



Department of
Primary Industries and
Regional Development

Journal of the Department of Agriculture, Western Australia, Series 3

Volume 1
Number 5 *September-October, 1952*

Article 29

9-1952

Better dairying competition

H G. Elliott
Department of Agriculture

Follow this and additional works at: https://library.dpird.wa.gov.au/journal_agriculture3

 Part of the [Dairy Science Commons](#)

Recommended Citation

Elliott, H G. (1952) "Better dairying competition," *Journal of the Department of Agriculture, Western Australia, Series 3*: Vol. 1: No. 5, Article 29.

Available at: https://library.dpird.wa.gov.au/journal_agriculture3/vol1/iss5/29

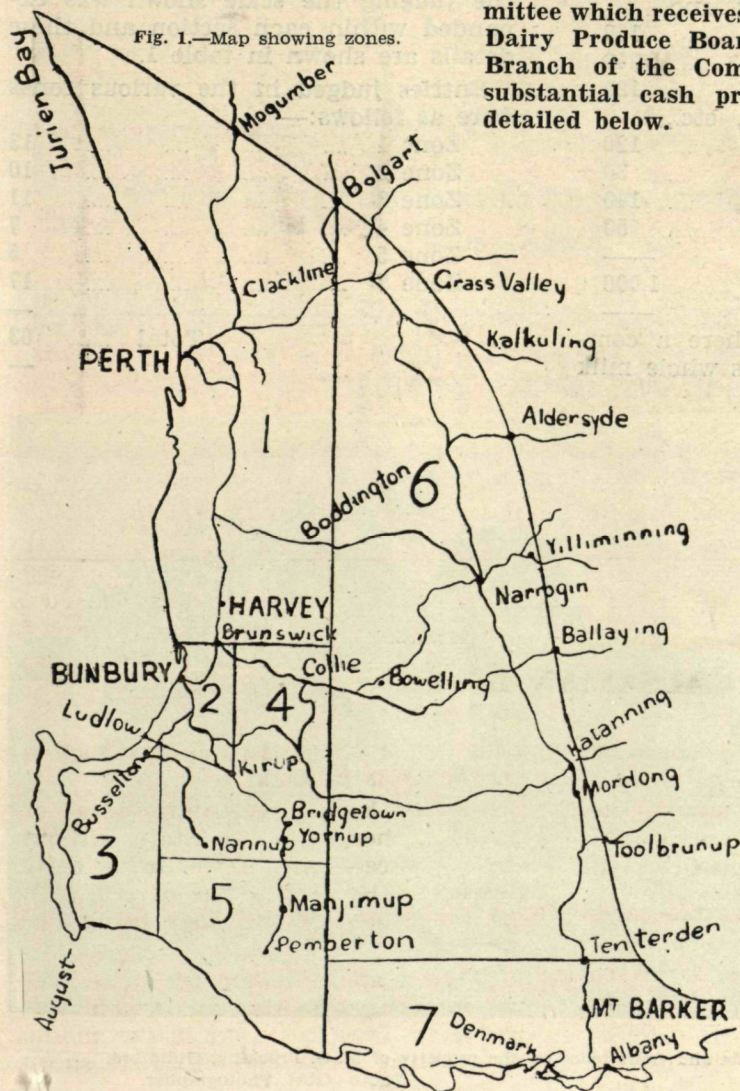
This article is brought to you for free and open access by the Agriculture at Digital Library. It has been accepted for inclusion in Journal of the Department of Agriculture, Western Australia, Series 3 by an authorized administrator of Digital Library. For more information, please contact library@dpird.wa.gov.au.

BETTER DAIRYING COMPETITION, 1951-1952

By H. G. ELLIOTT, Dip. Agric., Assistant Superintendent of Dairying

THE success of the Better Dairying Competitions in previous years prompted the Western Australian Pasture Improvement Committee of the Australian Dairy Produce Board to again sponsor a similar competition during 1951-1952. The committee which receives funds from the Australian Dairy Produce Board and the Rural Credits Branch of the Commonwealth Bank, offered substantial cash prizes in the six zones as detailed below.

Fig. 1.—Map showing zones.



The Dairy Branch of this Department gave full support to the project by obtaining entries from farmers for the competition as well as carrying out the judging.

For the purpose of the Competition the South-West Division of the State was divided into six zones only, this being one less than previously as Zone 6 was discontinued this year. These zones are shown in the accompanying map, namely:—

1. Coastal.
2. Bunbury-Donnybrook.
3. Busselton - Margaret River.
4. Bridgetown.
5. Manjimup-Northcliffe.
7. South Coastal.

Any dairy farmer in the zone which was previously known as Zone 6 could enter the competition but was included in to the zone nearest to his farm.

The prize money offered was the same as for the previous year and in each zone was as follows:—

1st prize—£20 and framed certificate.

2nd prize—£12.

3rd prize—£8.

4th prize—£6,

with a Championship Prize for the best farm in the competition, this to be in the form of a trophy to the value of £25.

The following scale of points was used in judging all zones:—

	Points.
Conservation of Fodder and Summer Crops	300
Pastures	240
Dairy Herd	120
Returns of Butter Fat, etc., per acre	120
Pigs	30
Farm Management	140
Utilisation of Skim Milk	50
	<hr/> 1,000 <hr/>

As in previous years where a competitor sold his produce as whole milk

no points were allocated for the utilisation of skim milk, but the points scored were adjusted to bring the competitor on to an equal footing with the producer of cream for the manufacture of butter.

As in the previous year an account was taken of the cost of purchased food-stuffs to adjust the actual production per acre. (Section 4.—Returns of Butterfat Per Acre.)

In order to ensure as much uniformity as possible between judges and to assist the judging the scale shown was expanded within each section and these details are shown in table 1.

Entries judged in the various zones were as follows:—

Zone 1	13
Zone 2	10
Zone 3	11
Zone 4	7
Zone 5	5
Zone 7	17
Total	<hr/> 63 <hr/>

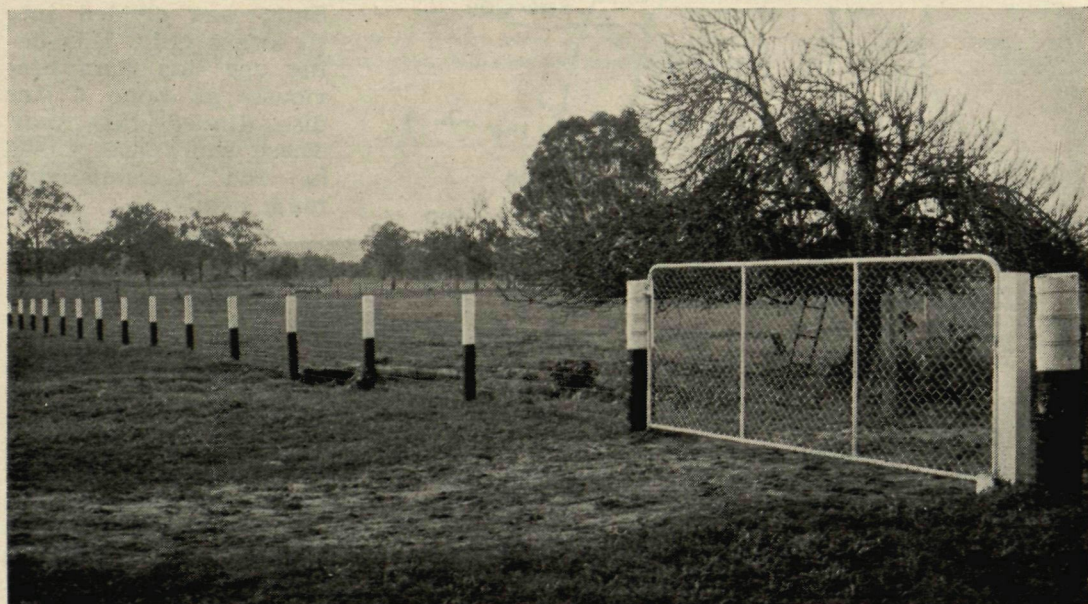


Fig. 2.—Neat entrance gate and front fence on the property of M. S. Brooking, Guildford.
Photo—Govt. Photographer.

This figure shows a reduction on the previous two years when 72 and 83 were judged, respectively. Judging in all zones was conducted in two periods, between October and January. It was necessary for the judge to visit each farm twice in order to fully appreciate annual pastures and fodder conservation, and perennial pastures and fodder crops.

Full details of points allotted to each competitor in zones are given in tables 1-6, respectively.

A handicap system operates each year on the winners of the previous season's competition and these handicaps are on the basis of—

First prize winner—deduct 15 points.
Second prize winner—deduct 10 points.
Third prize winner—deduct 5 points.
Fourth prize winner—deduct 1 point.

Press statements have been made as to the prize winners and these are also available from a perusal of tables 1 to 6, where full details of points scored by each competitor are set out.

JUDGES: K. NEEDHAM.

H. G. ELLIOTT.

TABLE 1.—BETTER DAIRYING COMPETITION, 1951-52—ZONE 1.

Details of Points Scored.

	Maximum.	M. S. Brooking.	A. Cunningham.	E. Webb.	C. W. Ward.	E. Rosher.	Marsh & Son.	T. O. Abbott.	J. Pailthorpe.	J. Murray.	F. W. Godecke.	B. Bloomfield.	A. McLoughlin.	A. Della-Franca.	D. C. Tannapalini.
1. <i>Conservation of Fodder—</i>															
(a) Hay	40	32	30	35	35	34	37	38	35	35	32	35	30	35	32
(b) Silage	20	18	10	15	16	17	17	17	17	17	17	15	15	18	16
(c) Summer Fodders	20	18	12	17	12	17	12	17	17	17	17	15	15	18	16
(d) Amount per cow	200	200	200	200	200	200	50	165	132	100	122	71	100	96	37
2. <i>Pastures.</i>															
(a) Density, etc.	140	93	90	110	102	95	115	83	98	88	50	65	60	60	70
(b) Management	100	82	65	75	80	77	75	61	64	63	40	55	50	42	51
3. <i>Dairy Herd.</i>															
(a) Production	75	63	66	41	30	49	38	51	36	39	42	42	37	34	45
(b) Condition and Type	25	25	25	23	25	25	25	25	25	24	25	25	23	20	21
(c) Disease	20	19	18	17	19	18	17	18	17	18	17	17	18	17	15
(d) Herd Sire (1)	20	19	19	8	17	15	18	19	18	19	17	17	17	17	15
(d) Herd Sire (2)	10	9	7	3	7	4	7	9	6	7	8	.....	.....	.....	.....
4. <i>Returns per Acre.</i>															
(a) Butterfat	100	66	68	57	40	55	52	59	45	30	42	41	57	41	51
(b) Sidelines	20	16	1	2	2	3	3	1	4	2	2	8	4	1	5
5. <i>Pigs.</i>															
(a) Breed, etc.	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	.....	.....	5
(b) Sows to cows	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	5
(c) Housing, etc.	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....	.....	5
6. <i>Farm Management.</i>															
(a) Layout	50	36	36	39	43	40	36	45	33	34	30	30	30	31	32
(b) Sanitation (1)	20	17	17	19	19	19	17	16	14	18	19	15	15	12	13
(b) Sanitation (2)	40	39	33	30	37	39	32	28	34	33	40	20	31	22	22
(c) Records	20	18	10	18	16	18	15	15	12	15	10	15	10	8	8
7. <i>Utilisation of Skim Milk.</i>	50	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	50	.....	.....	.....
TOTAL	1,000	802	707	710	698	709	538	632	588	526	516	538	480	437	426
Less Handicap—Whole Milk Adjustment	.....	802	739	737	735	731	566	665	619	554	543	538	505	460	448

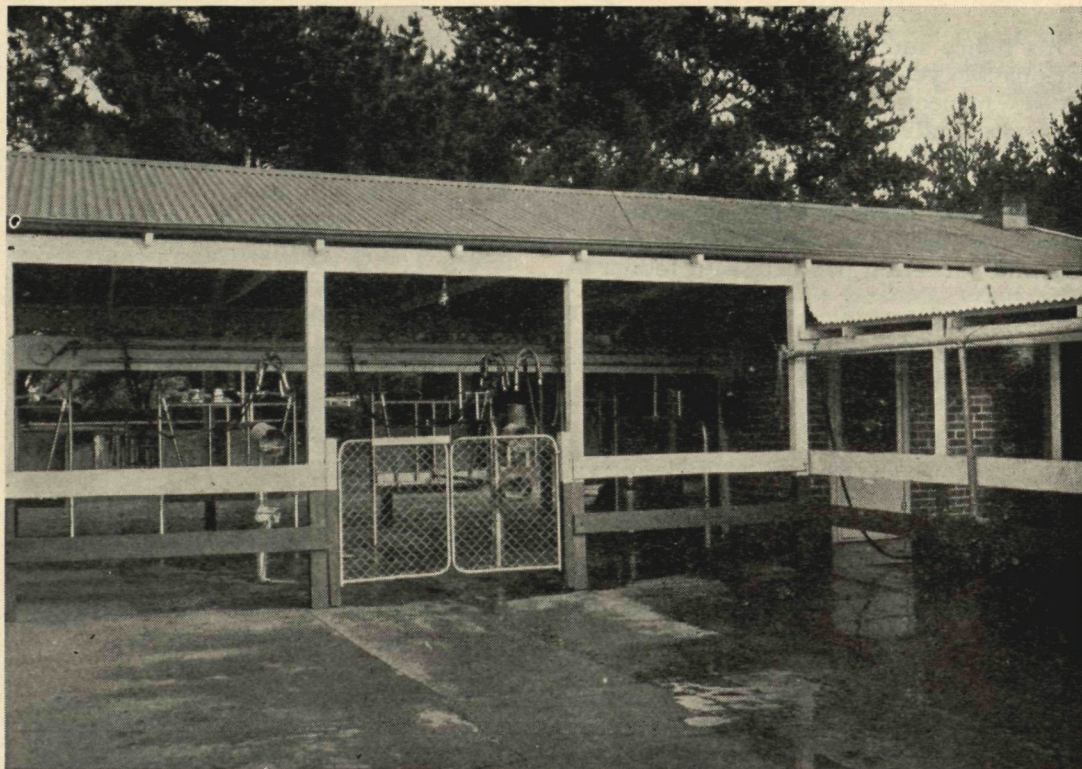


Fig. 3.—Rear view of milking-shed of the walk-through type open front and back.
(M. S. Brooking, Guildford)—Photo, Govt. Photographer

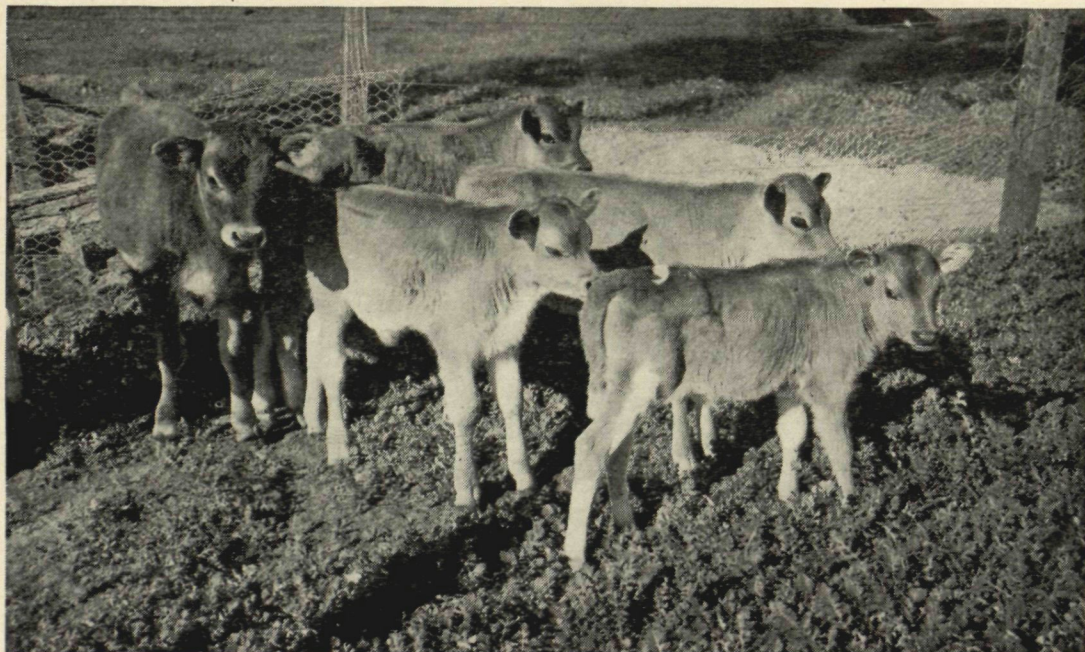


Fig. 4.—Some of M. S. Brooking's pure-bred Jersey calves.—Photo, Govt. Photographer

CHAMPIONSHIP WINNER

The State Championship Prize winner was selected from the zone winners by the Superintendent of Dairying (Mr. M. Cullity) and the chairman of the Australian Dairy Produce Board, Pasture Improvement Committee (Mr. R. H. Rose). Mr. M. S. Brooking, of Guildford, was placed first, followed by Messrs. A. and R. Poad, of Dardanup.

The following comments were made by the judges in connection with the Championship Prize:—

“Mr. Brooking has been farming a small property of 110 acres for three years only and the results achieved are extremely satisfactory. The approach to the farm, the farm buildings and general layout are attractive and the

whole property gives a pleasing demonstration of modern trends in dairy farming. A good system of lane-ways serves the paddocks and all fences are in excellent condition. The farm buildings are simple but convenient and very well kept. The milk shed is airy and is fitted with tubular bails and refrigeration. The shed is powered with electricity while a jeep provides facilities for cartage and traction of farm implements. The “Nunan” irrigation system has been installed, pumping water from the Helena River, power being supplied by an electric motor. In all, 20 acres are being irrigated, four acres being under pasture and the remainder under summer crops including lucerne. Electric fences are used with satisfactory results. Strip folding of lucerne has

JUDGE: A. SHARP.

TABLE 2.—BETTER DAIRYING COMPETITION, 1951-52—ZONE 2.

Details of Points Scored.

	Maximum.	A. & R. Poad.	B. W. Brett.	J. Jarvis.	R. C. Benson.	A. C. Frost.	M. A. Crute.	P. J. Edwards.	J. & R. Roberts.	Norton Bros.	G. Palmer.
1. <i>Conservation of Fodder.</i>											
(a) Hay	40	37	35	32	25	32	30	28	32	34	....
(b) Silage	20	20	....	....	....	....	....	....	....	....	....
(c) Summer Fodders	20	18	....	14	20	....	16	....	....	....	....
(d) Amount per cow	200	187	167	200	117	164	200	96	83	60	....
2. <i>Pastures.</i>											
(a) Density, etc.	140	105	115	109	110	108	77	119	102	90	125
(b) Management	100	80	85	80	85	80	70	85	80	80	88
3. <i>Dairy Herd.</i>											
(a) Production	75	37	45	43	43	34½	25½	40	31	32	39
(b) Condition and Type	25	23	22	21	24	21	20	22	20	22	21
(c) Disease	20	19	19	20	19	17	17	18	19	17	18
(d) Herd Sire (1)	20	19	18	....	19	18	19	19	9	18	19
(2)	10	....	....	....	3	7	9	6	1	5	....
4. <i>Returns per Acre.</i>											
(a) Butterfat	100	51	73	54	100	64	18	69	43	52	53
(b) Sidelines	20	9	12	9	7	10½	12	6	16	4	2
5. <i>Pigs.</i>											
(a) Breed, etc.	10	10	9	10	10	7	8	....	9	8	....
(b) Sows to Cows	10	7	8	8	5	5	2	....	10	2	....
(c) Housing, etc.	10	9	8	10	8	8	8	....	8	7	....
6. <i>Farm Management.</i>											
(a) Layout	50	36	45	30	40	40	30	40	36	35	48
(b) Sanitation (1)	20	20	18	18	18	15	17	18	16	15	20
(2)	40	40	30	40	39	30	35	30	25	30	33
(c) Records	20	20	16	20	18	17	20	14	18	18	16
7. <i>Utilisation of Skim Milk</i>	50	32	47	42	20	12	26	....	30	32	....
TOTAL	1,000	779	772	760	730	690	659½	610	588	561	482
Less Handicap .....	....	779	767	760	715	690	659½	609	588	561	482

E. C. (Joe) Hancock Tractor Works

159 LORD STREET, PERTH - - B2556

For

SOUND, ECONOMICAL DIESEL TRACTOR INVESTMENTS

FROM THE CONTINENT'S LEADING TRACTOR MANUFACTURER TO YOU, FROM STOCK

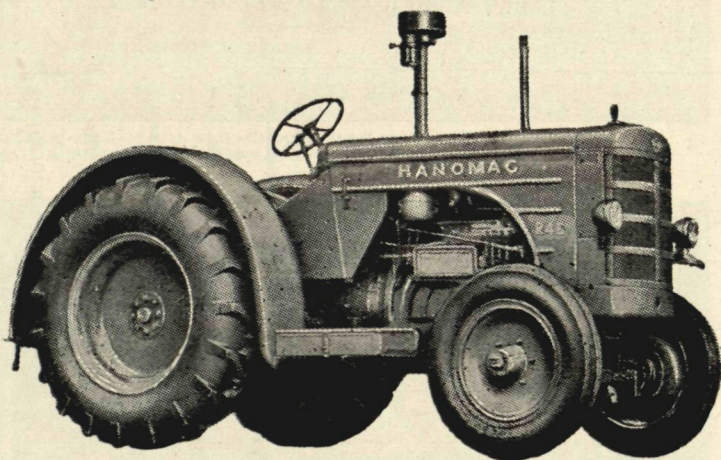
• HANOMAC DIESEL TRACTORS

Tractors that save you up to £300 a year on fuel costs alone

28 h.p. with Hydraulic Lift Three Point Hitch and 3 Big Implement Folding Harrows, Plough & Scarifier

40 h.p. The Supreme Power on The Land

45 h.p. Our Trump Card



H.S.C.S.

"The Steel Horse"

40 h.p. Max. Single Cylinder Crude Oil Tractor at the New Price Range
£1150 - complete

• **DEUTZ DIESEL TRACTORS**
50 h.p. and 35 h.p. for TOP EFFICIENCY IN TRACTOR DESIGN

proved an excellent method of rationing the stock and of preventing overgrazing of the plants. Drainage has been attended to wherever necessary.

"The herd is comprised mainly of pure-bred Jerseys which yielded an average 421 lb. of butterfat per head. The output per acre was 98 lb. of butterfat.

"An interesting feature of the operations of this farm was that despite the high yield, expenditure on concentrate feedstuffs was not excessive. It is Mr. Brooking's ambition to eliminate the purchase of fodder altogether and to rely completely on home grown feed supplies."

As in past competitions a wealth of valuable information was obtained by the judges during the course of the judging in this present competition, this information being of great value, not only to those farmers who competed, but also to dairy farmers in general. The farms entered in the competition may be slightly better than the general run of farms in the South-West, but from an analysis of the data, together with the judges' comments, a reasonable guide of the present position of the dairy industry in this State can be obtained, and by comparison of previous years' findings with this present year, some valuable indications of trends can be obtained.

JUDGE: P. TRAVERS-DRAPE.

TABLE 3.—BETTER DAIRYING COMPETITION, 1951-52—ZONE 3.

Details of Points Scored.

	Maximum.	J. Thompson.	H. S. Stuart.	W. D. Patmore.	C. Armstrong.	J. Oldfield.	W. Dempster.	H. Burge.	F. J. Oaks.	H. J. Carter.	A. Negus.	F. Waterson.
1. <i>Conservation of Fodder.</i>												
(a) Hay	40	28	27	31	30	29	34	28	30	27	20	....
(b) Silage	20	....	....	....	....	....	....	....	....	....	....	....
(c) Summer Fodders	20	....	....	....	....	....	....	15	16	13	....	....
(d) Amount per cow	200	200	104	200	179	200	148	122	62	108	125	....
2. <i>Pastures.</i>												
(a) Density	140	111	121	104	102	102	106	114	106	63	72	123
(b) Management	100	75	80	60	60	70	58	65	65	45	45	60
3. <i>Dairy Herd.</i>												
(a) Production	75	39	48	46½	39	39	37½	37½	42	30	31·5	34½
(b) Condition and Type	25	22	23	22	22	20	21	18	21	21	20	22½
(c) Freedom from Disease	20	19	19	18	19	16	18	18	18	18	17	18
(d) Herd Sire (1)	20	12	18	17	18	18	18	18	18	19	18	18
(2)	10	6	....	5	....	9	....	....	....	....	....	6½
4. <i>Returns per Acre.</i>												
(a) Butterfat	100	73	100	93·3	51½	66	81	92·2	56	73	63·7	70
(b) Sidelines	20	20	10½	15·3	12½	7	10	11	7	17	8	95
5. <i>Pigs.</i>												
(a) Breed, etc.	10	9	9	4	9	8	8	....	9	....	7	8
(b) Sows to Cows	10	10	10	....	8	2	8	....	8	....	5	8
(c) Housing, etc.	10	8	8	5	6	6	7	....	8	....	4	7
6. <i>Farm Management.</i>												
(a) Layout	50	36	48	34	40	45	36	47	42	40	32	40
(b) Sanitation (1)	20	15	19	14	19	18	15	19	18	17	16	16
(2)	40	25	32	25	35	30	25	38	30	30	25	35
(c) Book-keeping and Records	20	19	19	15	17	17	17	10	19	18	19	18
7. <i>Utilisation of Skim Milk</i>	50	50	50	32	50	23	50	....	32	42	44	50
TOTAL	1,000	777	746	741	717	725	698	637	607	581	572	544
Less Handicap .....	....	772	746	740	717	715	698	637	607	581	572	544

PRIMARY PRODUCERS!

Railway wagons are **YOUR ASSETS**

DON'T WASTE THEM



PROMPT LOADING and UNLOADING means quicker turnround of wagons.

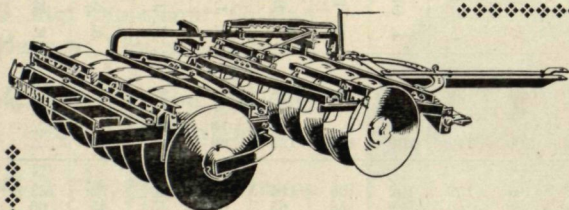
QUICKER TURNROUND means increased effective wagon loading capacity.

INCREASED CAPACITY means faster and better railway service for all.

BETTER SERVICE is our aim and **your** need. **YOU CAN HELP** yourself by helping Railways to keep the wagons moving.

- ★ USE Government Railways Insured Parcels and Cash on Delivery Parcels systems
- ★ ALSO, consign your goods at "Commission's Risk" and safeguard yourself

WESTERN AUSTRALIAN GOVERNMENT RAILWAYS



SUNMASTER

THE NEW SUNSHINE

OFFSET TANDEM DISC HARROW

FOR ORCHARD, VINEYARD, GRAIN AND GENERAL CULTIVATION

The **SUNMASTER** is made in four basic sizes, with patented extensions a full range of 10, 12, 14, 16, 18, 20, 22 and 24-disc sizes is provided

10 Disc cuts 3ft. 9in.

12 Disc cuts 4ft. 6in.

16 Disc cuts 6ft.

20 Disc cuts 7ft. 6in.

The **SUNMASTER** is scientifically designed, built better. It is strong and rigid, but comparatively light

For any further information, see your local Sunshine Agent, or write direct to

H. V. McKay Massey Harris Pty. Ltd.

Corner MURRAY & KING STREETS, PERTH

:: Warehouse: MAYLANDS

The following discussions and comments on the various sections tend to indicate such trends as occur, and to draw attention to the results being obtained by the more efficient farmers who entered the competition.

CONSERVATION OF FODDER

General.—In the allocation of points for this section full realisation was given to the need for adequate reserves and of the 1,000 points possible, 300 are allocated for fodders and conservation and 240 for pastures. That is 54 per cent. of the maximum points are for quantity and quality of feed produced and available to stock.

It is generally considered that to maintain stock in good condition and obtain efficient economical production from them under normal climatic conditions in W.A., supplementary feeding with hay, silage and summer fodder crops is necessary for from five to six months each year.

The competition allows for a maximum of points for fodder conservation if two and a half tons of hay or its equivalent as silage or summer grazing, and crops, is conserved per dairy cow.

For the purpose of computation three tons of silage or a summer crop is equivalent to one ton of hay.

JUDGE: C. D. SHARP.

TABLE 4.—BETTER DAIRYING COMPETITION, 1951-52—ZONE 4.

Details of Points Scored.

	Maximum.	S. C. Malmgren.	M. Brennan.	H. Dowerick.	H. Ellis.	J. Whitmore.	G. G. White.	S. Kelliher.
1. <i>Conservation of Fodder.</i>								
(a) Hay	40	35	29	27	27	26	35	27
(b) Silage	20	20	....	....	....	....	....	....
(c) Summer Fodders	20	....	....	....	....	....	....	....
(d) Amount per cow	200	200	104	200	150	147	80	115
2. <i>Pastures.</i>								
(a) Density, etc.	140	110	100	110	93	95	115	90
(b) Management	100	95	85	82	80	80	92	80
3. <i>Dairy Herd.</i>								
(a) Production per cow	75	37	43	28	36	38	32	13
(b) Condition and type	25	22	21	22	18	19	21	17
(c) Freedom from Disease	20	18	19	17	18	18	19	16
(d) Herd Sire (1)	20	20	18	20	17	18	18	17
(2)	10	10	10	10	10	....	8	9
4. <i>Returns per Acre.</i>								
(a) Butterfat	100	53	100	35	46	51	75	14
(b) Sidelines	20	14	20	18	10	3	3	20
5. <i>Pigs.</i>								
(a) Breed	10	7	....	....	7	7	....	5
(b) Sows to Cows	10	2	....	....	8	8	....	8
(c) Housing, etc.	10	7	....	....	6	6	....	5
6. <i>Farm Management.</i>								
(a) Layout	50	43	36	32	32	33	38	33
(b) Sanitation (1)	20	18	14	13	13	15	16	17
(2)	40	36	30	28	28	31	32	36
(c) Records	20	20	14	14	15	14	14	14
7. <i>Utilisation of Skim Milk</i>	50	24	33	16	24	22	31	28
TOTAL	1,000	791	676	672	638	631	629	564
<i>Less Handicap</i> .....	....	776	671	662	638	631	629	564

For Agricultural purposes.....For Land Clearing & Dam Sinking

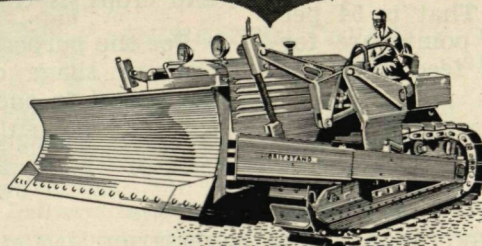
OLIVER

CRAWLER & WHEEL TRACTORS

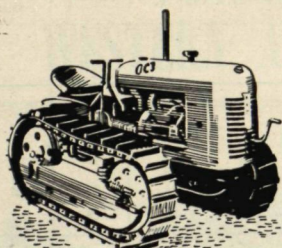
BRITSTAND

EARTH - MOVING EQUIPMENT

OLIVER Crawler "DDH" equipped "BRITSTAND" Hydraulic Trailbuilder The "DDH" is available with OLIVER Air Steering and has a maximum draw-bar h.p. of 61.19



Proved on Stations, Farms and Industrial Projects. . . OLIVER Crawler Tractors and BRITSTAND Earth-moving Equipment can make a great contribution to the development of your land and to the conservation of precious water.



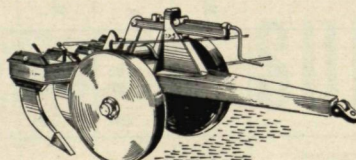
The OLIVER "OC3-42". A tough little tractor, for Market Gardeners, Potato Growers, Orchardists and Farmers. Maximum draw-bar h.p. of 21.85.

The complete range of OLIVER Crawler and Wheel Tractors:

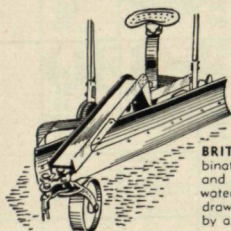
CRAWLER	Draw-bar H.P. (max.)
OLIVER "OC3-42"	21.85
OLIVER "AD"	30.5
OLIVER "BD & BDH"	38.05
OLIVER "DDH"	61.19
OLIVER "FDE"	110
WHEEL	
OLIVER "90"	42



The OLIVER "90". A powerful, reliable wheeled tractor for year round farming. Powered with a slow-revving KEROSENE Engine providing 42 h.p. (max.) at the draw-bar.

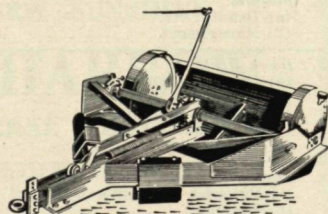


BRITSTAND R52A RIPPER for breaking up hard soils including gravel. Ripping rabbit warrens, etc. Does five times as much work as heavy plough. For use with crawler tractors of 25-40 draw-bar h.p.



BRITSTAND Grader Ditcher. A combination grader and ditcher. For Farm and Station road work. Preparing water catchment areas, etc. May be drawn with tractors or in light work by a motor truck.

BRITSTAND Rotary Fresno for dam-sinking and all classes of levelling and filling. Provides a cheap, fast method of moving dirt. Use with Crawler tractors of 25 draw-bar h.p. and over.



OLIVER

CRAWLER TRACTORS

BRITSTAND

EARTH - MOVING EQUIPMENT

SKIPPER BAILEY MOTOR CO. LTD.

431 MURRAY ST. PERTH...Phones B7174 & B6869.....14 PRINSEP ST. BUNBURY

Please mention the "Journal of Agriculture, W.A." when writing to advertisers

Journal of agriculture Vol. 1 1952

NEED FOR FODDER RESERVES

Most annual types of pastures have reached maturity by Christmas time and from these pastures the greatest bulk of feed is produced during the spring months, consequently it is necessary on those farms where irrigation is not practised, or summer moist land not available, to provide additional feed in the form of silage or summer fodders as a succulent ration. It is well recognised that many farmers outside the whole milk zone dry off their herds for a period during the late summer, and consider that by doing so they have overcome the need for fodder conservation. This assumption on the farmers' part is not correct, as all cows should be milked

through to a nine or ten months' lactation and to do this they can only continue in production if supplementary feeding is carried out during the dry months.

Allowances have to be made for dry and other stock on the farm. It is necessary to provide better than maintenance ration for all stock and, apart from that, a cow which has completed a lactation of nine to ten months and is due to calve again in two to three months needs more than a maintenance ration and should be well fed during the dry period in order to nourish the growing foetus and to replace her depleted body reserves. Most farmers realise that a cow should be forward in con-

JUDGE: J. T. McNALLY.

TABLE 5.—BETTER DAIRYING COMPETITION, 1951-52—ZONE 5.

Details of Points Scored.

	Maximum.	J. Bashford.	Della & Son.	J. C. Waugh.	E. G. Stephenson	M. Britza.
1. <i>Conservation of Fodder.</i>						
(a) Hay	40	31	26	36	25	17
(b) Silage	20	....	....	....	....	....
(c) Summer Fodders	20	....	....	....	15	....
(d) Amount per cow	200	200	200	200	103	23
2. <i>Pastures.</i>						
(a) Density	140	123	107	111	78	102
(b) Management	100	90	85	90	75	90
3. <i>Dairy Herd.</i>						
(a) Production	75	35	40	36	31	30
(b) Condition and Type	25	24	24	24	22	24
(c) Disease	20	20	18	20	20	20
(d) Herd Sire (1)	20	20	20	19	18	19
(2)	10	4	10	8	....	....
4. <i>Returns per Acre.</i>						
(a) Butterfat	100	89	83	48	34	50
(b) Sidelines	20	5	18	3	3	8
5. <i>Pigs.</i>						
(a) Breed, etc.	10	10	8	9	8	9
(b) Sows to Cows	10	9	2	2	....	9
(c) Housing, etc.	10	9	6	8	3	8
6. <i>Farm Management.</i>						
(a) Layout	50	45	30	45	42	45
(b) Sanitation (1)	20	19	17	19	18	19
(2)	40	35	25	38	37	35
(c) Records	20	20	20	20	14	20
7. <i>Utilisation of Skim Milk</i>	50	38	40	29	12	28
TOTAL	1,000	826	779	765	558	556
Less Handicap .....	....	811	774	765	557	556

dition during the period prior to calving so as to enable her to produce her maximum during the coming lactation.

TOTAL QUANTITY CONSERVED

Table 7 shows the average fodder conserved as hay, silage and summer crops according to each zone.

The average reserves per milking cow over all entrants in the six zones and comparisons with previous two years were—

	1949-50.	1950-51.	1951-52.
	Tons.	Tons.	Tons.
Hay	1.27	1.26	0.99
Silage	0.22	0.17	0.12
Summer Fodders	0.52	0.68	0.85
Hay Equivalent	1.52	1.54	1.33

The above figures show that for 1951-52 there was a severe decline in the tonnage of hay conserved per cow. This was probably due to the effects of the storms which occurred early in December when large tonnages of hay in the process of curing were damaged or totally ruined. With the conservation of silage, however, there is still a steady decline showing and this has been observed for the past four years. One pleasing feature, however, is the steady increase in the amount of summer fodders produced over the past three years.

Of the 63 competitors, 18 obtained maximum points for the amount of fodder conserved per cow. This compares favourably with the previous year when 16 out of 70 competitors gained maxi-

JUDGE: I. MILLER.

TABLE 6.—BETTER DAIRYING COMPETITION, 1952-52—ZONE 7.

Details of Points Scored.

	Maximum.	F. C. Smith.	F. Osborne.	S. Ravenhill.	W. Bradford.	W. Middleton.	R. Wilkinson.	J. & R. Wolfe.	C. May.	Farr Bros.	T. C. Cooper.	A. Anning.	F. Worsfold.	S. Lillford.	H. Shepherd.	J. J. Joyce.	L. Jordan.	B. J. Male.
1. <i>Conservation of Fodder.</i>																		
(a) Hay	40	37	30	30	20	30	18	32	27	26	...	34	25	32	29	...	20	...
(b) Silage	20	17	14	...	16	...	15	...	...	...	...	13	...	...	...	...	...	...
(c) Summer Fodders	20	17	...	...	14	14	...	10	14	...	...	...	14	16	...	14	...	...
(d) Amount per Cow	200	200	200	200	122	200	105½	190	170	106½	112	100	99	80	77	67	34½	...
2. <i>Pastures.</i>																		
(a) Density, etc.	140	110	86	86	82	81	98	61	83	100	82	71	56	82	72	55	63	54
(b) Management	100	90	61	76	79	81	84	58	69	90	66	65	56	61	69	58	56	54
3. <i>Dairy Herd.</i>																		
(a) Production	75	48	49	33	37½	19½	48	34	34½	36	36	37½	49½	34½	25½	33	33	22½
(b) Condition and type	25	22	22	23	25	22	24	21	21	23	23	22	22	22	22	22	23	21
(c) Disease	20	18	17	15	18	18	16	18	18	17	17	18	18	18	18	18	18	18
(d) Herd Sire (1)	20	17	16	15	17½	17	18	13	15	16	14	...	15	...	14	17	17	...
(2)	10	8	6	10	10	7	10	...	7	6	...	...	9	...	...	7	...	...
4. <i>Returns per Acre.</i>																		
(a) Butterfat	100	58	50	44	55	21	54½	48½	33½	37½	49½	63½	33	50	23	31	40	23½
(b) Sidelines	20	18	7	7½	10	3	8	10	2½	5	8	3	4	5	7	6½	3	3½
5. <i>Pigs.</i>																		
(a) Breed, etc.	10	9	8	8	8	7	8	6	8½	8	7½	8	7	8	6	7	7	...
(b) Sows to Cows	10	9½	10	10	10	6	10	...	1	5	8	2	6	6	6	2	5	...
(c) Housing, etc.	10	10	7	7	5	5	7	...	6½	6	6½	6	6	7	6	5	6	...
6. <i>Farm Management.</i>																		
(a) Layout	50	45	38	41	38	41	38	36	35	38	38	40	36	43	42	35	37	35
(b) Sanitation (1)	20	16	14	14	13	14	14	14	13	14	14	14	16	13	13	13	13	13
(2)	40	30	24	27	20	26	27	20	23	30	23	29	30	23	23	22	20	22
(c) Records	20	20	10	10	6	12	2	8	6	2	6	10	5	12	5	10	13	10
7. <i>Utilisation of Skim Milk.</i>	50	50	50	44	50	44	50	50	25	32	50	16	45	39	32	50	40	20
TOTAL	1,000	849½	719	714½	656	654½	655	634½	612½	598	560½	552	551½	551½	490½	465½	455½	296½
Less Handicap .....	...	834½	719	714½	656	654½	654	634½	612½	593	560½	552	551½	551½	490½	465½	455½	296½

mum points. All these farmers scored well in the other sections, particularly in production per cow and per acre.

The following farmers gained maximum points for conserved fodder and this indicated that the amount set of

2½ tons of hay or its equivalent is not excessive for in a number of cases this figure was exceeded. An example of this was the case of Mr. F. C. Smith, of Denmark, who conserved the equivalent of 3.38 tons of hay per cow.

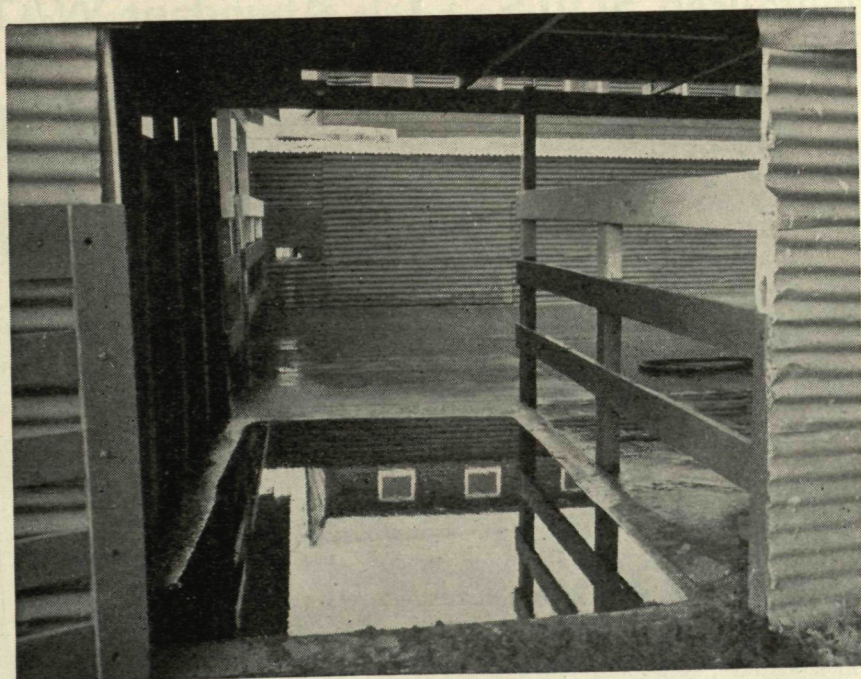


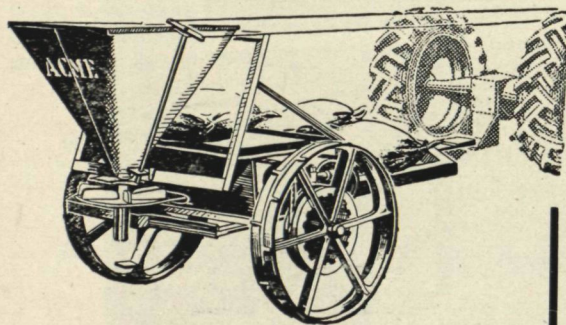
Fig. 5.—Footbath leading in to concrete holding yard. (M. S. Brooking, Guildford.)
Photo—Govt. Photographer.

TABLE 7.—FODDER RESERVES—COMPARISON OF ZONES AND WINNERS IN EACH ZONE.

	Total Cows.	Hay.	Silage.	Green Fodder.	Reserve per Cow.			Reserve per Cow. Calculated as hay.
					Hay.	Silage.	Green Fodder.	
1. <i>Coastal</i>	638	671	89	1,154½	1.05	0.14	1.81	1.70
M. S. Brooking	17.7	7	....	128	0.40	....	7.23	2.80
2. <i>Bunbury-Donnybrook</i>	370.5	306	22	246	0.82	0.06	0.66	1.07
A. & R. Poad	43	43	22	90	1.00	0.51	2.09	1.86
3. <i>Busselton-Margaret River</i>	456	517	....	231	1.13	....	0.51	1.30
J. Thompson	38.5	395	....	....	1.03	....	....	1.03
4. <i>Bridgetown</i>	267	380	90	....	1.42	0.34	....	1.53
S. C. Maidment	45	73	90	....	1.62	2.00	....	2.29
5. <i>Manjimup-Northcliffe</i>	173	176	....	72	1.02	....	0.41	1.16
J. Bashford	43	61	....	....	1.42	....	....	1.42
7. <i>South Coastal</i>	489.5	328	194	316	0.65	0.39	0.62	1.02
F. C. Smith	35.8	60	100	80	0.67	2.79	2.23	3.38
	2,394	2,378	395	2,019½	0.99	0.12	0.85	1.33

ESSENTIAL for bigger returns

Revitalised SOILS



"ACME" GEARLESS BROADCASTERS

For use with tractor or utility truck . . . spreads lime, manure, seeds and works satisfactorily at up to 8 miles an hour.

Special features:—

No packing or collecting on pulley.
Low centre of gravity makes the "ACME" especially suitable for hilly country.

30 to 40 ft. coverage and low spreading to ground.

Ball and roller bearings assure lighter draught.

Platform for bags of super, etc.

"LEEWIN" horse-drawn Broadcasters also available

Abundant WATER

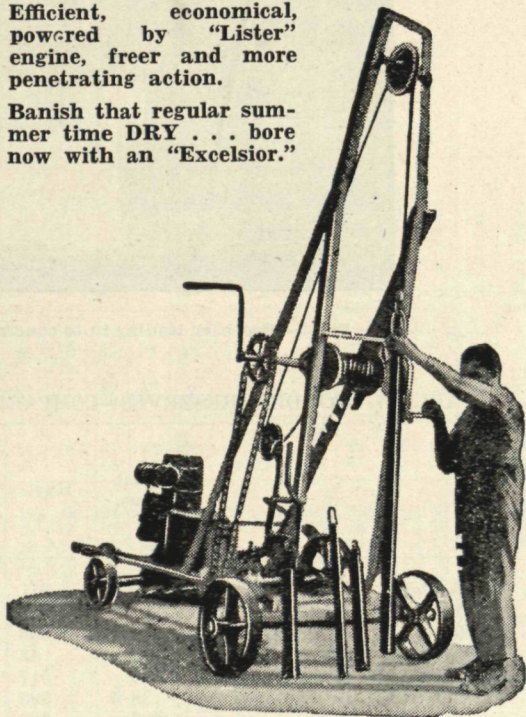
EXCELSIOR WATER BORERS

Test down to 200 ft.

Tap the enormous underflow and be FREE from water shortage—hundreds of "Excelsior" Water Borers have located abundant water.

Efficient, economical,
powered by "Lister"
engine, freer and more
penetrating action.

Banish that regular summer time DRY . . . bore now with an "Excelsior."



★ **MALLOCH** ★
BROS. LTD.
50-54 WILLIAM ST. PERTH

Zone 1.—M. S. Brooking, of Guildford; A. Cunningham, of Armadale; E. Rosher, Bassendean; C. W. Ward, Waroona; E. Webb, Cookernup.

Zone 2.—J. Jarvis, Donnybrook; M. A. Crute, Lowden.

Zone 3.—J. Thomson, Bramley; W. D. Patmore, Warner Glen; J. Oldfield, Forest Grove.

Zone 4.—S. C. Maidment, Balingup; H. R. Dowerick, Balingup.

of the hay conserved showed the effect of weathering and in some cases moulding and blackening had occurred. The adverse conditions tended to lower the amount conserved as much of the cut material was never harvested.

It was noticeable that the trend towards greater mechanisation is still progressing and in this competition, 62 per cent., or 39 competitors, completely baled their hay.



Fig. 6.—Winter growth of lucerne. This is under sprinkler irrigation during the summer. (M. S. Brooking, Guildford.)

Photo—Govt. Photographer.

Zone 5.—D. Della & Sons, Eastbrook; J. C. Waugh, Manjimup.

Zone 7.—F. C. Smith, Denmark; F. Osborne, Denmark; E. Ravenhill, Tingle-dale; R. Wilkinson, Albany.

Hay.—Generally the quality of the hay conserved this year was not up to the standard of the previous two years, this being due to the adverse weather conditions which occurred in early December when the bulk of the hay was still being made. Quite a large quantity

Silage.—Conservation of silage again showed a decline on the previous year's low figure, being 0.12 tons per cow. Ten competitors, the same number as last year, conserved silage but only in comparatively small amounts. The shortage of labour and suitable machinery may be one of the major factors responsible for the small amounts made. The buck-rake, a comparatively new innovation, was used on Mr. S. C. Maidment's farm for the purpose of reducing

There is only one—

ELECTROLUX

KEROSENE OPERATED REFRIGERATOR

The Refrigerator with the precision built freezing unit that is guaranteed for five years

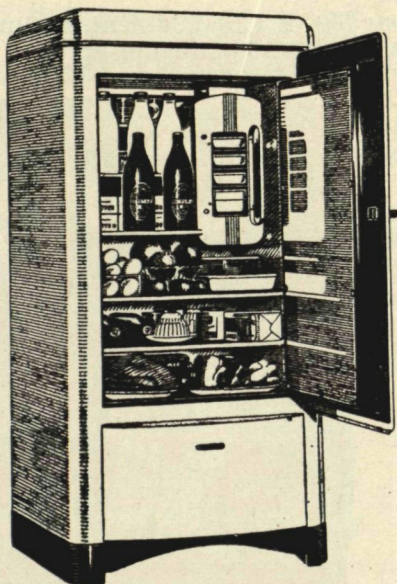
Available For Prompt Delivery

With the new factory in full production and better interstate shipping facilities, supply has at last caught up with demand. Be wise and take advantage of the situation . . . Get your Electrolux NOW!

Cash Price £119/15/0

F.T.R. FREMANTLE

TERMS MAY BE ARRANGED



QUALITY . . . Identified by the Electrolux name that is accepted throughout the world as the standard by which other household refrigerators are judged.

The miracle of cold from a little heat is achieved by Electrolux without any moving parts in the freezing unit.

- ★ Glistening interior of white porcelain.
- ★ Ivory exterior in gleaming oven-baked enamel, BONDERSISED for rust protection.
- ★ Grid-type food shelves.
- ★ Large freezing section for ice cubes, ice cream and desserts.
- ★ Concealed Kerosene equipment.
- ★ Sealed insulation.
- ★ Ice cream and frozen desserts made the Electrolux way with the new Recipe Book.
- ★ Beautiful stream-lined cabinet, hygienic and convenient, with ample room for everything.

Elder, Smith & Co., Limited

DISTRIBUTORS

manual labour when making silage. This implement will play a much more important part in the stimulating of silage making in the next few years as it reduces the man labour required for making this valuable fodder which ably contributes to maintaining milk production during the summer and early autumn months when most pastures are dry.

Silage, which is generally made from pastures, is a fodder which can be conserved earlier in the season than hay and under weather conditions not satisfactory for hay-making. As a general rule most of the same equipment and labour as for hay can be used to make it. Taking the above points into consideration it must be recognised that there is a reduction in the annual overhead on this class of machinery as well as the permitting a longer season for the conservation of fodder on the farm.

SUMMER FODDER CROPS

Summer fodder crops showed an increase in production over the previous year, being 0.85 tons per cow. Of the 63 competitors, 22 grew fodder crops of some kind, and the figure of 0.85 tons per cow is the highest over the last four years of the competition. This does to some degree make up for the low conservation of silage.

The table below gives the area of green fodder sown in each zone and the acreage produced per cow. Once again Zone 1 was the only zone in which the summer fodder crops reached a satisfactory level, which indicates that the farmers in the area, who are mainly whole milk producers, realise that this type of crop is important for the production of summer milk. Seven of the 14 competitors in Zone 1 grew summer fodder crops and of the remainder three conserved silage.

TABLE 8.—ACREAGE OF GREEN FODDER PER COW.

Zone.				No. of Cows.	Summer Fodder (acres)	Acres sown per cow.
1	....	....	....	638	118	0.185
2	....	....	....	370.5	29	0.078
3	....	....	....	456	32	0.070
4	....	....	....	267	....	....
5	....	....	....	173	20	0.116
7	....	....	....	489.5	19	0.039
				2,394	218	0.091

TABLE 9.—KIND AND AREAS OF GREEN FEED.

Kind of Feed.	ZONE.						TOTAL.
	1	2	3	4	5	7	
Maize	61½	1	20	....	....	13	40½
Sudan	60	9	6	....	19	....	94
Millet	33	19	3	....	1	¼	56½
Lucerne	10	....	....	....	....	5	15
Melons, etc.	2½	....	....	....	....	¾	3½
Saccholine	5½	....	3	....	....	....	8½
Elephant Grass	½	....	....	....	....	....	½
	118	29	32	....	20	19	218

For a glorious all Summer display of flowers you
should plant—

ZINNIAS

We offer you our Giant
Dahlia, flowered type,
priced at 1/- Pkt.

$\frac{1}{2}$ oz. 4/- 1 oz. 7/6

All other flower seeds for spring
sowing are now available

SEEDLINGS READY
EARLY OCTOBER

WILSON & JOHNS
PTY. LTD.

74 Barrack Street — Perth
102 High Street — Fremantle



SOLE DISTRIBUTORS, W.A.: COVENTRY MOTOR REPLACEMENTS PTY. LTD.

Please mention the "Journal of Agriculture, W.A.," when writing to advertisers

The three principal green crops grown are Sudan Grass, Japanese Millet and Maize, in that order. Grazing crops such as Sudan Grass and Millet totalled 150½ acres of the total of 218 acres of green crops sown.

Much greater attention could be given to the growing of summer fodder crops as on the average dairy farm in the South-West there is some land on which these types of crops can be grown successfully. Sudan Grass and Japanese Millet are relatively easy to grow and can be used successfully for cutting or grazing.

PASTURES

General.—The major constituent of the annual pastures in all zones is the Midseason variety of Subterranean Clover. The associated species consist of annual grasses and clovers of little value. However, introduced grasses

such as Wimmera and Perennial Ryegrasses are becoming more noticeable in the pastures, while other perennial species such as *Phalaris tuberosa*, Kikuyu and Couch grasses are playing a more prominent part than previously to produce a larger green grazing period.

On summer moist or irrigated lands, species such as White, Strawberry and Red Clovers in association with Perennial Ryegrass, *Paspalum* and Cocksfoot play an important part in pasture production.

Although despised by some farmers, Kikuyu Grass is gradually being recognised by many as a valuable grazing species, giving better early and late feed, and associating well with a clover such as Subterranean. This grass will increase the carrying capacity of dairy farms if well renovated and fertilised.

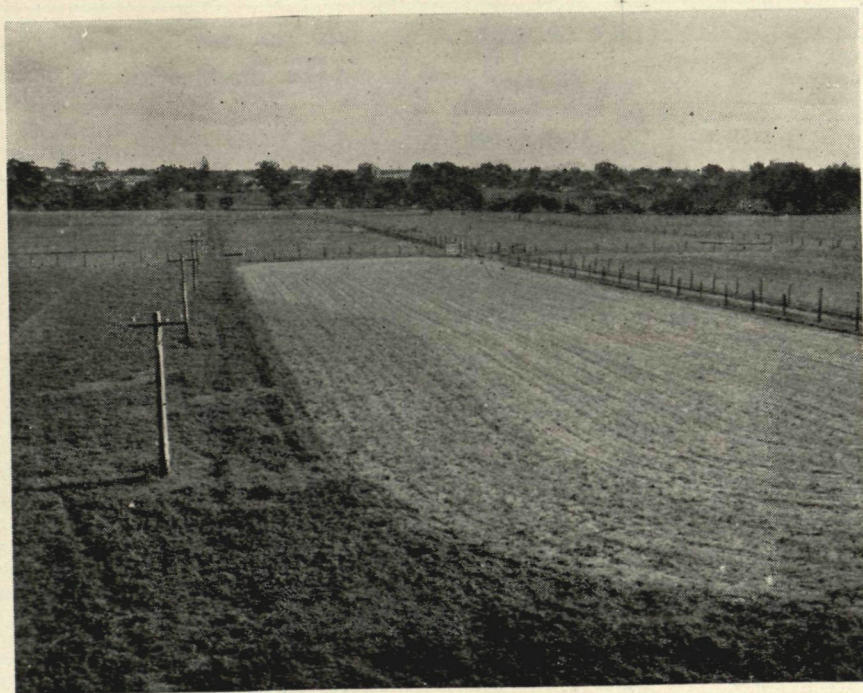


Fig. 7.—View showing irrigation paddocks, layout and race.
(M. S. Brooking, Guildford.)

Photo—Govt. Photographer.

The general management of pastures is still far from perfect, insufficient attention being given to crop rotation, renovation and controlled grazing. Pasture harrowing in the early winter months to break up cow pats and aerate the soil is not practised sufficiently by farmers generally.

The fertiliser practice of competitors is very close to that recommended by the Department, as the average rate of superphosphate applied per acre is in the vicinity of one bag per annum and in most cases this is all applied in the early autumn. In those areas where

CARRYING CAPACITY

TABLE 10.—ACRES UTILISED PER MILCH COW.

Zone.	Average Number of Cows in Herd.						
	1951-52	1950-51	1949-50	1948-49	1935-36	1934-35	1933-34
1	46	56	51	51	36	41	36
2	37	35	33	34	56	29	36
3	41	41	31	33	22	23	21
4	38	32	31	36	32	22	26
5	34	38	28	43	24	21	22
7	29	26	24	26	....	20	18
Average	37.5	37.7	34.3	37.0	33.5	27.7	26.3

Zone.	Acres devoted to Dairying.						
	1951-52	1950-51	1949-50	1948-49	1935-36	1934-35	1933-34
1	158	259	234	212	172	89	124
2	155	154	136	140	213	118	245
3	184	184	154	146	100	93	91
4	183	195	157	194	154	125	134
5	129	152	133	125	86	77	85
7	152	111	105	122	....	89	55
Average	161	174.2	159.0	163.5	144.1	118.6	126.7

Zone.	Acres per Cow.						
	1951-52	1950-51	1949-50	1948-49	1935-36	1934-35	1933-34
1	3.4	4.6	4.6	4.1	4.7	4.5	3.6
2	4.2	4.4	4.1	4.1	3.8	3.8	6.8
3	4.1	4.5	5.0	4.3	4.5	4.0	6.8
4	4.8	6.0	5.0	5.3	4.8	5.4	5.3
5	3.8	4.0	4.7	3.1	3.6	3.6	4.2
7	5.3	4.2	4.4	4.7	....	4.4	3.0
Average	4.3	4.6	4.6	4.4	4.3	4.1	4.7

deficiencies occur the farmers are applying these shortages as and when required and recommended.

Table 10 shows the acres utilised per milch cow in each of the zones for all years in which competitions have been held. From these figures it will be seen that there is very little variation in the acres utilised per milch cow over the last four years.

Data collected from all farms shows the number of various classes of stock as below—

	1951-52.	1950-51.
Cows (milking or dry)	2,394	2,770
Yearlings:		
(1) Heifers	808	1,025
(2) Others	222	89
Calves:		
(1) Heifers	914	848
(2) Others	375	229
Bulls	95	90
Horses	121	149
	<u>4,929</u>	<u>5,200</u>

Table 10 gives the carrying capacity as 4.3 acres per cow, whilst the figures given above show the carrying capacity as 2.06 acres per head of all classes of stock. The figures for the previous three competitions was 2.3.

DAIRY HERDS AND PRODUCTION

Production per Cow.—Maximum points (75) were allotted to herds averaging 500 lb. butter fat per annum with a lesser number of points according to a prepared scale and furnished to the judges for herds with lower productions.

TABLE 11.—AVERAGE YIELD PER COW.

Year.	No. of Cows.	Average Yield per Cow Butterfat (lb.)
1951-52	2,394	247.5
1950-51	2,639	235.5
1949-50	2,748	237.6
1948-49	1,964	232.9
1935-36	2,109	212.0
1934-35	1,550	192.7
1933-34	1,663	208.8
1932-33	1,531	201.5

In the above table (11) the average yield per cow over all entrants is the highest on record, being 12.0 lb. higher than last year and 9.9 lb. higher than 1949-50 year, which was the record. This is a very satisfactory feature and does indicate an improvement in management and herd quality. The number of cows, however, was slightly lower than the previous two years.

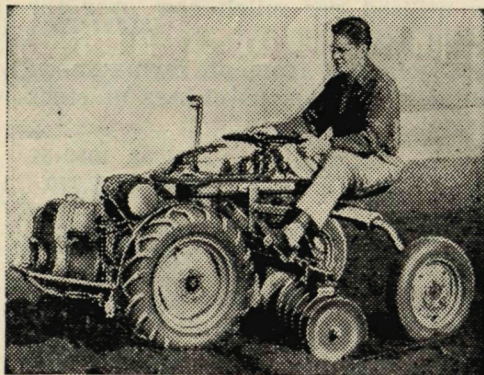
TABLE 12.—AVERAGE PRODUCTION PER COW IN EACH ZONE TOGETHER WITH THAT OF THE HIGHEST PRODUCING HERD.

	1951-52.			Average Butterfat per Cow.		
	Total No. of Cows.	Average per Head.	Average butterfat per Cow.	1950-51.	1949-50.	1948-49.
1. Coastal	638	45.6	281.2	267.0	238.2	270.0
Cunningham, A.		55.7	439.0			
2. Bunbury-Donnybrook	370.5	37	246.1	237.0	244.1	203.8
Brett, B.W.H.		40	305.0			
3. Busselton-Margaret River	456	41.4	243.4	200.4	241.7	235.8
		23	315.9			
4. Bridgetown	267	38	207.1	214.7	231.8	220.8
Brennan, M.		32	289.0			
5. Manjimup-Northcliffe	173	34.6	230.1	198.6	244.3	214.3
Della, D. & Son		34	272.0			
7. South Coastal	489.5	28.8	240.5	259.5	237.6	214.0
Worsfold, F.		25.5	329			
	<u>2,394</u>	<u>37.4</u>	<u>247.5</u>	<u>235.5</u>	<u>237.6</u>	<u>232.9</u>

Introducing to W.A. . . . The amazing new

"Ridemaster" gives you garden tractor economy with field tractor performance

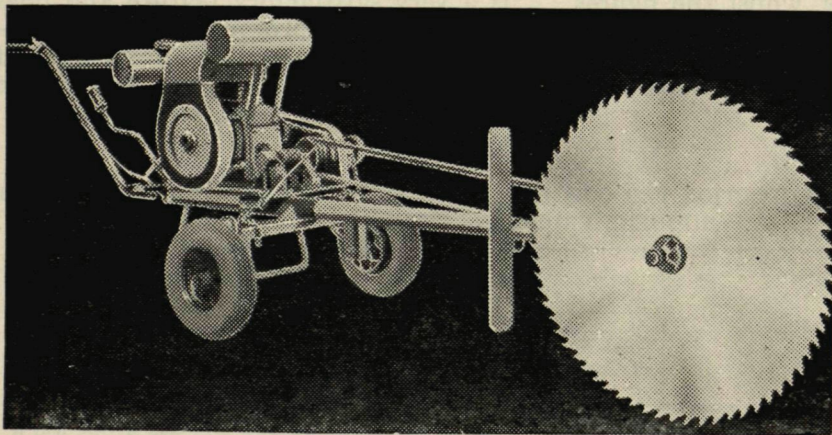
RIDEMASTER



It's the latest development in modern power equipment for plowing, harrowing, seeding and cultivating—doing it easier, faster and better than ever before. With the 5 h.p. Ridemaster you ride sulky style, close to the ground and just above the implements with an unobstructed view of the work, making exact tool adjustments easy as you go. "Ridemaster" is the tractor for YOU.

Get full details from:—

BARROW LINTON & CO. 763 WELLINGTON ST., PERTH
B 6285 - B 8726 - B 8389



THE "TREE CLEARER"

Portable Circular Saw

is safe . . . easy to move . . . powerful

When choosing a Portable Circular Saw, bear in mind that the "Tree Clearer" has an easily-operated plate-clutch for control of saw blades; self-propelling equipment fitted as standard; a high-class British Douglas engine with power in reserve for fast cutting; and every machine carries a guarantee

Attachments

make a still more valuable asset of the "Tree Clearer" Portable Circular Saw. Sliding Table Sawbench as well as Post Hole Digger and Boring attachments are available if required

* *

Obtain a free
Illustrated
Brochure
from

**THE TREE-CLEARING
MACHINERY
CO.**

331 MURRAY ST.,
PERTH

Table 12 gives the average production per cow together with that of the highest producing (individual) herd in each zone.

Once again Mr. A. Cunningham, Armadale, in Zone 1, returned the highest yield per cow. This herd consists mainly of Friesians of which many are pure-bred animals. The milk produced is used principally for the purpose of the whole milk trade and the cows are maintained on a high level of nutrition. Mr. Cunningham received full points for fodder conservation as he con-

more than 275 lb. of fat per cow in order of merit.

In this competition, of the 16 herds with 275 lb. and over, for the first time two herds produced an average of over 400 lb. while eight produced from 300-400 lb.

It will be noticed that Mr. A. Cunningham's herd topped the list with 439 lb. and was closely followed by Mr. M. S. Brooking's herd with 421 lb. butterfat per cow with the next highest-producing herd being that of Mr. T. Abbott, of Coolup, with 336 lb.

TABLE 13.—HERDS PRODUCING MORE THAN 275 LB. BUTTERFAT PER COW 1951-52.

Owner.	Zone.	No. of Cows in herd.	Breed.	Production of butterfat per cow.
Cunningham, A. W.	1	55.7	Friesian	439
Brooking, M. S.	1	17.7	Jersey	421
Abbott, T.	1	28	Jersey	336
Worsfold, F.	7	25.5	Guernsey	329
Rosher, E.	1	69	Mixed	325
Smith, F. C.	7	35.8	Jersey	323.6
Middleton, W.	7	21.9	Jersey	319.4
Stuart, H. S.	3	23	Jersey	315.9
Patmore, W. D.	3	30	Guernsey	308.4
Brett, B. W. H.	2	40	Jersey	305
Tampolini, M.	1	55	Mixed	296
Brennan, M.	4	32	JerseyxGuernsey	289
Benson, R. C.	2	34	Jersey	286
Jarvis, J.	2	18	Jersey	286
Blomfield, B. G.	1	26.5	Guernsey	277
Oates, F. J.	3	55	A.I.S.	275

served the equivalent of 2.7 tons of hay per milking cow.

Another high-yielding herd was that of Mr. M. S. Brooking, of Guildford, in Zone 1. This herd consists of pure-bred Jerseys which produced an average of 421 lb. of butterfat per cow, the produce being used for the table cream trade. This herd was also well provided for in the way of pastures, summer fodders and hay, together with a small area of lucerne used for both cutting and grazing.

Table 13 sets out the herds producing

TABLE 14.—HERDS SUPPLYING WHOLE MILK ZONE 1.

Name.	No. of Cows.	Average yield (gals.)
Cunningham, A. W.	55.7	1,099.0
Rosher, E.	69	812.4
Tampolini, D. C.	55	740.7
Godecke, F. W.	70	709.5
Webb, E. M.	20	676.5
Murray, J. E.	25	643.3
McLoughlin, A.	25	633.2
Marsh, N. L. & A. N.	99	625.4
Della-Franca, A.	36	569.7
Ward, C. W.	40	499.3
	49.7	718.2

In Table 14, herds in Zone 1 supplying whole milk are tabulated showing the yield of milk in gallons. For the first time in this competition over 1,000 gallons per cow has been attained. Mr. A. Cunningham's herd produced 1,099 gallons per cow from a herd of 55.7 cows—truly a great achievement. This was 286.6 gallons higher than the next highest-producing herd, that of Mr. E. Rosher, of Bassendean. Mr. Cunningham's herd showed an increase of 205 gallons of milk per cow over last year. Mr. M. S. Brooking, who was second to Mr. Cunningham for butterfat production per cow, did not produce whole milk for sale as such and so does not appear amongst the competitors in Table 14.

The average production per cow for the whole milk suppliers of 718 gallons was 54 gallons higher than the previous year and 127 gallons over the 1949-50 competition. This is a very gratifying increase and constitutes a record for the competition as shown in Table 15.

TABLE 15.—AVERAGE YIELD OF MILK (GALS.) PER COW. COASTAL—ZONE 1.

Year.	Average Yield.
1951-52	718.6
1950-51	664.0
1949-50	591.5
1948-49	675.0
1935-36	583.0*
1934-35	540.0*
1933-34	552.0*
1932-33	414.0*

* Converted from butterfat averages as published for earlier competitions to a 4% milk.

PRODUCTION PER ACRE

Concentrates Purchased for Cows.—

As in the last competition, farmers were required to make a declaration stating the amount spent on purchased fodders and concentrates fed to cows during the 12 months. The amount spent was converted into an equivalent of butterfat at 3s. 6d. per lb. and this amount of butterfat was deducted from the total

butterfat production of the farm to give an estimate of the butterfat produced from pastures and home grown reserves.

TABLE 16.—CONCENTRATES PURCHASED FOR COWS.

Zone.	Average Amount per Herd.		Average Amount per Cow.	
	1951-52	1950-51	1951-52	1950-51
	£	£	£	£
1	894.6	728	19.6	12.9
2	94.3	195	2.5	5.5
3	246.1	71	5.9	1.8
4	84	104	2.2	3.2
5	164.8	220	4.8	5.7
7	155.8	109	5.4	4.1
All Zones	£316.1	£233.9	£8.4	£6.2

From the above table it will be seen that the average expenditure for all zones was higher per herd last year, being £316.1 against £233.9, and that the average amount expended per cow was higher, i.e., £8.4 per cow against £6.2.

The average amount spent on these purchased concentrates in each zone as shown in Table 16 indicates considerable variations but the highest again occurred in Zone 1, the whole milk zone, and this was considerably more than the previous year, the increase being from £12.9 to £19.6 per cow. The lowest amount spent in purchasing fodders was in Zone 4, where it amounted to only £2.2 per cow. Individual farms showed much greater variations.

Once again it must be emphasised that the large amount spent by some farmers on purchased fodders is a matter for concern. This expenditure should be regarded as a minor item in the farm budget if good dairying practices, fodder conservation, and the growing of sufficient green feed is maintained.

The higher cost per cow in Zone 1 is more or less to be expected as these herds are mainly whole milk producers and they have to maintain a high level of production during the summer

months, but apart from that aspect, higher returns are obtained for their products, making purchased feeding a comparatively economic proposition.

Table 17 gives the average production of butterfat per acre for each zone and from this it can be seen that the corrected production of butterfat per acre averaged 46.3 lb. as compared with 39.3 lb. for the previous year, which can be regarded as a great improvement. However, there is an increase in the

stages of development. Many properties are not adequately sub-divided and water supplies are not sufficient. Renovation of pastures and rotation of cropping is not a regular practice on all farms. Many other stock, including dry cows, calves and yearling bulls and horses are grazing on the area concerned."

It is thought that the average dairy farmer should give more thought to better farm and pasture management

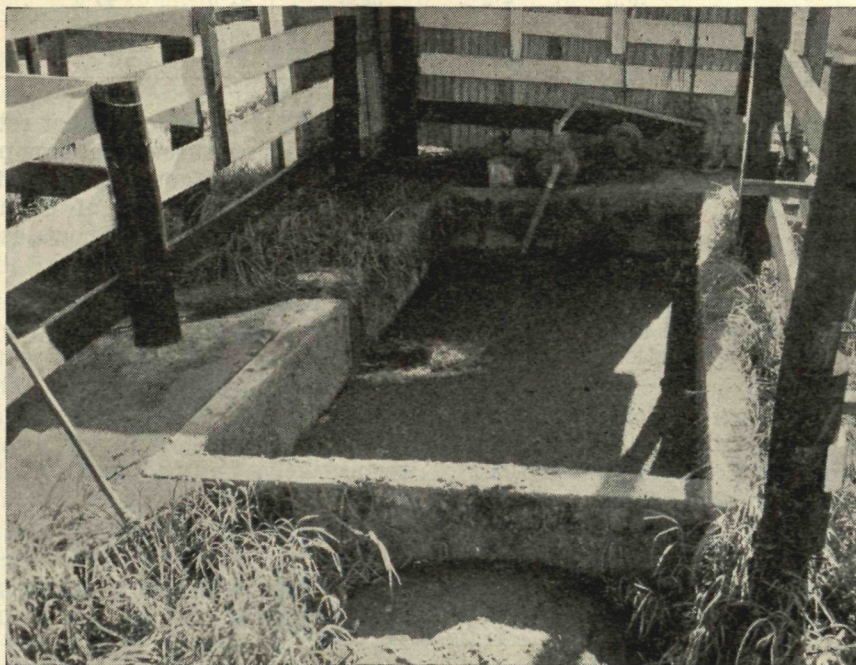


Fig. 8.—Liquid manure pit equipped with electric motor and pump. (E. Rosher, Bassendean.)

Photo—Govt. Photographer.

production of butterfat per acre (uncorrected) as this rose from 51.0 lb. in 1950-51 to 57.5 lb. in 1951-52.

The figure of production per acre still appears to be rather low and this may be attributed to a number of causes, of which the following would be mainly responsible:—"Insufficient totally cleared land as much of that assessed as total area devoted to dairying includes partly cleared land and also land in the initial

despite the shortages of labour and materials that do occur. By more efficiency in this respect the carrying capacity and production per acre of the farms could be increased.

In Table 17, acres utilised per milch cow is compared to the average production of butterfat for each zone per acre. Both the corrected and uncorrected butterfat per acre figures are shown. The average uncorrected for all zones

TABLE 17.—PRODUCTION PER ACRE 1950-51 AND 1951-52.

Zone.	Acres utilised per milch cow.		Average production of butterfat per acre.			
			Corrected.		Uncorrected.	
	1951-52	1950-51	1951-2	1950-1	1951-2	1950-1
1	3.46	4.6	48.9	36.8	81.3	57.8
2	4.20	4.4	56.2	45.0	59.0	53.6
3	4.44	4.5	46.9	41.5	54.5	44.2
4	4.80	6.0	40.6	31.9	43.2	35.5
5	3.74	4.0	54.3	40.3	61.5	49.9
7	5.31	4.2	39.5	41.5	45.6	61.5
	4.29	4.6	46.3	39.3	57.5	51.0

is 57.5 lb. as compared with 51.0 lb. in 1950-51, and 51.3 in 1949-50, with a range for 1951-52 of from 43.2 lb. per acre in Zone 4 to 81.3 lb. in Zone 1.

Taking into consideration the corrected butterfat production per acre it will be noted that Zone 7 has the largest area (5.31 acres) utilised per milch cow with the lowest production per acre (39.5 lb.).

In Table 18 it will be observed that the fourth place-getter in Zone 2, Mr. R. C. Benson, of Kirup, obtained 102.0 lb. of butterfat per acre after allowances had been made for purchased concen-

trates. This was the highest return obtained from pastures and home produced fodders by any competitor. Mr. Benson's farm, consisting of 95 acres on which he is carrying 34 cows, is a comparatively small one.

The average acreage used for dairying for all zones was slightly lower (161.0 acres) as compared with 174.2 acres for the previous year. The average number of cows per farm was practically the same, being 37.4 and 37.7, respectively, but the acres utilised per milch cow was lower this year (4.29) than the previous year (4.6).

TABLE 18.—AVERAGE PRODUCTION OF BUTTERFAT PER ACRE COMPARED WITH THAT OF THE LEADING HERD IN THIS RESPECT (CORRECTED FOR CONCENTRATES PURCHASED).

	Average Area Used for Dairying.	Average No. of Cows per Farm.	Butterfat Production per Acre.	Acres Utilised per Milch Cow.
1. Coastal	157.7	45.6	48.9	3.46
Cunningham, A. W.	284.0	55.7	68.2	5.10
2. Bunbury-Donnybrook	154.5	37.0	56.2	4.20
Benson, R. C.	95	34	102.0	2.80
3. Busselton-Margaret River	184.3	41.4	46.9	4.44
Stuart, H. S.	100.1	23	65.1	4.35
4. Bridgetown	183.0	38	40.6	4.80
Brennan, M.	92	32	87.3	2.9
5. Manjimup-Northcliffe	129.4	34.6	54.3	3.74
Bashford, J.	103	43	89.0	2.40
7. South Coastal	152.6	28.8	39.5	5.31
Anning, A.	65	20	63.6	3.25
	161.0	37.4	46.3	4.29

TABLE 19.—BREEDS OF BULLS IN HERDS.

Breed.	Zone 1.	Zone 2.	Zone 3.	Zone 4.	Zone 5.	Zone 7.	Total all Zones.
A.I.S.	8	4	8	2	1	3	26
Jersey	6	7	2	7	2	4	28
Guernsey	2	....	7	2	2	9	22
Friesian	4	....	....	....	....	....	4
Red Poll ....	....	....	....	....	....	1	1
Grade	6	2	1	....	....	3	12
TOTAL	26	13	18	11	5	20	93

BREED OF BULLS IN HERDS

Table 21 gives the breeds of bulls in use in the herds. It will be noticed that in this year's competition the Jerseys predominate, but are closely followed by the A.I.S. breed. There were a total of 93 bulls in the 63 herds and it was again pleasing to see a further reduction in grade bulls over last year.

UTILISATION OF SKIM MILK

As in the previous two years this section was worked out on the basis of a scale of points which gave credit to both calves and pigs fed. A maximum of 50 points was allotted in this section, where $12\frac{1}{2}$ feeding months per cow were obtained based on the following schedule:—

Each porker reared, credit three feeding months.

Each calf or baconer reared, credit five feeding months.

Each slip reared, credit one feeding month.

Each weaner reared, credit one feeding month.

For each feeding month below $12\frac{1}{2}$ a deduction of four points was made.

In all zones, from 2,394 cows, a total of 1,188 calves were reared and 2,439 pigs. This is 1.71 calves and pigs reared per cow, compared with 1.46 last year and 1.8 in 1949-50. Taking out the whole milk zone the figures are much better, being 2.29, which is a great improvement on last year (1.89 calves and pigs reared per cow).

TABLE 20.—UTILISATION OF SKIM MILK—NUMBER OF CALVES AND PIGS FED.

Zone.	Cows.	Calves.	Pigs (excluding Sows).	Sows.	Total Calves and Pigs	Ration Calves and Pigs to Cows
1	638	228	124	....	352	0.55
2	370.5	248	439	38	725	2.00
3	456	349	567	43	959	2.10
4	267	140	187	15	342	1.26
5	173	99	230	15	344	1.99
7	489.5	344	892	57	1,293	2.64
	2,394	1,408	2,439	168	4,015	1.71
Excluding whole milk producers	1,632	1,188	2,379	168	3,735	2.29

HARVESTING

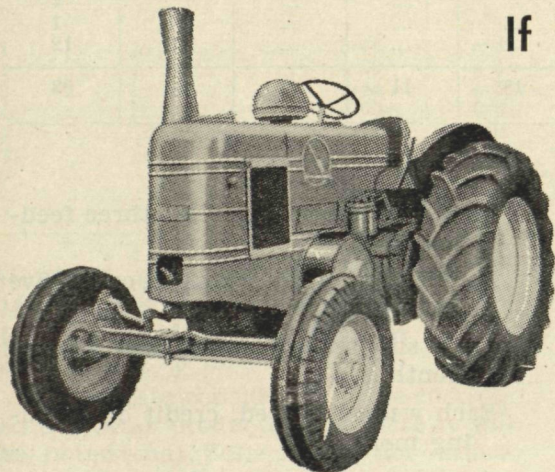
WILL COST YOU FAR LESS

If You Choose A—

Field-Marshall

**BRITISH DIESEL
TRACTOR**

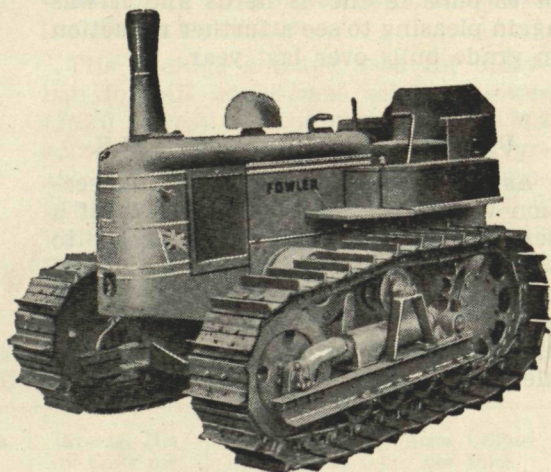
SERIES 3



Or a—

FOWLER

**MARK VF
BRITISH DIESEL
CRAWLER**



These **BIG** Diesel giants with the **LITTLE** appetites give a combination no other tractor can match. 40 b.h.p. gives ample draw-bar power for the heaviest jobs and implements. Diesel economy means even light jobs and implements can be handled at less cost than with many Tractors or Crawlers of lower power. For lower operating costs, greater work-power, make your choice from the Field-Marshall British Diesel Tractor or the Fowler British Diesel Crawler.

W.A. DISTRIBUTORS :

WEST END MOTORS Pty. Ltd.

1056 HAY STREET, PERTH

B8969, B8630

Please mention the "Journal of Agriculture, W.A.," when writing to advertisers

From Table 20 it will be seen that 1,408 calves were reared from 2,394 cows; this represents slightly less than 60% of the calves born. This is an improvement on the last two years, when 40% and 50%, respectively were reared. Just under 90% of the calves reared were heifers and consequently the figures given in the table represent a rearing of 48% of heifers of the total drop of calves. It is usually regarded, under normal conditions 25% of heifers is ample to cover replacement in the herd. These replacements would be due to culling, death, sales, etc. Consequently the above figure of 48% can be regarded as extremely satisfactory.

PIG RAISING

This phase of farming on the butterfat producing property is a very profitable sideline, for the position with respect to the prices for pigmeats is so attractive and has been for the past three years.

Table 21 shows the relationship between the number of cows and the number of sows in each zone and in conjunction with Table 22 may be taken as a measure of the activity and interest in pig raising.

The number of sows in Zone 1 has always been lower than the other zones

and the inclusion of these figures does not show a true picture for the butterfat areas and in Table 21 two sets of figures are shown one for all zones and one for the others, excluding Zone 1.

Excluding Zone 1 it will be seen that there were 9.7 cows per sow, this being the same as the previous year, 1950-51. Both of these years were better than the preceding two years, 11.4 and 10.3, respectively. In Table 20, it can be seen that approximately 1.5 pigs were reared per cow, which was slightly better than the previous year (1.3).

Breed of Sow.—In Table 22 breed of sow is shown and compared with the previous years.

It will be noted that the Berkshire, Tamworth and their crosses are still popular, but that there is a steady increase in the Large Whites and their crosses. The expansion with the Large Whites has been largely at the expense of the Tamworths. The Large White, in general, produces a longer side than the other breeds, and the use of the Large White in crossing with the Berkshire and Tamworth will produce a suitable bacon pig.

FARM MANAGEMENT

In this section points are allotted for the layout of the property and in particular for the convenience and type of

TABLE 21.—NUMBER OF COWS PER SOW IN ZONES.

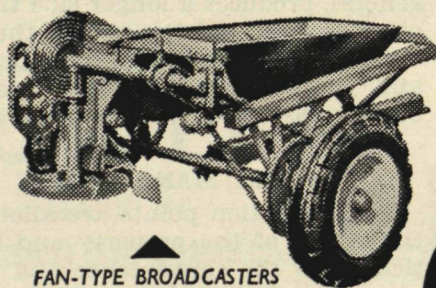
Zone.	1951-52.		Number of Cows per Sow.			
	Total Cows.	Total Sows.	1951-52	1950-51	1949-50	1948-49
1	638	.....	.....	.....	37.4	60.8
2	370.5	38	9.7	12.0	9.0	11.2
3	456	43	10.6	10.3	13.9	9.2
4	267	15	17.8	14.0	11.7	12.9
5	173	15	11.5	6.2	14.2	48.0
7	489.5	57	8.4	7.3	13.5	11.4
All Zones	2,394	168	14.3	13.0	15.6	17.1
Butterfat farms only	1,632	168	9.7	9.7	11.4	10.3

Make Your Milkers PRODUCE MORE!

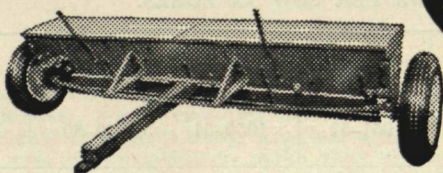


**TURN
THEM OUT
ON**

CRUMP-IMPROVED PASTURES



FAN-TYPE BROADCASTERS
DIRECT-DROP SPREADERS



Develop lush green pastures all year round. Raise healthier, higher-yield stock by topdressing with Crump Pasture Improvement Machines. The small capital outlay is often repaid from the first season's extra profits.



Ask NOW for full details from

KELLY & LEWIS (W.A.) PTY. LTD.

349 WILLIAM STREET, PERTH : B 7640

TABLE 22.—BREED OF SOW.

Breed.	Numbers.				Percent.			
	1951-52	1950-51	1949-50	1948-49	1951-52	1950-51	1949-50	1948-49
Berkshire	59	80	65	13	35.1	39.4	38.5	12.9
Berkshire X Tamworth	24	22	30	45	14.2	10.8	17.7	44.5
Tamworth	17	16	28	14	10.0	7.9	16.5	13.9
Large White	33	28	21	11	19.9	13.8	12.4	10.9
Large White X Berkshire	15	16	14	18	8.9	7.9	14.8	17.8
Large Black	5	14	4		3.0	6.9		
Other	15	27	7		8.9	13.3		

building used for the handling of the herd and other stock and the produce. Points are also allotted for the keeping of farm records. The points gained in this section reflect on the level of management of the property.

Recent competitions point to a definite trend towards better farm layout in order to reduce the labour and make more efficient use of pastures.

Generally, the system of book-keeping is improving and this should be so as the business of dairy farming is complex and calls for accurate and complete records if efficiency is to be maintained.

SUMMARY OF DATA

	1951-2	1950-51
Number of competitors	63	70
Average size of herd (cows)	37.4	37.7
Average area of pasture per farm	161.0 acres	174.2 acres
Average area of pasture per milking cow	4.3 acres	4.6 acres
Average area per head of stock	2.06 acres	2.3 acres
Average butterfat production per cow	247.5 lb.	235.5 lb.
Average yield of butterfat per acre	57.5 lb.	51.0 lb.
Average yield of butterfat per acre corrected for concentrates fed	46.3 lb.	39.3 lb.
Fodder conserved per cow—		
Hay	0.99 tons	1.26 tons
Silage	0.12 tons	0.17 tons
Summer Crop	0.85 tons	0.63 tons
Equivalent as hay	1.33 tons	1.54 tons
Pigs—Ratio to Sows:		
All zones	14.3	13.0
Butterfat farms	9.7	9.7



Fig. 9.—Cutting oats and clover for silage on the property of A. Cunningham, Armadale.
Photo—Govt. Photographer.