 1

ACCEPTABILITY COMPARISONS OF INDIVIDUAL COMPONENTS

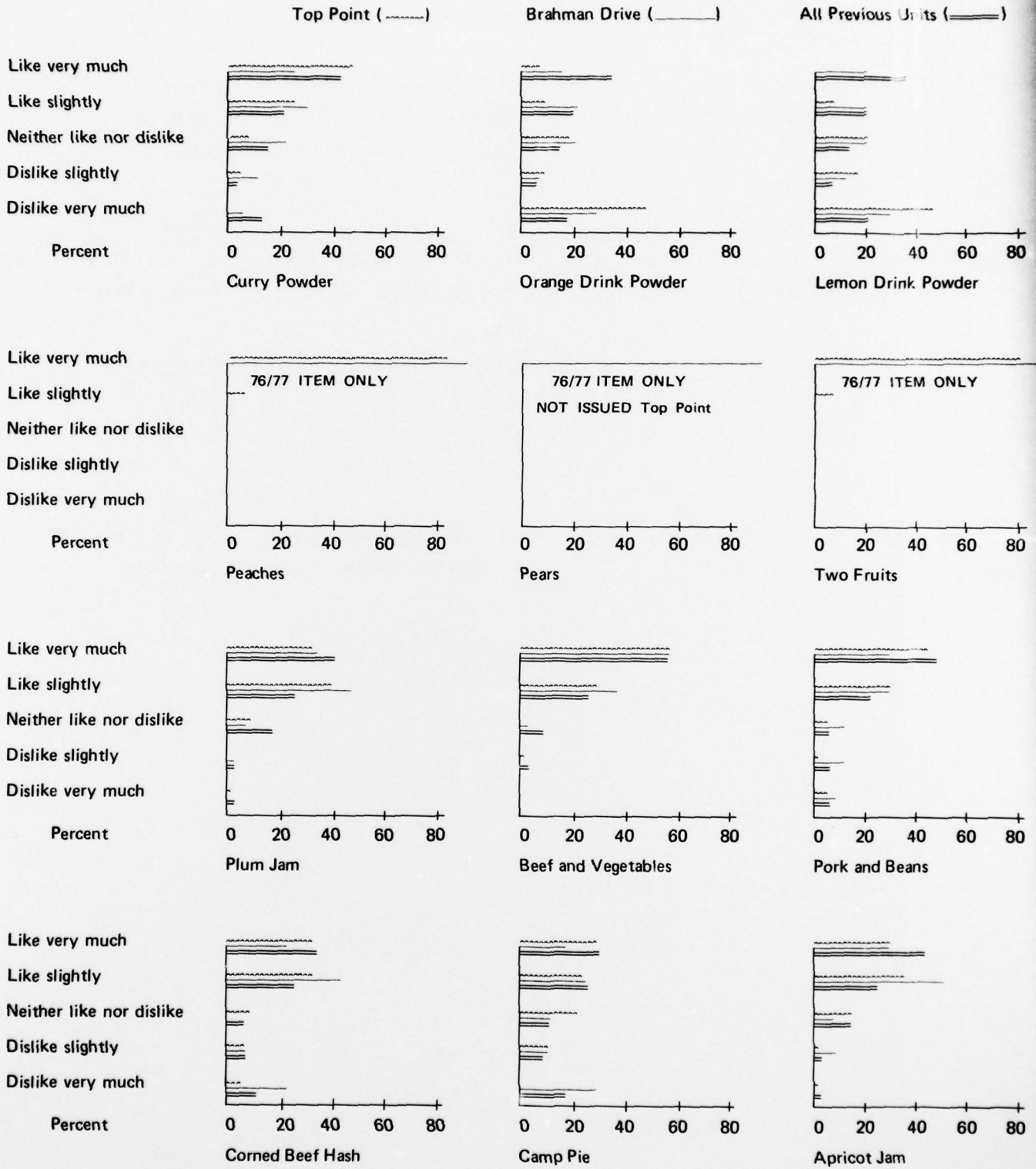


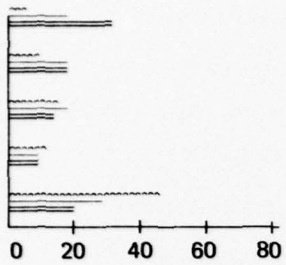


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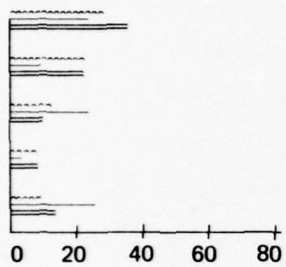
FIGURE 1 (Continued)

ACCEPTABILITY COMPARISONS OF INDIVIDUAL COMPONENTS

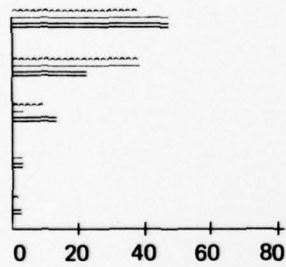




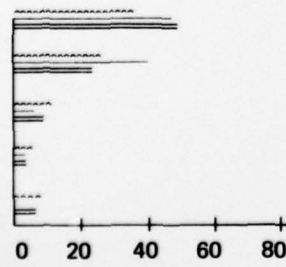
Lime Drink Powder



Ham and Eggs



Raspberry Jam

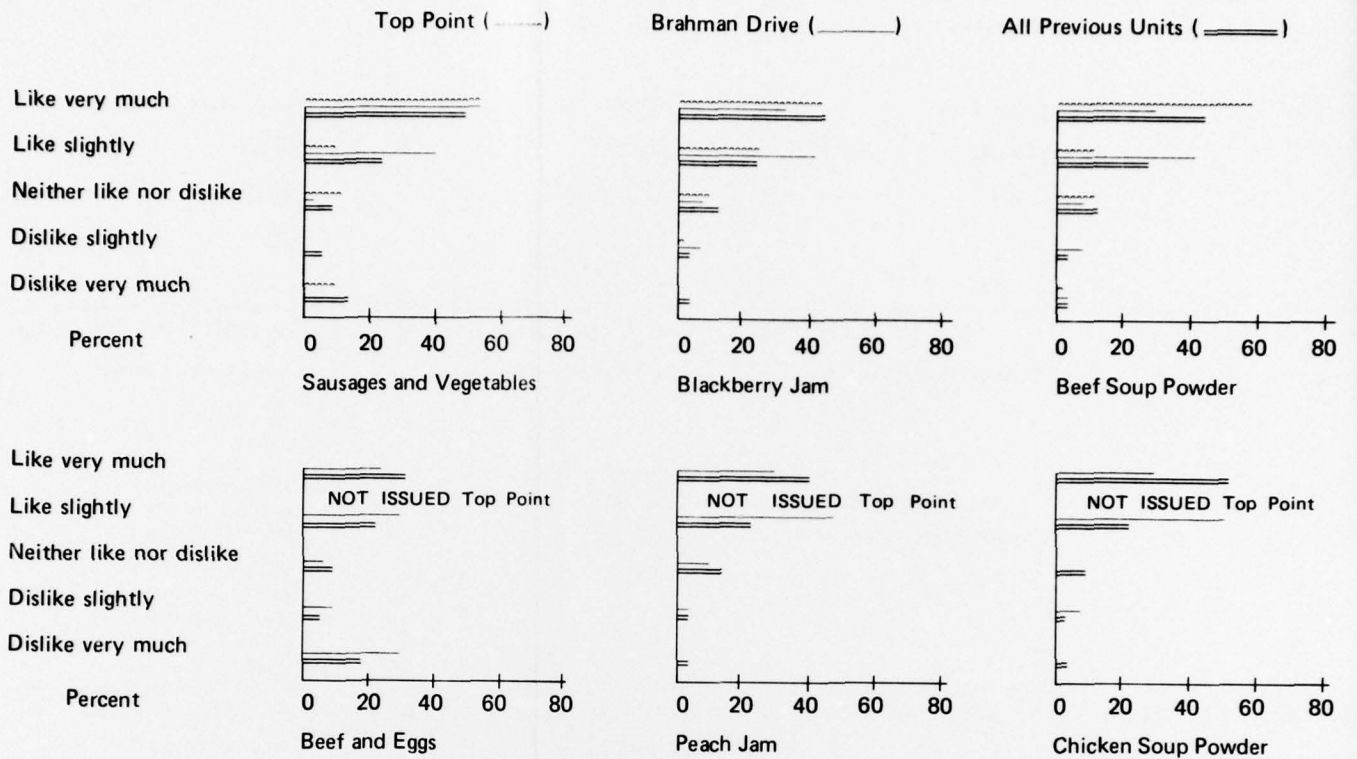


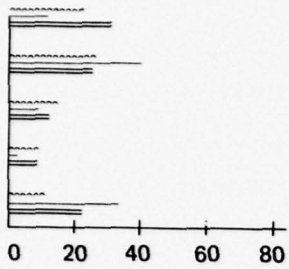
Beef with Gravy

(Continued)

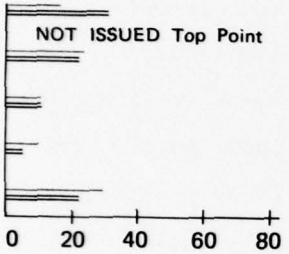
FIGURE 1 (Continued)

ACCEPTABILITY COMPARISONS OF INDIVIDUAL COMPONENTS





Luncheon Meat



Corned Beef

2





Exercise .....

Annex A

*Armed Forces Food Science Establishment  
Scottsdale, Tasmania*

**COMBAT RATION (ONE MAN)  
USER QUESTIONNAIRE**

1. As a consumer of the rations you are in the best position to advise us on any changes that should be made.
2. Please complete this questionnaire by recording your *honest* reactions.
3. All answers will be treated as confidential.

Name and Rank .....

Unit ..... Squadron ..... Regiment ..... Corps ..... ARA  
Company ..... ARes  
Battery

*(Delete words not applicable)*

Age .....

Married

Single

Years of Service .....



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