

9. No.40. Family Budgets, 1932-33,
 of Four Tenant-Cultivators
 in the Lyallpur District.
 By Sardar Kartar Singh.
 1934. X9(J): 16(Y2).236₅ pp.278-298.
 Q4

10. 44. Family Budgets, 1933-34,
 of six Tenant-Cultivators
 in the Lyallpur District.
 By Kartar Singh and Ajaib
 Singh. 1935. pp.299-323.
 X9(J): 16(Y2).236₅ Q5

-----000-----

SERVANTS OF INDIA SOCIETY'S LIBRARY,
 POONA 4.

FOR INTERNAL CIRCULATION

To be returned on or before the last date stamped below

1070
 BOA
 NDM
 1030-

~~5 AUG 1956~~

5 MAR 1957

19 4 APR 1957

10701

Dhananjayrao Gadgil Library



GIPE-PUNE-010701

The Board of Economic Inquiry
Punjab.

RURAL SECTION PUBLICATION—22.

REPORT

ON A

PRELIMINARY SURVEY

OF THE

MILK SUPPLY OF LYALLPUR

IN

1927.

BY

S. LABH SINGH, B. Sc., L. Ag.

ASSOCIATE PROFESSOR OF AGRICULTURE,

PUNJAB AGRICULTURAL COLLEGE,

LYALLPUR.

[The Board of Economic Inquiry, Punjab, does not hold itself responsible for any opinions expressed or conclusions reached by the writers.]

1930.

Printed:

**PRINTED AND PUBLISHED AT "THE CIVIL AND MILITARY GAZETTE"
PRESS, BY H. A. SMEDLEY, MANAGER.**

1931.

X9 (A311:71):51. 236

GO

10701

FOREWORD.

It may be thought by some that this little brochure deals with too limited a subject to deserve attention, but a careful reading suggests much matter for thought. Without in any way suggesting that conditions in Lyallpur are representative of conditions in other Punjab towns, we may at least point out that the investigation ought to stimulate public-spirited men to insist upon similar inquiries into the milk supply of their own towns. The major portion of the milk consumed is presumably pure, and the portion found to be definitely adulterated is but a fraction of the whole, but, unfortunately this comforting conclusion provides an argument to those who resist all attempts to restrict the keeping of milch cattle inside towns; an insanitary practice which can be defended on the ground that its results are probably less damaging to health than the obvious alternative.

The monetary loss accruing from the purchase of dirty water at the price of milk is clearly brought out and should go far to reconcile those who oppose municipal regulation on the ground of expense. Powers now exist under the Punjab Pure Food Act of 1929 to control milk supply and this brochure will prove its value if it leads to a more full use of those powers. It shows that adulteration can be easily detected, and that there should be little difficulty in bringing home the crime to the culprit; what is required is a public opinion sufficiently strong to ensure the adoption of suitable measures. The Board of Economic Inquiry may reasonably hope that, by the publication of this brochure, it is assisting the development of public opinion.

Bhai Labh Singh has carried through this inquiry entirely on his own responsibility and without any pecuniary assistance from the Board, and so deserves credit for his public-spirited effort to bring to light the truth on a subject of general interest.

H. CALVERT.

20th November 1930.

APPENDIX A.
List of Markets Visited, with Details.

Market.	District in which situated.	NUMBER OF ARTIAS.				Whether it has a co-operative shop.	Number of cotton factories.	Competing markets.
		Total.	Kachoha.	Kachoha-pacca.	Pacca.			
1. Lyallpur ..	Lyallpur ..	74	54	13	7	Yes.	12 working, 3 closed.	Chak Jhumra, Gojra, Sangla, Jaranwala.
2. Gojra ..	" ..	70	39	24	7	"	7 " , 1 "	Lyallpur, Toba Tek Singh, Jhang.
3. Jaranwala ..	" ..		Not available.			"	4 " , 2 "	Lyallpur, Toba Tek Singh, Nankana Sahib.
4. Arifwala ..	Montgomery ..	36	15	15	6	"	2, both working.	Montgomery, Chichawatni, Pakpattan, Burewala.
5. Okara ..	" ..	80	41	25	14	Zemindara Sale Society.	9, all working.	Pattoki, Montgomery.
6. Sheikhpura ..	Sheikhpura ..	27	7	16	4	No.	2 working, 2 closed.	Chuharkana, Nankana Sahib.
7. Sangla ..	" ..		Not available.			Yes.	7 " , 1 "	Chak Jhumra, Chuharkana.
8. Sargodha ..	Shahpur ..	60	35	21	4	"	8 " , 2 "	Bhallowal.
9. Phullarwan ..	" ..	38	22	14	2	No.	4 " , 1 "	Bhallowal, Malakwal, Pindi-Bahauddin.
10. Jhang ..	Jhang ..	24	12	6	6	"	3 " , 2 "	Gojra, Toba Tek Singh.
11. Multan ..	Multan ..	55	13	30	12	"	0 " , 3 "	Khanewal, Lodhran, Khangarh, Shujabad.
12. Mian Chanun ..	" ..	40	28	6	6	"	4 " , 1 "	Vehari, Toba Tek Singh, Chichawatni.
13. Hafizabad ..	Gujranwala ..		Not available.			Yes.	1 " , 1 "	Gujranwala, Sangla, Kaleke.

(Continued).

APPENDIX A.—*Concluded.*

Market.	District in which situated.	NUMBER OF ARTIAS.				Whether it has a co-operative shop.	Number of cotton factories.	Competing markets.
		Total.	Kachcha.	Kachcha-pacca.	Pacca.			
14. Amritsar ..	Amritsar ..	41	..	41	..	No.	4 working, 3 closed.	Tarn Taran, Patti, Jandiala, Narowal, Batala.
15. Jullundur City ..	Jullundur ..	73	7	66	..	"	3 " , 1 "	Jullundur Cantt., Nakodar, Hoshiarpur, Kapurthala.
16. Ludhiana ..	Ludhiana ..	96	13	77	6	"	2 " , 1 "	Khanna, Jagraon, Ahmedgarh.
17. Abohar ..	Ferozepur ..	94	61	20	13	Yes.	10 " , 1 "	Fazilka, Ramnagar, Dabwali.
18. Fazilka ..	" ..		Not available.			No.	2, both working.	Abohar, Muktsar.
19. Hoshiarpur ..	Hoshiarpur ..	12	..	12	..	"	No factory.	Jullundur City.
20. Gurdaspur ..	Gurdaspur ..	12	1	10	1	"	" "	Batala, Pathankot, Mukerian.
21. Ambala City ..	Ambala ..	51	..	50	1	"	7, all working.	Sarhind, Ambala Cantt., Karnal.
22. Ambala Cantt. ..	" ..	33	..	29	4	"	No factory.	Ambala City.
23. Gujjar Khan ..	Rawalpindi ..	18	9	4	5	"	" "	
24. Rohtak ..	Rohtak ..	57	..	57	..	"	5, all working.	Bahadurgarh, Sonapat.
25. Jakhhal ..	Hissar ..	41	12	23	6	"	1, working.	Badhlada, Tohana.

APPENDIX B.
BOMBAY COTTON MARKETS ACT.

BOMBAY ACT NO. XVII OF 1927.

AN ACT TO PROVIDE FOR THE ESTABLISHMENT AND THE BETTER REGULATION
OF COTTON MARKETS IN THE BOMBAY PRESIDENCY.

WHEREAS it is expedient to provide for the establishment of recognized open markets for the purchase and sale of cotton in the Bombay Presidency, excluding the City of Bombay, Aden and the town of Karachi, and for the better regulation of such markets; And whereas the previous sanction of the Governor-General required by Section 80-A of the Government of India Act and the previous sanction of the Governor required by Section 80-C of the said Act have been obtained for the passing of this Act; It is hereby enacted as follows:—

- Short title.** 1. This Act may be called the Bombay Cotton Markets Act, 1927.
- Extent.** 2. This Act shall apply to the whole of the Presidency of Bombay except the City of Bombay, Aden and the town of Karachi comprising, as from time to time constituted, the municipal district of Karachi, the Port of Karachi and the Cantonments of Karachi and Manora.
- Definition.** 3. In this Act, unless there is anything repugnant in the subject or context:—
- (i) ‘*Cotton.*’—“Cotton” includes ginned cotton and unginned cotton.
 - (ii) ‘*Cotton Market.*’—“Cotton market” means a market established under Section 4.
 - (iii) ‘*Grower of cotton.*’—“A grower of cotton” shall not include a dealer or broker in cotton, although such a person may grow cotton. If a question arises whether any person is a grower of cotton or not for the purpose of this Act, the decision of the Collector of the district in which the person permanently resides shall be final.
 - (iv) ‘*Prescribed.*’—“Prescribed” means prescribed by rules or by-laws made under this Act.
- Notification of cotton market.** 4. (1) The local Government may, after consulting the District Local Board and such other local authorities as they deem necessary or upon a representation made by the District Local Board, by notification in the *Bombay Government Gazette*, declare that any place shall be a cotton market established under this Act.
- (2) Every such notification shall define the limits of the cotton market so established, and may, for the purposes of this Act, include within such limits such local area as the local Government may prescribe.

5. For every cotton market there shall be a market committee. The market committee shall be constituted as prescribed and shall consist of not less than twelve and not more than sixteen members. Of these not less than half shall be persons elected by the growers of cotton of such area as the local Government may prescribe, one shall be a member nominated by the local Government, one shall be elected by the District Local Board of the district in which the cotton market is situated, one by the municipality, if any, of the area in which the market is situated, and the remainder shall be elected by the traders in the cotton market in such manner as may be prescribed.

6. (1) The local Government may, either generally, or specially for any cotton market or group of such cotton markets, make rules consistent with this Act for the purpose of the management and regulation of such cotton markets under this Act.

(2) In particular, and without prejudice to the generality of the foregoing power, such rules may provide for or regulate—

- (i) the election and nomination of members of the market committee, the number of members to be elected by each of the bodies or groups of individuals referred to in Section 5, and the manner of election, the preparation and revision of lists of voters from time to time, the payment of all expenditure in connection with or incidental to such election and the term of office of such members ;
- (ii) the powers to be exercised by the cotton market committee ;
- (iii) the election of the chairman of such committee and his term of office ;
- (iv) the filling of casual vacancies in the offices of members or in the office of chairman of the market committee ;
- (v) the management of the cotton market and the prescribing of fees by the market committee, and, subject to the provisions of this Act, the collection and disposal of such fees ;
- (vi) the issue by the market committee of licenses to brokers, weighmen, measurers, surveyors and warehousemen and other persons using the cotton market, the form in which, and the conditions under which, such licenses shall be issued, and the fees to be charged for such licenses ;
- (vii) the place or places at which cotton shall be weighed or measured, and the kind and description of the scales, weights, and measures to be used at such place or places ;
- (viii) the periodical inspection, verification and correction of all scales, weights and measures in use in the cotton market ;
- (ix) the trade allowances which may be made or received by any person in any transaction in a cotton market ;
- (x) the preparation of plans and estimates for works proposed to be constructed partly or wholly at the expense of the market committee and the grant of sanction to such plans and estimates ;

- (xi) the form in which the accounts of the market committee shall be kept, the manner in which they shall be audited, and the time or times at which they shall be published ;
- (xii) the preparation of an annual budget and its submission for sanction, and the reports and returns which shall be furnished by the market committee ;
- (xiii) the disposal of any surplus funds of the market committee ;
- (xiv) generally for the guidance of the market committee.

(3) Any such rules may, when necessary, provide that any contravention thereof or of any of the conditions of any license issued thereunder shall on conviction by a magistrate be punishable with fine which may extend to five hundred rupees.

(4) All rules made under this section shall be subject to previous publication and shall, when made, be laid on the table of the Bombay Legislative Council for one month previous to the next session thereof and shall be liable to be rescinded or modified by a motion of the said Council tabled at the next session.

7. Subject to any rules made by the local Government under the last preceding section and with the previous sanction of the Commissioner, the market committee may, in respect of the cotton market under its management, make bye-laws for the regulation of the business and the conditions of trading in such market and may provide that contravention thereof shall on conviction by a magistrate be punishable with fine which may extend to fifty rupees.

8. The market committee may appoint one or more of its members to be a sub-committee or to be a joint-committee for the conduct of any work or works or to report on any matter or matters, and may delegate to any one or more of its members such of its own powers as may be necessary.

9. (1) The market committee may employ such officers and servants as may be necessary for the management of the cotton market and may pay such officers and servants such salaries as the committee thinks fit. The committee may, in the case of any officer or servant of Government which it employs, pay such pension, contribution, gratuity or leave allowance as may be required by the regulations made by Government in this behalf and for the time being in force.

(2) The committee may also, in the case of any of its officers and servants, provide for the payment to them of such leave allowances, pensions or gratuities as it deems proper ; and may contribute to any provident fund which may be established for the benefit of such officers and servants.

(3) The powers conferred by this section on the market committee shall be exercised subject to any rules which may be made in this behalf by the local Government.

10. (1) Every contract entered into by the market committee shall be in writing and shall be signed on behalf of the market committee by the chairman and two other members of the market committee,

Contracts how
executed.

(2) No contract other than a contract executed as provided in sub-section (1) shall be binding on a market committee.

The market committee fund. 11. All monies received by a market committee shall be paid into a fund to be called the "Market Committee Fund" and all expenditure incurred by the market committee under or for the purposes of this Act shall be defrayed out of the said fund; and any surplus remaining after such expenditure has been met, shall be invested as may be prescribed in the rules made in this behalf.

Purposes for which the market committee fund may be expended. 12. Subject to the provisions of Section 11 the market committee fund shall be expended for the following purposes only:—

- (i) the maintenance and improvement of the cotton market;
- (ii) the construction and repair of buildings which are necessary for the purposes of such market and for the health, convenience and safety of the persons using it;
- (iii) the pay, pensions, leave allowances, gratuities and pensions or provident fund contributions of the officers and servants employed by the market committee; and
- (iv) the expenses of and incidental to elections.

No trade allowance not recognised by custom or rules allowable. 13. No trade allowance, other than an allowance prescribed by rules or bye-laws made under this Act, shall be made or received by any person in any transaction in a cotton market established under this Act, and no Civil Court shall, in any suit or proceeding arising out of any transaction in any such cotton market, have regard to any trade allowance not so prescribed.

Explanation.—Every deduction other than deductions on account of deviation from sample, when the purchase is made by sample, or of deviation from standard, when the purchase is made by reference to a known standard or on account of difference between the actual weight of the sacking and the standard weight, or on account of the admixture of foreign matter, shall be regarded as a trade allowance for the purposes of this Act.

Market committee to be a body corporate. 14. Every market committee shall be a body corporate by the name of "The Market Committee of....." and shall have perpetual succession and a common seal, and shall be competent to acquire and hold property both moveable and immoveable, to lease, sell or otherwise transfer any moveable or immoveable property which may have become vested in or been acquired by it, and to contract and to do all other things necessary for the purpose of this Act.

Power to borrow. 15. (1) Every market committee may, with the previous sanction of the local Government, raise the money required for carrying out the purposes of this Act on the security of any property vested in and belonging to the market committee, and of any fees leviable by the market committee under this Act.

(2) The conditions under which such money shall be raised and the time within which the same shall be repayable shall be subject to the previous sanction of the local Government.

16. (1) If in the opinion of the local Government a market committee is not competent to perform, or persistently makes default in the performance of, the duties imposed on it by or under this Act, or exceeds or abuses its powers, the local Government may, by an order published in the *Bombay Government Gazette*, declare such market committee to be incompetent, or in default or to have exceeded or abused its powers, as the case may be, and may supersede it.

(2) When a market committee has been superseded, all members of the committee shall, as from the date of the order, vacate their offices as members.

(3) When a market committee has been superseded, all property and rights vested in it shall, subject to all charges and liabilities affecting the same, vest in Government.

Provided that if no new market committee is constituted for the cotton market under Section 5, all property that shall remain after the satisfaction of all the debts and liabilities of the superseded market committee shall vest in the local authority of the area in which the cotton market is situated for the purpose of any object of public utility in the said area.

17. Wherever the local Government has, by a notification under Section 4, declared any place to be a cotton market, no person shall, within the limits of such cotton market or within a distance thereof to be notified in the *Bombay Government Gazette* in this behalf in each case by the local Government, except with the sanction in writing of the local Government, expressed over the signature of a Secretary to Government and subject to such conditions as may be imposed in such sanction, set up, establish or continue or allow to be continued, any market for the purpose of the purchase and sale of cotton.

Explanation.—A person shall not be deemed to set up, establish or continue or allow to be continued, a place as a market for the purpose of the purchase and sale of cotton if he sells his own cotton outside the premises set apart by the market committee for the purpose of purchase and sale of cotton.

18. Whoever in contravention of this Act sets up, establishes, continues or allows to be continued, any market for the purpose of the purchase and sale of cotton, or violates the conditions under which he has been allowed to set up, establish or continue, any such market, shall on conviction by a magistrate be punished with fine which may extend to Rs. 500, and, in case of a continuing breach of the provisions of Section 17, with fine which may extend to Rs. 100 for each day after the first during which the breach continues.

19. No offence under this Act or under any rule made under Section 6 or under any bye-law made under Section 7 shall be triable by a magistrate other than a magistrate of the First Class.

All fines and damages recovered from an offender shall be paid to the market committee.

Prosecutions under this Act may be instituted by any person duly authorized in writing by the market committee in this behalf.

APPENDIX C.
BERAR COTTON AND GRAIN MARKETS LAW.

GOVERNMENT OF INDIA.
FOREIGN DEPARTMENT.

Notification No. 1727-I.B., dated Simla, the 6th May 1897.

Whereas it has been customary in the Hyderabad Assigned District for the Government to open markets and bazaars for the sale of agricultural produce, to arrange for the conservancy and management thereof, to levy fees therein and to provide for the collection and disposal of the fees levied as aforesaid ;

And whereas it is expedient to continue the custom aforesaid ;

In exercise of the powers conferred by Sections 4 and 5 of the Foreign Jurisdiction and Extradition Act (XXI of 1879) and of all other powers enabling him in this behalf, the Governor-General in Council is pleased to issue the following orders :—

1. (1). These orders may be called the Berar Cotton and Grain Markets
Title and com- * Law, 1897, and are hereinafter referred to as "this
mencement. Law."

(2) This Law shall come into force at once.

2. The Resident may, by notification in the *Hyderabad Residency Orders*, declare that any place, the property of the
Notification of mar- Government or of the public or of a Municipal Com-
kets and bazaars. mittee or District Board, is a market or bazaar for the
particular class or classes of agricultural produce, and may from time to time amend, vary or rescind any such notification.

*3. (1) Such committee or person as may from time to time be appointed for the purpose of carrying out this Law may, in the case of any officer or servant of the Government employed in connection with a market or bazaar,

(a) where his services are wholly lent to such committee or person subscribe for his pension or gratuity and leave allowances in accordance with any regulations of the Government for the time being in force relating to such pension or gratuity and leave allowances ; and,

(b) where he devotes only a part of his time to the performance of duties in behalf of such committee or person, contribute to his pension or gratuity and leave allowances in such proportion as the Resident may determine.

* This section was added by Foreign Department Notification No. 3101-I. B., dated 26th July 1902.

(2) Any such committee or person may, in the case of any officer or servant not being an officer or servant of the Government—

- (a) grant him leave allowances and, where his monthly pay does not exceed ten rupees, a gratuity; and,
- (b) where such committee or person is empowered in this behalf by the Resident;
 - (i) subscribe in his behalf for his pension or gratuity and leave allowances in accordance with any regulations of the Government for the time being in force relating to such pension or gratuity and leave allowances; or
 - (ii) purchase for him from the Government or otherwise an annuity on his retirement:

Provided that no pension, gratuity, leave allowances or annuity shall exceed the sum to which, in accordance with the regulations of the Government for the time being in force relating to pensions, gratuities, leave allowances or annuities, the officer or servant would be entitled if the service had been under the Government:

Provided also that, with the sanction of the Resident, a gratuity not exceeding one half of the cost of the annuity admissible under this section may be granted in lieu of such annuity.

Power to make rules for markets and bazaars. 4. (1) The Resident may, in respect of any market or bazaar notified under Section 2, make rules for—

- (a) the management of the market or bazaar, the levy of fees therein and, subject to the provisions of Section 4, the collection and disposal of such fees;
- (b) the conditions under which licenses shall be issued to brokers, weighmen, and measurers using the market or bazaar, and the fees to be charged for such licenses;
- (c) the place or places for weighing and measuring, the description of scales, weights, and measures to be used, the periodical inspection, verification and correction of such scales, weights, and measures, and the seizure and confiscation of such scales, weights and measures if used in violation of such rules; and,
- (d) generally, the guidance of such committees or persons as may from time to time be appointed for the purpose of carrying out of this Law.

(2) All rules under this Section shall be published in the *Hyderabad Residency Orders*, and shall thereupon have the force of Law.

(3) In making any rule under this section, the Resident may direct that a breach of it shall be punishable with fine which may extend to fifty rupees, and, when the breach is a continuing breach, with fine which, in addition to such fine as aforesaid, may extend to five rupees for every day after the first, during which the breach continues.

5. (1) All fees under the last foregoing section shall be levied at rates calculated so as to meet, as nearly as may be, the expenditure deemed necessary for the purposes hereinafter mentioned, and the collections therefrom shall be applied in the first instance to those purposes under the direction of the Resident, and through such agency as the Resident may appoint in that behalf; that is to say—

- Disposal of fees collected.
- (1) the maintenance and improvement of the market or bazaar in which the fees are levied, its surroundings and approaches;
 - (2) the construction and repair of buildings, *chabutras*, and other erections necessary for the purposes of such market or bazaar;
 - (3) the health, convenience, and safety of the persons using such market or bazaar; and
 - * (4) the provision of pensions, gratuities, leave allowances and annuities for any officers or servants employed in connection with a market or bazaar.

(2) The surplus (if any) shall, in the case of a market or bazaar within municipal limits, be paid over to the Municipal Committee concerned for expenditure on the purposes specified in the Berar Municipal Law, 1886, and, in the case of any other market or bazaar, to the District Board concerned for expenditure on the purposes specified in the Berar Rural Boards Law, 1885.

6. (1) No trade allowances shall be recognized in any market or bazaar notified under Section 2, and no civil court shall, in any suit arising out of a transaction entered into in any such market or bazaar have regard to any usage or trade custom or alleged usage or trade custom to the contrary.

Abolition of trade allowances.

(2) In every cotton market or bazaar notified under Section 2, all samples shall be paid for, and no civil court shall, in any suit arising out of a transaction entered into in such market or bazaar, have regard to any usage or trade custom or alleged usage or trade custom to the contrary.

(3) In every transaction entered into in any cotton market or bazaar notified under Section 2, it shall be presumed that the parties intend that cotton shall be weighed in the sacking, and that the seller guarantees that the sacking of each package shall not weigh more than ten pounds.

Explanation.—Every deduction other than deductions on account of deviation from sample when the purchase is made by sample, or of deviation from standard when the purchase is made by reference to a known standard, or on account of a difference between the actual weight of the sacking and the standard weight, or on account of the admixture of foreign matter, shall be regarded as a trade allowance for the purposes of this Law.

7. (1) When the Resident has, by notification under Section 2, declared any place to be a market or bazaar for the sale of agricultural produce generally, or for the sale of any particular class or classes of agricultural produce, no new market or bazaar shall, except with the sanction in writing of the Resident and subject to such conditions as the Resident may

Prohibition of unauthorised markets and bazaars.

* This was added by Foreign Department Notification No. 3101-I. B., dated 25th July 1903.

think fit to impose, be established for the like purpose within five miles of the market or bazaar notified as aforesaid.

(2) Whoever establishes a market or bazaar in contravention of this section, or violates the conditions under which he is authorised to establish a market or bazaar under this section, shall be punishable with fine which may extend to fifty rupees, and, in the case of a continuing breach, with fine which, in addition to such fine as aforesaid, may extend to five rupees for each day after the first, during which the breach continues.

8. Fees leviable in pursuance of any rules under this Law may be real-
Recovery of fees. ized as fines under the orders of any Magistrate.

9. The bazaar cess, the levy of which was authorised by the Notifi-
Abolition of existing cation of the Government of India in the Department
bazaar cess in of Revenue, Agriculture, and Commerce, No. 11, dated
markets or bazaars the 27th January 1875, shall cease to be levied in any
notified under market or bazaar notified under Section 2.
Section 2.

W. J. CUNINGHAM,

Secretary to the Government of India.

APPENDIX D.

CONSTITUTIONS OF EXISTING MARKET COMMITTEES IN THE PUNJAB.

BYE-LAWS OF THE LYALLPUR MERCHANTS ASSOCIATION.

(Translated).

The association shall be called The Lyallpur Merchants Association, and its objects shall be as follows :—

OBJECTS.

- (i) To consider and devise means for the improvement of trade.
- (ii) To settle disputes arising amongst the members of the association, to keep their record, and to consider ways and means which would conduce to better relations among the members in matters of business.
- (iii) To strive by constitutional means for the betterment of trade whenever there is any apprehension of a setback to it.
- (iv) To keep a regular record of the customs and practices of trade and to see that they are acted upon.

BYE-LAWS.

1. Any merchant who is a well-wisher of this Association and pays a sum of Rs. 18/- as admission fee, as well as pays annually in advance a monthly subscription of Rs. 2/- per mensem, shall become a member.
2. Only one representative from each shop, be he proprietor, partner or *munim*, shall be entitled to become a member.
3. (a) The business of the Association shall be conducted through a managing body, elected from amongst the members annually.
(b) The President of the Association shall also be the President of the Managing Committee.
(c) All matters shall be decided by majority of votes.
(d) Members of the Managing Committee shall be eligible for re-election.
(e) If any member of the Managing Committee severs his connection from his shop, another person of the same shop shall be appointed in his place.
4. The meetings of the Managing Committee shall be held every fortnight on Sunday, or such other day as may be fixed by the Managing Committee. Emergency meetings may be called with one day's previous notice.
5. The Managing Committee shall call a general meeting of the Association with three days' previous notice.
6. The Secretary shall regularly record the proceedings of the meetings of the Managing Committee and General Meeting in separate minute books.

7. All expenditure shall be incurred with the sanction of the Managing Committee, and the Managing Committee may start any work in conformity with the objects of the Association.

8. The funds of the Association shall be deposited in the Punjab National Bank, Ltd., Lyallpur, in the joint name of the President and the Secretary.

9. The Secretary shall prepare and lay before a general meeting annually the accounts of all monies received and spent during the year and shall read the proceedings of the Managing Committee meetings and general meetings held during the year for confirmation, and a printed report of each year's working shall be supplied to each member.

10. The quorum for the General Committee shall consist of thirteen members and of the Managing Committee of five members.

11. Each member shall have only one vote for the election of a member or for a decision on any matter.

12. All matters shall be decided by a majority of votes. In case of equal votes the President shall have a casting vote.

13. The cost involved in the decision of any dispute referred to the Association by any member shall either be levied on one party or on both and such costs when collected shall be deposited in the general funds of the Association.

14. All the present members and members admitted hereafter shall have to refer all disputes concerning business matters to the Managing Committee.

15. If a dispute arises between a buyer and a seller, both shall select two arbitrators. If any party fails to appoint its arbitrator, the Managing Committee shall appoint an arbitrator on behalf of that party. In case the arbitrators fail to agree, the Managing Committee shall appoint a third arbitrator, whose decision shall be binding on both the parties.

16. The bye-laws of the Association may be amended in a general meeting in which not less than half the existing members are present. The Secretary shall send a list of intended amendments to all members at least seven days before the general meeting.

17. The Managing Committee shall have one President, two Vice-Presidents, one Secretary and one Joint-Secretary.

18. Any member violating these bye-laws shall be expelled from the Association, and the other members shall not transact any business with him, until he fulfils the conditions of the Committee.

19. Any member who refers a dispute to the Association for decision shall have to pay to the Association Re. 1/- along with his petition. In addition to this, the party against whom the award is given shall have to pay to the Association Re. 1/- per Rs. 100/- of the amount involved in the dispute, half of which will go to the members deciding the dispute and the other half to the funds of the Association, but the amount of such fee shall in no case be less than half a rupee.

RULES OF THE AMRITSAR MARKET PANCHAYAT.

(Translated).

1. All merchants in Amritsar who deal in sugar and grain and own property worth not less than Rs. 20,000/- shall be eligible for acceptance as members.

2. The application for enrolment as a member shall be made on the prescribed form, which may be had free of cost from the Panchayat Office.

3. The Panchayat may reject any application without recording any reason for it.

4. After an application has been accepted, the applicant shall be required to pay Rs. 5/- as admission fee, and Re. 1/- per month as subscription. He would be required to present himself in person before the Executive Committee, and attest his signature on the application. He shall also have to state the names of his partners and their shares in the business.

5. The monthly subscription shall have to be paid by the 5th of each Indian calendar month. In case of non-payment by a member his name shall be removed from the list of members.

6. The following are the office-bearers of the Panchayat :—

President.

Vice-Presidents (2).

Secretaries (2).

In addition to the above there shall be 17 more members of the Executive Committee.

The funds of the Panchayat shall be lodged with the Central Bank of India, Ltd., Amritsar.

7. Only the Secretary shall deposit and withdraw money from the bank.

8. If a member of the Executive Committee absents himself from three successive meetings of the Committee, his name shall be removed from the list of members.

9. The quorum for the General Committee meeting shall be 22 and that of the Executive Committee 9.

10. If any member contravenes any of the rules, the Panchayat shall have full powers to remove his name from the list of members.

11. No firm shall, however, be removed from the Panchayat roll until the General Committee agrees to it on the recommendation of the Executive Committee.

12. The ordinary meetings of the Executive Committee shall take place twice a month. An ordinary meeting of the General Committee may be called by the Secretary when required on giving at least 12 hours' notice. If an emergent meeting of the General Committee is felt necessary it shall be called by the Secretary on the request of 12 members. The General Committee shall ordinarily meet on the 2nd of every calendar month.

13. The members shall be required to do business only with the firms who are members of the Panchayat. The Panchayat shall not interfere in cases of dispute with non-member firms.

14. All bargains shall be made through *dalals* appointed by the Panchayat. No dispute shall be heard by the Panchayat regarding a transaction made through a *dalal* not approved by it.

15. Immediately after a transaction has been settled the *artia* shall get the *dalal's* signature in his *bahi* and shall give his own in the pocket book of the *dalal* in attestation of the bargain, and shall demand the fulfilment of the contract by the *dalal* within three days. In case the *dalal* does not fulfil the contract within three days, he shall be liable to have his *dalahi* forfeited by the *artia*.

16. If there be a dispute over a bargain among the members they shall refer the matter for settlement to the Panchayat by means of an application accompanied by a true duplicate copy of it. The application shall be on a one-pice Government paper while the copy may be on an ordinary paper. The duplicate copy will be forwarded as a notice to the other party.

17. Disputes shall be decided by three members of the Executive Committee, nominated by the President, on Sundays or such other day as may be fixed by the Committee. [The Executive Committee was divided into seven groups of three each.—Ed.]

18. The arbitrators in disputes shall be members of the Executive Committee.

If the award of the three arbitrators be not approved by any party the matter may be referred on appeal to the President, who shall put it up before the Executive Committee.

If the award of the Executive Committee be also not approved, the matter shall be referred to the General Committee whose decision will be final.

19. If any one in the parties having a dispute has reasonable objection to any member in the group of arbitrators, he may put forward his objection to the President who shall have full powers to change the entire group or the member objected to, or refuse to interfere. The President shall have full authority to effect changes in the groups of arbitrators.

20. Disputes regarding transactions for which no contract has been made in writing shall not be heard by the Panchayat.

21. If a *dalal* effects a *pacca* bargain with an *artia* and afterwards retracts it on the plea that the other party does not accept it, the bargain shall be considered cancelled on market rates. The claim regarding any loss ensuing shall be heard against the *dalal* or the buyer concerned, by the Panchayat on application.

22. Every member (not having excused himself previously) must attend the meetings of the Panchayat and at the appointed time. Any one coming late by 15 minutes shall pay a penalty of five pies. Any one absenting himself after signifying his intention to attend shall have to pay a penalty of 2½ annas. These fines shall be contributed to the *gaushala* fund.

RULES IN FORCE AT HODAL MARKET, DISTRICT GURGAON.

(Translated).

To-day, the twelfth day of the month of *Pok* 1980, (*Vikrami* era) the members of the *mandi* met together and framed the following rules for the purchase and sale of goods. He who does not act in accordance with these rules will not be allowed to do business in the market.

1. There shall be no weighing charges on cotton. On cotton-seeds they shall be half pice a rupee, and on the rest of articles, namely, gram, rice, *gur*, *shakkar*, sugar, oil, *ghi*, and oilseeds they shall be one pice per rupee.

2. The weight of a maund of ginned cotton shall be taken equal to 40 seers, of raw cotton equal to 40½ seers, of *gur* equal to 40¼ seers and of all grains equal to 40¼ seers.

3. On all goods on which weighing charges are one pice a rupee the buyer shall get a *kat* from the seller of 5 annas per Rs. 100/-.

4. A deduction of 5 pice per Rs. 100/- shall be made from the seller as *dalali* and shall be passed on to the seller whether he does or does not employ a *dalal*.

5. The weight of a maund shall be equal to 3,232 *tolas*. A seal of the Panchayat shall be affixed on every weight to be used in the *mandi*. Weights that do not bear this seal shall not be considered correct.

6. If any one be found using an incorrect weight he shall be fined Rs. 11/- by the Panchayat.

7. All accounts shall be cleared daily. But, if for any reason the buyer is unable to do so, he may make payment within five days. If, however, payment is made on the 6th day he shall not get the *kat* discount of 5 annas per Rs. 100/- mentioned in para. 3 above. The *artia* must, however, approach the buyer and ask for his payment; in case he does not do so the buyer shall be entitled to *kat* even if he makes payment on the sixth day.

8. Except in case of cotton, payments must be made by buyers in silver coin.

9. A client of one *artia* may only go to a second *artia* for the sale or purchase of goods, when he has cleared his accounts with the first *artia*. The second *artia* shall not otherwise do business for him. If he does he shall first pay the dues of the first *artia*. If any *artia* does any thing contrary to this rule he shall have to bear whatever punishment the Panchayat may inflict on him.

10. The market Panchayat shall consist of a President and five members.

FENTONGANJ MARKET COMMITTEE, JULLUNDUR CITY.

RULES FOR ELECTION OF MEMBERS.

(Translated).

1. Every shopkeeper doing business within the limits of the market shall be entitled to vote, provided he abides by the rules of the Committee.

2. Twelve members shall be elected; only proprietors or the managers of the firms being eligible. A *dalal* shall not be elected in this manner.

3. The licensed *dalals* shall, however, be entitled to elect one representative of their own, whether from among the *dalals* or other businessmen.

4. In all there shall be 15 members of the Committee, 13 elected and 2 nominated by the Committee.

5. A person under 21 years of age shall not be eligible for election, nor shall he be entitled to vote.

6. Only proprietors or managers of firms shall be entitled to vote. *Munims* or other persons shall not be entitled to do so.

7. One firm shall have one vote.

8. Two members shall not be elected from the same firm.

SELECTED RESOLUTIONS.

(Translated).

4th December, 1926. We the following merchants of the Fentonganj market elect the above mentioned ten persons for the management and control of our market and to decide disputes among us, merchants.

5th December, 1926. Every *dalal* shall in future obtain from the Committee a license which will be granted on payment of a fee of Re. 1/- per head. No one who does not possess a license will be allowed to work as a *dalal* in the market.

All *artias* in the market should be given notice that they shall within a week dispose of all goods which have been placed in their custody by *dalals* or in which *dalals* have a share with them. Should any *artia* fail to do this the Committee will deal with him as it considers proper.

No *artia* shall in future enter into any transaction to which any *dalal* or any one of a *dalal's* relatives is a party.

If a *dalal* ever makes a ready purchase on his own account none of the customary allowances of the market allowed to regular buyers shall be given to him.

15th December, 1926. Of the applications received from *dalals* for the grant of licenses, those of _____ are not accepted. A list of *dalals* that have been given licenses will be printed and circulated before the 26th of January. After this no *artia* shall buy or sell goods through a *dalal* who has not been duly licensed.

An *artia* who buys goods direct shall not be entitled to any *dalal's* from the selling party. It shall only be charged when a *dalal* has been employed.

21st December, 1926. *Dalals* _____ may be allowed to resume their work as they have given an assurance that they will not in future enter into any partnership with the *artias* in the sale or purchase of goods. They have apologised for their previous misconduct.

26th December, 1926. In future no business shall be transacted on the 1st of the Indian calendar month, which shall be considered a holiday.

6th January, 1927. Members of the Committee should not recommend applications in future. No recommended applications will be entertained.

19th February, 1927. The next election of the Committee will be held on 21st February, 1927. The necessary forms will be distributed among the shopkeepers of the market so that they might fill in the names of persons whom they wish to elect, and send the forms to the Secretary. Ten members of the Committee will be elected in this manner while another three members may be added by the Committee itself.

24th February, 1927. The following office-bearers have been duly elected by a majority of votes :—

1. Chairman.
2. Vice-Chairman.
3. Junior Vice-Chairman.
4. Secretary.
5. Joint Secretary.
6. Treasurer.

23rd March, 1927. From 1st of April, 1927 a maund of oilseeds shall be considered equal to 40 seers and not $41\frac{1}{2}$ seers, as has been the case hitherto. The grain shall, however, be sifted during weighing to take out the dirt and dust.

30th April, 1927. The resolution passed by the Committee on 23rd March, 1927, is hereby rescinded. A maund of oilseeds, *toria*, etc., shall again be equal to $41\frac{1}{2}$ seers as in the past.

20th May, 1927. It having been realised that the arrivals have been low during the year, it is hereby resolved that the contractor of carts be charged only Rs. 1,400/- instead of Rs. 1,525/-, i.e., Rs. 125/-, the value of one instalment, be excused him.

14th August, 1927. An application from Messrs. A. against B. was received in the office of the Committee for arbitration and X. and Y., members of the Committee, were appointed arbitrators, who after thorough inquiry gave an award that B., defendant, should pay to the plaintiff A., two annas per maund on fifteen bags. As B. did not comply with that decision for some time, he was sent for by the Committee and asked to accept the decision. He, however, refused to do so. It is consequently resolved that no *artias* shall transact any business with B. so long as he does not pay Rs. 4/11/0 to A. All *artias* and *dalals* to be informed accordingly.

15th August, 1927. As B. has filed an appeal with the Committee, their orders of boycott against him are hereby withdrawn. Similar orders against D. are also withdrawn.

24th March, 1928. M. of the firm of Messrs. _____ should have a beam scale set up in the market to serve as ' *Dharam Kanda*.' The certificate of weight given by M. shall be deemed as final. [This decision could not be given effect to as M. left the market shortly afterwards.—Ed.]

9th April, 1928. K. should arrange to get from the treasury 3,200 new rupees, which are required to test the weights in the market.

11th June, 1928. A Sub-committee consisting of the following members should on the 1st of *Amavas* check the weights in the Market and get them corrected. Also, a reasonable subscription may be realised from the *artias* in order to purchase and install a ' *Dharam Kanda* ' in the market.

2nd August, 1928. A *mashki* should be engaged on a salary of Rs. 10/- to Rs. 12/- per mensem, for sprinkling water in the market.

As it is considered desirable that the Committee should be got registered, L. is deputed to get this done.

FORM OF LICENSE FOR DALAIS.

No. _____ Date _____
 Dalal's name _____ Father's name _____
 Caste _____ Residence _____ Year _____
 (Signature) _____ (Signature) _____
 President. Secretary.

(On the reverse).

I agree to abide by the following terms :—

1. That I will not transact any business in my own name, or in the name of any of my relatives or in partnership with anyone.
2. That I will implicitly follow the dictates of the Committee in all my dealings in the market.
3. That if I ever infringe any of the rules, the Committee has full power to cancel my license.

(Signature) _____

FORM OF APPLICATION TO BE MADE BY A DALAL WHEN APPLYING FOR A LICENSE.

To

THE SECRETARY,
 FENTONGANJ MARKET COMMITTEE,
 JULLUNDUR CITY.

SIR,

I beg to request the favour of your kindly granting me a license for *dalais* for the coming year. I promise to abide by the rules and regulations of the Committee. I shall pay the license fee which may be fixed by the Committee.

Faithfully yours,
 (Applicant's signature).

APPENDIX E.

MODEL BYE-LAWS ON WEIGHTS AND MEASURES FOR MUNICIPALITIES IN THE PUNJAB.

Gazette Notification, dated the 8th October, 1923.

No. 23537. The following model bye-laws, defining the standard weights and standard measures of volume and length to be used within municipalities and regulating the inspection of such weights and measures of volume and length have been drawn up in consultation with the Master of His Majesty's Mint and the Officer-in-charge of the Mathematical Instrument Office, Calcutta, and are hereby published for the guidance of all municipal committees in the Punjab :—

MODEL BYE-LAWS.

(Under Section 188 (e) (iii) and 199 (1) of the Punjab Municipal Act, 1911.)

1. Within the limits of the _____ Municipality—

(a). The primary standard of weight shall be the standard *tola* which shall be equal to the weight of the Government rupee as prescribed by section 5 (1) of the Indian Coinage Act, 1906.

(b). The primary standard of volume shall be the standard quart as prescribed by section 15 of the Weights and Measures Act, 1878.

(c). The primary standard of length shall be the standard yard as prescribed by section 2 of the Measures of Length Act, 1889.

2. (a). A weight of five standard *tolas* shall be called a standard *chhatak*, a weight of 16 standard *chhataks* shall be called a standard *seer*, and a weight of 40 standard *seers* shall be called a standard *maund*.

(b). A volume of one half part of a standard quart shall be called a standard pint, and a volume of four standard quarts shall be called a standard gallon.

(c). One-third part of the standard yard shall be called a standard foot, and one thirty-sixth part of such a yard shall be called a standard inch.

3. No person shall use within the limits of the _____ Municipality for the purpose of barter, sale or exchange any weight or measure of volume or length purporting to be—

(a). A *tola*, *chhatak*, *seer* or *maund*, or

(b). pint, quart or gallon, or

(c). inch, foot or yard,

or any multiples or sub-divisions thereof unless it conforms with its respective standard as prescribed in bye-laws 1 and 2.

4. Two sets of each of the following standard weights and measures of volume and length shall be kept at the office of the _____ Municipal Committee, and of these the sets of the standard of weight and volume shall bear the mark and date of His Majesty's Mint at Calcutta and the standard of length shall bear the certificate of the Officer-in-charge, Mathematical Instrument Office, Calcutta :—

Weight, 20 (two specimens), 10, 4, 4, 3, 2, 1 seers and 8, 4, 2, 1 *chhataks* and 3, 2, 1, $\frac{1}{2}$ and $\frac{1}{4}$ *tolas*.

Volume, 1 gallon, 1 quart, 1 pint.

Length, 1 yard, 1 foot, 1 inch.

5. The Secretary of the _____ Municipal Committee shall allow any person to inspect the standard weights and measures of volume and length mentioned in bye-law No. 4 free of charge at all reasonable times and to compare therewith any weight or measure which such person may have in his possession.

6. The standards of weight and volume, and the standards of length mentioned in bye-law 4 shall in the month of January every year be sent to be tested, one set at a time, by the Master of His Majesty's Mint, Calcutta, and the Officer-in-charge, Mathematical Instrument Office, Calcutta, respectively.

7. Any person committing a breach of bye-law 3 shall be liable on conviction by a magistrate to a fine which may amount to Rs. 50.

APPENDIX F.

EXAMPLE OF AN AUCTION SALE.

[The instance given below is a verbatim reproduction of the words spoken by an *artia*, (together with an English translation), when conducting an auction of a heap of wheat in the Moga market. Offers ~~which~~ were made by the different buyers in annas and pices (rupees being understood). The *artia* repeated each offer over and over again till a higher offer was made.]

<i>Vernacular.</i>	<i>English.</i>
" Das anna—bolo bhai bolo	.. Ten annas—speak, brothers, speak.
Sawa das anna ..	.. Ten annas and a quarter.
Dhai paise das anna ..	.. Two and a half pice ten annas.
Paune gyara anna ..	.. Ten and three-quarters annas.
Gyara anna ..	.. Eleven annas.
Kyun, Lalaji, kyun Shahji	.. Well, Lalaji, well Shahji.
Sawa gyara anna ..	.. Eleven annas and a quarter.
Sarhe gyara anna ..	.. Eleven and a half annas.
Paune bara anna ..	.. Eleven and three-quarters annas.
Dhela kam bara anna ..	.. Half pice less twelve annas.
Bara anna ..	.. Twelve annas.
Kyun, Lalaji ..	.. Well Lalaji.
Sawa bara anna ..	.. Twelve annas and a quarter.
Sarhe bara anna ..	.. Twelve and a half annas.
Ih kis di kanak hai—chhad dayan ?	.. Whose wheat heap is this—may I let it go ?
Dhai paise bara anna ..	.. Two and a half pice twelve annas.
Ek—do— ..	.. One—two—
Ek—do—tin—ho gya ..	.. One—two—three—finished.

GLOSSARY OF TERMS.

ADAT	.. See Arit.
ADATYA	.. See Artia.
AMAVAS	.. The last day of the dark fortnight; the night of the new moon.
ANNA	.. One-sixteenth of a rupee.
ARIT	.. Artia's commission.
ARTIA	.. Commission agent.
—, KACHCHA	.. Commission agent who acts for sellers.
—, KACHCHA-PACCA.	.. Commission agent who acts either for buyers or sellers.
—, PACCA	.. Commission agent who acts for buyers.
BAHI	.. Account book.
BHOJA	.. A bag of unpressed cotton, weighing 392 lbs.
CHABUTRA	.. Raised platform.
CHHATAK	.. Indian weight equal to 2·057 ozs., or one-sixteenth of a seer.
CHAUKIDAR	.. Watchman.
CHUNGI	.. A cess levied from grain-sellers.
CHUHRA	.. Sweeper.
COMMISSIONER	.. Administrative head of a Division; in the Punjab there are five Divisions.
COLLECTOR	.. Same as Deputy Commissioner in the Punjab.
DALAL	.. Broker.
DALALI	.. Brokerage.
DAMI	.. Market deduction made from the buyer.
DARA SALES	.. The sale of several heaps of different qualities of produce belonging to more than one seller lumped under one transaction.
DEPUTY COMMISSIONER	Administrative head of a district.
DESI	.. Indigenous; native to the country.
DHARAM KANDA	.. <i>Lit.</i> Scale of justice; standard scale.
DHARMAO	.. Contribution levied in markets for charitable purposes.
DHELA	.. Half pice; one-eighth of an anna.
DISTRICT	.. The most important administrative unit of area; there are 29 districts in the Punjab.

DISTRICT BOARD	.. A council, chiefly of persons elected on a land-revenue paying franchise, which discharges the functions of rural administration in a district; roughly equivalent to a rural district council in England.
DOCRA	.. A bundle of cotton.
GUR	.. Raw-sugar in lumps; unrefined sugar.
GAUSHALA	.. Sanctuary for cows; charitable contribution for maintenance of old and decrepit cattle.
GHI	.. Clarified butter, generally used in India instead of lard or other cooking fats.
INAM	.. Gift; present; gratuity.
KACHCHA	.. Not perfect, complete, finished or fixed; in case of weights and measures it distinguishes the local (village) from standard weights.
KAPAS	.. Unginned cotton.
KABTA	.. Allowance for impurities (dirt and dust) in grain and cotton.
KAT	.. Discount.
KHANDI	.. A measure of weight and capacity; for cotton 784 lbs.
KOTHA	.. Room; granary; godown.
MANDI	.. Market place; a set of shops built round three or four sides of a rectangle, a wide brick pavement being provided for unloading, examining, cleaning and bagging grain.
MAP	.. Any earthen pitcher used as a measure of grain.
MASHKI	.. Muslim water-carrier.
MAUND	.. Indian standard weight of forty seers; equal to 82 $\frac{2}{7}$ lbs.
MEHRA	.. Hindu water-carrier.
MUNIM	.. Clerk or accountant.
NOTIFIED AREA	.. Places—too large to be considered villages and yet hardly large enough to be called towns—provided with an elective constitution under the Punjab Small Towns Act.
PACCA	.. Sound, perfect, complete, fixed; applied to weights and measures it denotes those recognised by the Government as distinguished from those having a local sanction.
PAO	.. Quarter; one-fourth of a seer; four annas.
PANCHAYAT	.. <i>Lit.</i> , Committee of five. An association of any number of persons instituted for objects of an administrative or judicial nature.
PALLU	.. Four annas.

PICH	.. One-fourth of an anna.
POH	.. Indian calendar month—middle of December to middle of January.
RUPEE	.. Indian standard coin, fixed at 1s. 6 <i>d.</i> sterling since 1927.
SAI	.. Earnest-money ; pledge.
SHAKKAR	.. Roughly ground raw cane-sugar ; jaggery.
TAHSILDAR	.. Official in executive charge of a tahsil (sub-division of a district).
TALUKA	.. A local revenue division of a district.
TALUQDAR	.. A big landowner.
TOLA	.. Weighman.
TOLAI	.. Weighing charge.
VIKRAMI ERA	.. Hindu era commencing with 57 B.C., in commemoration of Vikramaditya.
WATTA	.. Discount ; rebate claimed against mixed quality in a heap of cotton or grain.
ZEMINDARA	.. Pertaining to the cultivator (<i>zemindar</i>).

The Board of Economic Inquiry, Punjab.

PUBLICATION No. 40.

[GENERAL EDITOR: J. W. THOMAS, D.Sc., B.Com.]

revised
1.10.1935

FAMILY BUDGETS, 1932-33⁹ OF FOUR TENANT-CULTIVATORS IN THE LYALLPUR DISTRICT

BY

SARDAR KARTAR SINGH, B.Sc. (AGRI.), N.D.D., L. Ag.,
ASSOCIATE PROFESSOR OF AGRICULTURE,
LYALLPUR.

[The Board of Economic Inquiry, Punjab, does not hold itself responsible for any opinions expressed or conclusions reached by the writers.]

1934.

Food Reports of the
Board of Economic Inquiry, Punjab.

1. Sixty Years of Punjab Food Prices, 1861-1920.
(Publication No. 7.)
2. Eighty Years of Punjab Food Prices, 1841-1920.
(Publication No. 13.)
3. Rates of Food Consumption of Zemindars in the
Talagang Tahsil of the Attock District.
(Publication No. 6.)
4. Food Consumption by Zamindars in Khanewal
Tahsil of the Multan District.
(In Press).

A complete list of the Board's publications is given
on the back cover.

X 9 (J) : 16 (Y2) . 23652

C-4

CONTENTS.

	PAGE.
Foreword	i-iv
Introduction	v
Report—	
Introductory	1
Object of the Inquiry	1
Method of the Inquiry	1
Particulars of the Families	2
Expenditure	3
Housing	5
Food	5
Chemical Composition of the Food	13
Fuel	16
Dress	17
Medicine	19
Light	19
Education	19
Religion	20
Travelling	20
Social	20
Amusement and Luxuries	20
Miscellaneous	20
Sources of the Goods Consumed	20
Income	21
Financial Position of the Tenants	22
Employment of Members of the Family	23
STATEMENTS—	
I.—Amount of Important Articles of Food Consumed by the Four Tenant Families during the year, 1932-33	24
II.—Cost of Production of Milk	25
III.—Constituents of the Food Consumed by the Tenants during the year, 1932-33	26
IV.—Value of the Items of Household Expenditure furnished by the Farm or Purchased from Outside	27
V.—Labour Sheet showing the Days Worked by an Average Family during the year, 1932-33—	
A. Male Workers	28
B. Female Workers	29
APPENDICES—	
A.—Chemical Composition of the Foods	30
B.—Forms Used in the Inquiry	30

LAHORE:
PRINTED AND PUBLISHED AT THE "CIVIL AND MILITARY GAZETTE," LTD.,
BY E. G. TILT, MANAGER.

1934.

FOREWORD.

Lyallpur (population in 1931 was 42,922), the principal town of the Punjab Canal Colonies, the headquarters of Lyallpur District, lies about 90 miles due west of Lahore and is readily accessible by both rail and road. In it are found the Provincial Agricultural College, a Government Degree College, a Khalsa Intermediate College, (a women's Government Intermediate College is to be opened in October 1934), a Veterinary Hospital, several mills for flour, sugar, vegetable *ghi* and cotton goods. There is now nearly built one of the best-equipped cotton mills in India which will have all departments, ginning, carding, spinning, weaving, bleaching and printing. It is expected to compete successfully with any of the Bombay, Ahmedabad or Cawnpore mills. Three miles outside Lyallpur, to the west, there is a large Government farm of 802 acres on which a number of crop experiments, particularly in cotton and sugarcane, are being carried out. There are, two or three miles beyond this farm, two large estates, one of more than 3,000 acres and the other of 2,360 acres, taken on long lease by Europeans whose contracts compel them to keep stud farms on part of the estates to supply Government with army mules.

The four family budgets analysed in this brochure deal with three *Arain* and one *Jat* Muslim tenants on this Government farm holding respectively under the prevailing metayer system—

<i>Tenants.</i>	<i>Acres.</i>	<i>Kanals.</i>	<i>Marlas.*</i>
A. (<i>Arain</i>)	27	6	10
B. (<i>Jat</i>)	27	4	14
C. (<i>Arain</i>)	27	4	16
D. (")	25	0	0

and who cropped in 1932-33—

A.	28	0	10
B.	28	4	10
C.	27	7	1
D.	28	0	10

The gross income, total expenses and net income with regard to cultivation alone for the four families† was as follows :—

*20 *marlas* = 1 *kanal* ; 8 *kanals* = 1 acre.

† Cf. Pages 200-201, " Farm Accounts in the Punjab, 1932-33 ", Tenant Members 3, 0, 7 and 16.

		FARM ACCOUNTS.					
		Gross income.		Expenses of cultivation.		Net income.	
		Rs.	a. p.	Rs.	a. p.	Rs.	a. p.
A.	..	908	4 7	494	6 1	413	14 6
B.	..	831	12 1	588	4 10	243	7 3
C.	..	999	14 10	469	9 2	530	5 8
D.	..	937	12 0	579	3 5	358	8 7

Besides cultivation, each family added to its income, mainly by keeping milch cattle, which not only supplied them with the second most important article of diet, but also provided a fair return through the sale of milk. Income from various agricultural services, such as cotton picking, carting farm produce to market and casual labour raised their total income against total expenditure as follows :—

Total Family Income.

	A.	B.	C.	D.	Total.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Cultivation ..	413 14 6	243 7 3	530 5 8	358 8 7	1,546 4 0
Sale of milk ..	21 7 2	7 0 0	18 11 6	6 2 5	53 5 1
Picking cotton ..	12 0 0	4 11 0	4 7 3	7 3 0	28 5 3
Carting ..	..	..	3 2 0	5 6 3	8 8 3
Casual labour ..	2 13 6	2 3 0	13 8 0	3 15 0	22 7 6
<i>Grand Total</i> ..	<i>450 3 2</i>	<i>257 5 3</i>	<i>570 2 5</i>	<i>281 3 3</i>	<i>1,658 14 1</i>

Total Family Expenditure.

	A.	B.	C.	D.	Total.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Food ..	267 7 10	266 4 7	298 5 4	376 5 11	1,208 7 8
Clothing ..	117 6 3	87 14 5	92 9 9	90 10 8	388 9 1
Travel ..	30 0 0	10 8 0	35 12 0	35 12 0	112 0 0
Other ..	54 10 3	42 3 6	30 9 0	42 2 0	169 9 3
<i>Grand Total</i> ..	<i>469 8 4</i>	<i>406 11 6</i>	<i>457 4 7</i>	<i>543 14 7</i>	<i>1,578 19 0</i>

Thus we see that only Tenant C. was able to balance his budget by income earned by the work of cultivation alone. The size of the family, and health, are important factors in a favourable or deficit budget—thus Tenant A. just scraped through with 9 members, but D., with a family of 12, finds himself in an almost hopeless position. B., while having only six members, is composed of an old couple, two sons, one recently married, and one small child. Tenant D. had a sick member for more than two months (page 19) and Tenant B. had sore eyes for a long time (page 19).

The mud huts of these tenants are low-roofed, windowless, airless and miserable abodes. Of course, for nine months of the year, the entire family practically live out-of-doors and the houses are used only as store-rooms and shelters in case of storm. In the winter nights of December to February, they are so ill-clad that a closely-shut mud box (as someone called these huts) is their chief protection against the bitter cold. There is a village primary school but except for one boy from the family of Tenant A., it is not patronized by these families. The *Aram* is a hard-headed, hard-working small-scale cultivator and he sees no prospect of returns from the present scheme of education which consists largely of the three 'Rs.' In fact, he is afraid that his boys may thus learn to shun the hard toil, dirt and sweat of the farm.

While the net returns of this farm to Government were Rs. 20,197, the net returns to 40 tenants were only Rs. 10,793, or about Rs. 354 per family cultivating a square. In addition, an average family earned about Rs. 28 by other occupations, such as carting, manual labour and sale of milk. Thus, the total-income came to about Rs. 382 per family against an average expenditure of Rs. 470 as found out in case of these four tenants.

It is to be noted that in "*Farm Accounts in the Punjab, 1932-33*," the year referred to runs from 1st June 1932 to 31st May 1933, while this study covers the period 1st November 1932 to 31st October 1933. But Professor Kartar Singh thinks that the income and expenditure of the 12 months, 1st June 1932 to 31st May 1933, is almost identical with the income and expenditure of the 12 months here recorded, seven months of the two periods being the same. This is probably correct.

This is not the place to offer solutions for the many difficult rural problems touched upon but simply to draw attention to some of the facts. Fortunately, the number of the local mills dealing with the produce of the district is rapidly increasing and if some of the surplus rural labour could be drawn off to supply these mills, great relief would be afforded. But the capitalist mill-owner is importing very cheap labour from the U. P., Rajputana

and Central India, labour which is much more docile than Punjabi, and is thus depriving the neighbourhood of much of the advantage that might be derived from the mills by the local population.

The accounts on which this brochure is based have been carefully kept and we believe that we have here one of the most accurate pictures of just how such tenant-peasant families manage to live, *i.e.*, the economic side of their lives, which has so far been presented to the Punjab public. It will repay careful study.

22nd August, 1934.

E. D. LUCAS,
Acting Secretary.

INTRODUCTION.

So far as the writer is aware, no authentic information is available in India about the family budgets of cultivators. A series of publications, entitled "*Farm Accounts in the Punjab*" have been published under the auspices of the Board of Economic Inquiry, Punjab, since 1923-24, which give only the income and expenditure of the cultivators in some districts of the Punjab from the point of view of cultivation alone, but do not deal with the domestic expenses of a cultivator's family, nor do they give the income and expenditure accounts in connection with milch cattle and young stock that the cultivator usually keeps along with the bullocks that are required for cultivation. Besides, agricultural work in India is not carried out by male members of the family alone, but is conducted as a family concern, and nearly every member of the family contributes some share of labour. For instance, the wives and daughters of the cultivators attend to the milch cattle and cook meals and carry them to the fields. The efficiency of the male workers would be considerably reduced if the women of the house did not perform this work. The smaller children, not big enough to do the work of cultivation, are very helpful in grazing cattle, or doing other odd jobs. It is, therefore, necessary, in order to know the true financial position of a cultivator, that one should study the whole of the business and life of the farm as one concern. The information given in this note is meant to fulfil this need, and it is believed that it will prove useful to all workers interested in rural welfare.

My thanks are due to Dr. Lander, Agricultural Chemist, Lyallpur, who very kindly allowed me the use of unpublished data regarding the composition of some foods worked out in his laboratory for calculating the food value of ration consumed by the tenants under study. My special thanks are also due to S. Ajaib Singh, B.Sc. (Agri.), for the heavy work done by him in tabulating the data.

KARTAR SINGH.

FAMILY BUDGETS OF FOUR TENANT-CULTIVATORS IN THE LYALLPUR DISTRICT.

Introductory.—The present inquiry relates to four families of Mohammedan tenants working on the Risalewala Government Agricultural Farm, about three miles from the town of Lyallpur. They each cultivated about one square (27·8 acres), each using two pairs of bullocks, on the *half-batai* system. The income from cultivation given in this note (page 21) means the return for the labour put in by these tenants on entirely farm work. For details, reference may be made to tenants No. 3, 6, 7 and 16, respectively, in Part X. (pages 192-202) of "*Farm Accounts in the Punjab, 1932-33*".* The inquiry covers a period of one full year from 1st November 1932 to 31st October 1933.

Object.—The inquiry was started in order to collect the following information :—

1. The cost of various items of household expenditure—
 - (a). furnished by the farm ;
 - (b). purchased from outside.
2. The total income of each of the four families from all sources.
3. The total working days of the members of the family.

Method.—The following records were maintained separately for each of the families studied :—

- (1). Opening inventory.
- (2). Closing inventory.
- (3). Cash accounts, daily.
- (4). Kind accounts, daily.
- (5). Milk accounts, weekly.
- (6). Fuel accounts, weekly.
- (7). Labour accounts, daily.

A copy of the forms used for keeping these records is given in Appendix B.

A trained investigator made a daily round and recorded the cash and kind transactions of the day. The labour performed by each member of a family was also recorded. Production and

*Board of Economic Inquiry, Punjab, Publication No. 35.

disposal of milk was recorded each Wednesday, when the investigator attended the morning and the evening milking, and measured the milk. The fuel consumption was noted only once a week.

Particulars of the Families.—The following table shows the number of members and of adult male units in each of the four families :—

Tenant.	ADULTS (ABOVE 16 YEARS).		ADOLESCENTS (10 TO 16 YEARS).		Children below 10 years.	Total.	Adult male units.
	Male.	Female.	Male.	Female.			
A. (Arain) ..	3	2	1	1	2	9	6.5
B. (Jat) ..	3	2	..	..	1	6	4.9
C. (Arain) ..	4	2	..	..	3	9	6.7
D. (Arain) ..	3	3	1	..	5	12	8.2
<i>Total</i> ..	13	9	2	1	11	36	26.3
Average per family ..	3.25	2.25	0.50	0.25	2.75	9.00	6.58

The term family, as used here, means a joint family. Family A. (*Arain*) includes a tenant, his wife, parents, brothers and sisters. Family B. (*Jat*), comprises an old couple, their two sons, a daughter-in-law, and a grandchild. Family C. (*Arain*) consists of two brothers, their wives and children, father and uncle. Family D. includes two brothers, their parents, wives and children. Family D. is divided into two parts each living in a separate house. The parents of the family live with one of the sons, and the other son resides in a separate house. In this note, this family has been treated as one, for both the brothers cultivate the same holding and make frequent exchanges of household articles with one another.

For the sake of comparison, the members of each family have been reduced to adult male units, as shown in the last column of the above table, by the use of Atwater's scale* given below :—

Age in years.	EQUIVALENT ADULT MALE UNITS	
	Male.	Female.
Adult over 16	1.0	0.8
15 to 16	0.9	0.8
13 to 14	0.8	0.7
12	0.7	0.6
10 to 11	0.6	0.6
6 to 9	0.5	0.5
2 to 5	0.4	0.4
Under 2	0.3	0.3

*" Chinese Farm Economy " by Buck, page 17.

EXPENDITURE.

The household expenditure has been classified as follows :—

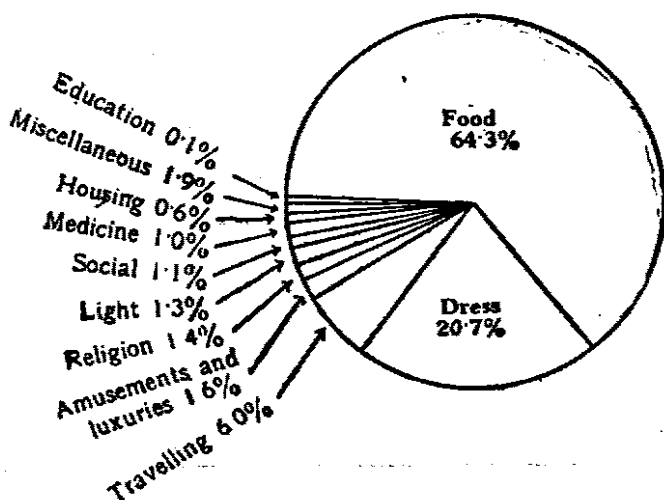
- | | |
|--------------------------------|------------------------------|
| 1. Housing. | 7. Education. |
| 2. Food. | 8. Religion. |
| 3. Fuel. | 9. Travelling. |
| 4. Dress (Clothing and Shoes). | 10. Social. |
| 5. Medicine. | 11. Amusements and Luxuries. |
| 6. Light. | 12. Miscellaneous. |

The statement on the following page gives the expenditure of the four families during the year, under the above heads.

It will be observed that the total expenditure per family varied from Rs. 406/14/6 to Rs. 544/14/7, the average being Rs. 469/10/6. Per adult male unit the expenditure ranged from Rs. 66/7/3 to Rs. 83/0/7, and the average came to Rs. 71/6/0.

The most important item of expenditure was food, which alone formed 64·3 per cent. of the total. The other expenses in the order of importance were : dress 20·7 per cent., travel 6·0, amusements and luxuries 1·6, religion 1·4, light 1·3, social 1·1, medicines 1·0, housing 0·6 and education 0·1. Miscellaneous expenses amounted to 1·9 per cent. The following diagram illustrates the proportion of various items in the expenditure :—

CHART I.



Statement showing the Expenditure on Different Items per Tenant Family and per Male Unit during the Year, 1932-33.

Item.	TOTAL.					PER ADULT MALE UNIT.					Percentage to the total.
	A.	B.	C.	D.	Average.	A.	B.	C.	D.	Average.	
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
1. Housing (Repairs alone)	2 4 0	3 1 6	..	5 2 0	2 9 10	0 5 6	0 10 1	..	0 9 11	0 6 4	0.6
2. Food	287 7 10	266 4 7	298 5 4	376 5 11	302 1 11	41 2 5	54 5 6	44 8 4	45 14 5	45 14 8	64.3
3. Fuel	..	..	..	..	..	..	..	..	..	..	..
4. Dress	117 6 3	87 14 5	92 9 9	90 10 8	97 2 3	18 1 0	17 15 0	13 13 2	11 0 11	14 12 2	20.7
5. Medicine	3 4 6	4 4 0	3 4 0	8 0 0	4 11 2	0 8 7	0 13 11	0 7 9	0 15 8	0 11 5	1.0
6. Light	5 4 0	6 0 0	5 2 6	8 0 0	6 1 8	0 12 11	1 3 7	0 12 4	0 15 7	0 14 10	1.3
7. Education	2 9 9	..	..	..	0 10 5	0 6 5	..	..	..	0 1 7	0.1
8. Religion	11 8 0	9 8 0	2 4 0	3 10 0	6 11 6	1 12 4	1 15 0	0 5 4	0 7 1	1 0 4	1.4
9. Travelling	30 0 0	10 8 0	35 12 0	35 12 0	28 0 0	4 9 10	2 2 3	5 5 5	4 5 9	4 4 1	6.0
10. Social	13 0 0	6 0 0	..	2 0 0	5 4 0	2 0 0	1 3 7	..	0 3 11	0 12 9	1.1
11. Amusements and luxuries	9 8 0	6 0 0	7 8 0	7 8 0	7 10 0	1 7 5	1 3 7	1 1 11	0 14 8	1 2 7	1.6
12. Miscellaneous	7 4 0	7 6 0	12 7 0	7 14 0	8 11 9	1 1 10	1 8 1	1 13 9	0 15 4	1 5 3	1.9
<i>Total</i>	<i>489 8 4</i>	<i>406 14 6</i>	<i>457 4 7</i>	<i>644 14 7</i>	<i>469 10 6</i>	<i>72 3 9</i>	<i>83 0 7</i>	<i>68 4 0</i>	<i>66 7 3</i>	<i>71 6 0</i>	<i>100.0</i>

(1). *Housing*.—Mud houses consisting of two to four rooms each were provided for the tenants free of cost by the landlord. The tenants had only to make annual repairs. 'Housing' accordingly includes only the cost of repairs to the houses, and recurring expenditure on furniture. In the western sense of the term 'furniture', there was no furniture in the tenants' houses, there being neither tables nor chairs. The furniture consisted of string beds (*charpais*), low stools (*pikris*) and wooden or iron boxes.

The expenditure on cooking utensils and hand flourmills (*chakkis*) has been included in 'food,' and that on spinning-wheels (*charkhas*) in 'dress'—(clothing and shoes).

The housing expenses consist only of repairs to the houses and the purchase of furniture, and varied from nil to Rs. 5/2/0, the average being Rs. 2/9/10 per family and Rs. 0/6/4 per adult male unit. The cost was nil with Tenant C., for he neither purchased any furniture during the year, nor employed any outside labour for house repairs.

(2). *Food*.—This item, being a very large one, has been further sub-divided as follows:—

- (i) Wheat.
- (ii) Maize.
- (iii) Milk and milk products.
- (iv) Sugar.
- (v) Rice.
- (vi) Meat.
- (vii) Pulses.
- (viii) Vegetables.
- (ix) Fruits.
- (x) Salt.
- (xi) Miscellaneous.

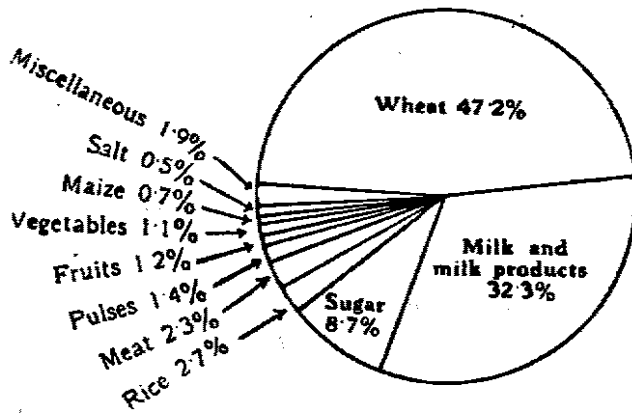
The value of these articles as consumed by each household is shown in the table on the following page.

The cost on food varied from Rs. 266/4/7 to Rs. 376/5/11 per family, and from Rs. 41/2/5 to Rs. 54/5/6 per adult male unit, the average being Rs. 302/1/11 and Rs. 45/14/8, respectively. Wheat is the most important article of food and alone formed 47·2 per cent. of the total expenditure on food. Milk and *ghi* formed 32·3 per cent., sugar 8·7, rice 2·7, meat 2·3, pulses 1·4, fruits 1·2, vegetables 1·1, maize 0·7, and salt 0·5 per cent. of the total. Chart II., on page 7, shows the share of each article in the total expenditure on food.

Statement showing the Share of Each Article in the Total Expenditure per Family and per Male Unit during the Year, 1932-33.

Item.	TOTAL.					PER ADULT MALE UNIT.					Percentage to the total.
	A.	B.	C.	D.	Average.	A.	B.	C.	D.	Average.	
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
1. Wheat ..	142 14 0	119 2 0	148 7 3	160 10 9	142 12 6	21 15 8	24 5 0	22 2 6	10 9 0	21 11 2	47.2
2. Maize ..	..	..	4 8 0	4 8 0	2 4 0	..	..	0 10 9	0 8 9	0 5 6	0.7
3. Milk and milk products ..	61 14 4	94 14 8	97 12 5	135 15 8	97 10 3	0 8 4	10 5 11	14 0 6	16 0 4	14 13 5	32.3
4. Sugar ..	28 0 0	20 11 10	16 11 6	30 0 6	25 8 11	4 5 10	5 7 4	2 7 11	3 11 4	3 14 2	8.7
5. Rice ..	9 0 0	2 8 0	9 5 6	11 10 0	8 1 11	1 6 2	0 8 2	1 0 4	1 0 8	1 3 9	2.7
6. Meat ..	5 7 6	7 2 0	3 10 6	11 11 0	6 15 9	0 13 6	1 7 3	0 8 9	1 6 10	1 1 0	2.3
7. Pulses ..	6 12 6	3 2 10	2 14 8	4 3 0	4 4 3	1 0 8	0 10 4	0 6 11	0 8 2	0 10 4	1.4
8. Vegetables ..	2 7 0	1 15 3	5 15 0	3 13 0	3 8 7	0 6 0	0 6 5	0 14 2	0 7 5	0 8 7	1.1
9. Fruits ..	2 4 6	4 2 0	2 9 0	5 12 6	3 11 0	0 5 8	0 13 6	0 6 1	0 11 4	0 9 0	1.2
10. Salt ..	1 8 0	1 1 0	1 10 0	1 12 0	1 7 9	0 3 8	0 3 5	0 3 10	0 3 5	0 3 8	0.5
11. Miscellaneous	6 14 0	5 9 0	4 13 6	5 15 6	5 13 0	1 0 11	1 2 2	0 11 7	0 11 8	0 14 1	1.9
<i>Total</i> ..	<i>207 7 10</i>	<i>266 4 7</i>	<i>298 5 4</i>	<i>376 5 11</i>	<i>302 1 11</i>	<i>41 2 5</i>	<i>54 5 6</i>	<i>44 8 4</i>	<i>45 14 5</i>	<i>45 14 8</i>	<i>100.0</i>

CHART II.



(i-ii) The diet of a Punjabi farmer consists of wheat or maize *chapatis* (unleavened cakes), boiled, salted and spiced pulses, vegetables, and if Muslim or Sikh, a little meat; *ghi*, curd and *lassi* (buttermilk). Milk is consumed either directly or in the form of curd, *lassi* or *ghi*. Occasionally a mixture of *ghi* and sugar is substituted for pulses and vegetables. Rice, *halwa* (confection) and other special dishes are also prepared occasionally to provide variety.

Wheat is used in the form of *chapatis* for most part of the year. It is only for a month or two in winter that it is replaced by maize. Maize along with *sag* of *sarson* (mustard greens) is a favourite winter food in the Punjab. On this farm, however, very little maize was grown for food grain, and many tenants had to go without this variety in the diet. From Statement I., on page 24, which shows the amount of the articles of food consumed by these families, it will be seen that only families C. and D. consumed 2 maunds of maize each. This comes to 1 maund per family and 0.2 maunds per adult male. Consumption of wheat varied from 44.1 to 55.0 maunds per family and from 6.7 to 9.0 maunds per adult male unit, the averages being 50.8 and 7.7 maunds, respectively. All the wheat and maize consumed were produced on the farm.

(iii) *Milk and Milk Products*.—Most Punjabi farmers, except the very poorest, keep milch cattle to provide milk, curd, *lassi* and *ghi* for their families. For this purpose the buffalo is preferred to the cow, the latter being kept mostly to be the dam for his bullocks.

Statement II., on page 25, shows the cost of production of milk for all the four tenants. There were in all 12·4* milch cattle and of these 5·2 were cows and 7·2 buffaloes, the average being 3·1 animals per family.

The cost of production of milk has been calculated against the various items of the cost, which are—

- (a) Roughages—fodders and *bhusa* (straw).
- (b) Concentrates—such as cotton-seed and gram.
- (c) Salt.
- (d) Interest and depreciation on the value of milch cattle.
- (e) Miscellaneous—Veterinary charges, value of ropes, etc.

The cost of labour required for the upkeep of milch cattle is not included in the cost of production, because no outside labour was employed for this purpose, and milk production was not the cultivator's main occupation but only a side line to general agriculture.

As a matter of fact, all farm animals are fed roughages in the same feeding troughs, and it is not possible to know separately the amount consumed by the milch cattle. The only method is to debit the value of roughages in proportion to the number of animals fed. Thus the cost of roughages is:—

$$\frac{\text{Roughages consumed by all farm animals.}}{\text{Total number of live-stock on the farm.}} \times \text{Number of milch cattle.}$$

For arriving at the total number of livestock on the farm, animals above two years were taken as adult, those between one and two years as half an animal, and those below one year were ignored.

The roughages and concentrates produced on the farm and fed to the milch cattle were valued at the rates used for calculating the income in the farm accounts, and those purchased were valued at the actual cost price. Cost of roughages added to the value of other items makes the total cost, but to find the net cost of production, the value of calves reared is deducted from this total. The value of farmyard manure produced by the milch cattle has not been deducted, because no farmyard manure was sold; a part

*This number includes a fraction because some of the animals remained on the farm for less than a year, the principle followed being to charge that animal as one, which remains on the farm for the whole year.

of it was burned to boil the milk and the rest applied to the crops. It has been included neither in the income nor in the expenditure.

Calculated in this way the total cost of production of milk for the four tenants was as follows :—

			Rs. a. p.
Roughages	..	..	341 14 4
Concentrates	..	..	99 14 3
Salt	..	..	6 8 0
Interest and depreciation at 8 per cent. and 12 per cent., respectively, on the value of milch cattle	..	..	142 6 8
Miscellaneous	..	..	4 3 0
		<i>Total</i>	594 14 3
<i>Deduct</i> —Value of young stock	..	..	42 0 0
		<i>Balance</i>	552 14 3

Roughages were all produced on the holdings but concentrates to the value of Rs. 18/14/3 were furnished by the holdings and Rs. 81/- worth were purchased from outside.

The animals produced 228 maunds, 8 seers of milk, i.e., the cows 80 maunds, 20 seers or 15.5 maunds per head, and buffaloes 147 maunds, 28 seers or 20.5 maunds per head. The cost of production per maund came to Rs. 2/6/9. As between tenants the cost varied from Rs. 2/3/2 to Rs. 2/14/3.

Of the milk produced 72 maunds, 21 seers were sold to a middleman, who visited the tenants' houses daily and carried the milk to town for sale; 58 maunds, 15 seers of buffaloes' milk were sold at Rs. 3/4/0 per maund and 14 maunds, 6 seers of cows' milk at Rs. 2/12/0 per maund. The tenants made a profit of Rs. 53/5/1 from the sale of milk, which amounts to Rs. 13/5/3 per family. This has been included in the income.

The remaining 155 maunds, 27 seers of milk were consumed directly or after being converted into various products such as curd, *lassi* and *ghi*. None of these products having been sold, this milk has been charged at the cost of production.

In addition to the milk and its products produced at home, the tenants purchased 11 seers, 6 *chhataks* of *ghi* for Rs. 13/-. The

total amount of *ghi* consumed by each family is given below :—

Tenant.	Produced.			Purchased.			Total.			Per adult male unit.	
	Mds.	Srs.	Ch.	Mds.	Sr.	Ch.	Mds.	Srs.	Ch.	Srs.	Ch.
A.	1	13	6	0	1	12	1	15	2	8	8
B.	1	23	4	0	2	10	1	25	14	13	7
C.	2	4	0	..	..	..	2	4	0	12	9
D.	2	27	15	0	7	0	2	34	15	14	0
<i>Total</i> ..	7	28	9	0	11	6	7	39	15	..	..
<i>Average per family</i> ..	1	37	2	0	2	14	2	0	0	12	3

This amounts to 0·39 *chhataks* per head per day and 0·53 *chhataks* per adult male unit. It may, however, be mentioned that *ghi* is consumed mostly by the male members of the family, the female members seldom take it.

The amount of milk and its products as shown in the Statement I. on page 24, includes the amount of milk equivalent to the *ghi* purchased.

The value of milk and its products consumed in the households varied from Rs. 61/14/4 to Rs. 135/15/8 per family, the averages being Rs. 97/10/3 per family and Rs. 14/13/5 per adult male unit. Of this 3·3 per cent. by value was purchased from outside, and 96·7 per cent. produced on the farm. Quantitatively, the consumption varied from 27·7 to 55·2 maunds per household and 4·3 to 6·7 maunds per adult male unit, the averages being 40·1 and 6·1 maunds, respectively. This amounts to 10·7 *chhataks* per adult male unit or 7·8 *chhataks* per head per day. It must be noted here that, as a matter of custom, the female members of a family get a smaller share of milk and its products, and the males get a greater. The reason is partly the difference in the nature of the duties of the two sexes, and partly the general privileges accorded to the male over the female in many respects.

(iv). *Sugar*.—The cultivators use two kinds of sugar, i.e., raw and refined. Raw sugar, being comparatively cheap, is used for everyday needs of the family, while refined sugar is reserved for guests and special occasions. Sugar is used for sweetening

milk and in various food preparations. It is also consumed with *chapatis* either alone or mixed with *ghi*, in place of pulses and vegetables.

The table on the following page shows the amount and value of sugar consumed.

It will be observed that a part of the raw sugar was furnished by the farm and a part purchased from outside, while refined sugar was all purchased. Tenant C. did not grow any sugarcane and had, therefore, to purchase all his sugar. Consumption of sugar per capita and per adult male unit comes to 31.13 and 42.6 seers, respectively. Of the latter 37.8 seers was raw sugar and 4.8 seers refined. The value of sugar used per adult male was Rs. 3/14/2.

Below are given the figures of per capita consumption of sugar in some foreign countries, the whole of Europe, and India during the year 1913-14 :—

Country.	Consumption per capita.*		
			Lbs.
United States of America	89-14
United Kingdom	93-37
Denmark	95-57
Europe	36-83
India	22-30

It will be seen that the consumption of sugar by the cultivators compares quite favourably with the above figures. While making comparison, it must, however, be borne in mind, that these figures relate to refined sugar, while the figure for the tenants relates, mostly, to raw sugar.

(v) *Rice*.—Rice is eaten after being boiled in water or milk. None was produced on the farm and all was purchased from outside. The consumption of rice varied from 15.0 to 86.5 seers per family, the average being 66.8 seers. The consumption per adult male unit averaged 10.2 seers, which amounted to Rs. 1/3/9 in value.

(vi) *Meat*.—Meat, pulses and vegetables after being boiled, salted and spiced, are eaten with *chapatis*. All the meat was purchased from Lyallpur, three miles away, mostly at the rate of 5 annas per seer. On an average 23.8 seers of meat costing Rs. 6/15/9 were consumed by each family. This amounts to 3.6 seers valued at Rs. 1/1/0 per adult male. No meat was furnished by the farm. The value of the goats sacrificed on the occasion of the 'Id festival has been included in 'Religion'.

* Report of the Indian Sugar Committee, page 366, Appendix II. (1920).

Statement showing the Amount and Value of the Sugar Consumed by Each Family and per Male Unit during the Year, 1932-33.

Tenant.	PER FAMILY.						PER ADULT MALE UNIT.		
	RAW SUGAR.			Refined Sugar purchased.	Total.	Per Capita.	Raw Sugar.	Refined Sugar.	Total.
	Furnished by the Farm.	Purchased.	Total.						
AMOUNT.	Seers.	Seers.	Seers.	Seers.	Seers.	Seers.	Seers.	Seers.	Seers.
A. ..	240·0	82·0	322·0	19·8	341·8	37·98	49·5	3·1	52·6
B. ..	140·0	113·5	253·5	37·5	291·0	48·50	51·7	7·7	59·4
C. ..	..	80·0	80·0	30·8	110·8	12·31	11·9	4·6	16·5
D. ..	60·0	280·0	340·0	37·1	377·1	31·43	41·5	4·5	46·0
<i>Total</i> ..	440·0	555·5	995·5	125·2	1,120·7	..	..	..	..
<i>Average</i> ..	110·0	138·9	248·9	31·3	280·2	31·13	37·8	4·8	42·6
VALUE.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
A. ..	14 2 0	7 12 0	21 14 0	6 8 0	28 6 0	3 2 5	3 5 10	1 0 0	4 5 10
B. ..	8 3 10	6 5 0	14 8 10	12 3 0	26 11 10	4 7 4	2 15 6	2 7 10	5 7 4
C. ..	..	7 0 0	7 0 0	9 11 6	16 11 6	1 13 9	1 0 9	1 7 2	2 7 11
D. ..	3 8 6	15 0 0	18 8 6	11 14 0	30 6 6	2 8 7	2 4 2	1 7 2	3 11 4
<i>Total</i> ..	25 14 4	36 1 0	61 15 4	40 4 6	102 3 10	..	..	..	..
<i>Average</i> ..	6 7 7	9 0 3	15 7 10	10 1 1	25 8 11	2 13 5	2 5 8	1 8 6	3 14 2

(vii) *Pulses*.—Pulses comprise gram produced on the farm, and *mash*, *massar*, etc., purchased from outside. The average consumption of pulses came to 49·0 seers per family and 7·4 seers per adult male unit. This valued in cash was Rs. 4/4/3 and Rs. 0/10/4, respectively.

(viii) *Vegetables*.—Vegetables consist of potatoes, cauliflower, gourds, lady's fingers, onions, brinjals and *sag*. None of the vegetables, except *sag* of *sarson* was grown on the farm. The value of *sag* has not been included in the expenses because the tenants paid nothing for it. The value of vegetables consumed averaged Rs. 3/8/7 per family and Rs. 0/8/7 per adult male.

(ix) *Fruits*.—Fruits consist mostly of mangoes, bananas, grapes, and water-melons. The expenditure on this item amounted to Rs. 3/11/0 per family or Rs. 0/9/0 per adult male.

(x) *Salt*.—Salt is used for flavouring various foods. The whole of the salt required was purchased at the rate of Rs. 2/8/0 per maund from the town. The consumption averaged 23·8 seers per family or 3·6 seers per adult male unit.

(xi) *Miscellaneous*.—The expenditure under this head included the expenses on all articles not included above, *e.g.*, pickles, spices, etc. The cost of these things averaged Rs. 5/13/0 per family and Rs. 0/14/1 per adult male. This head includes the expenditure on the purchase of cooking utensils and other appliances, which was Rs. 0/5/6 only for all the families.

Chemical Composition of the Food.—The following table gives the chemical composition of the food consumed by the tenants' families :—

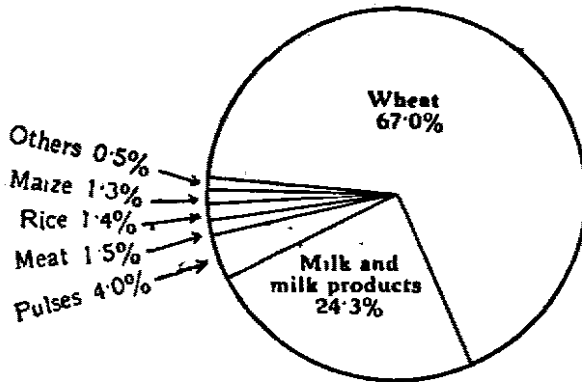
Tenant.		PER ADULT MALE UNIT PER DAY.			
		Proteins.	Fats.	Carbo- hydrates.	Energy.
		Grammes.	Grammes.	Grammes.	Calories.*
A.	.. ..	106·6	43·1	801·3	4,019
B.	.. ..	127·8	70·1	883·3	4,675
C.	.. ..	109·9	50·6	737·7	3,846
D.	.. ..	102·7	58·8	703·5	3,754
<i>Average</i>		<i>110·2</i>	<i>54·9</i>	<i>769·8</i>	<i>4,014</i>

*Calorie in this report means a large calorie, *i.e.*, the amount of heat required to raise the temperature of one kilogramme of water by one degree centigrade.

It will be seen that the consumption of proteins varied from 102·7 to 127·8 grammes per adult male per day, that of fats from 43·1 to 70·1 grammes, and of carbo-hydrates from 703·5 to 883·3 grammes, the averages being 110·2, 54·9 and 769·8 grammes, respectively. The total energy provided by this food varied from 3,754 calories to 4,675 calories per adult male per day, and the average came to 4,014 calories. Atwater recommends 150 grammes of proteins and 4,150 calories of energy for hard-working men in United States of America. The amount of proteins given by him is considered rather too high by Sherman.* Judging from this standard, it seems that the cultivators dealt with in this inquiry are not underfed.

From Statement III., (page 26), which shows the amount of various food constituents drawn from the articles of food and their energy value, it will be seen that wheat is the most important article of food in most respects. It provided 67·0 per cent. of the proteins, 21·6 per cent. of fats, 77·6 per cent. of carbo-hydrates and 69·6 per cent. of the energy requirements of the body. Second in importance ranks milk which supplied 24·3 per cent. proteins, 68·6 per cent. fats, 3·6 per cent. carbo-hydrates and 13·9 per cent. of energy. Milk is thus the chief source of fats. Third in order of importance comes sugar, which supplied 12·1 per cent. of carbo-hydrates and 9·2 per cent. of energy. The following diagrams show the importance of the various articles of food, so far as the provision of proteins and energy requirements of the body are concerned.

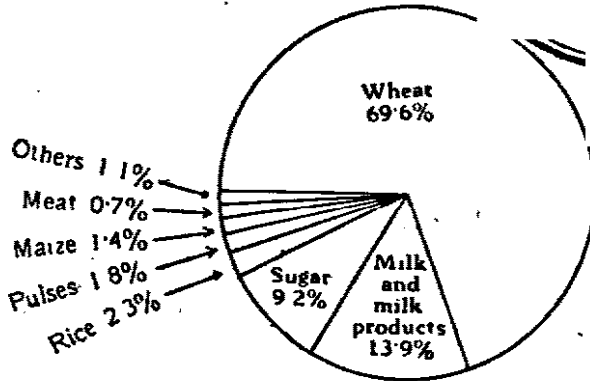
CHART III.



Proteins

* "Chemistry of Food and Nutrition," by Sherman, pages 363 and 364.

CHART III—concl'd.



Energy

The following table shows the comparative importance of the animal and vegetable products in the diet:—

Article of food.	Proteins.	Fats.	Carbo- hydrates.	Energy.
	Per cent.	Per cent.	Per cent.	Per cent.
<i>Animal products—</i>				
Milk and milk products ..	24.3	70.6	3.6	14.2
Meat	1.5	4.4	..	0.7
<i>Total</i> ..	<i>25.8</i>	<i>75.0</i>	<i>3.6</i>	<i>14.9</i>
<i>Vegetable products—</i>				
Grain	73.7	24.2	83.4	75.1
Sugar .. ..	..	..	12.1	9.2
Fruits and vegetables ..	0.4	0.3	0.7	0.6
<i>Total</i> ..	<i>74.1</i>	<i>24.5</i>	<i>96.2</i>	<i>84.9</i>
<i>Miscellaneous—</i>	<i>0.1</i>	<i>0.5</i>	<i>0.2</i>	<i>0.2</i>

It is clear from this table, that except fat for which the cultivators have to depend on animal products, most of the food constituents and food energy were drawn from the vegetable products. The reason is that value for value, vegetable products provide

more of food requirements than animal products. This point is illustrated by the following figures giving the amount of various constituents in each class of food purchased for one rupee :—

	<i>Proteins.</i>	<i>Fats.</i>	<i>Carbo- hydrates.</i>	<i>Energy.</i>
	Seers.	Seers.	Seers.	Calories.
Animal products ..	0.70	1.01	0.68	13,633
Vegetable products ...	1.10	0.18	10.02	43,037

It will thus be seen that vegetable products give about $1\frac{1}{2}$ times the proteins, 15 times the carbo-hydrates, and 3 times the energy for the same cost. Fats are supplied at a much lower cost by animal products.

Below is compared the diet of these tenants with the diets of Chinese and American farmers, on the energy basis :—

	<i>China.*</i>	<i>Risalewala.</i>	<i>America.*</i>
	Per cent.	Per cent.	Per cent.
Grains	89.8	75.1	38.7
Animal products	1.0	14.9	39.2
Vegetables	8.9	0.3	9.0
Fruits	0.1	0.3	3.0
Sugar	0.2	9.2	10.1
Miscellaneous .. ..	..	0.2	..

It will be noticed that although our farmers do not consume so much of animal products as Americans, yet they depend much less on purely vegetable sources than the Chinese. The analyses of important articles of food used in these calculations are given in Appendix A.

(3). *Fuel.*—The common articles used as fuel are dung cakes, cotton sticks, and loppings from trees. Cotton sticks have no monetary value in the village. If these are carted to the town the value realised will hardly cover the carting charges. Nothing has, therefore, been charged for them. Similarly, loppings from trees are gathered by the tenants from the fields free of cost, and have not been charged in the expenses. Dung cakes are made from the solid excreta of the animals, for use as fuel. If this were not done, it would be used as manure in the fields. In the *Farm Accounts* publications neither the cattle have been credited nor the crops debited with the value of manure. Similarly in the case of the cost of production of milk in this note, the value of manure produced by milch cattle has not been deducted from their cost of upkeep. No charge is, therefore, justified for its use as fuel.

* "Chinese Farm Economy," by Buck, page 364.

(4) *Dress* (Clothing and Shoes).—This is the second most important item of household expenditure. The various kinds of clothes used in the family are as follows :—

- (i) General purposes, *i.e.*, those worn at all times.
- (ii) Bedding, *e.g.*, mattresses, quilts, etc.
- (iii) Used at festivals, marriages and other special functions.
- (iv) Offered as presents to relatives.

For general purposes, durable and cheap cloth is preferred, and is generally made at home, and so are clothes for bedding. Clothes belonging to classes (iii). and (iv). are generally showy, and almost always mill-made. Shoes are made by shoemakers, and are mostly used either in severe winter or in severe summer weather, when it is hard to go about bare-footed.

Clothing also includes the charges of the washerman, and expenses on account of soap and soda for washing clothes at home.

The cost of clothing varied from Rs. 87/14/5 to Rs. 117/6/3 per family, the average being Rs. 97/2/3. The cost per adult male unit ranged from Rs. 11/0/11 to Rs. 18/1/0, the average being Rs. 14/12/2. Of these, cloth to the extent of 11·1 per cent. in value was made at home (by the village weaver), the remainder being either exchanged for home-spun yarn or purchased. The amount of lint used at home for various purposes was as follows :—

Tenant.	LINT USED FOR—			
	Quilts.	Cloth.	Yarn exchanged for cloth.	Total.
	Seers.	Seers.	Seers.	Seers.
A	8·0	4·0	10·0	22·0
B	..	9·0	..	9·0
C	3·5	9·5	..	13·0
D	6·0	..	7·0	13·0
<i>Total</i>	17·5	22·5	17·0	57·0
<i>Average</i>	4·4	5·6	4·3	14·3

The above table shows that on an average 14·3 seers of cotton lint, which means 42·9 seers of seed cotton was consumed per

family. This figure is very nearly equal to the average consumption of the Mohammedan families in the district, *viz.*, 45 seers.*

The cost of making cloth from home-spun yarn was as follows :

Cost of making 75 yards of cloth—

	Rs.	a.	p.	Rs.	a.	p.
Cotton lint 9 seers, 10 <i>chhataks</i> at Rs. 14/- per maund	3	5	11
Carding at Rs. 0/2/0 per seer	1	3	0
<i>Weaving—</i>						
Cash @ Re. 1/- per 15 yards	5	0	0
Wheat 9½ seers @ Rs. 2/8/0 per maund	0	9	6
<i>Total</i>	10	2	5

This comes to Rs. 0/2/2 per yard, but does not include the cost of spinning, which was done by the women themselves. The charges of professional spinners are 4 annas per seer of lint spun. If this is included, the total cost comes to Rs. 12/8/5 or Rs. 0/2/8 per yard.

Cost of making a quilt—

	Rs.	a.	p.
Cloth 12 yards at Rs. 0/2/2 per yard	..	1	10 0
Cost of printing the cover	..	0	8 0
Carding and stuffing	..	0	6 0
3½ seers cotton lint at Rs. 14/- per maund	..	1	3 7
<i>Total</i>	..	3	11 7

The cloth used for quilts is usually home-made (*i.e.*, made by the village weaver), and stitching is done by womenfolk.

The following table shows the amount of cloth taken in exchange for home-spun yarn :—

Tenant.	Lint.	COST OF—				TOTAL—		Cloth.	COST PER YARD—	
		Lint.	Carding.	Cash.	Spinning.	Excluding spinning.	Including spinning.		Excluding spinning.	Including spinning.
	Srs.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Yds.	Rs. a. p.	Rs. a. p.
A. ..	10	3 8 0	1 4 0	6 0 0	2 8 0	10 12 0	13 4 0	75	0 2 4	0 2 10
D. ..	7	2 7 1	0 14 0	2 0 0	1 12 0	5 5 1	7 1 1	50	0 1 8	0 2 3
<i>Total</i>	17	5 15 1	2 2 0	8 0 0	4 4 0	16 7 1	20 5 1	125	0 2 1	0 2 7
									(<i>average</i>)	

* *Vide* " Report on an Inquiry into the Local Consumption of Kapas in the Lyalpur District in 1930-31," by Partap Singh and Ajaib Singh: "Agriculture and Livestock in India," Vol. III., November, 1933.

This shows that there is not much difference in the cost of cloth, whether it is made by the village weaver or got in exchange for home-spun yarn from the bazaar. It is admitted, however, that the home-made cloth, though coarser, is more durable than the mill-made cloth, for which it is exchanged.

The amount of cloth and the number of pairs of shoes used by the tenants' families during the year were as follows :—

Tenant.	TOTAL.		PER ADULT MALE.		Shoes per head.
	Clothing.	Shoes.	Clothing.	Shoes.	
	Yards.	Pairs.	Yards.	Pairs.	Pairs.
A. ..	406·5	6	62·5	0·9	0·7
B. ..	261·0	7	53·3	1·4	1·2
C. ..	379·0	3	56·6	0·4	0·3
D. ..	262·0	5	32·0	0·6	0·4
<i>Total</i> ..	<i>1,308·5</i>	<i>21</i>	<i>49·8</i>	<i>0·8</i>	<i>0·6</i>
<i>Average</i> ..	<i>327·1</i>	<i>5·3</i>	..	..	..

(5). *Medicine.*—This item includes all expenditure for the purchase of medicines. The cost varied from Rs. 3/4/0 to Rs. 8/- the average being Rs. 4/11/2 per family. The cost is comparatively high for Family D., because one member of this family suffered from fever continuously for about two months. Tenant B. suffered from sore eyes for a long time. All medicines were purchased from outside.

(6). *Light.*—Light includes the cost of kerosene and rapeseed oils used for lighting, and the recurring charges of repairs and replacements of lamps, generally of the hurricane lantern type. The cost varied from Rs. 5/2/6 to Rs. 8/-, the average being Rs. 6/1/8 per family.

(7). *Education.*—This is the lowest item of expenditure, forming only 0·1 per cent. of the total. The fact that twenty-two

out of thirty-seven boys of school-going age in the village attended school, shows that the people take a fair interest in education.

In the case of these four families, however, out of the three boys of school-going age only one attended the school. The cost which came to Rs. 2/9/9 comprised Rs. 2/2/0 spent on the purchase of books, and Rs. 0/7/9 on stationery. None of the girls attended school.

(8) *Religion*.—Expenses under this head consist of grain and cash given to the *maulvi* of the mosque, and the value of goats sacrificed on the occasion of 'Id (Mohammedan festival). Only two tenants out of four sacrificed a goat each. The cost depends on the religious or superstitious bent of mind of the family concerned. The expenditure on this item varied from Rs. 2/4/0 to Rs. 11/8/0, the average per family being Rs. 6/11/6.

(9) *Travelling*.—The tenants own land in the older districts of Jullundur and Hoshiarpur and maintain social relations with relatives in the old villages. They have to travel several times a year for attending marriages, mournings, and other social functions. The expenses of travelling ranged from Rs. 10/8/0 in case of Tenant B., to Rs. 35/12/0 in the case of Tenants C. and D. The average per family was Rs. 28/-.

(10) *Social*.—This item includes the expenses incurred at social functions, such as marriage, betrothal, mourning, birth of a child, circumcision ceremony, etc. The expenditure was the highest with Tenant A., who spent Rs. 6/- on the occasion of the birth of a son, and Rs. 7/- at the time of his circumcision ceremony. Tenant B. spent Rs. 6/- on a meal to a marriage party. Tenant D. sent Rs. 2/- to a relative as a token of good wishes at the time of the 'Id festival. The average expenses amounted to Rs. 5/4/0 per family.

(11) *Amusements and luxuries*.—This includes the expenditure on festivals, fairs, cinemas, theatres, drinks, tobacco and other personal enjoyments. The expenses varied from Rs. 6/- to Rs. 9/8/0 and the average came to Rs. 7/10/0 per family.

(12) *Miscellaneous*.—These expenses include those not coming under any of the above heads. The half-yearly charges of barber, expenditure on correspondence, recurrent charges on baskets and buckets put to many diverse uses, have been put together under this head. The expenses came to Rs. 8/11/9 per family or Rs. 1/5/3 per adult male unit.

Source of the Goods Consumed.—The following table deduced from Statement IV. (page 27), shows the proportion of various

items of expenditure, furnished by the farm or purchased from outside :—

Item.	Furnished by the farm.	Purchased.
	Per cent.	Per cent.
1. Housing (Repairs alone) ..	...	100·0
2. Food	81·9	18·1
3. Fuel	100·0	...
4. Dress (Clothing and Shoes) ..	11·1	88·9
5. Medicine .. .. .	..	100·0
6. Light .. .. .	..	100·0
7. Education .. .. .	..	100·0
8. Religion	20·0	80·0
9. Travelling .. .. .	..	100·0
10. Social .. .. .	..	100·0
11. Amusements and luxuries ..	..	100·0
12. Miscellaneous	60·1	39·9
<i>Total</i> ..	<i>56·4</i>	<i>43·6</i>

INCOME.

The tenants' income was derived mainly from the cultivation of land. This income was supplemented by the sale of milk, and the performance of various kinds of labour at the farm, *e.g.*, picking of cotton, carting the farm produce, and working as day labourers. The income from all these sources is shown in the table below.

Tenant C. had the largest net income from cultivation though he cropped the least area. This was due to the fact that his outturn of wheat was better than those of the others, and his expenses of cultivation were also at the same time lower owing to a lower cost on upkeep of bullocks.

Income from—	TENANT.					Average per family.
	A.	B.	C.	D.	Total.	
	Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.	Rs. s. p.
Cultivation* ..	413 14 6	243 7 3	530 5 8	358 8 7	1,546 4 0	386 9 0
Sale of milk ..	21 7 2	7 0 0	18 11 6	6 2 5	53 5 1	13 5 3
Picking of cotton ..	12 0 0	4 11 0	4 7 3	7 3 0	28 5 3	7 1 4
Carting ..	..	..	3 2 0	5 6 3	8 6 3	2 2 1
Labour ..	2 13 6	2 3 0	13 8 0	3 15 0	22 7 6	5 9 10
<i>Total</i> ..	<i>450 3 2</i>	<i>257 5 3</i>	<i>570 2 5</i>	<i>381 3 3</i>	<i>1,658 14 1</i>	<i>414 11 6</i>

*Vide. "Farm Accounts, 1932-33", page 201.

The income from various sources as shown in this table is the return for the work done during the year by all the members of the family (details in Statements V.-A. and -B.). The figures for the income from cultivation in the above table have, however, been taken from the *Farm Accounts*, but in the present report the year started *five months later* and also finished *five months later* than in the *Farm Accounts*. The first *five months*, June to October, 1932, of the *Farm Accounts*, broadly speaking, brought in the *same* income from cultivation as June to October, 1933, in this report. Thus, though the periods in the two reports are not identical, the income during them is *about the same*.

Financial Positions of the Tenants.—The following table shows the deficit or surplus in the family budget of the tenants:—

Tenant.	Income.	Expenditure.	Surplus (+) or Deficit (—).
	Rs. a. p.	Rs. a. p.	Rs. a. p.
A	450 3 2	469 8 4	—19 5 2
B	257 5 3	406 14 6	—149 9 3
C	570 2 5	457 4 7	+112 13 10
D	381 3 3	544 14 7	—163 11 4
<i>Total</i> ..	<i>1,658 14 1</i>	<i>1,878 10 0</i>	<i>—219 11 11</i>
<i>Average</i> ..	<i>414 11 6</i>	<i>469 10 6</i>	<i>—54 15 0</i>

It will be seen that three out of the four tenants had to face deficits. Tenant A. received Rs. 30/- as rent of land from his old village and thus made both ends meet. Tenant B. received Rs. 100/- as rent for his land in the old district and sold a buffalo to meet the emergency. Tenant C., owing to his large income from cultivation, made a handsome profit. Tenant D., with a big family to support on a low income, had to face the heavy deficit of Rs. 163/11/4. To meet this deficit, he utilised Rs. 30/-, received as rent of his land in the old district, and sold one young bullock and a buffalo. As this sum was not enough to defray the expenses, he incurred a debt of Rs. 50/-.

Employment of Members of the Family.—Statements v. A. and B. give the working days of men and women of the households during the year. It will be seen that each man worked on an average for 335·0 days of eight hours each during the year. Out of this 150·3 days, i.e., 44·9 per cent., were spent in cultivation work, and 167·5 days or 50·0 per cent. in the tending of livestock. Labour performed outside on cash payment only amounted to 3·9 days per man.

The figure of the total employment of men seems to indicate that men remain fairly busy throughout the year. But actually, that is not so. At least the time spent on the care of livestock would be materially reduced, if men could find some better employment. In the absence of any other work, the peasants follow the maxim that doing something is, at any rate, better than doing nothing, and so tend to spread out work instead of remaining quite idle. The number of days spent on the care of livestock include a good many days when all the male members of the family, having no other work to do, take out weeds from the crops and feed the cattle therewith.

Leaving aside the work involved in the bringing up of children and in social obligations, each woman worked for 226·6 days during the year. Of this 33·2 per cent. was taken up by the cooking and carrying of meals for the men working in the fields, and 21·1 per cent. by the making, mending and washing of clothes. Each female worker picked cotton in the fields for 21·0 days, for which she received 22·7 seers of *kapas* (seed cotton), i.e., 1·1 seers per day of eight hours each.

STATEMENT I.

Amount of Important Articles of Food Consumed by the Four Tenant Families during the Year, 1932-33.

Article of food.	TENANTS.				Total	Average per family.	PER ADULT MALE UNIT.				
	A.	B.	C.	D.			A.	B.	C.	D.	Average.
Wheat .. (Maunds)	51.4	44.1	52.8	55.0	203.3	50.8	7.9	9.0	7.9	6.7	7.7
Maize .. ( " )	..	..	2.0	2.0	4.0	1.0	..	..	0.3	0.3	0.3
Milk and milk products in terms of milk*.. (")	27.7	32.8	44.5	55.2	160.2	40.1	4.3	6.7	6.6	6.7	6.1
Sugar .. (")	8.5	7.3	2.8	9.4	28.0	7.0	1.3	1.5	0.4	1.1	1.1
Rice .. (Seers)	86.5	15.0	81.0	84.5	267.0	66.8	13.3	3.1	12.1	10.3	10.2
Meat .. (")	17.5	23.0	12.3	42.5	95.3	23.8	2.7	4.7	1.8	5.2	3.6
Pulses .. (")	93.0	40.0	26.0	37.0	196.0	49.0	14.3	8.1	3.9	4.5	7.4
Salt .. (")	24.0	17.0	26.0	28.0	95.0	23.8	3.7	3.4	3.8	3.4	3.6

*Including milk equivalent of *ghi* purchased on the assumption that 1 seer of milk is equal to 1 *chhatak* of *ghi*.

STATEMENT II.

Cost of Production of Milk.

Item.	TENANT—				Total.	Average.
	A.	B.	C.	D.		
Total Stock	8.0	9.5	10.0	8.4	35.9	9.0
Milch cattle	2.0	3.0	4.0	3.4	12.4	3.1
<i>Roughages Consumed by all Animals.</i>						
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Bhusa ..	45 5 0	68 12 0	75 0 0	62 8 0	251 9 0	62 14 3
Fodders ..	135 15 0	209 9 0	180 14 6	200 0 11	726 7 5	181 9 10
Total	181 4 0	278 5 0	255 14 6	262 8 11	978 0 5	244 8 1
<i>Cost of Upkeep of Milch Animals.</i>						
Share of roughages	45 5 0	87 14 3	102 5 10	106 5 3	341 14 4	85 7 7
Concentrates	41 1 3	23 10 5	18 2 7	17 0 0	99 14 3	24 15 7
Salt	1 8 0	2 0 0	1 0 0	2 0 0	6 8 0	1 10 0
Interest @ 8 % and depreciation @ 12 % on the value	28 6 5	42 0 0	40 0 0	32 0 3	142 6 8	35 9 8
Miscellaneous	1 0 0	1 0 0	1 0 0	1 3 0	4 3 0	1 0 9
Total	117 4 8	166 8 8	162 8 5	158 8 6	594 14 3	148 11 7
Deduct value of young stock	11 0 0	8 0 0	11 0 0	12 0 0	42 0 0	10 8 0
Net cost	106 4 8	148 8 8	151 8 5	146 8 6	552 14 3	138 3 7
<i>Milk produced—</i>	Mds. s. ch.	Mds. s. ch.	Mds. s. ch.	Mds. s. ch.	Mds. s. ch.	Mds. s. ch.
Total	47 33 0	51 14 0	69 0 0	60 1 0	228 8 0	57 2 0
Per animal	23 36 8	17 4 11	17 10 0	17 26 3	..	17 33 13
Cost per maund	Rs. a. p. 2 3 7	Rs. a. p. 2 14 3	Rs. a. p. 2 3 2	Rs. a. p. 2 7 1	Rs. a. p. 2 6 9	Rs. a. p. 2 6 9
<i>Milk sold—</i>	Mds. s. ch.	Mds. s. ch.	Mds. s. ch.	Mds. s. ch.	Mds. s. ch.	Mds. s. ch.
Quantity	20 35 0	19 23 0	24 19 0	7 24 0	72 21 0	18 5 4
Value realised	Rs. a. p. 67 13 6	Rs. a. p. 63 10 0	Rs. a. p. 72 7 6	Rs. a. p. 24 11 3	Rs. a. p. 228 10 3	Rs. a. p. 57 2 7
Profit	21 7 2	7 0 0	18 11 6	6 2 5	53 5 1	13 5 3
<i>Milk consumed—</i>	Mds. s. ch.	Mds. s. ch.	Mds. s. ch.	Mds. s. ch.	Mds. s. ch.	Mds. s. ch.
Quantity	26 38 0	31 31 0	44 21 0	52 17 0	155 27 0	38 36 12
Cost	Rs. a. p. 59 14 4	Rs. a. p. 91 14 8	Rs. a. p. 97 12 5	Rs. a. p. 127 15 8	Rs. a. p. 377 9 1	Rs. a. p. 94 6 3

STATEMENT III.

Constituents of the Food Consumed by the Tenants during the Year, 1932-33.

Article of food.	Quantity.	Proteins.	Fats.	Carbo- hydrates.	Energy per adult male per day.	Cost.	PERCENTAGE TO THE TOTAL.				
							Proteins	Fats.	Carbo- hydrates.	Energy.	Cost.
	Seers.	Seers.	Seers.	Seers.	Calories.	Rs. a. p.					
Wheat	8,131.0	759.67	122.27	6,145.21	2,792	571 2 0	67.0	21.6	77.6	69.6	47.2
Maize	160.0	14.43	5.45	118.32	56	9 0 0	1.3	1.0	1.5	1.4	0.7
Rice	287.0	15.78	1.07	214.37	90	32 7 6	1.4	0.2	2.7	2.3	2.7
Pulses	196.0	45.08	7.74	125.62	73	17 1 0	4.0	1.4	1.6	1.8	1.4
Sugar	1,120.7	..	..	961.40	374	102 3 10	..	..	12.1	9.2	8.4
Vegetables .. ..	..	3.76	0.35	26.70	12	14 2 3	0.3	0.1	0.3	0.3	1.2
Fruits .. ..	..	1.27	1.15	30.17	13	14 12 0	0.1	0.2	0.4	0.3	1.2
Milk and milk products produced	6,227.0	275.11	387.41	285.53	557	377 9 1	24.3	68.6	3.6	18.9	31.2
Ghi purchased	11.4	..	11.38	..	10	13 0 0	..	2.0	..	0.3	1.1
Meat	99.3	16.08	25.12	..	29	28 11 0	1.5	4.4	..	0.7	2.4
Miscellaneous .. ..	..	1.46	2.87	12.92	8	30 12 0	0.1	0.5	0.2	0.2	2.5
<i>Total</i> .. ..	..	<i>1,133.54</i>	<i>564.81</i>	<i>7,920.24</i>	<i>4,014</i>	<i>1,210 12 8</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>

STATEMENT IV.

Value of the Items of Household Expenditure Furnished by the Farm or Purchased from Outside.

(a)=Supplied by the Farm.

(b)=Purchased.

Item.	TENANTS—				Total.	Average per family.	Percentage of total.
	A.	B.	C.	D.			
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
<i>Housing—</i>							
(a) ..	..	..	..	..	..	..	..
(b) ..	2 4 0	3 1 6	..	5 2 0	10 7 6	2 9 10	100·0
<i>Food—</i>							
(a) ..	221 8 10	220 7 4	251 8 4	296 10 11	990 3 5	247 8 10	81·9
(b) ..	45 15 0	45 13 3	46 13 0	79 11 0	218 4 3	54 9 1	18·1
<i>Dress—</i>							
(a) ..	10 5 3	13 0 5	14 5 3	5 7 7	43 2 6	10 12 6	11·1
(b) ..	107 1 0	74 14 0	78 4 6	85 3 1	345 6 7	86 5 7	88·9
<i>Medicine—</i>							
(a) ..	..	..	..	..	..	..	..
(b) ..	3 4 6	4 4 0	3 4 0	8 0 0	18 12 6	4 11 2	100·0
<i>Light—</i>							
(a) ..	..	..	..	..	..	..	..
(b) ..	5 4 0	6 0 0	5 2 6	6 0 0	24 6 6	6 1 8	100·0
<i>Education—</i>							
(a) ..	..	..	..	..	..	..	..
(b) ..	2 9 9	..	..	..	2 9 9	0 10 5	100·0
<i>Religion—</i>							
(a) ..	1 8 0	..	1 4 0	2 10 0	5 6 0	1 5 6	20·0
(b) ..	10 0 0	9 8 0	1 0 0	1 0 0	21 8 0	5 6 0	80·0
<i>Travelling—</i>							
(a) ..	..	..	..	..	..	..	..
(b) ..	30 0 0	10 8 0	35 12 0	35 12 0	112 0 0	28 0 0	100·0
<i>Social—</i>							
(a) ..	..	..	..	..	..	..	..
(b) ..	13 0 0	6 0 0	..	2 0 0	21 0 0	5 4 0	100·0
<i>Amusements & luxuries</i>							
(a) ..	..	..	..	..	..	..	..
(b) ..	9 8 0	6 0 0	7 8 0	7 8 0	30 8 0	7 10 0	100·0
<i>Others—</i>							
(a) ..	5 4 0	5 4 0	5 4 0	5 4 0	21 0 0	5 4 0	60·1
(b) ..	2 0 0	2 2 0	7 3 0	2 10 0	13 15 0	3 7 9	39·9
<i>Total—</i>							
(a) ..	238 10 1	238 11 9	272 5 7	310 0 6	1,059 11 11	264 15 0	56·4
(b) ..	230 14 3	168 2 9	184 15 0	234 14 1	818 14 1	204 11 6	43·6
<i>Percentage to the total—</i>							
(a) ..	50·8	58·7	50·6	56·9	56·4	..	..
(b) ..	49·2	41·3	40·4	43·1	43·6	..	..

STATEMENT V.-A.

Labour Sheet showing the Days Worked by Men of an Average Family during the Year, 1932-33.

Items.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Total.	Per working member.	Percentage to the total.
Cultivation work ..	38.9	29.0	31.8	25.9	47.5	49.7	50.4	53.7	45.2	38.2	43.4	34.0	488.3	150.3	44.9
Upkeep of livestock ..	36.4	48.8	50.9	62.5	66.7	57.3	38.8	30.3	33.9	36.9	40.1	32.7	544.3	187.5	50.0
Milking ..	1.4	1.3	0.8	0.3	0.5	0.5	0.5	0.4	0.7	1.0	0.6	0.7	8.7	2.7	0.8
Churning ..	..	0.4	..	..	..	..	..	..	..	..	..	..	0.4	0.1	..
House-repairing ..	..	..	..	..	..	..	..	..	..	0.7	0.6	1.6	2.9	0.9	0.3
Grinding grain ..	1.0	0.9	0.5	0.7	0.7	0.7	0.2	0.6	0.9	0.3	0.4	0.7	7.6	2.3	0.7
Miscellaneous ..	0.8	1.6	3.2	2.1	5.4	3.2	1.3	0.3	1.1	2.0	1.3	1.6	23.9	7.3	2.2
Paid labour outside ..	0.3	0.8	..	0.5	0.4	0.6	0.1	1.8	0.5	..	2.4	5.2	12.6	3.9	1.1
<i>Total</i> ..	<i>78.8</i>	<i>32.8</i>	<i>96.2</i>	<i>92.0</i>	<i>121.2</i>	<i>112.0</i>	<i>91.3</i>	<i>87.1</i>	<i>82.3</i>	<i>79.7</i>	<i>88.8</i>	<i>76.5</i>	<i>1,085.7</i>	<i>335.0</i>	<i>100.0</i>
<i>Per working member</i> ..	<i>24.3</i>	<i>25.5</i>	<i>29.6</i>	<i>28.3</i>	<i>37.3</i>	<i>34.5</i>	<i>28.1</i>	<i>26.8</i>	<i>25.3</i>	<i>24.5</i>	<i>27.3</i>	<i>23.5</i>	<i>335.0</i>	<i>..</i>	<i>..</i>

STATEMENT V.-B.

Labour Sheet showing the Days Worked by Women of an Average Family during the Year, 1932-33.

Item.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Total.	Per working member.	Percentage of the total.
Upkeep of livestock ..	..	..	0.1	..	..	..	..	..	..	2.3	1.9	0.5	4.8	1.9	0.8
Milking ..	0.5	0.5	1.5	1.4	1.2	1.3	1.3	1.3	0.9	1.3	1.5	1.5	14.2	5.7	2.5
Churning ..	3.5	3.7	4.8	4.1	4.5	5.1	5.2	4.7	3.9	3.5	3.7	3.5	50.2	20.1	8.9
Barn cleaning ..	3.8	3.9	4.0	3.9	3.9	3.8	3.9	3.9	4.0	3.9	3.8	3.9	46.7	18.7	8.3
House cleaning and repairing..	2.7	2.7	3.3	2.3	2.9	2.4	2.4	2.3	2.4	2.3	3.5	3.3	32.5	13.0	5.7
Clothes making, mending and washing ..	7.0	7.7	14.1	13.9	9.4	8.0	5.2	11.5	14.4	14.9	8.7	4.1	119.8	47.9	21.1
Cooking and carrying meals ..	18.3	16.8	13.5	13.4	15.6	16.5	10.2	17.3	15.3	14.7	13.6	13.6	187.8	75.1	33.2
Fetching water ..	3.1	3.4	3.4	3.0	3.4	3.8	7.7	7.5	6.0	5.9	4.3	3.6	55.1	22.0	9.7
Miscellaneous ..	..	..	0.1	..	0.4	0.1	0.1	..	0.1	..	0.3	1.9	3.0	1.2	0.5
Paid labour outside ..	22.0	20.4	0.5	..	..	..	..	..	..	..	..	9.5	52.4	21.0	9.3
<i>Total</i> ..	<i>80.9</i>	<i>59.1</i>	<i>45.3</i>	<i>42.0</i>	<i>41.3</i>	<i>41.9</i>	<i>45.0</i>	<i>48.5</i>	<i>47.0</i>	<i>48.8</i>	<i>41.3</i>	<i>45.4</i>	<i>566.5</i>	<i>226.0</i>	<i>100.0</i>
<i>Per working member</i> ..	<i>24.4</i>	<i>23.6</i>	<i>18.1</i>	<i>16.8</i>	<i>16.5</i>	<i>16.8</i>	<i>18.0</i>	<i>19.4</i>	<i>18.8</i>	<i>19.5</i>	<i>16.5</i>	<i>18.2</i>	<i>226.6</i>	<i>..</i>	<i>..</i>

APPENDIX A.
CHEMICAL COMPOSITION OF THE FOODS.

				<i>Proteins.</i>	<i>Fats.</i>	<i>Carbo- hydrates.</i>
				Per cent.	Per cent.	Per cent.
Wheat flour*	..	..	..	9.63	1.55	77.90
Maize†	..	..	..	9.31	3.51	76.24
Rice‡	..	..	..	5.91	0.4	80.29
<i>Pulses—</i>						
Mash*	..	..	..	22.38	0.73	64.19
Masur*	..	..	..	24.25	0.80	63.79
Gram*	..	..	..	23.06	2.87	64.11
<i>Milk—</i>						
Cow§	..	..	..	3.5	4.5	4.7
Buffalo§	..	..	..	5.1	7.5	4.5

*—Lyallpur Jail Food Analysis supplied by P. E. Lander, Agricultural Chemist to Government, Punjab.

†—Memoirs of Department of Agriculture in India, September, 1924, Vol. VII., No. 4, by P. E. Lander and Lal Chand.

‡—Calculated from the composition given in Peace Scale Ration of Indian Troops, Army Table, Miscellaneous Services, 1921, Part I., Section III., Table 15.

§—"Punjab Dairying" by Kartar Singh.

APPENDIX B.
FORMS USED IN THE INQUIRY.

Daily Cash Account.

Date.	Particulars.	Quantity.	Dr.	Cr.	Source or purpose.	Remarks.
			Income.	Expenditure.		

Weekly Milk Record.

Date.	Animal.	MILK.					GHI.			* Monthly total of the milk sold.	Remarks.
		Given to calf.	Net milked.	Sold.	Consumed.	Churned.	Made.	Sold.	Consumed.		

* Monthly total of the milk sold should be inquired from the middleman who buys the milk from the tenants and takes it to the city.

APPENDIX B.—Concise.
Kind Account.

Particulars.	1		
	2	Quantity..	Remainder from the previous year.
3	Value.		
	4	Quantity.	Purchased this year.
	5	Value.	
	6	Produced this year.	
	7	Landlord's share.	
	8	Total (2+4+6-7).	
	9	Quantity.	Sold.
	10	Rate.	
	11	Value.	
	12	Quantity.	Given to inmates.
	13	Value.	
	14	Quantity.	Fed to cattle.
	15	Value.	
	16	Quantity.	Used as seed.
	17	Value.	
	18	Quantity.	Eaten by the family.
	19	Value.	
	20	Use.	Put to other uses.
	21	Quantity.	
	22	Value.	
	23	Quantity.	Surplus.
	24	Value.	
	25	Remarks.	

*Labour Record.**

Date.	Name.		
		Cultivation work.	
		Upkeep of livestock.	All cattle.
			Bullocks alone.
			Other cattle alone.
		Milking.	
		Churning.	
		Barn cleaning.	
		House cleaning and repairing.	
		Sewing and washing clothes.	
		Ginning and spinning cotton.	
		Cooking and taking meals to the fields.	
		Fetching water.	
		Grinding grain for home consumption.	
		Miscellaneous.	
		Paid labour outside.	
		Remarks.	
Total ..			

* N.B.—Separate sheets should be used for men and women.

The Board of Economic Inquiry, Punjab.

PUBLICATION No. 44.

(GENERAL EDITOR: J. W. THOMAS, B.Sc., B.Com.)

FAMILY BUDGETS, 1933-34, OF SIX TENANT-CULTIVATORS IN THE LYALLPUR DISTRICT,

Being the Second Year's Accounts of some Cultivators on
the Risalewala Farm near Lyallpur,

BY

KARTAR SINGH, B.Sc. (AGRI.), N.D.D., L.AG.,
ASSOCIATE PROFESSOR OF AGRICULTURE,

AND

AJAIB SINGH, B.Sc. (AGRI.),
RESEARCH ASSISTANT,
PUNJAB AGRICULTURAL COLLEGE,
LYALLPUR.

[The Board of Economic Inquiry, Punjab, does not hold itself responsible
for any opinions expressed or conclusions reached by the writers.]

1935.

Food Reports of the Board of Economic Inquiry, Punjab.

1. Sixty Years of Punjab Food Prices, 1861-1920.
(Publication No. 7.)
2. Eighty Years of Punjab Food Prices, 1841-1920.
(Publication No. 13.)
3. Rates of Food Consumption of Zemindars in the
Talagang Tahsil of the Attock District.
(Publication No. 6.)
4. Family Budgets, 1932-33, of Four Tenant-Cultivators
in the Lyallpur District.
(Publication No. 40.)
5. Food Consumption by Zemindars in Khanewal
Tahsil of the Multan District.
(In Press.)
6. Farm Accounts Series. Publications Nos. 12, 15,
19, 20, 21, 24, 26, 32, 33, 35 and 45.
(In Press.)

A complete list of the Board's Publications is given on
the back cover.

X 9 (J) : 16 (Y2) . 23632

G5

CONTENTS.

	PAGE.
Introduction	i
Report—	
1. Introductory	1
2. Particulars of the Families	1
3. Expenditure—	
Housing	2
Food	5
Fuel	5
Dress	5
Medicine	5
Light	5
Education	5
Religion	6
Travelling	6
Social	6
Amusement and Luxuries	6
Miscellaneous	7
Summary	7
4. Sources of the Goods Consumed	8
5. Kind of Foods Consumed	9
6. Production and Disposal of Milk	17
7. Nutritional Value of the Food Consumed	19
8. Dress	23
9. Income	26
10. Financial Position of the Tenants	27
11. Employment of the Members of the Family	29
12. Summary	30
 STATEMENTS—	
I.—Amounts of Important Articles of Food Consumed by the Six Tenant Families in 1933-34	32
II.—Cost of Production of Milk—	
A.—Buffaloes' Milk	33
B.—Cows' Milk	34
III.—Constituents of Foods Consumed by the Tenants in 1933-34	35
IV.—Value of the Items of Household Expenditure Furnished by the Farm or Purchased from Outside	36
V.—Labour Sheet showing the Number of Days worked by Members of an Average Family in 1933-34—	
A.—By Males	38
B.—By Females	39
 APPENDICES—	
A.—Chemical Composition of the Foods	40
B.—Forms Used in the Inquiry	40
GLOSSARY	42

TABLES.

(With abbreviations used).

12 Pies (Ps.)=1 Anna (A.); 16 Annas (As.)=1 Rupee (Re. or Rs.)=1s. 6d.

20 *Marlas* (M.)=1 *Kanal*; 8 *Kanals*=1 Acre (A.); 27·8 Acres =1 Square=1,100 feet × 1,100 feet.

16 *Chhataks* (Ch.)=1 Seer (S.); 40 Seers=1 Maund (Md.) =82 ²/₇ lbs.

INTRODUCTION.

No inquiry proposing to study the economics of an industry would be complete without paying due attention to the nature of the living that it affords to the labour employed in the industry. The Board's Publications "*Farm Accounts in the Punjab*"* and "*Studies in the Cost of Production of Crops in the Punjab*,"† dealt with farming economy in the Province purely from the side of cultivation of crops, but the important aspect of the agricultural industry relating to the total income and expenditure of the farmer and his family remained in the dark. And it is to be remembered that the type of farming carried on in the Punjab is pre-eminently a family industry.

To meet this need for information "*Family Budgets, (1932-33), of Four Tenant-Cultivators in the Lyallpur District*," was published last year. It studied:—

- (1) The cost of various items of household expenditure ;
- (2) The extent to which this expenditure is met by the produce of the farm ;
- (3) Various sources of income of the families ; and
- (4) Extent of employment of the members of the families.

The present study is the second publication of the same series and the number of families examined has this year been raised to six. The lines of presentation followed are the same as in the last publication, except that the period of study has been made coincident with the "*Farm Accounts in the Punjab*." This change was desirable in order to facilitate comparison between the two accounts, and give them continuity. The present publication thus relates to the period 1st June 1933 to 31st May 1934, while the last one related to the period 1st November 1932 to 31st October 1933.

The income of the tenants from cultivation given on page 27 of this note has been taken from Part X. of the *Farm Accounts* for 1933-34.‡ Tenants A., B., C., D., E. and F., of these accounts are tenants Nos. 7, 18, 10, 5, 15 and 19 of the *Farm Accounts*. Analyses of some important articles of food used, to find the nutritive value of the food consumed by the families, are given in Appendix A. One point may be noted here. In the tables on pages 10 and 11 it will be seen that Family E.'s expenditure on milk and milk products is very much higher than that of the other five families.

* Publications Nos. 12, 15, 19, 20, 21, 24, 26, 32, 35.

† Publication No. 33.

‡ Publication No. 45. (*In press.*)

This seems to have more to do with the rise in the amount spent by all the families on this item of food, and also in raising the total amount spent on food this year as over against last year. This high consumption by Family E. is probably due to the fact that it is Sikh, but since it is the only family of that religion studied in these accounts, it would be unfair to generalise until data for more Sikh families were available.

Here we take the opportunity of thanking Dr. Lander, Agricultural Chemist to the Government, Punjab, Lyallpur, for kindly allowing us to make use of some unpublished results of Jail food analysis, worked out by him, and to Rev. E. D. Lucas of the Forman Christian College, Lahore, for kindly going through the manuscript and making very valuable suggestions.

FAMILY BUDGETS OF SIX TENANT-CULTIVATORS, 1933-34, IN THE LYALLPUR DISTRICT.

1. *Introductory.*—The first of the “Family Budgets of Tenant-Cultivators in the Lyallpur District,” was published in 1934*, and this is the second publication of this series. This year’s accounts have been worked out on the same lines as last year, except that the period covered by the last year’s publication was from 1st November 1932 to 31st October 1933, while in this it is from 1st June 1933 to 31st May 1934. This change has been effected because it was considered desirable that the periods covered by these accounts and “*Farm Accounts in the Punjab*” should be the same.

The present publication deals with six families of tenant-cultivators instead of only four as was done in the former one. Families A., B., C. and D. of this year are the same as those of last and Families E. and F. are new. As stated last year, Families A., C. and D. are *Arain*, and Family B. is *Jat*. With the inclusion of Families E. and F., both *Jats*, in the accounts, the number of *Jat* and *Arain* families becomes equal. It should however, be noted that while last year all families were Muslims, this year one family—Family E.—is Sikh *Jat*.

2. *Particulars of the families.*—The following table shows the number of men, women and children in each family. For the sake of comparison the members of each family have been converted into adult male units, according to the Scale given by Atwater†:—

Tenant.	ADULT (ABOVE 16 YEARS).		ADOLESCENT (10 to 16 YEARS).		Children below 10 years.	Total.	Adult male units.
	Male.	Female.	Male.	Female.			
A. (Muslim Arain) ..	3	2	1	1	2	9	6.8
B. („ Jat) ..	3	2	..	..	2	7	5.5
C. („ Arain) ..	4	2	..	..	4	10	7.2
D. („ „) ..	3	3	1	..	6	13	8.3
E. (Sikh Jat) ..	2	1	..	..	2	5	3.5
F. (Muslim Jat) ..	2	3	..	..	..	5	4.4
<i>Total</i> ..	17	13	2	1	16	49	35.7
Average per family ..	2.8	2.2	0.3	0.2	2.7	8.2	5.95

* Board of Economic Inquiry, Punjab, Publication No. 40.

† Atwater’s Scale of Adult Male Units in “Chinese Farm Economy” by Buak, page 17.

For the scale see footnote on the next page.

All families, except one, treated in this note, are joint families. Thus Family A. includes the man, his wife, sons, daughters and a daughter-in-law; B. consists of the tenant, his wife, sons, daughter-in-law and a granddaughter; C., two brothers, their wives and children, father and uncle; D. includes two brothers, their parents, wives and children; E., a Sikh family consists of two brothers, wife of the younger brother, his son and daughter; F., the only one that comes within the western sense of the term 'Family' has only the head of the family, his wife, son and daughters. Family D., as also stated in the previous publication is divided into two parts, each living in a separate house. In these accounts, however, these have been treated as one, because the two brothers although living in separate houses, cultivate the same holding, and make common use of household goods.

3. *Expenditure.*—The total domestic expenditure of each family, and per adult male unit, has been analysed in the tables on the following two pages, respectively, under the following twelve heads:—

- | | |
|--------------------------------|------------------------------|
| 1. Housing. | 7. Education. |
| 2. Food. | 8. Religion. |
| 3. Fuel. | 9. Travelling. |
| 4. Dress (clothing and shoes). | 10. Social. |
| 5. Medicine. | 11. Amusements and luxuries. |
| 6. Light. | 12. Miscellaneous. |

(1) *Housing.*—Housing includes the cost of repairs to the house and furniture made during the year. It also includes the value of petty articles of furniture purchased, but does not include the rent or depreciation on the value of the houses. The tenants have to incur no expenditure on this account as the houses are provided to them free of cost by the landlord. Expenditure on

Atwater's Scale of Adult Male Units.

Age in years.	EQUIVALENT ADULT MALE UNITS.	
	Male.	Female.
Adult over 16	1.0	0.8
15 to 16	0.9	0.8
13 to 14	0.8	0.7
12	0.7	0.6
10 to 11	0.6	0.6
6 to 9	0.5	0.5
2 to 5	0.4	0.4
Under 2	0.3	0.3

Total Domestic Expenditure of the Six Families in 1933-34.

A.—PER FAMILY.

Item.	FAMILY.							
	A.	B.	C.	D.	E.	F.	Total.	Average.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Housing (Repairs alone) ..	1 0 0	3 1 6	1 0 0	2 14 0	0 4 0	0 2 0	8 5 6	1 6 3
Food	321 13 11	303 4 2	310 7 5	410 14 5	311 5 1	223 3 5	1,881 0 5	313 8 1
Fuel .. ..	..	..	..	..	..	..	..	..
Dress	96 5 8	71 15 8	72 4 7	63 2 9	81 13 9	68 5 4	453 15 9	75 10 8
Medicine	6 5 0	5 2 0	2 4 6	9 3 0	0 7 0	4 7 0	27 12 6	4 10 1
Light	4 0 0	6 1 6	4 15 3	4 0 0	10 2 0	4 0 0	33 2 9	5 8 5
Education	5 6 9	0 8 0	0 4 0	0 12 0	..	0 8 0	7 6 9	1 3 10
Religion	8 5 9	11 9 9	11 12 9	18 9 7	5 0 0	12 6 3	67 12 1	11 4 8
Travelling	55 6 0	23 8 0	26 12 0	33 3 10	13 12 0	10 2 0	162 11 10	27 2 0
Social	13 0 0	5 0 0	..	..	35 3 0	1 0 0	54 3 0	9 0 6
Amusements and luxuries	4 8 6	3 0 0	8 3 0	5 4 0	2 1 0	..	23 0 6	3 13 5
Miscellaneous	11 12 9	6 4 4	12 0 9	8 7 4	5 9 0	7 0 4	51 1 9	8 8 3
<i>Total</i>	<i>528 0 4</i>	<i>439 6 11</i>	<i>449 15 6</i>	<i>556 6 11</i>	<i>465 8 10</i>	<i>331 2 4</i>	<i>2,770 8 10</i>	<i>461 12 2</i>

ca.

Total Domestic Expenditure of the Six Families in 1933-34.

B.—PER ADULT MALE UNIT.

Item.	FAMILY.							Average.	Percentage to the total.
	A.	B.	C.	D.	E.	F.			
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.		
Housing (Repairs alone) ..	0 2 4	0 9 0	0 2 8	0 5 6	0 1 2	0 0 5	0 3 9	0.3	
Food	47 5 4	55 2 3	43 1 11	49 8 1	88 15 2	50 11 8	52 11 1	67.9	
Fuel .. ..	..	..	..	..	..	..	..	..
Dress	14 2 9	13 1 4	10 0 8	7 9 9	23 6 3	15 8 6	12 11.6	16.4	
Medicine	0 14 10	0 14 11	0 5 1	1 1 9	0 2 0	1 0 2	0 12 5	1.2	
Light	0 9 5	1 1 9	0 11 0	0 7 9	2 14 4	0 14 6	0 14 10	1.0	
Education	0 12 9	0 1 5	0 0 7	0 1 5	..	0 1 10	0 3 4	0.3	
Religion	1 3 8	2 1 9	1 10 2	2 3 10	1 6 10	2 13 1	1 14 4	2.4	
Travelling	8 2 4	4 4 4	3 11 5	4 0 1	3 14 10	2 4 10	4 8 11	5.9	
Social	1 14 7	0 14 7	..	..	10 0 10	0 3 8	1 8 4	2.0
Amusements and luxuries	0 10 8	0 8 9	1 2 2	0 10 1	0 9 5	..	0 10 4	0.8	
Miscellaneous	1 11 9	1 2 3	1 10 8	1 0 4	1 9 5	1 9 6	1 6 11	1.8	
Total	77 10 5	79 14 4	62 7 11	67 0 7	133 0 3	75 4 2	77 9 9	100.0	

7

this item varied from Rs. 0/2/0 with Family F. to Rs. 3/1/6 for Family B. The average comes to Rs. 1/6/3 per family as against Rs. 2/9/10 last year.

(2) *Food*.—Food includes expenditure on grains, milk, sugar, rice, meat, pulses, fruit, vegetables and other articles of food. The expenditure on these varied from Rs. 223/3/5 to Rs. 410/14/5 per family and Rs. 43/1/11 to Rs. 88/15/2 per adult male unit; the average was Rs. 313/8/1 per family as against Rs. 302/1/11 last year, and Rs. 52/11/1 per adult male unit as against Rs. 45/14/8 last year. Food forms the highest single item of expenditure amounting to 67·9 per cent. of the total. This item has been treated separately—(see page 9).

(3) *Fuel*.—Articles used as fuel by the families are loppings from trees, cotton sticks and dung cakes. The tenants get loppings of trees free of charge. Cotton sticks have no market value and have therefore been included neither in income in the "*Farm Accounts*," nor in expenditure in these accounts. Further, the value of manure produced by bullocks (in "*Farm Accounts*") and milch cattle (in these accounts) has not been deducted from their cost of upkeep, and it is therefore not proper to count it in the household expenditure. Thus no amount has been shown against 'Fuel.'

(4) *Dress*.—This item includes the expenditure on clothing and shoes. It is the second largest item of expenditure and forms 16·4 per cent. of the total. Expenditure on dress varied from Rs. 63/2/9 to Rs. 96/5/8 per family and from Rs. 7/9/9 to Rs. 23/6/3 per adult male unit. The average per family comes to Rs. 75/10/8 as against Rs. 97/2/3 last year, and average per adult male unit to Rs. 12/11/6 as against Rs. 14/12/2 last year. The item of dress has been discussed in a separate section subsequently—(see page 23).

(5) *Medicine*.—Cost of medicines varied from Rs. 0/7/0 to Rs. 9/3/0 per family and Rs. 0/2/0 to Rs. 1/1/9 per adult male unit, the averages being Rs. 4/10/1 and Rs. 0/12/5 respectively. Last year the average per family came to Rs. 4/11/2 and per adult male unit Rs. 0/11/5.

(6) *Light*.—This item includes the cost of oil burnt and repairs and replacements of lamps. Expenditure on light varied from Rs. 4/- to Rs. 10/2/0, the average being Rs. 5/8/5 per family as against Rs. 6/1/8 last year.

(7) *Education*.—Expenditure on education varied from nil to Rs. 5/6/9, the average being Rs. 1/3/10 per family as against Rs. 0/10/5 last year. Education is the lowest item of household expenditure for these tenants and forms only 0·3 per cent. of the total.

Regarding the extent of literacy in these families, four families, B., C., E., and F.,—out of the six are totally illiterate. Of the others, Family A. has one adult male educated up to the third primary standard and another is able to read the *Koran*. In Family D. one man is educated up to the fifth primary standard and two others are able to read the *Koran*. Two boys of Family A. and one of Family D. are reading in the District Board Primary School in the village, and one boy and two girls are reading in the mosque. About 53 per cent. of the boys of school-going age in the village attend the village primary school. Girls are also allowed to join the school, but only two have availed themselves of this opportunity.

(8) *Religion*.—Muslim tenants have a mosque on the Farm. Their expenditure on 'Religion' includes the charges for the maintenance of the mosque, and a *Maulvi*. The cost of the sacrificial goat at the occasion of 'Id and alms given on other religious festivals are also included under this head. The members of the Sikh family, having no religious institution at the Farm, go to Lyallpur to make offerings to the Gurdwaras and these offerings have been included under this head.

Religious expenditure varied from Rs. 5/- to Rs. 18/9/7 and the average came to Rs. 11/4/8 per family as against Rs. 6/11/6 last year. This year Tenant A. sacrificed a goat, Tenant B. a lamb, Tenant D. two goats, and Tenant F. one goat and one lamb. Tenants C. and D. gave Rs. 7/- and Rs. 8/8/0, respectively, as offerings to their *pirs*.

(9) *Travelling*.—Travelling is an important item of expenditure coming third in the order of importance, and forming 5.9 per cent. of the total. All the tenants included in these accounts have migrated to this canal colony from older districts, and are still maintaining their connections with their relatives in the old villages. They have to travel a good deal in order to take part in social functions, and also to settle the question of renting out their lands. Expenditure on travelling varied from Rs. 10/2/0 to Rs. 55/6/0 and averaged Rs. 27/2/0 per family as against Rs. 28/- last year.

(10) *Social*.—This head includes the expenditure incurred on social occasions, such as marriages, births, circumcision ceremonies, etc. The expenditure varied from nil to Rs. 35/3/0 and the average works out at Rs. 9/0/6 per family as against Rs. 5/4/0 last year. Tenant A. spent Rs. 9/- on the marriage of a relative and gave Rs. 4/- to his son-in-law, while B. spent Rs. 5/- on a marriage. E. gave Rs. 22/- as help to a relative on his daughter's marriage, and spent Rs. 13/3/0 at the birth of his own child; F. gave Re. 1/- to one of his guests as a present.

(11) *Amusements and luxuries*.—Under this head has been included the cost of tobacco used for smoking, and money spent

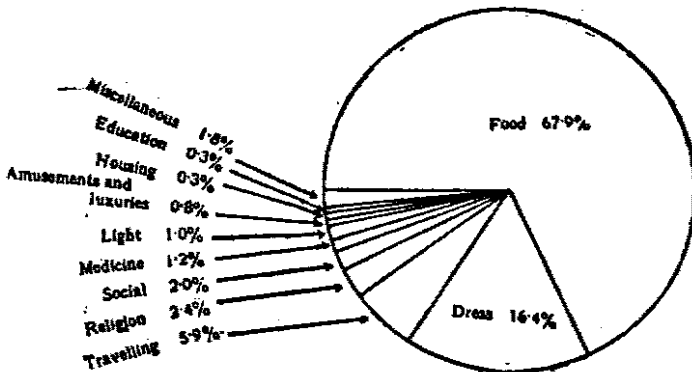
at fairs, theatres and other entertainments. The expenditure under this head varied from nil with Tenant F. to Rs. 8/3/0 in the case of Tenant C., the average being Rs. 3/13/5 per family and Rs. 0/10/4 per adult male unit, as against Rs. 7/10/0 and Rs. 1/2/7, respectively, last year.

(12) *Miscellaneous*.—Miscellaneous expenditure includes all expenses not included under any of the above heads, such as the payment to the barber, cost of baskets and buckets purchased, correspondence, etc. The expenses under this item varied from Rs. 5/9/0 to Rs. 12/- and the average came to Rs. 8/8/3 as against Rs. 8/11/9 last year.

(13) *Summary*.—Total expenditure varied from Rs. 331/2/4 in the case of Tenant F. to Rs. 556/- for Tenant D. and the average came to Rs. 461/12/2 per family as against Rs. 469/10/6 last year. Per adult male unit the expenditure varied from Rs. 62/7/11 with Family C. to Rs. 133/0/3 with Family E., and the average worked out at Rs. 77/9/9 as against Rs. 71/6/0 last year.

Food is the largest item of expenditure as it comprises 67·9 per cent. of the total. The second most important item is dress, 16·4 per cent. Travelling, religion, social functions, medicine, light, amusement and luxuries, form 5·9, 2·4, 2·0, 1·2, 1·0 and 0·8 per cent. respectively. Last come housing and education each constituting 0·3 per cent. of the total expenditure. The relative importance of the items of expenditure is illustrated in the following diagram :—

CHART I.



As compared with last year the different items of expenditure per family and per adult male unit varied as follows :—

Items.	AVERAGE.			
	Per Family.		Per Adult Male Unit.	
	1932-33.	1933-34.	1932-33.	1933-34.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Housing ..	2 9 10	1 6 3	0 6 4	0 3 9
Food ..	302 1 11	313 8 1	45 14 8	52 11 1
Fuel ..	.. ..	.. ..	.. ..	.. ..
Dress ..	97 2 3	75 10 8	14 12 2	12 11 6
Medicine ..	4 11 2	4 10 1	0 11 5	0 12 5
Light ..	6 1 8	5 8 5	0 14 10	0 14 10
Education ..	0 10 5	1 3 10	0 1 7	0 3 4
Religion ..	6 11 6	11 4 8	1 0 4	1 14 4
Travelling ..	28 0 0	27 2 0	4 4 1	4 8 11
Social ..	5 4 0	9 0 6	0 12 9	1 8 4
Amusements and luxuries ..	7 10 0	3 13 5	1 2 7	0 10 4
Miscellaneous ..	8 11 9	8 8 3	1 5 3	1 6 11
<i>Total</i> ..	<i>469 10 6</i>	<i>461 12 2</i>	<i>71 6 0</i>	<i>77 9 9</i>

It will be seen that food is mainly responsible for the difference in the expenses per adult male unit in the two years. Slight differences in other items balance each other.

4. *Sources of the goods consumed.*—Statement IV on pages 36-37, shows the extent to which Farm produce has been directly used by the families to meet their household needs. A summary of this statement is given in the following table :—

Item.	Furnished by the farm.	Purchased from outside.
	Per cent.	Per cent.
1. Housing (Repairs alone) ..	..	100·0
2. Food	81·4	18·6
3. Fuel	100·0	..
4. Dress (Clothing and shoes) ..	11·2	88·8
5. Medicine .. ..	..	100·0
6. Light .. ..	..	100·0
7. Education .. ..	..	100·0
8. Religion	21·1	78·9
9. Travelling .. ..	..	100·0
10. Social	1·8	98·2
11. Amusements and luxuries ..	..	100·0
12. Miscellaneous	71·7	28·3
<i>All items</i> ..	<i>59·0</i>	<i>41·0</i>

Thus the goods furnished by the Farm and those purchased from outside were 59·0 and 41·0 per cent. respectively as against 56·4 and 43·6 per cent. respectively, last year.

5. *Kinds of foods consumed.*—As already mentioned food is the heaviest item of expenditure, forming 67·9 per cent. of the total. The total amount spent per family, and per adult male unit, analysed into the following eleven items, has been shown in the tables, on the following two pages, respectively :—

i. Wheat.	vi. Meat.
ii. Maize.	vii. Pulses.
iii. Milk and milk products.	viii. Vegetables.
iv. Sugar.	ix. Fruit.
v. Rice.	x. Salt.
xi. Miscellaneous.	

(i) *Wheat.*—This is the most important item of food constituting about half (46·4 per cent.) of the total expenditure on food. Almost all the wheat was produced on the Farm. It is used in the form of flour for making *chapatis* throughout most of the year and is also used for various other preparations, such as *halva*, etc. Consumption of wheat per family averaged 46·9 maunds (Statement I, page 32) and per adult male unit 7·9 maunds as against 50·8 maunds and 7·7 maunds respectively last year. The value varied from Rs. 96/9/0 to Rs. 171/9/0 per family and from Rs. 19/15/4 to Rs. 29/15/3 per adult male unit. The average expenditure on this item was Rs. 145/5/6 per family and Rs. 24/6/10 per adult male unit as against Rs. 142/12/6 and Rs. 21/11/2 respectively in 1932-33. The higher figures for the present year are due to the slightly larger amount of wheat consumed, and a slight rise in its price.

(ii) *Maize.*—Maize, like wheat, is used for making *chapatis*, but it is consumed only for a few months in winter when it forms a favourite variety in the diet of farmers in this province. It is consumed mostly in combination with the *sag* of *sarson*. On this Farm however, as explained last year, the tenants do not grow much maize, and consequently it forms only a minute item of their diet. During the present year five families out of the six consumed maize and the average consumption for all the families was only 0·8 maunds per family as compared with one maund last year. The value averaged Rs. 1/12/8 per family and Rs. 0/4/10 per adult male unit, as against Rs. 2/4/0 and Rs. 0/5/6, respectively, last year.

(iii) *Milk and milk products.*—Most of the milk and its products consumed by the families were produced at home. It is used either directly as milk, or indirectly in the form of *ghi*, curd, buttermilk, butter, etc. Some cooked dishes and sweetmeats are also prepared with milk. The total consumption of milk per family, (including the *ghi* purchased, in terms of whole milk*) varied

* *Ghi* has been converted into whole milk on the assumption : 1 *chhatak* of *ghi* = 1 seer of milk.

Expenditure on Each Article of Food Consumed by Each of the Six Families in 1933-34.

A.—PER FAMILY.

Item.	FAMILY.							
	A.	B.	C.	D.	E.	F.	Total.	Average.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Wheat	171 9 0	164 12 0	166 3 6	165 10 6	96 9 0	107 4 9	872 0 9	145 5 6
Maize	0 8 0	0 10 0	0 10 0	..	6 8 0	2 8 0	10 12 0	1 12 8
Milk and milk products ..	102 11 7	97 2 10	91 10 1	160 4 9	140 14 2	74 3 2	668 14 7	111 2 5
Sugar	16 0 4	21 11 0	23 11 8	29 2 0	21 10 5	14 8 6	126 11 11	21 2 0
Rice	10 4 0	5 0 0	7 14 0	9 7 0	2 9 6	2 4 0	37 6 6	6 3 9
Meat	2 2 0	2 12 0	1 10 0	10 0 6	..	3 10 6	20 3 0	3 5 10
Pulses	3 4 9	1 1 1	2 3 2	3 15 1	6 11 9	2 12 3	20 0 1	3 5 4
Vegetables	2 12 0	2 5 3	4 7 6	3 0 9	3 0 0	3 12 0	19 5 6	3 3 7
Fruits	2 7 6	0 14 0	1 2 6	4 8 0	7 4 3	2 5 0	18 9 3	3 1 6
Salt	1 9 0	1 4 0	1 10 0	1 14 0	1 0 0	1 0 0	8 5 0	1 6 2
Miscellaneous	8 9 9	5 12 0	9 5 0	22 15 10	25 2 0	8 15 3	80 11 10	13 7 4
<i>Total</i>	<i>321 13 11</i>	<i>303 4 2</i>	<i>310 7 5</i>	<i>410 14 5</i>	<i>311 5 1</i>	<i>223 3 5</i>	<i>1,881 0 5</i>	<i>313 8 1</i>

Expenditure on Each Article of Food Consumed by Each of the Six Families in 1933-34.

B.—PER ADULT MALE UNIT.

Item.	FAMILY.						Average.	Percentage to the total.
	A.	B.	C.	D.	E.	F.		
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Wheat	25 3 8	39 15 3	23 1 5	19 15 4	27 9 5	24 6 2	24 6 10	46.4
Maize	0 1 2	0 1 10	0 1 5	..	1 13 9	0 9 1	0 4 10	0.6
Milk and milk products ..	15 1 9	17 10 8	12 11 7	19 5 0	40 4 1	16 13 10	18 10 11	35.4
Sugar	2 5 8	3 15 1	3 4 9	3 8 2	6 3 0	3 4 10	3 8 10	6.7
Rice	1 8 1	0 14 7	1 1 6	1 2 2	0 11 10	0 8 2	1 0 9	2.0
Meat	0 5 0	0 8 0	0 3 7	1 3 4	..	0 13 3	0 9 1	1.1
Pulses	0 7 9	0 3 1	0 4 11	0 7 7	1 14 9	0 10 1	0 8 11	1.1
Vegetables	0 6 6	0 6 9	0 9 11	0 5 11	0 13 9	0 13 8	0 8 8	1.0
Fruits	0 5 10	0 2 7	0 2 7	0 8 8	2 1 2	0 8 5	0 8 4	1.0
Salt	0 3 8	0 3 8	0 3 7	0 3 7	0 4 7	0 3 7	0 3 9	0.4
Miscellaneous	1 4 3	1 0 9	1 4 8	2 12 4	7 2 10	2 0 7	2 4 2	4.3
Total ..	47 5 4	55 2 3	43 1 11	49 8 1	88 15 2	50 11 3	52 11 1	100.0

from 32·4 maunds to 55·4 maunds, the average being 40·3 maunds. Consumption per adult male unit varied from 4·5 maunds in Family C. to 15·9 maunds in Family E., and the average worked out at 6·8 maunds. Averages per family and per adult male units for the year 1932-33 were 40·1 maunds and 6·1 maunds, respectively. Consumption in terms of money varied from Rs. 74/3/2 to Rs. 160/4/9 per family, the average being Rs. 111/2/5 as compared with Rs. 97/10/3 in 1932-33. Per adult male unit the consumption varied from Rs. 12/11/7 to Rs. 40/4/1, the average being Rs. 18/10/11 as against Rs. 14/13/5 last year. The higher cost of milk was mostly due to its higher cost of production in the present year. Of the products of milk by value 3·2 per cent. were purchased, and 96·8 per cent. were produced at home.

The following table shows the amount of *ghi* consumed by the families; also the amount produced at home and that purchased from outside :—

Tenants.	Produced.			Purchased.			Total.			Per adult male unit.		
	Mds.	Srs.	Ch.	Mds.	Srs.	Ch.	Mds.	Srs.	Ch.	Mds.	Srs.	Ch.
A. ..	1	19	9	0	4	0	1	23	9	0	9	4
B. ..	1	30	3	0	6	0	1	36	3	0	13	4
C. ..	1	12	2	..	..	..	1	12	2	0	7	4
D. ..	1	39	1	0	7	0	2	6	1	0	10	4
E. ..	2	16	15	0	4	0	2	20	15	0	28	13
F. ..	1	17	0	0	1	8	1	18	8	0	13	5
Total ..	10	14	14	0	22	8	10	37	6	..	..	..
Average ..	1	29	2	0	3	12	1	32	14	0	12	4

Thus consumption of *ghi* varied from 7·3 seers to 28·8 seers per adult male unit, and averaged 12·25 seers. This works out to 0·54 *chhataks* per adult male unit per day and 0·40 *chhataks* per head per day as compared with 0·53 and 0·39 *chhataks* respectively last year. (The cost of production of milk and its disposal will be treated subsequently in section 6.)

(iv) *Sugar*.—Two forms of sugar, raw and refined, were used by the families for sweetening milk and for various dishes. Raw sugar is mostly produced at the Farm, but if the cultivator does not grow sugarcane, or the crop is sold as seed—not an uncommon practice on this Farm—it has to be purchased from outside. Refined sugar is all purchased. Raw sugar is for general use while refined sugar is reserved for special occasions and for guests. The table on the following page shows the amount and value of the sugar consumed, and also the proportion furnished by the Farm or purchased from outside.

Consumption per adult male unit varied from 17·6 seers to 43·3 seers quantitatively and Rs. 2/5/8 to Rs. 6/3/0 by value. Average consumption per adult male unit was 26·9 seers as against 42·5 seers last year; it was valued at Rs. 3/8/10 as against Rs. 3/14/2 last year. Consumption per head came to 19·6 seers, valued at Rs. 2/9/5, as against 31·1 seers valued at Rs. 2/13/5 last year. The decrease in the quantity of sugar consumed, it will be observed, is all in raw sugar, which is only 21·2 seers per adult male unit as against 37·8 seers in 1932-33. This is on account of the rise in the market rate of raw sugar.* On the other hand the consumption of refined sugar has risen slightly, *viz.*, 5·8 seers as against 4·8 seers last year.

Last year a comparison of consumption of sugar was made with the consumption in other countries. Comparing the present year's figures also, it is found that the consumption by these families, is still much higher than that for the whole of India, and compares quite favourably with that of Europe.

<i>Country.</i>	<i>Consumption per capita.†</i>
	<i>lbs.</i>
United States of America	89·14
United Kingdom	93·37
Denmark	95·57
Europe	36·83
India	22·30
<i>Punjab (six families)</i>	<i>40·30</i>

(v) *Rice*.—Rice is not a staple food of cultivators in the Punjab, and is used only in the form of special dishes as when boiled in water or milk and sweetened or salted. The whole of the rice consumed was purchased as rice was not grown on the Farm. The consumption varied from 4·3 seers to 15·7 seers per adult male unit, the average being 9·2 seers as against 10·2 seers last year. The value of rice consumed per family varied from Rs. 2/4/0 to Rs. 10/4/0 and per adult male

* Average rate of raw sugar during the years 1932-33 and 1933-34 was Rs. 2/7/0 and Rs. 3/8/11, respectively.

† Report of the Indian Sugar Committee, page 366, Appendix II (1920).

Amount and Value of the Sugar Consumed by Each Family and per Adult Male Unit in 1933-34.

Tenant.	PER FAMILY.						PER ADULT MALE UNIT.		
	RAW SUGAR.			Refined sugar purchased.	Total.	Per head.	Raw sugar.	Refined sugar.	Total.
	Furnished by the farm.	Purchased.	Total.						
A.—AMOUNT—	Seers.	Seers.	Seers.	Seers.	Seers.	Seers.	Seers.	Seers.	Seers.
A.	80·0	44·5	124·55	21·9	146·4	16·3	18·3	3·2	21·5
B. .. ..	..	105·0	105·0	38·8	143·8	20·6	19·1	7·0	26·1
C.	110·0	50·0	160·0	37·3	197·3	19·8	22·2	5·2	27·4
D.	120·0	80·0	200·0	46·3	246·3	18·9	24·1	5·6	29·7
E.	40·0	80·0	120·0	31·6	151·6	30·3	34·3	9·0	43·3
F. .. ..	..	47·0	47·0	30·5	77·5	15·5	10·7	6·9	17·6
<i>Total</i> ..	<i>350·0</i>	<i>406·5</i>	<i>756·5</i>	<i>206·4</i>	<i>962·9</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>..</i>
<i>Average</i> ..	<i>58·3</i>	<i>67·8</i>	<i>126·1</i>	<i>34·4</i>	<i>160·5</i>	<i>19·6</i>	<i>21·2</i>	<i>5·8</i>	<i>26·9</i>
B.—VALUE—	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
A.	4 11 4	4 15 0	9 10 4	6 6 0	16 0 4	1 12 6	1 6 8	0 15 0	2 5 8
B. .. ..	..	10 11 0	10 11 0	11 0 0	21 11 0	3 1 7	1 15 1	2 0 0	3 15 1
C.	5 14 2	6 4 0	12 2 2	11 9 6	23 11 8	2 6 0	1 11 0	1 9 9	3 4 9
D.	7 1 0	10 0 0	17 1 0	12 1 0	29 2 0	2 3 10	2 5 11	1 10 10	4 0 9
E.	2 5 8	10 0 0	12 5 8	9 4 9	21 10 5	4 5 3	3 8 6	2 10 6	6 3 0
F. .. ..	..	5 6 0	5 6 0	9 2 6	14 8 6	2 14 6	1 3 7	2 1 3	3 4 10
<i>Total</i> ..	<i>20 0 2</i>	<i>47 4 0</i>	<i>67 4 2</i>	<i>59 7 9</i>	<i>126 11 11</i>	<i>..</i>	<i>..</i>	<i>..</i>	<i>..</i>
<i>Average</i> ..	<i>3 5 4</i>	<i>7 14 0</i>	<i>11 3 4</i>	<i>9 14 8</i>	<i>21 2 0</i>	<i>2 9 5</i>	<i>1 14 2</i>	<i>1 10 8</i>	<i>3 8 10</i>

unit from Rs. 0/8/2 to Rs. 1/8/2, and the averages are Rs. 6/3/9 and Rs. 1/0/9, as against Rs. 8/1/11 and Rs. 1/3/9 respectively last year.

(vi) *Meat*.—The consumption of meat in Muslim families varied from 5·8 seers to 34·5 seers. The Sikh Family E. consumed no meat. The average consumption for the six families came to 11·4 seers per family and 1·9 seers per adult male unit. The meat of the animals sacrificed at the occasion of 'Id is not included under this head as this comes under 'Religion.' Most of the meat consumed was purchased at an average rate of Rs. 0/4/7 per seer from Lyallpur. The expenditure per adult male unit on this account varied from nil in the case of Tenant E. to Rs. 1/3/4 for Tenant D., and the average was Rs. 0/9/1 as against Rs. 1/1/0 last year. For Muslim tenants alone, the consumption per adult male unit averaged 2·1 seers valued at Rs. 0/10/5.

(vii) *Pulses*.—Pulses such as gram, *mung*, *mash* and *masur*, after being boiled in water and salted and spiced, are consumed along with *chapatis*. Gram was mostly produced at the Farm but the other pulses were bought. The average consumption of pulses came to 48·2 seers per family and 8·1 seer per adult male unit, valued at Rs. 3/5/4 and Rs. 0/8/11 respectively, as against Rs. 4/4/3 and Rs. 0/10/4, respectively, last year.

(viii) *Vegetables*.—All vegetables were purchased from Lyallpur except *sag* of *sarson*, the value of which has not been included in the expenditure, because the tenants usually scatter a little *sarson* seed in the fields to be picked later and used as *sag* and then about the end of February cut as fodder. Vegetables to the value of Rs. 3/3/7 per family and Rs. 0/8/8 per adult male unit, were consumed during the year, as against Rs. 3/8/7 and Rs. 0/8/7 last year.

(ix) *Fruit*.—Fruits such as mangoes, grapes, dates, pears, lemons, *bers*, almonds, etc., were all purchased and the average consumption amounted to Rs. 3/1/6 per family and Rs. 0/8/4 per adult male unit, as compared with Rs. 3/11/0 and Rs. 0/9/0 respectively in 1932-33.

(x) *Salt*.—All salt was purchased at Rs. 2/8/0 per maund. Expenditure on this account averaged Rs. 1/6/2 per family and Rs. 0/3/9 per adult male unit. The figures for the last year are Rs. 1/7/9 and Rs. 0/3/8 respectively.

(xi) *Miscellaneous*.—This includes such things as pickles, spices, etc., not included under any of the above heads, and the value of the purchases of kitchen utensils and repairs to them during the year. It also includes the charges of the water carrier who supplied drinking water. Miscellaneous expenditure varied from Rs. 5/12/0 to Rs. 25/2/0, the average being Rs. 13/7/4 per family as against Rs. 5/13/0 in the previous year.

Summary.—The total expenditure on food varied from Rs. 223/3/5 to Rs. 410/14/5 per family, and from Rs. 43/1/11 to Rs. 88/15/2 per adult male unit. The average expenditure on food of a family of 5.95 adult male units came to Rs. 313/8/1, which amounts to Rs. 52/11/1 per adult male unit. Last year the average expenditure on food of a family of 6.58 adult male units was Rs. 302/1/11 which came to Rs. 45/14/8 per adult male unit.

The following table compares the average expenditure on food item by item for the two years :—

Item.	PER FAMILY.		PER ADULT MALE UNIT.	
	1932-33.	1933-34.	1932-33.	1933-34.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Wheat ..	142 12 6	145 5 6	21 11 2	24 6 10
Maize ..	2 4 0	1 12 8	0 5 6	0 4 10
Milk and milk products.	97 10 3	111 2 5	14 13 5	18 10 11
Sugar ..	25 8 11	21 2 0	3 14 2	3 8 10
Rice ..	8 1 11	6 3 9	1 3 9	1 0 9
Meat ..	6 15 9	3 5 10	1 1 0	0 9 1
Pulses ..	4 4 3	3 5 4	0 10 4	0 8 11
Vegetables ..	3 8 7	3 3 7	0 8 7	0 8 8
Fruits ..	3 11 0	3 1 5	0 9 0	0 8 4
Salt ..	1 7 9	1 6 2	0 3 8	0 3 9
Miscellaneous ..	5 13 0	13 7 4	0 14 1	2 4 2
<i>Total</i> ..	<i>302 1 11</i>	<i>313 8 1</i>	<i>45 14 8</i>	<i>52 11 1</i>

As will be seen from the above table the increase in the expenditure for food per adult male unit from Rs. 45/12/8 last year to Rs. 52/11/8 this year is due to the increase in the cost of wheat, milk and milk products. The following table shows the consumption of various articles of food per adult male unit, and their prices

during the two years, and, thus, illustrates the reasons for the increase or decrease in the cost of the articles of food :—

Items.	AMOUNT CONSUMED PER ADULT MALE.		AVERAGE PRICE PER MAUND.	
	1932-33.	1933-34.	1932-33.	1933-34.
Wheat (Maunds)	7.7	7.9	Rs. a. p. 2 13 1	Rs. a. p. 3 1 7
Maize "	0.2	0.1	1 11 6	2 3 1
Milk "	6.1	6.8	2 6 11	2 14 2
Sugar "	1.1	0.7	3 8 6	5 4 1
Rice (Seers)	10.2	9.2	4 13 10.	4. 9 0
Meat "	3.6	1.9	11 11 7	11 12 7
Pulses "	7.4	8.1	3 7 9	2 12 3
Salt "	3.6	3.7	2 8 0	2 8 0

It will be seen that the increase in the expenditure on wheat was due to a slight rise in the quantity consumed and also a rise in price. Similarly the cost of milk consumed is higher this year owing to the larger quantity of milk and its products consumed and the higher cost of production.

6. *Production and disposal of milk.*—Buffaloes and cows are the animals generally kept for the production of milk. Farmers in the Punjab prefer buffaloes to cows for this purpose, because the former are generally better milkers than the latter and their milk is richer in fat and other nutrients. Cows are mainly kept for the supply of male calves.

Statements II.-A. and II.-B. on pages 33-34, show the cost of production of milk by buffaloes and cows separately. The method of working out the cost of production is the same as outlined last year and the main items of the cost of production are :—

- (a) Roughages.
- (b) Concentrates.
- (c) Salt.
- (d) Interest and depreciation on the value of milch cattle.
- (e) Miscellaneous.

The roughages consumed which include *bhusa* and green fodder, are mostly grown on the Farm. The value of roughages consumed by milch cattle was the same as that taken for estimating income from cultivation in "*Farm Accounts.*"

Concentrates include gram, wheat, *gur*, bran, cakes, etc., fed to the milch cattle alone. Interest and depreciation are charged at the rate of 8 per cent. and 12 per cent. respectively, on the value of milch cattle. 'Miscellaneous' includes the cost of ropes, veterinary charges, etc.

From the total of these items is deducted the value of young stock raised during the year. Nothing has been charged for the labour spent on the upkeep of the animals, because milk production is not the main occupation of the cultivators and is followed only to supplement the income from cultivation. The value of manure produced has also not been deducted from the cost because the value of manure applied to crops has not been debited to the account of cultivation in the "*Farm Accounts*", nor has it been considered as an item of expenditure in family budgets, when burnt as fuel in the form of dung cakes. Cost of production of milk thus means the cost of roughages, concentrates and salt consumed by the milch cattle, plus interest and depreciation on their value, and miscellaneous expenditure, less the value of young stock raised during the year.

According to this method the cost of production of milk by thirteen buffaloes and six cows kept by these families was as follows:—

	TOTAL.		PER ANIMAL.	
	Buffaloes.	Cows.	Buffaloes.	Cows.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Roughages ..	438 4 10	189 9 1	33 11 5	31 9 6
Concentrates ..	217 14 0	43 5 8	16 12 2	7 3 7
Salt ..	14 12 0	6 4 0	1 2 2	1 0 8
Interest (8%) and depreciation (12%) on the value ..	182 6 5	53 0 0	14 0 6	8 13 4
Miscellaneous ..	11 9 0	4 6 0	0 14 3	0 11 8
<i>Total</i> ..	<i>864 14 3</i>	<i>296 8 9</i>	<i>66 8 6</i>	<i>49 6 9</i>
<i>Less the value of young stock</i> ..	<i>56 0 0</i>	<i>65 0 0</i>	<i>4 4 11</i>	<i>10 13 4</i>
<i>Total</i> ..	<i>808 14 3</i>	<i>231 8 9</i>	<i>62 3 7</i>	<i>38 9 5</i>
	Mds. Srs.	Mds. Srs.	Mds. Srs.	Mds. Srs.
Milk produced ..	333 31	62 20	25 27	10 17
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Cost per maund ..	2 6 9	3 11 3	2 6 9	3 11 3

Thus it will be seen that the cost of upkeep of 13 buffaloes was Rs. 808/14/3 which comes to Rs. 62/3/7 per animal, and that of 6 cows Rs. 231/8/9 which means Rs. 38/9/7 per cow. The cost of upkeep per cow is lower because cows gave less milk and consequently got less concentrates. Interest and depreciation on their value was also less, and the value of young stock in their case was higher.

Each cow consumed on an average concentrates worth Rs. 7/3/7 as against Rs. 16/12/2 consumed by each buffalo. Interest and depreciation on their value amounted to Rs. 8/13/4 per cow as against Rs. 14/0/6 per buffalo, and the value of young stock per cow was Rs. 10/13/4 as against Rs. 4/4/11 per buffalo.

Although the average cost of upkeep of a cow was lower than that of a buffalo, the amount of milk produced per cow was much less and thus buffaloes produced milk at a lower cost per maund than did the cows. The average amount of milk produced per buffalo was 25·7 maunds and per cow 10·4 maunds, and the cost of production of milk per maund works out at Rs. 2/6/9 for buffaloes and Rs. 3/11/3 for cows. Last year each buffalo produced on an average 20·5 maunds and each cow 15·5 maunds of milk. The cost of production of milk for buffaloes as well as for cows this year comes to Rs. 2/10/0 per maund as against Rs. 2/6/9 per maund last year. The higher cost of production this year is due to the higher price of wheat *bhusa* and concentrates during this year.

One hundred and seventy two maunds, 24 seers of buffaloes' milk and 58 maunds, 30 seers of cows' milk were consumed by the families, the remaining 161 maunds, 2 seers of buffaloes' and 3 maunds, 30 seers of cows' milk were sold to a middleman. He lives in the city, comes every morning to the village, gathers milk from the tenants in his own tins, which he carries to the city on a pony. He purchased milk at an average rate of Rs. 3/2/11 per maund. Cows' milk, which was hardly 2 per cent. of the total amount sold, was mixed with buffaloes' and thus fetched the same price. The cost of production of milk being Rs. 2/6/9 and Rs. 3/11/3 for buffaloes and cows respectively, it means a gain of Rs. 0/12/2 per maund of buffaloes' milk and a loss of Rs. 0/8/4 per maund of cows' milk sold.

7. *Nutritive value of the food consumed.*—The following table gives the amount of proteins, fats, and carbohydrates daily consumed by an average adult male of the six families and the amount of energy to be acquired from them :—

Tenant.	Proteins.	Fats.	Carbo- hydrates.	Energy.
	Grammes.	Grammes.	Grammes.	Calories.*
A. ..	105·6	44·5	749·5	3,821
B. ..	123·1	55·0	867·7	4,458
C. ..	98·6	44·3	693·9	3,568
D. ..	87·2	42·2	614·0	3,185
E. ..	175·0	110·3	991·9	5,660
F. ..	112·4	51·3	744·2	3,888
<i>Average</i> ..	<i>110·2</i>	<i>52·8</i>	<i>748·1</i>	<i>3,909</i>

* Calorie in this report means a large calorie, i.e. the amount of heat required to raise the temperature of one kilogramme of water by one degree centigrade.

It will be seen that the consumption of proteins varied from 87·2 grammes per adult male to 175·0 grammes daily, that of fats from 42·2 grammes to 110·3 grammes, and that of carbohydrates from 614·0 grammes to 991·9 grammes. The average consumption of proteins, fats and carbohydrates comes to 110·2, 52·8 and 748·1 grammes respectively as against 110·2, 54·9 and 769·8 grammes respectively last year. Energy supplied by this food varied from 3,185 calories to 5,660 calories and the average came to 3,909 calories as compared with 4,014 calories last year.

Atwater in America recommends 150 grammes of proteins and 4,150 calories of energy per adult male unit per day.* Langworthy who has studied the diets of various peoples found the following results :—

	FOOD PER MAN PER DAY.	
	Proteins.	Energy.
	Grammes.	Calories.
U. S. A. : Farmers and Mechanics	100	3,425
Canada : Factory hands	108	3,480
Japan : Labourers	118	4,415
China : Labourers	91	3,400

As a standard for men with more muscular activity, such as mechanics at more active work, Langworthy suggests 3,500 calories including 105 grammes of proteins. A comparison of the diet of Punjab cultivators with these standards will show that their diet does not fall short of requirements.

Second in importance to the amount of food constituents is the variety of sources from which the constituents are drawn. An ideal diet is considered to be one which draws its constituents both from vegetable and animal products. Statement III, on page 35, shows the amount and percentage of the food constituents drawn from various sources. It will be seen that wheat is the most important item in the diet and supplied 68·3 per cent. of total protein, 22·9 per cent. of fats and 81·4 per cent. of carbohydrates and 72·8 per cent. of total energy. Milk and its products (including the *ghi* purchased) come next which gave 23·5 per cent. of proteins,

* " Chemistry of Food Nutrition " by Sherman.

66.1 per cent. fats, 4.1 per cent. carbohydrates and 13.8 per cent. of total energy. The following diagrams show the importance of various articles of food in supplying proteins and energy to the body.

CHART II.-A.

PROTEINS

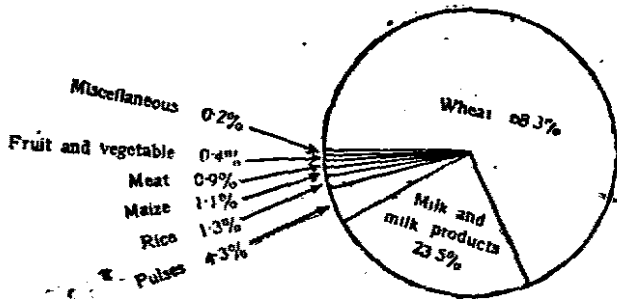
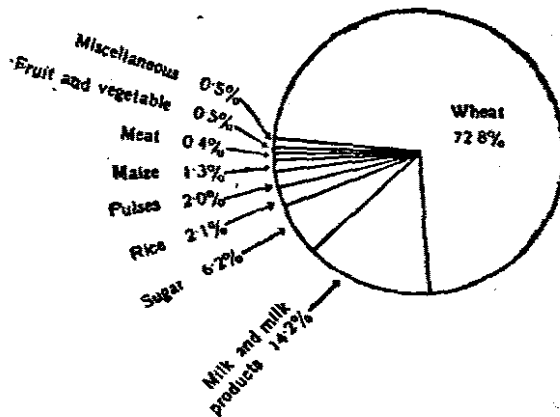


CHART II.-B.

ENERGY



The following table shows the percentages of the food constituents drawn from vegetable and animal products :—

Article of food.	Proteins.	Fats.	Carbo- hydrates.	Energy.
	Per cent.	Per cent.	Per cent.	Per cent.
<i>Animal products :</i>				
Milk and milk products	23·5	69·1	4·1	14·2
Meat ..	0·9	2·6	..	0·4
<i>Total</i> ..	<i>24·4</i>	<i>71·7</i>	<i>4·1</i>	<i>14·6</i>
<i>Vegetable products :</i>				
Grains ..	75·0	24·9	87·1	78·2
Sugar ..	..	..	8·0	6·2
Fruits and vegetables	0·4	0·3	0·6	0·5
<i>Total</i> ..	<i>75·4</i>	<i>25·2</i>	<i>95·7</i>	<i>84·9</i>
Miscellaneous ..	0·2	3·1	0·2	0·5

It is evident from the above table that the food of these families is rich in variety and compares favourably on the energy basis with the diet of Chinese and American farmers, as follows :—

	China.*	Risalewala.	America.*
	Per cent.	Per cent.	Per cent.
Grains	89·8	78·2	38·7
Animal products	1·0	14·6	39·2
Vegetables	8·9	0·3	9·0
Fruits	0·1	0·2	3·0
Sugar	0·2	6·2	10·1
Miscellaneous .. ..	..	0·5	..

* "Chinese Farm Economy," by Buck, page 364.

It is clear from this table that as regards variety the diet of our farmers lies between the diets of Chinese and American farmers. In the former 99 per cent. of energy is drawn from the vegetable kingdom and only 1.0 per cent. from the animal kingdom. In the American diet vegetable products supply only 60.8 per cent. of energy and animal products 39.2 per cent. In our cultivators' diet 85.4 per cent. energy is drawn from vegetable products and only 14.6 per cent. from animal products.

8. *Dress*.—Dress, as stated previously, includes clothing and shoes. The clothes can be divided into four main classes according to their use—

- (i) For ordinary wear.
- (ii) Bedding, *i.e.*, mattresses, quilts, etc.
- (iii) Used on special occasions only.
- (iv) For presentation to relatives.

Clothes belonging to classes (i) and (ii) are coarse, and are generally made in the village. Those to be used on special occasions, or to be presented to relatives are more showy and expensive and are usually of mill-made cloth. Generally country shoes made by village shoemakers are used.

Dress is the second most important item of expenditure and constituted 16.4 per cent. of the total as against 20.7 per cent. last year. Expenditure on dress varied from Rs. 63/2/9 to Rs. 96/5/8 per family and from Rs. 7/9/9 to Rs. 23/6/3 per adult male unit. Average of the six families was Rs. 75/10/8 per family as against Rs. 97/2/3 last year, and Rs. 12/11/6 per adult male unit as against Rs. 14/12/2 last year. The expenditure on dress has decreased on account of the fact that the cultivators tried to save something from this item as they had to spend more on food.

The following table shows the amount of cloth and number of pairs of shoes used by the six families:—

Tenant.	TOTAL.		PER ADULT MALE UNIT.		Shoes per head.
	Cloth.	Shoes.	Cloth.	Shoes.	
	Yards.	Pairs.	Yards.	Pairs.	Pairs.
A. ..	275.0	5.0	40.4	0.7	0.5
B. ..	188.3	4.0	34.2	0.7	0.6
C. ..	257.5	7.0	35.8	1.3	0.7
D. ..	246.5	3.0	29.1	0.4	0.2
E. ..	286.0	6.0	81.7	1.7	1.2
F. ..	242.0	5.0	55.0	1.1	1.0
<i>Average</i> ..	249.7	5.0	42.5	0.8	0.6

It will thus be seen that each family on an average used 249·7 yards of cloth as compared with 327·1 yards in 1932-33 and 5·0 pairs of shoes as against 5·3 pairs in 1932-33. Clothes and shoes used per adult male unit come to 42·5 yards and 0·8 pairs, respectively, as against 49·8 yards and 0·8 pairs, respectively, last year. The decrease in the amount of cloth used is in accordance with the decrease in the expenditure on dress. Of the expenditure on dress, 11·2 per cent. was directly met by the produce of the farm, and the balance of 88·8 per cent. was paid for in cash.

The following table shows the amount of cotton lint used by these families for various purposes :—

Tenant.	Quilts.	Cloth.	Lint exchanged for cloth.	Total.
	Seers.	Seers.	Seers.	Seers.
A. ..	9·0	12·0	..	21·0
B. ..	6·0	16·0	..	22·0
C. ..	6·5	7·0	..	13·5
D. ..	..	..	7·0	7·0
E. ..	6·0	8·0	..	14·0
F. ..	9·0	12·0	..	21·0
<i>Average</i> ..	<i>6·1</i>	<i>9·1</i>	<i>1·2</i>	<i>16·4</i>

This shows that each family used on an average 16·4 seers of lint corresponding to 49·2 seers of seed cotton as against 14·3 seers of lint equivalent to 42·9 seers of seed cotton last year. This rise in the amount of cotton consumed at home is due to the fact that this year cotton was a very good crop, and the women of the families earned more cotton by working as pickers. The increase in the cotton thus consumed was also a measure of economy in the expenditure on dress.

The cost of getting cloth made by the village weaver is shown in the table on the following page. It will be seen that the cost of making cloth in the village came to Rs. 0/2/3 per yard excluding spinning charges, and Rs. 0/2/10 including spinning charges against Rs. 0/2/2 and Rs. 0/2/8 last year. Only one tenant—

The Cost on Cloth incurred by the Six Families in 1933-34.

Tenant.	LINT.		Carding charges at 2 annas per seer.	WEAVING CHARGES.		Total.	Spinning charges at 4 annas per seer.	Total.	Cloth.	COST PER YARD.	
	Quantity.	Value at Rs. 12/4/6 per md.		Cash at Re. 1/- per 15 yards.	Value of grain given.					Excluding spinning charges.	Including spinning charges.
	Seers.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Yards.	As p.	As. p.
A. ..	12	3 10 11	1 8 0	5 10 8	0 10 8	11 8 3	3 0 0	14 8 3	85	2 2	2 9
B. ..	16	4 14 7	2 0 0	5 8 6	0 14 2	13 5 3	4 0 0	17 5 3	93	2 7	3 4
C. ..	7	2 2 5	0 14 0	3 5 4	0 9 11	6 15 8	1 12 0	8 11 8	50	2 3	2 10
D. ..	..	..	..	..	..	..	..	..	..	..	..
E. ..	8	1 8 7	1 0 0	3 11 9	0 7 1	6 11 5	2 0 0	8 11 5	56	1 11	2 6
F. ..	12	3 10 11	1 8 0	5 5 4	0 10 8	11 2 11	1 8 0	12 10 11	80	2 3	2 6
<i>Total</i> ..	<i>55</i>	<i>15 15 5</i>	<i>6 14 0</i>	<i>23 9 7</i>	<i>3 4 6</i>	<i>49 11 6</i>	<i>12 4 0</i>	<i>61 15 6</i>	<i>354</i>	<i>2 3</i>	<i>2 10</i>

Tenant D.—exchanged lint for cloth. The cost of cloth for him was as follows :—

Cost of getting 48 yards of cloth in exchange for cotton lint :

	Rs.	a.	p.
Lint, 7 seers at Rs. 12/4/6 per maund ..	2	2	5
Cash	6	9	0
<i>Total</i>	<u>8</u>	<u>11</u>	<u>5</u>
<i>Cost per yard</i>	<u>0</u>	<u>2</u>	<u>11</u>

No yarn was bartered for cloth. The cost per yard of cloth got in exchange for cotton lint is nearly the same as that made in the village including spinning charges. But, as most of the yarn meant for making cloth is spun at home, home-made cloth is cheaper by 8 pies per yard. Further home-made cloth is more durable so that there is a double gain in making cloth at home rather than getting it in exchange for cotton lint.

The cost of making a quilt was as follows :—

	Rs.	a.	p.
Cloth, 12 yards Rs. 0/2/3 per yard	1	11	0
Cost of printing the cover	0	8	0
Carding and stuffing charges	0	6	0
Lint, 3 seers @ Rs. 12/4/6 per maund.. .. .	0	14	9
<i>Total</i>	<u>3</u>	<u>7</u>	<u>9</u>

The cloth has been charged at Rs. 0/2/3 per yard, because the cloth used for quilts is generally made at home, for which spinning is done by women of the family. Similarly charges for sewing and stitching have been omitted, because this work is also done at home.

9. *Income*.—The main source of income for these families was the cultivation of land. Other sources were sale of milk, picking of cotton, carting farm produce to the market and working as daily labourers on hire. The income of the families from all these sources during the year ending 31st May 1934, was as follows :—

Inm.	TENANTS.							Per family.
	A.	B.	C.	D.	E.	F.	Total.	
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Cultivation	310 1 10	221 13 2	244 10 5	124 15 4	148 7 4	108 0 6	1,156 0 7	192 10 9
Sale of milk ..	5 2 0	48 15 7	3 14 8	1 6 8	25 8 9	45 10 4	128 10 0	21 7 0
Picking of cotton	15 4 6	12 11 9	12 11 9	15 4 6	5 1 6	20 6 0	81 8 0	13 9 4
Carting ..	..	..	6 0 0	5 0 0	25 0 0	4 0 0	40 0 0	6 10 8
Labour ..	2 0 0	..	12 0 0	6 4 0	1 8 0	8 0 0	29 12 0	4 15 4
<i>Total</i> ..	<i>332 8 4</i>	<i>281 8 6</i>	<i>279 4 10</i>	<i>152 14 6</i>	<i>205 9 7</i>	<i>184 0 10</i>	<i>1,435 14 7</i>	<i>239 5 1</i>

* See "Farm Accounts in the Punjab, 1933-34", Part X, tenants No. 7, 18, 10, 5, 15 and 19, respectively.

It will be seen that the income of the families varied from Rs. 152/14/6 in the case of Tenant D. to Rs. 332/8/4 in case of Tenant A., and the average came to Rs. 239/5/1 as against Rs. 414/11/6 last year. Cultivation is the largest source of income, and formed 80·5 per cent. of the total income. Earnings from the sale of milk, shares from the picking of cotton, earnings by carting the produce, and wages of the labour done, formed 9·0, 5·6, 2·8 and 2·1 per cent. of the total income, respectively.

10. *Financial Position of the Tenants.*—The following table shows the income, expenditure and balance in the budget of each of the six families:—

Tenant.	Income.	Expenditure.	Deficit.
	Rs. a. p.	Rs. a. p.	Rs. a. p.
A. ..	332 8 4	528 0 4	195 8 0
B. ..	281 8 6	439 6 11	157 14 5
C. ..	279 4 10	449 15 6	170 10 8
D. ..	152 14 6	556 6 11	403 8 5
E. ..	205 9 7	465 8 10	259 15 3
F. ..	184 0 10	331 2 4	147 1 6
<i>Total</i> ..	<i>1,435 14 7</i>	<i>2,770 8 10</i>	<i>1,334 10 3</i>
<i>Per family</i> ..	<i>239 5 1</i>	<i>461 12 2</i>	<i>222 7 1</i>

It is clear from the table that all the families had to face a deficit varying from Rs. 147/1/6 with Family F, to Rs. 403/8/5 with Family D. The Tenant D. had, as last year, to face the heaviest deficit because his net income was the lowest and he had to support the largest family. The deficits in the budgets of the families are unusually high on account of the low income due to a fall in the market rates of *rabi* grain and *bhusa*. The income per family in 1933-34 was only Rs. 239/5/1 as against Rs. 414/11/6 in 1932-33. Besides this, grain and *bhusa* on the expenditure side have been charged at the much higher rates prevalent during *rabi*, 1932-33, and those on the income side at the much lower rates current in *rabi*, 1933-34. As the expenditure of the family depended on the money available during the year, it was income from *rabi* 1932-33, grain and *bhusa* which was available in the beginning of the year, for expenditure. Owing to the high rates prevalent in *rabi* 1932-33, the expenditure during 1933-34 was high, while the income from 1933-34 *rabi* with its low rates was much less.

The tenants met the deficits as follows :—

Tenant.	Deficit.	Received	Sold	Incurring
		rent of his land.	animals.	debt.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
A.	195 8 0	64 0 0	..	131 8 0
B.	157 14 5	130 0 0	..	27 14 5
C.	170 10 8	30 0 0	17 0 0	123 10 8
D.	403 8 5	50 0 0	70 0 0	283 8 5
E.	259 15 3	106 0 0	..	153 15 3
F.	147 1 6	40 0 0	60 0 0	47 1 6
<i>Total</i> ..	1,334 10 3	420 0 0	147 0 0	767 10 3

It will be observed that Tenant D. incurred a debt of Rs. 50/- last year and one of Rs. 283/8/5 during the year under report. Similarly other tenants incurred debts varying from Rs. 27/14/5 to Rs. 153/15/3. In view of these facts it is surprising how long these people can go on raising loans. This riddle may perhaps be explained by the fact that actually very little debt was incurred by the cultivators because a considerable portion of interest and depreciation charged on the value of livestock and implements was not actually paid during the year. Most of the livestock was either purchased several years back or reared at home. None of the improved implements, on the value of which interest and depreciation are charged, was purchased during this year. The total livestock of the six families consisted of 24 bullocks, 13 buffaloes, and 6 cows, besides young stock. Of these only five bullocks worth Rs. 192/- were purchased during the year, while other animals were either home-bred or purchased before the commencement of

these accounts. The cost of upkeep of young stock (which means the cost of rearing home-bred animals) during the year was Rs. 340/12/2. This makes the total expenditure incurred for the supply of livestock only Rs. 532/12/2, while interest and depreciation on their value amounts to Rs. 897/5/8. Thus an expenditure of Rs. 364/9/6 shown against these families on account of interest and depreciation on the value of livestock was not actually incurred by them. Further interest and depreciation on the value of improved implements, none of which was purchased during the year comes to Rs. 149/14/3, thus making the expenditure not actually incurred during the year Rs. 514/7/9. If this is admitted the aggregate deficit of Rs. 767/10/3 is reduced to Rs. 253/2/6 only, or Rs. 42/3/1 per family.

11. *Employment of the members of the families.*—Statements V.-A. and V.-B. on pages 38-39, show the time spent in doing various kinds of work by men and women of an average family. It will be seen that each man worked on an average for 304.5 days of 8 hours each during the year as compared with 335.0 days last year. Each woman worked for 247.2 days as against 226.6 days in 1932-33. The distribution of the working time of men and women during the two years was as follows:—

Item.	PER MAN.				PER WOMAN.			
	Days.		Percentage to the total.		Days.		Percentage to the total.	
	1932-33.	1933-34.	1932-33.	1933-34.	1932-33.	1933-34.	1932-33.	1933-34.
Cultivation work	150.3	166.7	44.9	54.7	..	..	..	..
Upkeep of live- stock.	167.5	113.4	50.0	37.2	1.9	2.0	0.8	0.8
Milking ..	2.7	6.3	0.8	2.1	5.7	9.7	2.5	4.0
Churning ..	0.1	0.1	..	..	20.1	16.6	8.9	6.7
Barn cleaning..	..	..	..	..	18.7	27.0	8.3	10.9
House cleaning and repairing.	0.9	1.1	0.3	0.4	13.0	13.1	5.7	5.3
Clothes making, mending and washing.	..	..	..	..	47.9	41.0	21.1	16.6
Cooking and car- rying meals.	..	..	..	..	75.1	80.5	33.2	32.5
Fetching water from well.	..	..	..	..	22.0	25.9	9.7	10.5
Grinding grain	2.3	2.0	0.7	0.7	..	..	..	..
Miscellaneous ..	7.3	9.3	2.2	3.1	1.2	0.9	0.5	0.4
Paid labour ..	3.9	5.6	1.1	1.8	21.0	30.5	9.3	12.3
<i>Total</i> ..	<i>335.0</i>	<i>304.5</i>	<i>100.0</i>	<i>100.0</i>	<i>226.6</i>	<i>247.2</i>	<i>100.0</i>	<i>100.0</i>

It is clear from the above table that the work done by the two sexes was supplementary, and that men as well as women remained fairly busy throughout the year. The figures of employment of men, as pointed out last year, however, include a large number of days spent on the upkeep of livestock, which would be considerably reduced if they could get more remunerative employment. Each man worked as a daily labourer on an average for 5·6 days as against 3·9 days last year. Each woman picked cotton on an average, for 30·5 days as against 21·0 days last year, and received 46·2 seers of cotton or 1·5 seers per day, for this work as compared with 1·1 seers last year.

12. Summary.—

(1) This is the second publication in the series dealing with family budgets of tenant-cultivators in the Lyallpur District.

(2) *Number of Families.*—It presents the family budgets of six tenant-cultivators.

(3) *Period.*—The budgets relate to the period 1st June 1933 to 31st May 1934.

(4) *Size of family.*—There were on an average 8·2 members (equivalent to 5·95 adult male units*) per family.

(5) *Expenditure.* †—

(i) *Per family.*—Total expenditure per family varied from Rs. 331/2/4 to Rs. 556/6/11, the average being Rs. 461/12/2 or Rs. 38/7/8 per mensem.

(ii) *Per adult male unit.*—Per adult male unit the expenditure varied from Rs. 62/7/11 to Rs. 133/0/3, the average being Rs. 77/9/9 or Rs. 6/7/6 per mensem.

(iii) *Important items.*—By far the most important item of expenditure was food, which alone formed 67·9 per cent. of the total. Dress, comprising clothing and shoes, constituted another 16·4 per cent. Travelling, religion, social, medicine, light, amusements and luxuries, and housing ‡ formed 5·9, 2·4, 2·0, 1·2, 1·0, 0·8 and 0·3 per cent. respectively.

(6) *Education.*—Education is one of the smallest items of expenditure forming only 0·3 per cent. of the total.

(7) *Sources of goods.*—59·0 per cent. of the goods consumed were furnished by the Farm and 41·0 per cent. were bought from outside. 81·4 per cent. of food and 11·2 per cent. of the dress material were produced on the farm.

* See page 1. † Expenditure does not include the value of fuel burnt.

‡ Housing does not include interest and depreciation on the value of houses.

(8) *Cost of making khaddar.*—Home-made cloth cost Rs. 0/2/3 per yard, excluding spinning charges (which were not actually paid, as this work was done by the women), and Rs. 0/2/10 including spinning charges.

(9) *Milk.*—The milk consumed by the families was produced on the Farm and the surplus sold to a middleman who carried it to Lyallpur. The cost of production of milk* per maund came to Rs. 2/6/9 for buffaloes and Rs. 3/11/3 for cows.

(10) *Nutritive value of food.*—Each adult male unit consumed on an average 110·2 grammes of proteins and 3,909 calories of energy in food every day. The food nutrients were drawn from vegetable and animal products, wheat being the most important vegetable product and milk the most important animal product. The nutritive value of the food consumed compares quite favourably with the standards given for other countries.

(11) *Income.*—The income of the families from cultivation, sale of milk, labour and carting varied from Rs. 152/14/6 to Rs. 332/8/4, the average being Rs. 239/5/1.

(12) *Balance* :—

(i) Budgets of all families showed *deficits* varying from Rs. 147/1/6 to Rs. 403/8/5, the average being Rs. 222/7/1.

(ii) The deficits were to some extent met by the rent of the land owned by the families in the older districts.

(13) *Employment.*—Each adult male member of the families worked on an average for 304·5 days of 8 hours each during the year, and each adult female for 247·2 days. The men were mostly engaged in the work of cultivation and upkeep of livestock, and the women in household duties such as cooking, making clothes, cleaning houses, etc.

(14) *Extra employment.*—Each man worked for 5·6 days and each woman for 30·5 days during the year as a paid labourer.

* Cost of production of milk does not include the cost of labour performed by family members, nor does it exclude the value of manure produced by the milch cattle (see page 18).

STATEMENT I.

Amounts of Important Articles of Food Consumed by the Six Tenant Families in 1933-34.

Articles of food.	TENANTS.						Total.	Average per family.	PER ADULT MALE UNIT.						
	A.	B.	C.	D.	E.	F.			A.	B.	C.	D.	E.	F.	Average.
Wheat (Maunds)	55.2	53.2	54.2	52.5	31.0	35.2	281.3	46.9	8.1	9.7	7.5	6.3	8.9	8.0	7.9
Maize (")	0.2	0.3	0.2	..	3.2	1.0	4.9	0.8	..	0.1	..	..	0.9	0.2	0.1
Milk and milk products (")	34.7	41.1	32.4	46.9	55.8	31.1	242.0	40.3	5.1	7.5	4.5	5.6	15.9	7.1	6.8
Sugar (")	3.7	3.6	4.9	6.2	3.8	1.9	24.1	4.0	0.5	0.6	0.7	0.7	1.1	0.4	0.7
Rice (Seers)	107.0	40.0	62.2	79.0	20.8	19.0	328.0	54.7	15.7	7.3	8.6	9.5	5.9	4.3	9.2
Meat (")	7.0	9.0	5.8	34.5	..	12.2	68.5	11.4	1.0	1.6	0.8	4.2	..	2.8	1.9
Pulses (")	52.0	20.0	33.3	41.3	96.0	46.4	289.0	48.2	7.7	3.6	4.7	5.0	27.4	10.6	8.1
Salt (")	25.0	20.0	26.0	30.0	16.0	16.0	133.0	22.2	3.7	3.6	3.6	3.6	4.6	3.6	3.7

STATEMENT II.
Cost of Production of Milk.
A.—BUFFALOES.

Item.	TENANT.						Total.	Average per family.
	A.	B.	C.	D.	E.	F.		
Total number of stock ..	7-0	9-0	11-1	8-5	11-0	7-0	53-6	8-9
Number of milch cattle..	1-0	3-0	1-0	2-0	3-0	3-0	13-0	2-2
Cost of roughages consumed by all animals {	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
	Bhusa ..	109 12 4	94 1 8	133 3 6	139 2 0	143 15 2	71 14 4	692 1 0	115 5 6
Fodders ..	110 15 0	198 3 3	174 12 3	200 15 3	186 10 1	188 0 9	1,059 8 7	176 9 5
<i>Total</i> ..	<i>220 11 4</i>	<i>292 4 11</i>	<i>307 15 9</i>	<i>340 1 3</i>	<i>330 9 3</i>	<i>259 15 1</i>	<i>1,751 9 7</i>	<i>291 14 11</i>
COST OF UPKEEP—								
Share of roughages ..	31 8 6	97 7 0	27 11 11	80 0 5	90 2 6	111 6 6	438 4 10	73 0 10
Concentrates ..	32 6 9	32 14 9	4 5 0	37 10 6	54 10 0	55 15 0	217 14 0	36 5 0
Salt ..	1 0 0	3 4 0	1 8 0	2 8 0	3 8 0	3 0 0	14 12 0	2 7 4
Interest (8%), depreciation (12%) on the value ..	21 6 5	34 0 0	18 0 0	26 0 0	43 0 0	40 0 0	182 6 5	30 6 5
Miscellaneous ..	1 0 0	2 8 0	0 8 0	2 3 0	2 6 0	3 0 0	11 9 0	1 14 10
<i>Total</i> ..	<i>87 5 8</i>	<i>170 1 9</i>	<i>52 0 11</i>	<i>148 5 11</i>	<i>193 10 6</i>	<i>213 5 6</i>	<i>864 14 3</i>	<i>144 2 5</i>
<i>Less value of young stock</i> ..	<i>5 0 0</i>	<i>12 0 0</i>	<i>5 0 0</i>	<i>10 0 0</i>	<i>14 0 0</i>	<i>10 0 0</i>	<i>56 0 0</i>	<i>9 5 4</i>
<i>Total</i> ..	<i>82 5 8</i>	<i>158 1 9</i>	<i>47 0 11</i>	<i>138 5 11</i>	<i>179 10 6</i>	<i>203 5 6</i>	<i>808 14 3</i>	<i>134 13 1</i>
Total milk produced	Mds. Srs. 31 35	Mds. Srs. 80 30	Mds. Srs. 17 17	Mds. Srs. 45 16	Mds. Srs. 73 6	Mds. Srs. 85 7	Mds. Srs. 333 31	Mds. Srs. 54 25
MILK SOLD—	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Cost per maund ..	2 9 4	1 15 4	2 11 3	3 0 9	2 7 4	2 6 2	2 6 9	2 6 9
Value realized ..	28 10 4	143 7 11	26 9 5	22 12 0	115 12 11	176 4 8	513 9 3	85 9 7
Profits ..	5 7 4	54 12 9	4 2 9	1 6 8	25 8 9	45 10 4	137 0 7	22 13 5
Quantity ..	Mds. Srs. 8 39	Mds. Srs. 45 12	Mds. Srs. 8 12	Mds. Srs. 7 0	Mds. Srs. 36 30	Mds. Srs. 54 29	Mds. Srs. 161 2	Mds. Srs. 26 34
MILK CONSUMED—	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Cost ..	59 2 8	69 6 7	24 10 3	117 0 7	89 6 4	72 11 2	432 5 7	72 0 11
Quantity ..	Mds. Srs. 22 36	Mds. Srs. 35 18	Mds. Srs. 9 5	Mds. Srs. 38 16	Mds. Srs. 36 16	Mds. Srs. 30 18	Mds. Srs. 172 29	Mds. Srs. 28 31
Milk produced per animal ..	31 35	26 33	17 17	22 28	24 15	28 16	25 27	25 27

STATEMENT II.
Cost of Production of Milk.
B.—Cows.

Item.	TENANT.						Total.	Average.
	A.	B.	C.	D.	E.	F.		
Total number of stock ..	7-0	9-0	11-1	8-5	11-0	..	46-6	7-8
Number of milch cattle ..	1-0	1-0	2-0	1-0	1-0	..	6-0	1-0
Cost of roughages con- (Bhuas ..	Rs. a. p. 109 12 4	Rs. a. p. 94 1 8	Rs. a. p. 133 3 8	Rs. a. p. 139 2 0	Rs. a. p. 143 15 2	Rs. a. p. ..	Rs. a. p. 620 2 8	Rs. a. p. 103 5 9
sumed by all animals (Fodders..	110 15 0	198 3 3	174 12 3	200 15 3	186 10 1	..	871 7 10	145 4 0
<i>Total</i> ..	<i>220 11 4</i>	<i>292 4 11</i>	<i>307 15 9</i>	<i>340 1 3</i>	<i>330 9 3</i>	<i>..</i>	<i>1,491 10 6</i>	<i>248 9 9</i>
COST OF UPKEEP—								
Share of roughages ..	31 8 6	32 7 8	55 7 11	40 0 2	30 0 10	..	189 9 1	31 9 6
Concentrates ..	9 9 1	8 8 1	7 0 0	3 8 0	14 12 6	..	43 5 8	7 3 7
Salt ..	1 0 0	1 0 0	2 4 0	1 0 0	1 0 0	..	6 4 0	1 0 8
Interest (8%), depreciation (12%) on the value.	7 0 0	6 0 0	24 0 0	6 0 0	10 0 0	..	53 0 0	8 13 4
Miscellaneous ..	0 8 0	0 8 0	2 0 0	0 12 0	0 10 0	..	4 6 0	0 11 8
<i>Total</i> ..	<i>49 9 7</i>	<i>48 7 9</i>	<i>90 11 11</i>	<i>51 4 2</i>	<i>56 7 4</i>	<i>..</i>	<i>296 8 9</i>	<i>49 6 9</i>
Less value of young stock ..	8 0 0	15 0 0	18 0 0	15 0 0	9 0 0	..	65 0 0	10 13 4
<i>Total</i> ..	<i>41 9- 7</i>	<i>33 7 9</i>	<i>72 11 11</i>	<i>36 4 2</i>	<i>47 7 4</i>	<i>..</i>	<i>231 8 9</i>	<i>38 9 5</i>
Total milk produced ..	Mds. Srs. 10 28	Mds. Srs. 3 20	Mds. Srs. 25 11	Mds. Srs. 5 10	Mds. Srs. 17 31	Mds. Srs. ..	Mds. Srs. 62 20	Mds. Srs. 10 17
MILK SOLD—	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Cost per maund ..	3 14 2	9 9 1	2 14 1	6 14 6	2 10 9	..	3 11 3	3 11 3
Value realized ..	1 11 4	3 14 4	5 8 0	..	..	..	11 1 8	1 13 7
Profit or loss ..	—(0 5 4)	—(7 13 2)	—(0 4 1)	..	..	..	—(8 6 7)	—(1 6 5)
Quantity ..	Mds. Srs. 0 21	Mds. Srs. 1 9	Mds. Srs. 2 0	Mds. Srs. ..	Mds. Srs. ..	Mds. Srs. ..	Mds. Srs. 3 30	Mds. Srs. 0 25
MILK CONSUMED—	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Cost ..	39 8 11	21 12 3	66 15 10	38 4 2	47 7 4	..	212 0 6	35 5 5
Quantity ..	Mds. Srs. 10 7	Mds. Srs. 2 11	Mds. Srs. 23 11	Mds. Srs. 5 10	Mds. Srs. 17 31	Mds. Srs. ..	Mds. Srs. 58 30	Mds. Srs. 9 32
Milk produced per animal ..	10 28	3 20	12 26	5 10	17 31	..	10 17	10 17

STATEMENT III.

Constituents of Foods Consumed by the Tenants in 1933-34.

Article of food.	Quantity.	Proteins.	Fats.	Carbo- hydrates.	Energy per adult male per day.	Cost.	PERCENTAGE TO THE TOTAL.				
							Proteins.	Fats.	Carbo- hydrates.	Energy.	Cost.
	Seers.	Seers.	Seers.	Seers.	Calories.	Rs. a. p.					
Wheat ..	11,185	1051.2	169.2	8,503.6	2,845.9	872 0 9	68.3	22.9	81.4	72.8	48.0
Maize ..	196	17.7	6.7	144.9	50.9	10 12 0	1.1	0.9	1.4	1.3	0.6
Rice ..	328	19.4	1.3	263.4	81.8	37 6 8	1.3	0.2	2.5	2.1	2.1
Pulses ..	289	66.2	6.4	185.3	76.2	20 0 1	4.3	0.9	1.8	2.0	1.1
Sugar ..	963	..	..	841.1	240.9	126 11 11	..	..	8.0	6.2	7.0
Vegetables ..	..	5.2	0.8	30.7	10.8	19 5 6	0.3	0.1	0.3	0.3	1.1
Fruit ..	..	1.3	1.7	27.5	9.3	18 9 3	0.1	0.2	0.3	0.2	1.0
Milk and milk products.	9,259	361.7	487.2	430.5	540.9	644 6 7	23.5	66.1	4.1	13.8	35.4
Ghi purchased ..	23	..	22.5	..	14.5	22 8 0	..	3.0	..	0.4	1.2
Meat ..	77	13.1	19.4	..	16.3	22 3 0	0.9	2.6	..	0.4	1.2
Miscellaneous ..	..	3.7	22.5	20.2	21.3	23 4 6	0.2	3.1	0.2	0.5	1.3
<i>Total</i> ..	..	<i>1,539.5</i>	<i>737.7</i>	<i>10,447.2</i>	<i>3,908.8</i>	<i>1,817 4 1</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>	<i>100.0</i>

STATEMENT IV.

Value of the Items of Household Expenditure Furnished by the Farm or Purchased from Outside.

Item.	A.		B.		C.		D.	
	Furnished by the Farm.	Purchased.	Furnished by the Farm.	Purchased.	Furnished by the Farm.	Purchased.	Furnished by the Farm.	Purchased.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Housing .. ..	..	1 0 0	..	3 1 6	..	1 0 0	..	2 14 0
Food	270 9 2	51 4 9	251 1 11	52 2 3	266 4 11	44 2 6	326 7 10	84 6 7
Fuel .. ..	..	..	..	..	..	..	..	..
Dress	9 7 6	86 14 2	10 6 5	61 9 3	7 3 6	65 1 1	4 10 9	58 8 0
Medicine .. ..	..	6 5 0	..	5 2 0	..	2 4 6	..	9 3 0
Light .. ..	..	4 0 0	..	6 1 6	..	4 15 3	..	4 0 0
Education .. ..	..	5 6 9	..	0 8 0	..	0 4 0	..	0 12 0
Religion	2 5 9	6 0 0	2 5 9	9 4 0	2 5 9	9 7 0	2 5 9	16 3 10
Travelling .. ..	..	55 6 0	..	23 8 0	..	26 12 0	..	33 3 10
Social .. ..	..	13 0 0	..	5 0 0	..	..	..	..
Amusement .. ..	..	4 8 6	..	3 0 0	..	8 3 0	..	5 4 0
Miscellaneous	7 11 3	4 1 6	5 6 4	0 12 0	6 6 9	5 9 3	6 15 4	1 8 0
Total	290 1 8	237 14 8	269 6 5	170 0 6	282 4 11	167 10 7	340 7 8	215 15 3
Average	54.9	45.1	61.3	38.7	62.7	37.3	61.2	38.8

95

(Continued.)

STATEMENT IV.

Value of the Items of Household Expenditure Furnished by the Farm or Purchased from Outside.

(Concluded).

Item.	E.		F.		TOTAL.		PERCENTAGE.	
	Furnished by the Farm.	Purchased.	Furnished by the Farm.	Purchased.	Furnished by the Farm.	Purchased.	Furnished by the Farm.	Purchased.
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.		
Housing .. ..	.. ..	0 4 0	.. ..	0 2 0	.. ..	8 5 6	..	100-0
Food	234 14 7	76 6 6	182 5 5	40 14 0	1,531 11 10	349 4 7	81-4	18-6
Fuel .. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	..	..
Dress	9 11 6	72 2 3	9 7 6	58 13 10	50 15 2	403 0 7	11-2	88-8
Medicine .. ..	.. ..	0 7 0	.. ..	4 7 0	.. ..	27 12 6	..	100-0
Light .. ..	.. ..	10 2 0	.. ..	4 0 0	.. ..	33 2 9	..	100-0
Education .. ..	.. ..	.. ..	.. ..	0 8 0	.. ..	7 6 9	..	100-0
Religion	2 8 0	2 8 0	2 5 9	10 0 6	14 4 9	53 7 4	21-1	78-9
Travelling .. ..	.. ..	13 12 0	.. ..	10 2 0	.. ..	162 11 10	..	100-0
Social	1 0 0	34 3 0	.. ..	1 0 0	1 0 0	53 3 0	1-8	98-2
Amusement .. ..	.. ..	2 1 0	.. ..	.. ..	.. ..	23 0 6	..	100-0
Miscellaneous	4 2 0	1 7 0	5 14 4	1 2 0	36 10 0	14 7 9	71-7	28-3
Total	252 4 1	213 4 9	200 1 0	131 1 4	1,634 9 9	1,135 15 1	..	..
Average	54-2	45-8	60-4	39-6	59-0	41-0	59-0	41-0

STATEMENT V.

Labour Sheet showing the Number of Days Worked by Members of an Average Family in 1933-34.

A.—BY MALES.

Item.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	Total	Per working member.	Percentage to total.
Cultivation work	50.5	44.8	41.5	43.5	33.4	39.1	17.1	26.2	46.0	31.0	40.4	86.5	500.0	166.7	54.7
Upkeep of livestock	28.7	31.3	33.7	38.0	30.4	29.1	28.8	24.7	21.1	25.4	24.7	24.4	340.3	113.4	37.2
Milking	0.1	0.5	11.5	0.2	0.4	0.2	..	0.4	0.4	0.4	0.4	4.3	18.8	6.3	2.1
Churning .. ..	..	..	0.1	..	..	..	..	..	..	..	..	..	0.1	0.1	..
House repairing	0.1	0.5	0.7	1.0	1.0	0.1	..	..	..	..	..	..	3.4	1.1	0.4
Fetching water .. ..	..	..	..	..	..	0.1	..	..	..	..	..	..	0.1	..	..
Grinding grain	0.5	0.6	0.2	0.5	0.4	0.3	0.3	0.8	0.6	0.4	0.2	1.2	6.0	2.0	0.7
Miscellaneous	0.6	1.0	2.3	1.3	1.5	1.5	6.6	2.3	5.9	1.9	2.0	1.0	27.9	9.3	3.1
Paid labour outside	2.8	0.8	..	2.6	5.5	0.8	0.8	0.3	..	3.3	..	..	16.9	5.6	1.8
<i>Total</i>	83.3	79.5	90.0	87.1	72.6	71.2	53.6	54.7	74.0	62.4	67.7	117.4	913.5	304.5	100.0
Per working member	27.8	26.5	30.0	29.0	24.2	23.7	17.9	18.2	24.7	20.8	22.6	39.1	304.5	..	..

STATEMENT V.

Labour Sheet showing the Number of Days Worked by Members of an Average Family in 1933-34.

B.—BY FEMALES.

	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	Total.	Per working member.	Percentage to the total.
Upkeep of livestock ..	..	..	1.2	2.0	0.9	..	..	..	..	0.3	..	..	4.4	2.0	0.8
Milking ..	1.5	1.2	1.5	1.8	1.9	1.3	1.9	2.1	2.0	2.2	2.0	2.1	21.5	9.7	4.0
Churning ..	3.8	3.2	3.0	3.3	3.1	2.7	3.4	3.1	2.5	2.8	2.8	2.8	36.5	16.6	6.7
Barn cleaning ..	4.5	4.8	4.9	4.4	4.5	5.5	4.5	6.5	5.8	5.2	4.4	4.4	59.4	27.0	10.9
House cleaning and repairing ..	2.2	2.3	2.2	2.9	2.5	2.5	2.6	2.3	2.0	2.3	2.6	2.4	23.8	13.1	5.3
Clothesmaking, mending and washing	9.5	11.0	11.7	8.5	4.3	1.7	5.6	8.3	12.3	1.1	9.1	7.1	90.2	43.0	16.6
Cooking and carrying meals ..	18.8	16.3	15.2	14.1	14.2	14.2	12.8	14.2	13.4	14.3	14.8	14.8	177.1	80.5	32.5
Fetching water ..	9.8	5.8	4.8	3.2	3.0	4.0	5.8	3.9	3.5	4.5	4.5	4.1	56.9	25.9	10.5
Miscellaneous ..	..	0.1	..	0.2	1.3	0.5	..	..	..	..	..	..	2.1	0.9	0.4
Paid labour outside ..	..	..	..	0.1	10.2	20.0	22.5	2.1	3.1	..	..	..	67.0	30.5	12.3
<i>Total</i> ..	<i>50.1</i>	<i>44.7</i>	<i>44.5</i>	<i>40.5</i>	<i>45.9</i>	<i>61.4</i>	<i>59.1</i>	<i>42.5</i>	<i>44.6</i>	<i>32.7</i>	<i>40.2</i>	<i>37.7</i>	<i>543.9</i>	<i>247.2</i>	<i>100.0</i>
Per working member ..	22.7	20.3	20.2	18.4	20.9	27.9	26.9	19.3	20.3	14.9	18.3	17.1	247.2	..	..

APPENDIX A.
CHEMICAL COMPOSITION OF THE FOODS.

	Proteins.	Fats.	Carbohy- drate.
	* Per cent.	Per cent.	Per cent.
Wheat flour* ..	9.63	1.55	77.90
Maize † ..	9.31	3.51	76.26
Rice ‡ ..	5.91	0.40	80.29
<i>Pulses—</i>			
<i>Mash*</i> ..	22.38	0.73	64.19
<i>Masur*</i> ..	24.25	0.80	63.79
<i>Gram*</i> ..	23.06	2.87	64.11
<i>Milk—</i>			
Cow § ..	3.50	4.50	4.70
Buffalo § ..	5.10	7.50	4.50

* Lyallpur Jail Food Analysis supplied by P. E. Lander, Agricultural Chemist to the Government, Punjab.

† Memoirs of Department of Agriculture in India, September 1924, Vol. VII, No. 4, by P. E. Lander and Lal Chand.

‡ Calculated from the composition given in Peace Scale Ration of Indian Troops, Army Table, Miscellaneous Services, 1921, Part I, Section III, Table 15.

§ "Punjab Dairying", by Kartar Singh.

APPENDIX B.
FORMS USED IN THE INQUIRY.

Daily Cash Account.

Date.	Particulars.	Quantity.	Dr.	Cr.	Source or purpose.	Remarks.
			Incoms.	Expenditure.		

Weekly Milk Record.

Date.	Animals.	MILK.					GHI.			*Monthly total of the milk sold.	Remarks.
		Given to calf.	Net milked	Sold.	Consumed	Churned.	Made.	Sold.	Consumed		

*Monthly total of the milk sold should be inquired from the middleman who buys the milk from the tenants and takes it to the city.

GLOSSARY.

- ANNA .. One-sixteenth of a rupee.
- ARAJN .. A Mohammedan agricultural tribe, noted for its industry and cultivation; often found as market-gardeners near cities.
- BER .. The Indian Jujube, an evergreen medium-sized tree or large shrub; flowers in summer—July to September (*Zizyphus Jujube*).
- BHUSA .. Straw of wheat stalks broken and crushed into short lengths by bullocks treading on it at the time of threshing.
- CANAL COLONY .. The name given to a large area brought under cultivation as a result of a canal project.
- CHAPATI .. Indian bread; a flat, round cake (often not very thick) made of unleavened flour.
- CHHATAK .. Indian weight: one-sixteenth of a seer; equal to 2·057 ozs.
- GHI .. Clarified butter, commonly used in India instead of lard or other cooking fats.
- GUB .. Raw unrefined cane-sugar in lumps.
- GURDWARA .. Sikh temple.
- HALVA .. Popular Indian confection made of flour, *ghi* and sugar.
- 'ID .. Mohammedan feast-day.
- JAT .. One of the principal agricultural tribes in the Punjab, noted for its hard work, and ability to withstand adverse conditions of life.
- KANAL .. Measure of area; in Lyallpur District equals one-eighth of an acre.
- KHADDAR .. Rough home-woven cloth.
- KHARIF .. Autumn harvest; monsoon or summer crops.
- MARLA .. Measure of area; equals one-twentieth of a kanal.
- MASH .. A pulse much valued as human food (*Phaseolus radiatus*).
- MASUR .. Lentil (*Lens esculenta*).
- MAUND .. Indian standard weight of forty seers; equal to $82\frac{3}{4}$ lbs.
- MAULVI .. A Muslim man of learning; a teacher.
- MUNG .. A pulse much valued as food for invalids (*Phaseolus mungo*).

- PIE .. One-twelfth of an anna.
- PIR .. A Muslim holy man ; a saint with a following.
- RABI .. Spring harvest ; winter crops.
- RUPEE .. Indian standard coin, fixed at 1s. 6d. sterling in 1927.
- SAG .. Spinach ; greens ; pot-herb.
- SARSON .. Indian colza ; an oil seed (*Brassica campestris*, var. *sarson*).
- SEER .. One-fortieth of a maund ; 32·9 ozs.
- SIKH .. The martial religious sect of the Punjab. At the 1931 census they numbered 4,071,624 in the Punjab or 14·3 per cent. of the population.
- SQUARE .. A division of land, in certain canal colonies (including Lyallpur) ; size, 1,100 feet by 1,100 feet ; equivalent to 27·8 acres.

LAHORE :
PRINTED AND PUBLISHED AT THE " CIVIL AND MILITARY GAZETTE," LTD.,
BY E. G. TILT, MANAGER.

1935.

CHECKED
2003-04