Guides in food buying and meal planning for student managers of cooperative houses at Montana state college
by Helen Luke

A THESIS Submitted to the Graduate Committee in partial fulfillment of the requirements for the degree of Master of Science in Home Economics at Montana State College
Montana State University
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Guidance was given to the present managers through frequent visits and conferences, but it is thought that the material in this study will be of more benefit to the succeeding student managers. In order to facilitate the use of the material in the future, suggestions were made to the general association for adjustments in the By-Laws and for provision of additional guidance from especially qualified advisory council members and a reference library in the units for the use of the managers.

GUIDES IN FOOD BUYING AND MEAL PLANNING FOR STUDENT MANAGERS OF COOPERATIVE HOUSES AT MONTANA STATE COLLEGE

by

HELEN LUKE

A THESIS

Submitted to the Graduate Committee

in

partial fulfillment of the requirements

for the degree of

Master of Science in Home Economics

at

Montana State College

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TABLE OF CONTENTS

Abstract 5

Introduction 6
Objectives of Study 6

Brief History of Consumers' Cooperatives 8
In Europe 8
In the United States 9
On College Campuses 11
Development of Montana State College Student Housing Association. 16

Present Management Problems of Montana State College Student Cooperative Housing Projects. 23
Relationship of Problem to Home Economics 25
Analysis of Nutritional Adequacy. 26
Methods Described. 27
Summary of Nutritional Analysis. 43
Recommendations 48
Meal Planning Guides for Menus at Low Cost. 49
Recipe Cards 52
Analysis of Food Buying Practices 55
Food Buying Guides. 59
Stock Records 62
Quarterly Order 65
Analysis of Sales Slips 67
Suggestions for Food Buying Economics 71
Food Buying Procedure Outlined. 75

Summary 77

Acknowledgements 80

Literature Cited 81

Appendix 87

S 9-'40 Thesis - Grad. committee cop. 2

64101

Number TABLES Page

I. Campus Cooperatives in 1937 15

II. Two Weeks' Menus Scored for Unit A - Women. 29

III. Two Weeks' Menus Scored for Unit B - Men. 30

IV. Quarterly Food Consumption of Women's Cooperative Compared With Stiebling's Moderate Cost Standard 34

V. Quarterly Food Consumption of Men's Cooperative Compared With Stiebling's Moderate Cost Standard 35

VI. Comparison of Food Allowance of United States Per Capita with those of Moderately Active Man and Woman 36

VII. Weekly Quantities of Various Specific Foods Used by the Cooperatives Compared to Stiebling's Standard 37

VIII. Percentage Division of Expenditures. Comparison of Montana State College Cooperatives with Stiebling's Moderate Cost Standard. 41

IX. Percentage Division of Expenditures. Comparison of Montana State College Men's Co-op Groups with Kansas State College Men's Co-op as Reported by Davis 41

X. Percentage Division of Expenditures. Comparison of Montana State College Cooperatives with Price's Average 42

XI. Number of Menus out of Fourteen having Maximum Scores . 43

XII. Degree of Variance of Montana Co-op Food Consumption for Fall Quarter from Stiebling's Standard 43

XIII. Amounts of Specific Foods Compared to Stiebling's Standard 44

XIV. Expenditure Division of Food Costs. Cooperative Units Compared to Stiebling's Standard 45

XV. Summary of Explanations given by Unit A for Menu Changes During Four Weeks 51

XVI. Frequency of Orders to the Safeway Store 69

XVII. Frequency and Size of Orders 70

FIGURES

Number		Page
1.	Sample Menu Scored	28
2.	Recipe for Custard	54
3.	Sample of Graduated Cost List for Recipe File	55
4.	Bryan's Request for Bid Form	56
5.	Request for Bid Forms Used by Cooperatives	57
6.	Form for Food Buying Guide.	59
7.	Description of Grades for all Canned Fruit	61
8.	Description of Sizes and Yields of Cans.	62
9.	Stock Record Form	63
10.	Sample of Suggested Order	66
11.	Type and Weight of Cuts Delivered From Steer Side Unit B.	73

ABSTRACT

To lessen the degree of chance in the attainment of successful cooperative living in the Montana State College Student Housing Association; this study was made to provide guidance to the inexperienced student managers who carry most of the responsibility of the operation of the project.

The nutritional adequacy of the meals served in the two units of the association during the Fall Quarter, 1939 was studied. Recommendations for improving the adequacy of the meals were given. Menu planning guides, representative menus and quantity recipes were compiled for the use of the managers.

The food buying practices were studied and in some cases found to be inadequate or unbusiness-like due to the managers' lack of essential information. Provision for much of the information was made through this study by the establishment of continuing food purchase records and preparation of food buying guides. Suggestions and recommendations were given for the establishment of business-like methods and economic practices.

Guidance was given to the present managers through frequent visits and conferences, but it is thought that the material in this study will be of more benefit to the succeeding student managers. In order to facilitate the use of the material in the future, suggestions were made to the general association for adjustments in the By-Laws and for provision of additional guidance from especially qualified advisory council members and a reference library in the units for the use of the managers.

INTRODUCTION

Cooperative Housing Projects on college campuses throughout the United States have recently become of national interest due to their rapid growth and success during the past decade. College students, motivated by the economic depression, found cooperative living an answer to their need for less expensive maintenance while attending school. Most of the college cooperative groups which today are well-organized, business-like enterprises, patterned similar to the original "Rochdale" Consumers' Cooperative began as experimental or emergency measures. The success of these pioneer groups stimulated organization of others on campuses throughout the United States.

At Montana State College the students and faculty advisors had considered establishing a cooperative housing project for two or three years before the Spring Quarter of 1937, when the Student Housing Association and its Articles of Incorporation were formed. There had been time to make many provisions in its democratic and cooperative policies to insure its permanency. However, it is, at present, student-managed, which leaves a relatively high degree of chance in the attainment of successful cooperative living. The managers are required to have no special training for the responsibilities they assume and thus have neither the background nor time to adequately solve the problems that inevitably arise.

This study is essentially an attempt to analyze the problems of the student managers of the Montana State College Student Housing Association and offer guides in solving them. The study consists of, first, a brief historical review of the Consumers' Cooperative enterprise in general,

and of college student cooperative housing projects, especially the Montana State College Student Housing Association. Second, it undertakes to analyze the existing managerial problems involved in the food service, and offers definite suggestions and recommendations for maintaining nutritious, satisfying, low cost meals at a saving of time and effort to the managers.

Some guidance was given to the present managers but it is thought that the succeeding ones will also benefit by having the various suggestions and aids available when most needed at the beginning of their term.

BRIEF HISTORY OF CONSUMERS' COOPERATIVES

In Europe

Early History. A study of Consumers' Cooperative literature shows that there are several interpretations of its meaning. Warbasse (23, 25) describes a cooperative society as "a voluntary association in which people organize democratically to supply their needs through mutual action, and in which the motive of production and distribution is service, not profit". Arthur Baum (5) states "when two or more consumers combine to secure needed goods at a lower unit cost than either could obtain acting alone, they are practicing consumers' cooperation".

Consumer cooperatives had their beginning in the early nineteenth century. The first successful effort was started in Rochdale, England, by a groups of weavers who were victims of the Industrial Revolution, and decided to try cooperation as an economic measure in the purchase of their daily needs. It took the Rochdale weavers a year to accumulate their capital of $140.00 and in 1844 the twenty-eight pioneers (twenty-seven men and one woman) actively began their consumers' cooperative. It was a grocery store with the imposing name, "The Equitable Society of Rochdale Pioneers". By the second year their capital soared to $900.00 and their members increased to seventy-four. From then on this cooperative grew at a tremendous rate, and other similar societies based on the principles of the Rochdale enterprise sprang up all over England and Scotland. The original principles appeared in the by-laws of the society and are outlined below:

1. Open membership.
2. Democratic control (one vote per member).

3. Dividend on purchase (distribution of net surplus, after reserve fund withdrawal, in proportion to patronage).
4. Limited interest on capital.
5. Cash payment (no business done on credit).
6. Political and religious neutrality.
7. Promotion of education on cooperation.

These seven principles have satisfied both the democratic idealists and the average practical business man from that day to this. Organizations patterned after the original are now found widely scattered all over the world.

Sonnichsen (19) reports that the first wide-spread expansion of the Rochdale plan seems to have occurred in Europe around 1860 with the organization of cooperatives in Switzerland, France, Denmark, Italy, and Russia. National federations were formed in many of these countries and proof of the permanency of the cooperative movement was indicated by the formation of an international organization. In 1895 the International Cooperative Alliance was formed in London and is still existent. In Europe today the most extensive and flourishing cooperatives are found in England, Finland and the Scandinavian countries. (4, 21).

In The United States

There are records of cooperatives in the United States dating back to 1845, only one year after they were begun in England, but it was not until early in the present century that the cooperative movement began to take permanent form in this country. It appears that Americans as a whole

are much more interested in increasing their incomes even though they have to spend it all for living expenses, than they are in emphasizing frugal measures intended to make small incomes cover more needs. Therefore, much more has been accomplished in this country in the line of producer cooperatives such as those of dairy producers and fruit growers, than with consumers' groups.

According to Fowler (10), the real foundation of the present Consumers' Cooperative movement in America began shortly before the World War. It was laid by the Scandinavians and Finns of northern Minnesota. They brought consumer cooperative to America as a philosophy of life and not merely as an economic emergency measure.

Economic conditions and changes during the past decade undoubtedly account for the growing interest in cooperative projects. People usually join them for purely pecuniary motives and unless the organization can, through its meetings and programs, help its members to a broader understanding and interest in its social significance and possibilities, it is in danger of collapse with the next wave of prosperity. It is significant to note that during the World War time, and while cooperatives were only beginning to increase in numbers, James P. Warbasse saw the need of a central organization for the purpose of propagandizing and educating for cooperation, so in 1916 the Cooperative League of America was founded with Warbasse as its president and with an official publication, the "Consumers' Cooperation". (19). This league is still functioning with Warbasse as its president.

The Consumers' Cooperative movement has gained a foothold in America

with its 1770 societies federated in the national league and $100,000,000 yearly business transactions. (24). However, it has by no means approximated the extent of development in Europe.

On College Campuses

A bulletin of the Bureau of Labor Statistics on Consumers' Cooperatives (21) states that the oldest societies reporting were two college organizations, namely the Harvard Cooperative Society formed in 1882 and the Associated Students of the University of California, formed in 1884. Book stores were the first and are the most common form of campus cooperation. They now range from the very small ones to the Harvard "Coop" with its one million dollar yearly business. The College Housing Projects have been of the most material benefit to thousands of young people. They began in Wellesly College fifty years ago, (3) but it was not until the recent depression that they were given the impetus to spread from coast to coast. Many colleges report that the beginning of their cooperative housing groups was in 1932 and 1933. In each group there was a somewhat similar story of meager beginnings followed by rapid development. They used the facilities they had available in several unique ways but they may be divided into two general types: the "Cottage Co-ops" in which less than thirty members live and the "Dormitory Co-ops" where more than thirty members live. (6).

Some organizations have received financial as well as moral support from their college administrations and others have progressed independently of college subsidy. Still others have received help from interested alumni and professional organizations.

Texas Agricultural and Mechanical College. Fowler (11) reports that a rural sociology professor at the Agricultural and Mechanical College of Texas observed in 1932 that many of the fine, intelligent boys were leaving college because their limited resources were almost exhausted. As he passed the college "haunted" house he conceived the idea of trying to establish a cooperative housing project in the old house. He soon found twelve boys who were brave enough to move in with the "spooks" so they could stay in college. With some help, the boys put in plumbing and wiring, repaired the house and furnished it with odds and ends. They found a woman who was willing to work for room, board and twelve dollars per month as cook and housemother and all the rest of the work was done by the boys. It was an unqualified success, and in 1936 there were 700 cooperative students living in every available house within reach of the campus. With more students looking for non existent houses, the college and alumni raised a fund of $100,000 to build fourteen thirty-two capacity cooperative houses, each of which is managed independently. Today over one thousand students are feeding and housing themselves cooperatively in fifty-two units on the campus.

University of Idaho. Many Idaho youths came to the State University to find that it was difficult to remain because living expenses were so high. Some of the more aggressive Mormon boys determined to remedy their situation and investigated the reasons for such high living expenses. They turned for suggestions to other schools and communities and the idea of cooperation seemed to offer a solution to their problem. With the help of George S. Tanner, college director of the Mormon Church, they rented a house, hired a cook and did all of the house work, buying and accounting. Their board and

room for the year was $140 per student per year, which was considerably lower than the previous expenses.

By the next September, 1933 one of the college dormitories, housing about one hundred students was converted into a cooperative unit. Since then the cooperatives have grown under University sponsorship until over five hundred students live in six halls. On the average the cost for board and room is $165 per year. (26). An interesting feature in the Idaho cooperatives is the means by which the University has provided housing for them. Since 1935 it has constructed two long low, inexpensive fram buildings, each housing 150 men. The buildings have attractive two-men rooms and well constructed institutional kitchens and storage facilities. The Idaho Dormitory Cooperatives are not true Rochdale associations for the housing is under the supervision of the University and only the food service is cooperatively managed. (17).

The Texas and Idaho Cooperatives are representative types of two forms of institutionally aided cooperatives. The Texas one is organized on the basis of "cottages" and the Idaho on the basis of "dormitories".

Other Campuses. The University of Washington cooperative is independent of college financial aid and operates nine houses, each with its own governing body, managed by directors elected from the various groups. Individual kitchens have been replaced by a modern central kitchen with its own truck to carry the hot food around to the different units. All of the food is prepared in the central kitchen by chefs and under the supervision of a trained dietitian. (19).

The University of California cooperative association has taken several

apartment houses and converted them into cooperative units to house a total of five hundred students. The Washington and California "Co-ops" are the only large Cooperative Housing Projects owned and directed entirely independent of their institutions. (1, 9).

A unique housing arrangement distinguishes the Ohio State University cooperative. In 1933, the University converted the tower of its great stadium into a dormitory for seventy-eight men. The members did all of the work except the cooking and because they lowered their expenses so materially the cooperative became so popular that more of the stadium was converted into dormitory units, housing 284 men. There are plans to continue this conversion until the dormitories have reached the capacity of eight hundred. Ohio State also has an Alumni Cooperative House for women where thirty-two may live. (20).

The University of North Dakota houses its cooperatives in a camp of railroad cabooses fitted up to serve as living quarters, each with space for eight men. One car serves as a kitchen in which they prepare their meals. A community kitchen is available for other men wishing to prepare their own meals and special facilities have been provided for the women. (20). Two Hundred Kansas State College students maintain a cooperative dining club for which the institution furnished space and facilities for the students to do their own cooking and serving under the supervision of the Institutional Management Department. (31).

In spite of the varying standards for physical and social living all of the student cooperatives have many similar elements, including the enthusiasm and willingness of each member to share the work of the group and

to take a pride in doing his part well. The more progressive groups have a quality that many of the business consumers' cooperatives lack, a spirit which makes the organization more than a crutch to help them over a low financial period. The Cooperative Housing Projects have tended to change the habit of many of their members by helping them to become more democratic. These young men and women are actually making a cooperative democracy work and are securing good foundations for the tasks that will be theirs when they become graduates. It is this democratic influence that makes the organizations wholesome, successful and permanent.

Intercampus Movements. The federation of student cooperatives had its origin in Chicago, in December, 1935 when the Federal Council of Churches held a seminar on Cooperatives. Those attending wanted information about student Cooperative associations, but practically nothing was available so representatives from "co-ops" in eleven states met to make plans for gathering and disseminating information. This group took the name "National Committee on Student Cooperatives". Since its formation, it has made four surveys of existing groups, prepared suggestions for new groups and corresponds widely. It is not a part of the Cooperative League of the United States of America but is recognized by that body and works closely with it. (14).

Table I. Campus Cooperatives in 1937. (15, 16).

	Members	Sales	Savings
51 Dormitories (183 Units)	5,364	$652,578	$474,048
34 Dining Clubs	2,059	228,388	58,402
64 Book Stores	93,518	2,464,100	94,300
10 General	826	23,144	300
29 Miscellaneous	2,860	385,500	31,000
189 Total (321 Units)	104,627	$3,753,710	$658,050

The figures in Table I represent estimates by the National Committee; only members were included as a cooperative where accurate reports were available and no sales or savings were included (even where membership was known) unless they could be computed accurately.

Through informal visits and exchange of letters the student cooperative leaders on the campuses of Idaho, California, Oregon, Washington and Washington State College, began to realize the mutual benefits that could be gained from closer contact, so they held a conference at the University of Washington in December, 1937. It was so profitable that a second meeting was called for the spring of 1939 to be held at Moscow, Idaho, where they elected directors of a tentative Students' Cooperative League for the Pacific Coast. In June, 1939, sixty representatives of Pacific Coast schools and the Texas Agricultural and Mechanical College, met in Berkeley to formulate a functional program for the federation. They created a permanent federation, "The Pacific Coast Student Cooperative League" with its headquarters at the University of California and voted to become a member of the Consumers' Cooperative League of United States of America. (7, 8, 18).

Educators' Support. Part of the reason for the success of the cooperative movement on college campuses has been due to the support and encouragement of the leading educators in the schools. They have endorsed the projects because of the democratic economic and social development for the students that the projects afford.

Development of Montana State College Student Housing Association

As early as 1932 and 1933 the possibilities of a Cooperative Housing

Project at Montana State College were discussed and considered by those responsible for the living facilities of the college students. There are only two college-operated residence halls for the students at Montana State College which are both for women and house about two hundred students. The remainder of the eighteen hundred young men and women attending college are forced to find housing in other places. There are two sororities (not housed in the dormitory), seven fraternities, private homes, apartments and boarding and rooming houses.

It was not until the school year of 1936-7 that any actual plans were made for a cooperative housing group. At that time a newly elected instructor of Economics, Mr. P. W. Eckert, became interested in the idea and actively promoted the formation of the cooperative. During the spring term of that year Mr. Eckert and four delegates of the Independent Students Organization investigated the cooperatives at the State College of Washington and the University of Idaho. Since the facilities for housing in Bozeman were more nearly like those of the Washington State College cooperatives, it was decided to follow its plan which was essentially the "cottage" system.

On May 11, 1937, Articles of Incorporation were drawn up with the help of Mr. Eckert and were legally signed by a group of students elected from the Independent Organization to serve as a Board of Directors. The Articles provided that the corporation be named, "The Montana State College Student Housing Association", and that there should be two divisions for group-living within it, one each for the women and men and to be named Unit A and Unit B respectively.

Finding suitable homes in Bozeman was the first problem encountered by

the association and has continued to be a major difficulty in its progress. By the Fall Quarter of 1937 one suitable house was rented and a women's group, Unit A of the Cooperative Association, was started. Twenty-two women roomed in the house and twenty-four in neighboring homes. All forty-six of the women boarded together in the central house where they had employed the owner of the house as cook. Each of the women furnished her own bed linen, napkins and silverwear, but the group used the furniture and kitchen equipment belonging to the owner of the house. The economic advantages of collective purchasing, of self service (with the exception of the major part of the cooking) and of slightly lower standards of housing made it possible to maintain the members of the association at considerably lower cost than was possible in other organizations.

The system as it existed then and now is not a true Rochdale cooperative since there is not strict adherence to the seven original principles. The organization operates on the basis of equal sharing by the members of expenses which are as low as possible instead of charging existing prices and returning dividends according to patronage. This is because the members in most cases are not able to pay regular prices in the beginning and each patronizes the business on an equal basis. As the organization expands it will no doubt follow the system of the older and larger campus cooperatives such as in Washington and California and operate more closely along the Rochdale plan.

Early in January, 1938, a committee composed of three men was appointed by the Independent Organization to report on the desirability of an available home and to make recommendations regarding the organization of a men's

unit in the cooperative association. Several meetings were called for interested men students and by the end of the school quarter a manager had been elected and members had made initial deposits. A committee of five men, including the newly elected manager drew up by-laws and recommended practices for the new group. The recommendations were a compilation of suggestions given by the two cooperatives visited the year before, and from the women during their six months of experience. (See appendix). In the Spring Quarter of 1938, the men's group, Unit B, of Montana State College Student Housing Association, began functioning to serve thirty-three men. On April 13, 1938, a joint meeting of the two units was held at which by-laws of the association were adopted. These set forth as objectives of the organization:

Article III, Section I - By-Laws

(1) To promote the economic welfare of its members through democratic methods by utilizing their united funds and united efforts for the purchase, distribution and production of commodities of the best quality, the most economical way;

(2) To associate itself with other consumers' cooperative societies throughout the state, the United States and countries abroad for purposes of mutual aid;

(3) To advance the consumers' cooperative movement as a system of business having service for its motive;

(4) To do such things as shall serve the economic and cultural welfare of its members and the public.

At this same meeting a new Board of Directors for the Cooperative was elected. Three faculty members were chosen for the advisory committee. Dr. A. L. Strand, president of Montana State College, voiced his approval of the student cooperative movement and extended administrative moral backing.

Both units closed their first year with a satisfactory record. It was the enthusiastic guidance of Mr. Eckert and the fortunate choice of leaders that made the year a success. Ruth Kittams, the manager for the women had a practical sense of economy. Without previous experience she did all of the purchasing and managed so that the group had cut living expenses materially and in addition had built up a surplus of over $300. This provided for the cost of the expansion that was soon to become necessary.

The report of the success of the association had caught the attention of the Montana Farmers' Union. At its 1938 convention at Butte, it passed a resolution commending Montana State College and sponsors of the cooperative association because of the contribution it was making toward enlarging educational opportunities and urged expansion of such facilities.

The cooperative units reopened with more and more requests for memberships as the college enrollment had increased from 1,328 the preceding year to 1,665. Provisions were made for sixty-five men and fifty women students to live in five houses. Unit A operated two food service units and three rooming houses, Unit B used its original set up with an additional house for rooming. The end of the second year of the Montana Student Housing Association brought with it the determination and conviction that it was to be a permanent institution and that immediate steps should be taken to obtain permanent homes for the two units. Already the applications for membership

had well exceeded the space available. The financial status of the men made it possible for them to proceed with purchasing a home for they were owners of over five hundred dollars worth of furniture, dishes and bedding and also had a $600 surplus fund available. The successful management partly explained this financial status and it was also due to the fact that they had required a ten-dollar deposit per person at the beginning of the year which was held in reserve for breakage and emergencies which at the end of the year was left voluntarily by some of the members.

The women were not so successful due to the apparent inefficiency of maintaining three housing and two boarding units, and through less frugal management of commodity purchasing. In order to keep the surplus fund intact a special assessment was necessary. The women had no deposit requirement similar to that of the men until the year 1939-40.

Early in the spring of 1939 a large house was found available in Bozeman, and the faculty adviser who succeeded Mr. Eckert, proposed that the women buy the house as they seemed most in need of it. However, it was in need of more repairs and alterations than the women were able to manage but the men seemed to be in a better position to handle it so they contracted for the house and furniture at $8,000, ($9,720 including interest for eight years) with a down payment of $400 and $1,200 annually. Several of the men worked during the summer, in the evenings and spare hours converting the basement into a well planned space for the food preparation and service. Tables were built and put into the old ballroom and an institutional kitchen and storage spaces built in the adjoining rooms. With some new and second-hand equipment and their new quarters they were able to serve 100 men; twenty-five of

them to room in the home and the rest to be housed as before, in rooms about the neighborhood.

Throughout the summer and early fall the leaders of Unit A searched for a suitable house to purchase or rent but were unable to find one. Late in September they were forced to resort to an arrangement satisfactory as a temporary solution to the problem of insufficient housing and growing membership. They rented one of the houses they had used the preceding year, operating a kitchen-dining unit in it. Through an arrangement with Mrs. Hartman, owner of one of the other houses used, living provisions were made for twelve with food service facilities for sixteen. Mrs. Hartman was paid for this by the organization at the same rate the other members were charged but the management of the house was under her direction.

PRESENT MANAGEMENT PROBLEMS

OF MONTANA STATE COLLEGE STUDENT COOPERATIVE HOUSING PROJECTS

At the beginning of the 1939-40 school term, the Montana State College Student Housing Association had a membership of approximately one hundred fifty students. Unit A with its somewhat unusual system of housing provided living facilities for fifty-three women, twelve living in the house managed by the unit and thirty-seven being served meals there. Twelve lived in the other house and an additional four were served meals. The membership of Unit A included all women boarding at both houses and, of the entire group, fifty-six per cent were new members. The manager and secretary-treasurer of Unit A lived in the first house and each received full board and room while the president, an unsalaried officer, did not live in the house. Unit A began with a financial surplus of $281.98, a foods inventory of $95.86 and a household goods inventory valued at $50.

Unit B in its newly purchased and renovated home provided housing facilities for twenty-five men and board for ninety. Of the entire group, fifty-five per cent were new members. The manager, secretary-treasurer and president lived in the house and the manager received board and room, and the secretary-treasurer received $18 monthly as salary. As previously mentioned, Unit B had a sizeable inventory of household goods valued at $500 and food inventory of $100. It had paid $100 and had agreed to pay the balance of $300 in October as down payment on its home.

From the experience of previous years it appears that the success of the groups has, in a large measure, been due to the ability of the managers to make suitable housing arrangements and successfully manage the commissary.

This is true in most of the cooperative housing groups on college campuses. However, many of them, as they expand and become well established find it advisable to turn over their management problems to trained, salaried employees. The Montana Student Housing Association does not as yet feel financially able to do this. The present management cost for the two units is $71 per month and employment of a trained person would require twice that amount and in addition the present system gives financial support to four of the members.

In the original by-laws of the organization no qualifications or duties were set up for the manager. At the end of the second year there was added to Article II of the By-Laws the following:

"Section 9. Duties of House Managers. The house managers shall attend all meetings of the association and the board of directors. They shall be responsible for the purchase and distribution of house supplies, (that is, buying of food, preparation of menus) and for other necessities of the house." "Other necessities of the house" seems to include; major responsibility for all business transactions, including provision of housing for two Units and all other unassigned responsibilities.

Since there was no written stipulation concerning the election of these officers, the list of qualifications which they needed were determined by the advisory council and the opinion of the group. For the women, the house manager has so far met the following qualifications:

1. Senior rank
2. Home Economics major
3. Above average in scholarship
4. Willing worker
5. Demonstrated leadership ability

The women elected their present manager, Maxine Watson, so late in the school year 1938-9, that she had no period of training.

The men seem to expect qualifications similar to the women's group with the exception of the first two items. The present manager is a junior in the Agricultural Division and has been reelected for a second year. In the spring of 1939 the men elected their manager early enough to serve as an apprentice to his predecessor for over a month during which time he began to realize the insufficiency of his background training for some of his duties. He went to the Dean of Women, and as they discussed his problem, it became apparent that his most evident need was in relation to planning of nutritionally adequate menus which problem directly affects the buying procedures. He was immediately referred to the Home Economics Department of Montana State College, where his problem was discussed with the newly-elected manager of Unit A and she also expressed a desire for help.

Relationship of Problem to Home Economics

Montana State College for many years has had the policy of assigning institutional operation functions to the particular department of instruction which deals with that field. Thus, building maintenance and repair is under the supervision of the Architectural Department, development and maintenance of the grounds is under the Horticultural Department and the management of the college residence halls is under the supervision of the Home Economics Department. While the cooperative association is not under direct control, its standards and success are of vital concern to the institution, so the Home Economics Department was professionally interested in meeting the

challenge embodied in this request for help. Cooperatives of other colleges, such as Kansas, and Washington have also secured help from the Home Economics Departments of their respective colleges. There seemed to be a larger problem behind the immediate needs of these two novice managers as each year the same problems are sure to arise. Learning by experience is slow and often expensive in time, energy and money and will inevitably retard the progress of the association even though it might be a fine educational process for the manager. To avoid this waste some system seems essential to record and organize the experience of each manager for the benefit of his successor together with a definite plan for pre-employment training for the latter.

This year considerable time has been spent meeting with the managers of Units A and B to study the nature and scope of their problems. While immediate assistance has been given them on many problems, major emphasis has been placed on formulating aids for their successors who will not have the benefit of as many personal conferences. The next section of this study consists of reports of the various ways in which this study has been carried on.

Analysis of Nutritional Adequacy

Comparisons were made of the nutritive qualities of the food served to the cooperative groups at Montana State College with accepted dietary standards. Four methods were employed as follows:

Method I -- Scoring of the menus with a standard score card. (27).

Method II -- Comparing the actual amounts of food used with Stiebling's standard (42) amounts for the various food groups.

Method III -- Comparing of the amounts of specific foods used with Stiebling's standard. (43).

Method IV -- Comparing the divisions of expenditures with Stiebling's standard. (43).

Methods Described

Method I. The menu score card is brief and simple to use. It is therefore suitable for the use of managers of the cooperative groups, and has the further advantage of applicability before the meals are served. The score card used was adapted from the one set up by the Home Economics Extension Service. A sample of the scoring appears in Figure 1. Two weeks' menus from each of the units were chosen for scoring and may be seen in the Appendix. The resulting scores are quite satisfactory for both groups as shown in Tables II and III. It was assumed that each individual received the required amount of water and full value was given this item. The score card has definite limitations as a dietary check since there is no assurance that various foods will be used in adequate amounts even though they appear on the menu.

Breakfast	Lunch	Dinner
Orange Slices Whole-wheat cereal with top milk Toast, white Coffee	Goldenrod eggs on whole-wheat toast Cabbage and pineapple salad Chocolate graham crackers Milk	Country sausage with gravy Baked potato Buttered carrots and string beans Coffee

Food Requirements	Perfect Score	Comment and Score	
MILK ½ pint 10, 3/4 pint 15, 1 pint 20.	20	Served once as beverage, also on cereal and in eggs and gravy.	20
VEGETABLES 1 serving 5, two servings 10, three servings 15. Potatoes may count as one. Add 5 for leafy vegetable.		String beans, carrots, cabbage and potatoes. cabbage	15 5
FRUITS 1 serving 10, two servings 15. Add 5 if raw fruit or vegetable or canned tomato is used.	40	Orange, pineapple, and apple. Orange and cabbage	15 5
WHOLE GRAIN-PRODUCTS 1 serving 10, two servings 15. If bread only source allow only 10.	15	Cereal and wholewheat toast graham crackers	15
CHEESE, EGGS, MEAT, DRIED BEANS, PEAS 1 serving of any one of above 10; one serving of any two, 15.	15	Eggs Sausage Cheese	15
WATER 1½ qts. 5, 2 qts. 10.	10	(Assumed)	10
TOTAL	100		100

Figure 1. Sample Menu Scored

Table II. Two Weeks Menus Scored for Unit A - Women*
(Menus found in Appendix)

Food Requirements	Perfect Score	1st weeks' menus S	M	T	W	T	F	S	2nd weeks' menus S	M	T	W	T	F	S
MILK															
½ pint, 10; 3/4 pint 15, 1 pint 20.	20	15	20	20	10	20	20	20	15	15	15	20	10	10	20
VEGETABLES															
1 serving 5, 2 servings 10, 3 servings 15; potatoes may be included as one of the above servings.	15	10	15	15	15	15	15	15	15	15	15	15	15	10	15
If leafy vegetable is included, extra credit.	5	-	5	-	5	-	-	-	-	-	-	5	5	-	-
FRUITS															
1 serving 10, 2 servings 15, if raw fruit or vegetable or canned tomato is included,	15	15	15	15	15	10	15	10	15	15	15	15	15	15	15
extra credit	5	5	-	5	5	5	-	5	5	5	-	5	5	5	5
WHOLE GRAIN PRODUCTS															
1 serving 10, 2 servings 15. If bread only source, allow only 10.	15	-	15	15	15	15	15	15	10	15	10	10	15	10	15
CHEESE, EGGS, MEAT, DRIED BEANS OR PEAS															
1 serving of any one of the above, 10; 1 serving of any two of the above, 15.	15	10	15	15	15	10	10	10	10	15	15	15	10	15	10
WATER															
1½ qts. 5; 2 qts. 10.	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
TOTAL	100	65	95	95	90	85	85	85	85	90	80	95	95	75	90
AVERAGE - for 14 days		85													

*Score card adapted from one set up by the Cooperative Extension Service of Agriculture and Home Economics, U.S.D.A. (27).

Table III. Two Weeks' Menus Scored for Unit B - Men*
(Menus found in Appendix)

Food Requirements	Perfect Score	1st weeks' menus S	M	T	W	T	F	S	2nd weeks' menus S	M	T	W	T	F	S
MILK															
½ pint 10, 3/4 pint 15, 1 pint 20.	20	20	20	20	20	20	20	20	20	20	20	15	20	10	20
VEGETABLES															
1 serving 5, 2 servings 10, 3 servings 15; potatoes may be included as one of the above servings.	15	15	15	15	15	15	15	15	5	15	15	15	15	15	10
If leafy vegetable is included, extra credit.	5	-	5	-	5	-	-	-	-	-	5	-	5	-	5
FRUITS															
1 serving 10, 2 servings 15, if raw fruit or vegetable or canned tomato is included, extra credit.	15	10	15	15	15	10	15	15	15	10	15	15	10	15	15
	5	5	5	-	5	5	5	-	5	5	5	-	5	5	5
WHOLE GRAIN PRODUCTS															
1 serving 10, 2 servings 15. If bread only source allow only 10.	15	15	15	15	15	15	15	15	10	15	15	15	15	10	15
CHEESE, EGGS, MEAT, DRIED BEANS OR PEAS															
1 serving of any one of the above, 10; 1 serving of any two of the above, 15.	15	15	10	15	10	15	15	10	15	10	10	15	15	15	15
WATER															
1½ qts. 5; 2 qts. 10.	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
TOTAL	100	90	95	90	95	90	95	85	80	85	95	85	95	80	95
AVERAGE - for 14 days		89.6													

*Score card adapted from one set up by the Cooperative Extension Service of Agriculture and Home Economics, U.S.D.A. (27).

Method II. This deals with the actual amounts of food used according to common food groups. The standard selected with which to compare these data was taken from Stiebling's bulletin (42) which sets up four dietary plans to meet the nutritional needs of various types of individuals at four cost levels:

"1. Restricted or Emergency Level. The diet at this level has the minimum of food requirements at which an individual can exist without danger to health over a limited period of time.

2. Minimum Cost Level: This diet at this level is adequate for healthful living. The foods recommended are those of lowest cost, or those which are of concentrated nutritive value and therefore economical.

3. Moderate Cost Level: The foods suggested here are adequate for optimum health with reservation to cost.

4. Liberal Cost Level: There is no restriction as to cost in this level. Optimum health is provided and leeway for interesting, unusual and expensive additions are made."

The cooperative groups are quite homogeneous in nutritional needs, are limited as to finances, and in their desire to have ample and attractive food service. Therefore, the third, or moderate cost level dietary, seemed to be the one most suitable for use here. It is described by Stiebling as follows:

".....For a reasonable amount of money it provides all of the nutrients in sufficient quantities to keep adults..... in good nutritional condition, with a surplus for safety.

"Milk

One pint daily for each adult (to drink or in cooked food)

Vegetables and Fruits

Four and one-half to five servings daily.

One serving of potatoes or sweet potatoes

One serving daily of tomatoes or citrus fruit

One serving daily of leafy, green or yellow vegetables

One serving daily of fruit.

(Since Vitamin C is easily destroyed by heat in most cases, some raw fruits or vegetables belong in the diet daily.)

Eggs

Two or three a week; a few in cooking

Meat, Fish or Poultry

About five times weekly or daily if prepared in combination (extended) with cheese or vegetables

A cereal dish

Daily (for persons with normal digestions as much as half the cereals in the low cost diets may well be in whole grain forms.)

Bread and Butter

At every meal

Dessert

Once a day; sometimes twice if desired and if it does not displace the protective foods."

The bulletin set up dietary plans for individuals having various characteristics. Those for a "Moderately Active Woman" and a "Moderately Active Man" were selected as corresponding to the needs of the men and women in the cooperative units.

Since the Stiebling bulletin uses the pound as the common unit of measure, it was necessary to transpose the consumption data given on the stock cards, (page62) from market units into pounds. A list of approximate weights and measures of different containers of various foods was established for this purpose. Comparing this list with those used by the United States Department of Labor for determining average retail prices, there were no marked variations.

There were some inaccuracies in the stock card data, such as:

(1) One or two gifts to the groups were not recorded on saleslips and

therefore were not recorded on the stock card.

(2) Some substandard food was purchased and there was no indication on stock cards of the percentage of waste.

(3) A few of the sales slips indicated purchases only as "groceries" and since recording was done at the end of the month, it was sometimes impossible to find what was purchased. However, the value of these amounted to only .005 per cent of the total cost.

(4) A few of the saleslips were lost and therefore not recorded. In the main, these were found to be from purchases made from truck gardeners. Since the result of an analysis of this type serves as a general measure and not a quantative determination of nutritional adequacy, the degree of error was not thought to be great enough to offset its value. Table IV shows the comparison of the major classes of food used by the Montana State College Cooperative women with the Stiebling standard for women and Table V shows a similar comparison for the men.

Table IV. Quarterly Food Consumption of Women's Cooperative Compared with Stiebling's Moderate Cost Standard*

FOOD GROUPS	AMOUNTS PER PERSON PER WEEK				
	Unit	Stiebling's Standard	Amounts Used By Unit A	Variation from Standard	
				amt.	p'c't.
Milk:					
Fluid milk or corresponding quantities of canned or dried milk and cheese.	quart	3.5	3.7	+.2	+ 6
Vegetables and Fruits:					
Potatoes and sweet potatoes.	pound	2.5	2.2	-.3	-8
Tomatoes and citrus fruit.	pound	1.75	1.24	-.41	-23
Leafy, green and yellow vege.	pound	2.25	1.75	-.5	-22
Dried beans and peas, peanut butter and nuts	pound	.19	.14	-.05	-26
Dried fruits	pound	.5	.3	-.2	-40
Other fruits and vegetables	pound	3.5	3.74	+.24	+ 9
Eggs:	eggs	4.0	3.5	-.5	-12
Lean Meat, Poultry and Fish:	pounds	1.75	2.4	+.65	+39
Flour and Cereals:					
Flour, Cornmeal, rice, macaroni, spaghetti and assorted breakfast foods, white and whole grain breads, other bakery goods, crackers.	pound	2.5	2.03	-.47	-19
Fats:					
Butter, margarines, lard, oil, vegetable shortening, salt pork and bacon	pound	.75	1.0	+.25	+33
Sugars:					
Sugars, jellies, jams, honey, sirups, molasses	pound	.85	1.12	+.27	+25

*Diets to Fit the Family Income
Hazel K. Stiebling and Rowena Schmidt Carpenter, USDA Farmers' Bulletin, No. 1757. September, 1936, Table 9, pages 32 - 33. (42).

Table V. Quarterly Food Consumption of the Men's Cooperative Compared with Stiebling's Moderate Cost Standard*

FOOD GROUPS	AMOUNTS PER PERSON PER WEEK				
	Unit	Stiebling's Standard	Amounts Used By Co-op	Variation from Standard	
				amt.	p'c't.
Milk:					
Fluid milk or corresponding quantities of canned or dried milk and cheese	quart	3.5	5.0	+1.5	43
Vegetables and Fruits:					
Potatoes and sweet potatoes.	pound	3.0	4.0	+1.0	+33
Tomatoes and citrus fruit.	pound	2.0	2.0	-	-
Leafy, green and yellow vege.	pound	2.0	2.8	+ .8	40
Dried beans and peas, peanut butter and nuts	pound	.5	.22	- .28	-56
Dried fruits	pound	.75	.11	- .64	-85
Other fruits and vegetables	pound	5.5	4.87	- .44	- 8
Eggs:	eggs	3.0	1.5	-1.5	-50
Lean Meat, Poultry and Fish:	pounds	2.5	4.15	+1.65	+66
Flour and Cereals:					
Flour, cornmeal, rice, macaroni, spaghetti and assorted breakfast foods, white and whole grain breads, other bakery goods, crackers.	pound	4.0	2.96	-1.09	-27
Fats:					
Butter, margarines, lard, oil, vegetable shortening, salt pork and bacon	pound	1.13	1.14	+ .01	-
Sugars:					
Sugars, jellies, jams, honey, sirups, molasses	pound	1.0	1.7	+ .7	+70

* See Footnote page 34.

Method III. The third analysis dealing with specific foods was done in order to make definite recommendations for menu adjustments. Average yearly per capita allowances are set up in this detail by Stiebling for each cost level. Since the students who live in the cooperatives are average individuals needing no dietary adjustments (such as for children, pregnant mothers, senility, over or under activity, etc.) this standard on the moderate cost level seemed to fit the situation. However, a comparison as shown in Table VI was made of Stiebling's Per Capita Allowances with those for the Moderately Active Man and Woman and it was found that the amounts for the man was more nearly like the per capita allowance.

Table VI. Comparison of Food Allowances of United States Per Capita With Those of Moderately Active Man and Woman

Foods	Per Capita Allowance	Allowance for Moderately Active	
		Man	Woman
Tomatoes and Citrus fruit	1.98	2.0	1.75
Leafy, green and yellow vegetable.	2.07	2.0	2.25
Dried beans, etc.	.42	.5	.19
Dried Fruit	.52	.75	.50
Others (vege. & fruit)	4.17	5.5	3.5
Lean Meat, etc.	2.5	2.5	1.75
Flour and Cereals	3.3	4.0	2.5
Fats	1.08	1.13	.75
Sugars	1.26	1.0	.85

Allowances must be made when comparing women's dietaries with the standard since men require more total calories and protein than the women. Price variations between the local community and the United States average and seasonal differences in availability of fresh fruits and vegetables also make adjustments necessary.

Table VII shows the result of the comparison of the amounts of certain foods used by the Montana State College Cooperatives with the Stiebling Per Capita standard.

Table VII. Weekly Quantities of Various Specific Foods Used by the Cooperatives Compared to Stiebling's Standard*

Foods	Unit	Stiebling's Per Capita Allowance	Amounts used by Women, Unit A	Amounts Used by Men, Unit B
Tomatoes and Citrus.	lbs.			
Tomatoes, fresh		.40	.40	.05
Tomatoes, can		.645	.52	.85
Oranges		.60	.38	.63
Grapefruit		.19	.02	.446
Lemons		.145	.02	.--
Total		1.980	1.34	1.996
Leafy, Green and Yellow Vegetables	lbs.			
Cabbage		1.04	.113	.55
Lettuce		.375	.209	.27
Peas		.227	.25	.61
Snapbeans		.125	.14	.45
Carrots		.102	.37	.37
Spinach		.102	.05	.08
Asparagus		.06	.00	.24
Peppers		.04	.007	.001
Others		.--	.30	.23
Total		2.070	1.405	2.806
Dried Beans, Peas, etc.	lbs.			
Beans		.19	.095	.16
Peanuts		---	.--	.03
Peas		.227	.005	.--
Nuts in shell		.--	.04	.02
Total		.417	.135	.21
Dried Fruits	lbs.			
Raisins		.21	.03	.04
Prunes		.21	.03	.02
Others		.10	.225	.05
Total		.52	.285	.11

Table VII. cont'd.

Foods	Unit	Stiebling's Per Capita Allowance	Amounts Used by Women, Unit A	Amounts Used by Men, Unit B
Other Vegetables and Fruits.	lbs.			
Apples		1.48	1.11	1.23
Bananas		.48	.041	.327
Grapes		.48	.15	.004
Peaches		.39	.18	.446
Corn		.35	.14	.51
Onions, beets, etc.		.29	.78	.517
Watermelon		.22	.--	.--
Canteloupe		.14	.20	.13
Pears		.14	.32	.33
Cucumbers		.08	.--	.--
Celery		.08	.03	.08
Strawberries		.08	.09	.08
Pineapple		.08	.20	.60
Others		.--	.49	.63
Total		4.40	3.731	4.854
Lean Meat, Poultry & Fish	lbs.			
Beef		.71	1.70	2.0
Pork		.81	.30	1.33
Lamb		.06	.05	.--
Veal		.35	.--	.04
Poultry		.227	.06	.10
Fish		.165	.21	.47
Others		.--	.04	.15
Total		2.522	2.265	4.09
Flour and Cereals	lbs.			
Wheat flour		2.54	1.33	2.14
Cornmeal		.33	.06	.08
Prepared flour		.10	.--	.--
Oat breakfast		.10	.06	.108
Rice		.06	.05	.092
Macaroni & noodles		.06	.074	.147
Wheat breakfast		.04	.18	.09
Rye flour		.04	.--	.--
Corn breakfast		.02	.--	.004
Corn starch		.02	.02	.023
Others		.--	.06	.28
Total		3.33	2.034	2.964

Table VII. cont'd.

Foods	Unit	Stiebling's Per Capita Allowance	Amounts Used by Women, Unit A	Amounts Used by Men, Unit B
Fats	lbs.			
Butter		.73	.51	.94
Lard		.145	.12	.01
Vege. oils		.145	.30	.09
Bacon, etc.		.04	.048	.048
Others		.02	.--	.--
Total		1.08	.978	1.129
Sugars				
Sugar		.94	.94	1.51
Molasses		.201	.05	.03
Others		.10	.13	.15
Total		1.261	1.12	1.69

*adapted USDA Bulletin No. 266, "Diets at Four Levels of Nutritive Content and Cost". Hazel K. Stiebling and Medora M. Ward, Nov, 1933, Table 5. (43).

Method IV. The last method of analysis was based on the percentage distribution of food expenditures among the food groups. Such analysis, worked out and used by recognized nutritional specialists (34, 42) have proven valuable because of the simplicity of their use and interpretation by individuals untrained in natrition. There are certain limitations to this method since price variations among years and localities sometimes are great. However, in comparing the average retail prices for the United States in 1932 (43) as used in the standard, with local retail prices for October, 1939, only a few marked variations were found, as follows:

	Unit	U.S.Average-1932	Bozeman, Oct. 1939
Beans, navy	lbs.	6.2 cents	5.0 cents
Potatoes	"	1.9	1.25
Onions	"	3.6	3.0
Peas, can	No. 2	10.0	8.0
Milk	qt.	10.6	9.0
Butter	lbs.	32.0	33.0
Eggs	doz.	19.3	30.0
Macaroni	lbs.	15.0	10.0
Pork	"	17.0	15.0
Cabbage	"	4.4	2.0
Apples	"	6.0	2.5

Other factors tending to affect the results of the comparison were:

(1) Both units in the cooperative association were given special discount on milk making the cost of whole milk less than 7.5 cents per quart.

(2) Both units were given five per cent reduction on quantity prices for their grocery orders.

(3) Unit B received pork at a cost under average because they dressed and cut it themselves.

(4) The cost of the lard for Unit B was included in the price of pork.

The cooperative expenditure data compiled from the stock records were first compared in Table VIII with the standards set up by Stiebling for the Moderately Active Man and Woman.

The correlation of price variations to expenditure division is noted in several cases. The local retail prices for fruits and vegetables seemed to be under those prices used by the standard. In both cases the expenditure division of the Cooperative units were low for fruits and vegetables. However, since Unit A was lower than Unit B, there is an indication that Unit A was deficient in this food group. It may also be noted that considering the low cost of milk paid by the Cooperative units, the deficiency indicated in Unit A is no doubt erroneous.

The Montana State College Cooperative costs were compared with reports of other similar groups. One interesting comparison is that of Unit B with Davis' report of one hundred men students eating cooperatively at Kansas State College under the direction of the Institutional Management Department in 1934. (31).

Table VIII. Percentage Division of Expenditures. Comparison of Montana State College Cooperatives with Stiebling's Moderate Cost Standards.

Expenditure Division	Stiebling's Standard	M.S.C. Men's Cooperative		Stiebling's Standard	M.S.C. Women's Cooperative	
	Per Cent	%	variance	Per Cent	%	Variance
Cereal products	13	10.2	-2.8	9.8	10.7	+ .9
Fats, sugars and sundries	15	23.2	+7.8	13.5	24.1	+10.6
Fruits and Vegetables	34	23.0	-11.0	36.0	22.6	-13.4
Meat, Fish and Eggs	24	27.6	+3.6	24.7	28.0	+ 3.3
Milk and Cheese	14	16.3	+2.3	16.0	14.6	- 1.4
Total	100	100.4		100.0	100.0	

Table IX. Percentage Division of Expenditures. Comparison of Montana State College Men's Co-op Groups with Kansas State College Men's Co-op as Reported by Davis

Expenditure Division	Davis' Report Kansas Co-op 100 men	Montana State College	Unit B 90 men
	Per Cent	Per Cent	Variance
Butter and fats	15.2	12.5	-3.7
Dairy Products	15.6	16.4	+ .8
Eggs	4.6	1.0	-2.9
Fruits	8.2	10.5	+2.3
Grain products	15.2	10.2	-5.0
Meat and Fish	17.4	26.0	+8.6
Miscellaneous	3.12	4.2	+1.15
Nuts	.15	.3	+ .17
Sugar and sweets	4.2	6.1	+1.93
Vegetables	13.6	12.5	-1.07
Total	97.27	100.4	

It may be seen from Table IX that the two groups had similar expenditure divisions with a few exceptions, Unit B was:

(1) low in Butter and Fats--this may be explained by the fact that lard expenditure was included with pork.

(2) low in Eggs--explained by high price of eggs.

(3) low in Cereals.

(4) high in Meats.

Table X compares the expenditures of the Montana State College Cooperatives with per cent report made by Price, of Kansas State College (39) who averaged the expenditures reported by cooperative groups on fifty-one college campuses.

Table X. Percentage Division of Food Expenditures.
Comparison of Montana State College Cooperative Groups with Price's Average

Expenditure Division	Price's Average "Co-ops" on 51 College Campuses	Montana State College Cooperatives			
		Unit A		Unit B	
	Per Cent	%	variance	%	variance
Cereal products	11.4	10.2	- 1.2	10.7	- .7
Eggs	6.5	1.7	- 4.8	4.4	- 2.1
Fats and Sugars	17.8	7.2	-10.6	9.8	- 8.0
Fruits and Veges. (a)	19.5	9.7	- 9.8	12.8	- 6.7
Meat, Fish, Poultry	18.7	26.0	+ 7.3	23.2	-15.5
Milk and Dairy Prod. (b)	19.5	28.0	+ 8.5	23.8	+ 4.3
Misc. Groceries (c)	16.5	17.8	+ 1.3	15.0	- 1.5
Total	100	100.6		99.7	

(a) fresh and dried

(b) Includes butter

(c) Includes fruits and vegetables canned

The food grouping by Price called for adjustment in the Montana data as the canned fruits and vegetables were included in Miscellaneous Groceries and the butter was included in the Dairy Products. It was found that both Units A and B were above the average for the 51 colleges in the consumption of Meat, Fish, Poultry and Dairy Products and below in the remaining food groups except the Miscellaneous Groceries for Unit B. Unit B was markedly lower in Eggs and Fresh and Dried Fruits.

Summary of Nutritional Analysis

Method I: Menus scored with standard score card

Table XI. Number of Menus out of Fourteen having Maximum Scores.

Maximum Score	Points Scored	No. of days with Maximum Score	
		Unit A, Women	Unit B, Men
20	Milk	7	12
15	Vegetables	12	12
5	Leafy Vegetables	4	5
15	Fruit	12	10
5	Citrus Fruits	11	11
15	Cereal	9	12
15	Protein	7	9

Method II: Amounts of food used in common food groups compared to Stiebling's Standard.

Table XII. Degree of variance of Montana Co-op Food Consumption for Fall Quarter from Stiebling's Standard

Food Group	Per Cent of Variance from Standard	
	Unit A	Unit B
Milk	+ 6	+43
Vegetables and Fruits		
Potatoes	- 8	+33
Tomatoes and Citrus	-23	--
Leafy, Green and yellow vegetables	-22	+40
Dried peas and beans	-26	-56
Dried fruit	-40	-85
Other vegetables and fruit	+ 7	- 8
Eggs	-12	-30
Lean Meat, Poultry, Eggs	+39	+66
Flour and Cereal	-19	-27
Fats	+33	--
Sugars	+25	+70

Method III: Amounts of Specific Foods compared to Stiebling's Standard.

Table XIII. Specific Foods used by MSC Cooperatives Compared with Stiebling's Standard

	Foods used in amounts less than Standard		Foods used in amounts more than Standard	
Type of Food	Unit A	Unit B	Unit A	Unit B
Tomatoes and Citrus Fruits	tomatoes, canned grapefruit lemmons	tomatoes, fresh lemmons		tomatoes, canned grapefruit
Leafy, Green and Yellow Vegetables	lettuce cabbage spinach peppers asparagus	cabbage lettuce spinach peppers	carrots others	others peas snapbeans carrots asparagus
Dried Peas, Beans, etc.	beans peas	peas		
Dried Fruit	raisins prunes	raisins prunes others	others	
Other Fruits and Vegetables	apples bananas grapes peaches corn watermelon cucumbers	apples grapes watermelon cucumbers	onions, etc. canteloupe pears pineapple others	peaches corn onions, etc. pears pineapple others
Meat, etc.	pork veal poultry	lamb veal poultry	beef fish	beef* pork* others fish
Flours and Cereals	wheat flour cornmeal prepared flour oat breakfast rye flour	wheat flour cornmeal prepared flour rye flour	wheat breakfast others	wheat breakfast rice macaroni and noodles others
Fats	butter	lard* vegetable oils	vegetable oils	butter
Sugars	molasses	molasses	others	sugar others

*This may be partically explained by the fact that men purchased hogs and beef by the carcass and in case of the hogs, dressed them and rendered the lard.

Method IV. Food expenditures compared to Steibling's Standard

Table XIV. Expenditure Division of Food Costs
Cooperative Units Compared to Stiebling's Standard

Unit A - spent proportionately		Unit B - spent proportionately	
Adequate or Above	Less than Adequate	Adequate or Above	Less than Adequate
Cereal Products Fats, Sugars and Sundries, Meat, Fish and Eggs	Fruit and Vegetables Milk and Cheese	Fats, Sugars and Sundries Meat, Fish, Eggs Milk and Cheese	Cereals Fruits and Vegetables

(1) Milk

(a) Unit A Method I indicates fifty per cent of menus deficient.

Methods II and II indicate the consumption adequate.

Method IV indicates slightly under adequacy.

Due to the limitations of the menu analysis, it may be concluded that the supply was adequate.

(b) Unit B All methods reveal that an abundant supply was used.

(2) Vegetables and Fruits:

(a) Unit A Method I indicates about fifteen per cent of the menus were deficient in vegetables and fruits in general with sixty per cent of menus deficient in leafy vegetables.

Method II indicates deficiency of all vegetables and fruits except the group Stiebling calls "other vegetables and fruits". Leafy, green and yellow vegetables; tomatoes and citrus fruits; dried vegetables and fruits; in particular were below standard.

Method III indicates the same results as II and also reveals the low use of several fruits.

Method IV indicates low expenditure.

(b) Unit B Method I same as Unit A except Fruit was deficient on thirty per cent of the menus.

Method II, Vegetables adequate or high in use with exception of the dried vegetables and fruits and "others".

Method III indicates lack of leafy vegetables, dried fruits, dried peas and "other" fruits.

Method IV indicates low expenditure (no doubt due in part to low prices for some vegetables, see page 40.

(3) Eggs

(a) Unit A Method I does not show the specific protein foods.

Methods II and II indicate one half egg per person per week less than the Stiebling's Standard.

Method IV, groups the protein foods.

(b) Unit B Methods I and IV do not show detail.

Methods II and III indicate fifty per cent deficiency in egg consumption.

(4) Meat, Fish and Poultry

(a) Unit A Method I indicates fifty per cent of the menus had three servings daily, fifty per cent had two servings daily of protein. Method II indicates over one third more than Steibling's Standard.

Method III indicates high consumption of beef and fish and low of pork, veal and poultry (high price of two latter explains low use).

Method IV indicates high expenditure.

(b) Unit B Method I indicates protein served three times daily on sixty-five per cent of the menus, twice daily on thirty-seven per cent of the menus.

Method II indicates use of meat as sixty-six per cent above Stiebling's Standard.

Method III indicates high consumption of beef, pork (including lard), fish and "others", and low use of lamb, veal, poultry (high price of two latter explains low use).

Method IV indicates high expenditure.

(5) Flour and Cereals

(a) Unit A Method I indicates thirty-seven per cent of the menus deficient.

Method II indicates consumption twenty per cent deficient.

Method III indicates whole grains deficient.

Method IV indicates adequate or above expenditure due to frequent use of prepared cereals.

(b) Unit B Method I indicates fifteen per cent of the menus deficient.

Method II indicates consumption twenty-six per cent deficient.

Method III indicates use of milled grain products high.

Method IV indicates less than adequate expenditure.

(6) Fats and Sugars

(a) Unit A Method I does not indicate usage.

Method II indicates high use of both; fats 33 per cent, sugars 25 per cent more than adequate.

Method III indicates low use of butter; high use of

vegetable oils; high use of granulated sugar; low use of molasses.

Method IV indicates expenditure high.

(b) Unit B Method I does not indicate usage.

Method II indicates sugar used seventy per cent above Stiebling's Standard. Fat, due to absence of lard, appears just adequate.

Method III indicates use of lard low (due to including under pork); high use of butter; high use of granulated sugar; low use of molasses.

As a result of the above analyses, it would seem that specific recommendations could be made to the groups if they wish to maintain a Moderate Cost Level for food. These are as follows:

To the Women:

Milk	Amount adequate if skim milk is supplemented with butter or cream.
Eggs	Include about one more per person per week.
Vegetables and Fruits	More tomatoes and citrus fruits, canned tomato and grapefruit; more leafy, green and yellow vegetables, especially cabbage.
Meat and Fish	One-half lb. per person per week less; use more pork, (cheaper and furnishes vitamins).
Butter and Fats	Less vegetable fats and more butter to supplement skim milk.
Flour and Cereal	Use more whole grain cereals and also more total cereal products, especially the less expensive ones.
Sugar and Sweets and Misc.	Use less white sugar; more molasses and brown sugar.

To the Men:

Milk	May be reduced slightly, especially whole milk since butter and cream were high.
Eggs	Use twice as many.
Vegetables and Fruits	More dried vegetables and fruits; less canned vegetables; use more leafy vegetables.
Meat and Fish	Use one-third less, beef and fish in particular.
Butter and Fats	Cut down, especially the butter.
Flour and Cereal	Use more total cereal preparation with emphasis on whole wheat.
Sugar, Sweets and Misc.	Use about half as much granulated sugar and more molasses.

The results of these nutritional analyses and of the recommendations given above were presented to the managers of both cooperative units, the secretary-treasurers and the faculty advisor of the association, Dr. Johnson, at a meeting early in the Winter Quarter of 1940. Explanations of the menu-planning guides, menus, and recipe file, which had been prepared for them, were given and arrangements were made with the managers to make use of them. The description of these follow..

Meal Planning Guides for Menus at Low Cost

Standards for cost should be agreed upon in advance by the group as a basis for intelligent cooperation and support for the manager. Since the cooperative groups had no clearly defined cost standards as was brought out by our nutritional analysis, it was necessary to assume one as a basis for giving suggestions for meal planning. Since the cooperative association was organized essentially as a means of providing less expensive living facilities

to its members, it was assumed that the members would be interested in keeping food costs at a moderately low level and at the same time provide satisfying food that would meet their nutritional needs. Menu planning guides were made on this basis. (See Appendix). They contain a description of foods needed to meet the daily requirements for adult individuals as found acceptable by the Montana State College nutrition specialists and constitute a simple mechanical means of checking daily menus for adequacy. Following this, there is a classified list of the ways of serving the foods suitable for low cost diets in this locality. The list may be used by the manager to obtain variety and interest in meals while using the less expensive foods. Many of these were taken from the menus of both cooperative units and the college operated dormitories as well as from printed sources. (28, 45).

To illustrate the use of these guides in menu planning, menus were planned for the month of February. (See Appendix). In addition to palatability, nutritional adequacy, cost and market availability, other factors considered were limitations of time and preparation and service facilities available. The menus were planned primarily for the men of Unit B, but were also given to Unit A with some modifications. Special emphasis was placed on incorporation menu adjustments recommended in the preceding section.

A large quantity recipe file, prepared as a part of this study, (page 52) was made available to the managers and cooks as it contains many of the dishes in the menus. It was agreed that the managers would follow the menus as closely as possible and that when changes were made by the cook or manager, they would be recorded on a schedule with reasons given for the change and comments on the attitude of the members.

The manager of Unit A cooperated well in an attempt to carry out the menus as planned and gave detailed reports of the changes. An example of the adjustments and comments made appear in the Appendix, page 102. These are summarized in Table XV.

Table XV. Summary of Explanations given by Unit A for Menu Changes during Four Weeks

Reasons for Change in Menus	1st	2nd	3rd	4th	Total
1. Substitution to use food on hand	6	6	11	5	28
2. Omission because of lack of food on hand	5	8	4	7	24
3. Substitution because of group's preference	7	1	4	7	18
4. Change to make menus suitable for women's needs	4	5	3	1	13
5. Change because of special occasion	6	3	2	1	12
6. Change because of expense involved	7	0	2	3	12
7. Change because of group's dislikes	1	2	2	4	9
8. Change because of lack of advance preparation	1	1		1	3
9. Change because of inadequate facilities	1		2		3
10. Change because of poor menu			1	2	3
11. Menus not clear			1	1	2
12. Miscellaneous	3	5	7	2	17

Reasons explaining the changes are typical for menus made in advance and by a person other than the buyer and indicates the value of having the managers make the menus. Many changes were made due to the group's likes and dislikes. Good standards of food preparation help materially in making simple foods acceptable but savings on food costs call for intelligent cooperation of the group with the manager toward a predetermined objective.

In Unit B, a different situation was encountered. The manger left all the responsibility for menu adjustments to the cook and although seemingly interested and congenial, she made little effort to use the menus as planned. Many conferences were held with her about them and when asked

why she did not use them, she gave such reasons as:

1. "It takes too much time and trouble.
2. The boys like it better with whipped cream.
3. They have always had fish steaks on Friday.
4. I forgot to order it so we had. . . .
5. I know just what the boys like so I make the menus."

This revealed a situation worthy of concern, as it is considered poor managerial policy to permit the cook, no matter how capable, to carry the combined functions of planning and purchasing and preparing the food. These combined duties call for meals easily and quickly prepared and are often more expensive. It should be a matter of policy of the organization to distinctly delegate to the cook, the preparation of the meals and to the manager, the planning of meals and supplying the foods necessary for them.

It is hoped that in the future the information provided by this project will give the manager the information needed to plan the menus himself. It is recommended that the list of duties he is expected to perform as described in the vague "and other necessities" be so restricted that he may have the necessary time for the responsibilities which are rightfully his. (See Appendix).

Recipe Cards

In assuming her duties in the Fall, 1939, the manager of Unit A, found that it was necessary to provide large quantity recipes for the cook. Since there was no recipe file available, she made her recipes by enlarging family size ones which was very time consuming and often most unsatisfactory as the proportions of some ingredients change as the quantities increase.

The cook for the men's group, having had much experience, felt no need

for a large quantity recipe file. However, an experienced cook, not using definite measurements is often apt to use more seasoning and other ingredients than actually necessary for successful products. In addition were a change of cooks necessary, it would be more difficult for the men to furnish recipes than it was for the women's manager.

Therefore, to give immediate aid to the manager of Unit A and in the event of future needs for Unit B, a card file of large quantity recipes suitable for low cost meals was prepared with the aid of an Institutional Management senior. Each recipe supplied quantities for 40, 50 and 100 average-sized servings to make them usable by Unit A and by the men since the multiples of 50 and 100 are easily calculated.

One of the main advantages of the large quantity recipe file was the computation of the costs per serving of each recipe. A set of prices for the various foods was first established to be used in the recipes, utilizing information from the following sources:

1. Purchase records of college residence halls.
2. Purchase records of college cooperative groups.
3. Bid quotations supplied to cooperative groups.
4. Average cost list, compiled by Home Economics Department for class use.

From this established cost list the cost of the ingredients in the entire recipe and the cost per serving was computed. The average market prices of each ingredient is placed on the recipe cards to facilitate comparison to current costs. This information serves as a valuable guide in planning menus. If the manager and the group have established an average

cost per person per day for food such as twenty-five to thirty cents, the calculated cost of servings on these recipe cards makes possible a cost control system.

The cards were multigraphed in the form as illustrated by Figure 2.

Baked Custard — Cost of Serving .018

Date 12/39 — Size of Serving #12 dipper — File Desserts

Materials	40	50	100	Cost Basis
Sugar, granulated	2c	2½c	5c	.06 #
Salt	½t.	½t.	1 t.	
Eggs	16	20	40	.25 doz.
Milk	¾qt.	1qt.	2 qt	.30 gal.
Milk, scalded	3¼ qt.	4 qt.	8 qt.	.30 gal.
Vanilla	1⅔ T.	2 T.	4 T.	
Nutmeg	1⅔ T.	2 T.	4 T.	

Method: Beat ingredients in bracket until well mixed; Add scalded milk, vanilla; Pour into custard cups or casserole and sprinkle nutmeg over top; Place custard cups in pans of hot water and bake 45 min. 300°F.

Figure 2. Recipe for Custard

Desserts

Graduated Cost List

	Per Serving		Per Serving
Pastry	.003	Apple Pie Filling	.019
Doughnuts	.004	Butterscotch Pudding	.019
Carmel Tapioca	.008	Graham Cracker Brown Betty	.02
Bread Pudding	.011	Raspberry Whip	.021
Cornstarch Pudding	.012	Orange Coconut Custard	.024
Gingerbread	.016	Date Roll	.025
Rice Pudding	.016	Apricot Bavarian	.027
Apple Brown Betty	.018	Dainty Rice Pudding	.029
Apple Crisp	.018	Pineapple Bavarian Cream	.029
Baked Custard	.018	Pineapple Upside Down Cake	.045
Chocolate Cream Pudding	.018	Fruit Cobbler	.031

Figure 3. Sample of Graduated Cost List for Recipe File.

Analysis of Food Buying Practices

The food buying practices of the Montana State College Student Housing Association for the Fall Quarter of 1939 were analyzed by: first, a study of the bid requests used; second, through visits to the firms from which the managers purchased; third, through interviews with the managers of each unit and; fourth, by analysis of the sales slips.

The form for bid requests suggested by Bryan (56), Figure 4, was used as a basis for comparison with those used by the cooperative managers, Figure 5.

Request for Price Quotations
Emerson School Cafeteria
(Address)

To _____ Date _____

Address _____

Gentlemen: Please quote prices on the following items:

(signed) _____
Manager

Quantity	Article	Specifications	Unit Price	Date to be Delivered
5 lbs.	Almonds	Soft shell (Drake)		10/20/34
1 box 25#	Dried prunes	California -40-50		"
1 bag 100#	Sugar	Granulated fine		"

Terms:

(Signed) _____
For the firm

Figure 4. Bryan's Request for Bid Form

Montana State College Student Housing Association, Unit A

Name	Amount wanted	Brand, variety or Trade name	Rating or Quality	Ind. Cost	Unit Cost
Canned Fruit					
Blueberries	3 cs.				
Blackberries	2 cs.				
Strawberries	2 cs.				
Plums (Delux)	5 cs.				
Raspberries	4 cs.				
Peaches (either ½ or slice)	4 cs.				
Cherries (pie)	5 cs.				
Canned Vegetables					
Corn (kernel)	2 cs.				
Beans (string)	5 cs.				
Tomatoes	5 cs.				
Corn (cream)	5 cs.				

Grocery List--Men's Co-op

Name	Variety or brand	Quality or Rating	Price
Blackberries	2 cs.		
Blueberries	2 cs.		
Raspberries			
Strawberries			
Pineapple--			
broken	2 cs.		
whole	2 cs.		
Post Toasties	6 cs.		
"Dynamite"	2 cs.		
Cornmeal	100 lbs.		
Oatmeal	100 lbs.		
Bran flakes	6 cs.		
Macaroni	100 lbs.		
Spaghetti	100 lbs.		

Figure 5. Request for Bid Forms used by Cooperatives

It will be observed that the bid requests of the cooperative units gave little or no description of the foods desired, but spaces were left for the firms to fill in data on which their prices were quoted. As a result it was impossible to compare the bids as each firm quoted prices on goods of different brands, grades and sizes. None of the requests for price quotations gave any indications as to terms of transaction expected such as immediate or deferred deliveries, cash or credit basis, or discounts. Consequently some of the firms added the clause "Prices Subject to Market Changes."

Due to the impossibility of comparing the bids received, and to lack of exact knowledge of their needs, the managers of both units decided that the plan submitted by one of the Safeway retail stores best suited their purposes. This store verbally agreed to furnish the foods requested at "wholesale" prices, providing delivery services, credit on one or two months plus a five per cent reduction on entire monthly bills, on the condition that each manager confine the major part of his orders to the Safeway Store.

It appeared that this arrangement provided the price advantage of quantity purchasing without advance ordering, made independent ordering by each unit possible, required limited storage space and allowed each unit to pay for its supplies monthly. However, no questions were raised as to what constituted "wholesale" prices or how a retail firm could sell their purchases at accepted wholesale prices, absorb the costs of delivery, bookkeeping and other services and still offer a five per cent discount. The Safeway Store was one which added to their bid the clause "Prices Subject to Market Changes" which left the matter of prices to be charged quite open and the managers did not check the prices charged during the Fall Quarter with the bid prices or

with quantity prices of other concerns. Such comparison would have been difficult due to the general practice of Safeway Stores to distribute a wide variety of bargain brands and qualities of goods. While the student managers have been satisfied with their dealings with the Safeway Store, the business arrangement was obviously too vague to serve as a standard for future procedure. To correct this by carefully specified bid requests the managers would need more detailed information regarding food grades and qualities. Much printed information is available (46, 69) but it is difficult and time consuming to pick out the facts applicable to the local situation. The student managers had neither background nor time to gather this information so it was decided that the compiling of a buying guide would be a useful part of this study. Cards for approximately 100 food items were prepared in the following form:

Fruits, Dried		Prunes
TYPE	DESCRIPTION	USES
GRADE	REMARKS	USES
MARKET UNIT	NUMBER OF SERVINGS	SIZE OF SERVING

Figure 6. Form for Food Buying Guides

The data on the cards followed the general outline below:

1. Types: Variety or forms of the food

   a. Description: sizes, color, texture, flavor, season available.

   b. Uses: range, recommendation of type to purchase.

2. Grades: United States, or Commercial or both.

   a. Remarks: unique characteristics and recommendation of grades for purchase.

   b. Uses: range for each grade.

3. Market Units: Those used locally

   a. Description: yield in terms of servings.

   b. Size Serving: approximate size of average.

The Food Buying Guide cards were filed under headings similar to the food classifications used by the college residence halls as follows:

Beverages	Flavoring, extracts, etc.	Spice
Cereals	Fruits, canned	Soups
Condiments	Fruits, dried	Sundries
Dairy Products	Fruits, fresh	Sweets and desserts
Fats and Oils	Meats, fresh	Vegetables, canned
Fish, canned	Meats, smoked	Vegetables, dried
Fish, fresh	Meats, cured	Vegetables, fresh

General information cards were prepared for certain classes of foods, examples of which are shown in Figures 7 and 8.

Fruits, canned			Grade, Description
Common Name	U.S.	Description	General Use
Fancy	A	Best quality, high color, best form optimum ripeness, uniform and symmetrical, usually largest, highest sugar content.	Alone as dessert (use only when "choice" not satisfactory.)
Choice	B	Fine quality, high color, free from blemish and mature, uniform and symmetrical, smaller than "fancy", medium sugar.	Desserts and salads.
Standard	C	Good quality; reasonably free from blemish, not always uniformly ripe or symmentrical; vary in size; low sugar content, (1/5 of Fancy).	Salads and cooked desserts.
Water or Pie Pack		Good quality, fair color, sometimes best form and shape, more solid pack, no sugar	desserts, cooked pies.

Figure 7. Description of Grades for all Canned Fruit.

The usability of the Food Buying Guide File was checked by the managers of the two college operated residence halls and by the student managers of the cooperative units. The manager of Unit A made some use of it during the current year as an aid in ordering. It is hoped that the complete file in the hands of the new managers will prove usable as a basis for planning advance orders, requests for price quotations and also be helpful in menu planning.

Fruits, Canned					Can Sizes and Yields
No. in case	Name	Approx. Net Wt.	No. of Cups	Approx. no. of Servings	Uses
24	2	20 oz.	2½	4-5	Vegetables Soups
24	2½	26-35 28 oz. (1 lb.- 12 oz.)	3½	5-7	Fruit Tomatoes, beets, pumpkin, hominy, saurkraut
12	5	54-67 56 oz. (3 lbs.- 8 oz.)	7 (1/3)	16-17	Grapefruit Soups Jams
6	10	6 lb. 10-14 oz.	13	25-27	Some soups. All fruits except grapefruit. All vegetables except corn. All water packs

Figure 8. Description of Sizes and Yields of Cans

Stock Records

One of the most obvious needs of the managers of the Montana State College Student Housing Association was a simple system of records of food purchases. Unit A had none and Unit B had an incomplete system set up by Barton Hahn, the first manager, which had not proved convenient or usable to his successor. After a study of the situation, it was decided that a file of stock cards similar to those used in the college residence halls would best fill this need so with the aid of a senior in Institutional Management, a system was set up and operated in both units for the Fall Quarter of 1939.

The stock records serve as a permanent record of the food purchases with date, quantity, price, description and an indication of the suitability of each. They also serve as a record of inventories and of the food consumption and provide a basis for determining quantities of quarterly, monthly, and weekly orders. Figure 9, below, illustrates the card form on which the records were kept.

PURCHASE RECORD House _____

Article _____ Description _____
Brand _____ Size _____ Source _____

Purchases					Inventory				Monthly Consumption	
Date	Amt.	Price cs.	Total Price	Unit Price	Date	Amt.	Unit Price	Value	Month	Amount

Figure 9. Stock Record Form

As several hundred cards were used, it appeared formidable to the inexperienced managers who were unfamiliar with the many uses of the records it was necessary to demonstration the possibility and practicability of keeping them. Inventories of the food supplies on hand at the first of the Fall Quarter and on the last day of each succeeding month were recorded and

the food purchases were transferred from the saleslips onto the cards. Summaries of quarterly food consumption were made and formed on the basis of the nutritional analysis of the dietaries (page 48, 49)

It was found that much essential information was omitted from the saleslips, revealing a lack of business-like methods on the part of the cooperative management in checking delivers with orders and saleslips. A satisfactory method would demand the supplying of legible and complete descriptions of purchases. Saleslips with description "Groceries...$2.90" would not be tolerated, since they offer no means of checking. These did not occur often but required much time to straighten out with the manager while taking inventories.

In order to facilitate the taking of the inventories, the writer and the manager of Unit A rearranged the supplies in the storeroom so the food was classified and placed in alphabetical order on the shelves. It was recommended that the storerooms of both units be provided with locks to give the managers some measure of control over the food stock. Each manager was also advised to purchase a set of scales suitable for checking weights of delivers with orders and saleslips so that inventories might be taken on a basis of accurate weights. Only Unit A followed this suggestion and secured scales.

For uniformity in recording the purchases and inventories, certain practices were established, as follows:

1. Carrying all price figures out to the third decimal.
2. Listing inventory value at price of last purchase.
3. Making a new card for each brand of goods or if the brand is the

same, separate cards for each size of container, grade and style. (In one file, there were six cards for pineapple, four of them for the same brand.

4. Recording only the monthly total of produce delivered daily, such as bread and milk.
5. Tabulating monthly purchases on a single line as :
   butter, Jan. (1,7,11,15,21,30) 75 lbs. (# 29,29,30,31,29,29)
   (# 15,10,15,15,10,10)
6. Recording sum of all deliveries of meat checked against carcass weight as purchased.
7. Computing total consumption of each food by Quarter.
8. Filing cards under some classifications as as food buying guides. (See page 60)
9. Transferring filled cards and cards no longer in use into the transfer file.

After the system was set up it was found that the time to post the stock cards was three to five hours per month which does not appear unreasonable when their many uses are understood. At the beginning of the Winter Quarter, the unit managers chose assistants whom they placed in charge of maintaining these records. Detailed explanation of the methods of keeping them were given by the writer to both. It was recommended that the managers check the saleslips daily, making them legible when necessary and work with the assistant in posting stock cards and taking inventories.

Quarterly Order

A demonstrated use of the Food Buying Guide and the Stock Records was

M.S.C. STUDENT HOUSING ASSOCIATION

Date August 15, 1940

Requests John Doe Grocery Store to state prices for which they would agree to sell the following:

(If article is not stocked as described - give description of kind nearest in quality and state price. If price is subject to change, indicate.)

Terms: To be made in two deliveries, Oct. 1, 1940 and Dec. 1, 1940.

Quantity	Size or Unit.	Description, Brand, Grade, Style, etc.	Unit Price	Total Price	Remarks
		Fruits, Canned			
6 cs.	6/10	Apricots, halved, pitted	2 40	14 40	
1 cs.	24/2½*	unpeeled, choice	2 65	2 65	
3 cs.	6/10	Apricots, water pack	2 15	6 45	
3 cs.	6/10	blackberries, choice	2 50	7 50	
1 cs.	6/10	blueberries, water pack	3 65	3 65	
2 cs.	6/10	cherries, red pitted sour water pack	3 00	6 00	brand BitterRoot
5 cs.	12/5	grapefruit, broken segment or substandard	2 50	12 50	samples requested
7 cs.	6/10	pears, Bartlett halves,	2 35	16 45	
1 cs.	24/2½	choice	2 90	2 90	
6 cs.	6/10	peaches,-clingstone halves	2 25	13 50	
1 cs.	24/2½	choice	2 60	12 60	
6 cs.	6/10	peaches, water pack or substandard	1 70	10 20	
8 cs.	6/10	pineapple, broken slice	3 25	26 00	
12 cs.	6/10	crushed	3 00	34 00	
6 cs.	6/10	plums, station, prune, choice	2 50	15 00	
2 cs.	6/10	plums, water pack	1 60	3 20	
1 cs.	6/10	raspberries, red choice	3 50	3 50	
Additions:					
2 cs.	6/10	cherries, red sour, pitted water pack	2 75	5 50	Red Valley
5 cs.	24/2½	Plums, Italian Pcy. (special)	2 65	13 25	Del Monte

Signed _____

Figure 10. Sample of Suggested Order

*small cans often reduce leftover problem.

shown to the unit managers by means of a suggested bid request for a typical quarterly order. It was set up in the form as shown in Figure 10. The bid request to be sent to firms appears in black type and a typical quotation by a ficticious food deal appears in red type. The prices used were the average of those paid by Unit B for the Fall Quarter, 1939, and the established cost list used for recipes. The order was prepared on the basis of the nutritional needs of 100 men students as a convenient basis for computing orders for larger or smaller groups and directions for conversion to women's needs were included.

Analysis of Sales Slips

In Table XVII, the saleslips were analyzed for the frequency of grocery orders for the months of November and December. These months were chosen as representative of normal routine practices since both units had then been in operation one month previous to that time. It may be seen that Unit A placed sixteen and Unit B placed thirty-eight orders to the Safeway Store in fifty-one days. Unit A placed multiple orders on only one while Unit B placed them on nine different days. Table XVII shows the frequency of purchases for several foods having good storage qualities. It may be seen that in most cases Unit A purchased the same food less frequently than Unit B with less variance in the size of orders.

Certain factors affected the frequency of purchases made by each group such as:

(1) Unit A had a food inventory from the previous spring which amounted to thirteen per cent of the total food expenditure for the Fall Quarter.

Unit B had an inventory amounting to four-tenths per cent of its total expenditure.

(2) Both units had limited storage facilities.

(3) The manager of Unit A planned all of the menus and placed all of the orders. The cook of Unit B planned the menus and frequently placed orders for the manager.

(4) Both managers, being inexperienced in buying used caution in making purchases the first quarter, frequently getting supplies in small quantities.

In both tables the results indicated that Unit A purchased less frequently and with a relatively more limited storage space than did Unit B. It may be concluded that it was due in a large measure to the advance planning the manager of Unit A was able to do since she assumed complete responsibility. By careful advance planning the managers should be able to keep the number of orders to a minimum as a means of securing price advantage through quantity purchases and of saving the time and effort of placing frequent daily orders. Since Table XVI and XVII indicate the managers of both units made several multiple purchases, mostly due no doubt, to lack of knowledge of needs and to limited storage space, it is apparent that the stock records and other information provided by this study are useful and should reduce the number of multiple orders for the same foods by giving the manager a definite basis for quantity ordering. Expanded and improved storage facilities should also greatly facilitate the reduction of the multiple orders.

Table XVI. Frequency of Orders to the Safeway Store

Unit and Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Unit A																															
Nov.	1	1		1									1		1		1	1		1					1				2		
Dec.	1	1		1			1	1	1		1																				
Unit B																															
Nov.	1	1		1			2	1		2			2	1	1	1		2		1		4	1		2			1		1	
Dec.	1			2			1	3	1		1		1	2					1												

Table XVII. Frequency and Size of Orders made by M.S.C. Cooperatives
Fall Quarter, 1939.

	Unit A				Unit B			
Food	Number Orders	Number Stores	Smallest Order	Largest Order	Number Orders	Number Stores	Smallest Order	Largest Order
Cookies	0				7	3	14 lb.	40½ lb.
Flour, white	3	1	1 cwt.	1 cwt.	4	1	1 cwt.	2 cwt.
Salmon, canned	2	1	1 cs.	1 cs.	3	1	1 cs.	4 cs.
Grapefruit, canned	0				6	1	8 cn./5	3 cs. 12/3
Pineapple	3	1	1 cs.24/2½	2 cs.	9	2	2 cn./2½	3 cs. 3/10
Dessert powders	5	2	3/1 lb.	4 doz.1½ pk.	3	3	6/3oz. pg.	13 doz.1½ lb.
Asparagus	0				4	1	1 cs.24/2	5 cs.
Beans, string	3	1	1 cs.24/2	1 cs.24/2	6	1	1 cs.6/10	5 cs. 24/2
Peas	2	1	2 cs.24/2		5	1	1 cs.24/2	6 cs.
Dill pickles	2	1	1 cs.6/10		5	1	1 cn.10	1 cs. 6/10
Sauerkraut					4	1	1 cn./2½	3 cs.
Tomatoes	2	1	1 cs.6/10	2 cs.	4	2	1 cs.24/2½	10 cs.6/10
Foods which may be stored in cool facilities								
Apples	3	3	1 bos	10 box	8	2	1 box	30 box
Bacon	1	1	14 lb.		14	2	2¼ lb.	10 lb.
Cheese, Am.	7	2	1 lb.	15 lb.	7	1	2 lb.	20 lb.
Salad dressing	1	1	1 gal.		5	1	1 gal.	4 gal.
Salad oil	4	1	1 gal.	2 gal.	1	1	1 gal.	--

Suggestions for Food Buying Economics

Surplus Commodities. Early in the depression some Montana State College students who were doing light housekeeping as a form of economy for living expenses, received without charge some food supplies through the Federal Surplus Commodities Corporation. The writer thought that the members of the Student Housing Association warranted similar consideration and after discussing the matter with the managers, letters were written to the State Director of Surplus Commodities and the replies stated that the cooperative unit qualified under the School Lunch Program of the agency. By filling out request blanks each month and taking them to the local commodities distributor both units could receive sizable amounts of dried fruits and vegetables, cereals, butter, eggs, citrus fruits, apples, and other fruits depending upon their availability. Both units secured supplies in December, 1939, and January, 1940. Unit A has received them each month since, but Unit B has neglected to request any. It is recommended that both cooperative groups take advantage of this opportunity while it is available.

Cooperative Buying Among Groups. Collective group buying has proved very effective by Fraternity Buying Cooperatives on many campuses. In Oregon the cooperative buying organization maintains its own warehouse and delivery trucks and is able to purchase in such quantities that its members are provided with commodities at sizeable price savings. In Idaho, the fraternity buying "co-ops" reduces costs through quantity purchases for its members by employing a full-time buying agent and renting storage facilities.

The first manager of Unit B of the Montana State College Student Housing Association began cooperative group purchasing for potatoes. He purchased

and delivered them as needed among the two units and the Pi Kappa Alpha fraternity. However, as the association operates now the two units purchase independently. Quantity purchasing always presents at least two important problems; namely, necessary financial reserve or credit arrangements and proper storage facilities. Contracts for future delivery reduce these problems somewhat. It is recommended that more study be given to the possible cooperative buying and storing of foods for the two units and possibly other organized living groups. If such a plan should not seem feasible for the present it is suggested that immediate steps be taken toward improving the present storage facilities for Units A and B to make advance quantity ordering possible.

Saturday Evening Reductions. Sometimes material savings may be made by taking advantage of reductions made by retailers to move their produce on Saturday evenings. Extreme precaution is necessary for often the produce is substandard or partially spoiled through handling and age and it may prove that the waste would overbalance the advantage of the reduced prices. The managers are strongly urged to make use of this type of buying when they can personally check on the quality of the produce and are sure that they can use it to advantage.

Purchase of Meat. There are several methods by which meat may be purchased by the cooperative groups. Unit B now buys beef by the "side", from meat dealers who store it and deliver it in the cuts as needed. The sides are so priced that there appears to be a definite savings, since the choice cuts are secured at the same price as the rest of the side, and as the men prefer the choice cuts they are apt to use more than a necessary amount of meat to

have them more often at this lower price.

Date	Name of Cut	Weight as Cut From Side	Weight As Delivered	Loss in Trimming
Dec. 3	Boneless stew	39 lbs.	25 lbs.	14 lbs.
4	Roast	12½	11	1½
4	Steak	50	45	5
9	Roast	50	44	6
10	Stew	48½	34½	14
11	Roast & bone	60 3/4	55 3/4	15
12	Roast	24½	22¼	2¼
	Credit for Kidney and plate at 12½ ¢	15		
		11	8	18
	Shrinkage	3 3/4		
	Total	315 lbs.	245½ lbs.	69½ lbs.

Figure 11. Type and Weight of Cuts Delivered From Steer Side, Unit B.

However, there are certain disadvantages to purchasing beef by this method as shown in Figure 11. The men in Unit B purchased a 315 pound steer side at 14.5 cents per pound. Considering the regular wholesale price of tenderloin and other choice cuts as eighteen to twenty cents per pound, this was a substantial savings. As the meat was delivered, however, approximately one-fourth had been discarded as trimmings, leaving only 245½ pounds. Allowing credit of 12½ cents per pound or $1 for the plate and kidney, the purchase price amounted to $43.10 or 16.6 cents per pound. Thus they were paying 16.5 cents per pound for the fore quarter and hamburger which ordinarily are priced at 12½ cents to 14 cents per pound.

Unit A, having had the above disadvantages pointed out to them, ordered beef in wholesale cuts as desired. They frequently used the more expensive cuts but were able to satisfactorily control the expenditures by using as often as necessary the cheaper cuts at the lowest price for which they were available.

It is strongly recommended that each manager consider the price actually paid for each cut of meat and determine which method in the long run would yield savings on the meat purchases. The managers should consider what proportion of the total budget is to be spent on meat and according to that make decisions regarding the type of meat and method of purchase to be used.

Milk Purchasing. Alternatives to the usual purchase of whole milk should be carefully considered. Skim milk may be safely used for the required one pint daily, if supplemented by adequate amounts of cream or butter to supply the necessary food nutrients. American cheese may also be used as a supplement, five ounces of which represents the solid constituents of Vitamin A of one quarter of whole milk. (42). Supplementing the whole milk by such means may prove less expensive or more convenient and desirable. The cost of the equivalent, skim milk with butter, is less expensive than whole milk at current local prices.

1 gal. whole milk = $.30 1 gal. skim milk = $ .15

	1½ oz. butter per qt. at 30 ¢ per lb.	.1125
$ .30		$ .2625

This combination may prove even less expensive than the figures above indicate, since butter is always included anyway, the cost of it may often be omitted from this comparison.

The skim milk with cream is not less expensive, as the figures below indicate, but the advantage of having available cream for whipping to make the less expensive desserts more acceptable may prove to be desirable. From the Montana State College Dairy Industry Department it was found:

9 quarts of whole milk at 30 ¢ a gallon	= $ .6725	8 qts. skim milk at 15¢ per gallon plus	= $ .30
		1 qt. 45% cream at 45¢	.45
	$ .6725		$ .75

If limited quantities of whipping cream are purchased and nutritional needs met through the use of skim milk and butter a saving can be effected.

It is recommended that before ordering whole milk for the entire required supply, these alternatives be considered. Care must be taken, however, to make sure that the skim milk is sufficiently supplemented.

Food Buying Procedure Outlined

To summarize the marketing recommendations for the student managers a normal procedure for the purchase of food for a large group was set up as follows:

(1) Obtain from the group the cost level desired for food service and the probably overhead and labor expenses.

(2) Determine food needs on the basis of standards of nutritional adequacy for cost level.

(3) Determine quality of food needs on basis of cost level.

(4) Check equipment and storage facilities.

(5) Inventory food supplies.

(6) Prepare requisition for bids on food products needed with definite specifications given as to grade or quality, sizes or units,

quantity and date for delivery.

(7) Submit bids to all interested and reliable firms.

(8) Compare prices quoted on basis of identical values, terms of business and of services offered.

(9) Place written order with firms giving most advantageous offer.

(10) Check deliveries and record purchases.

The guides and recommendations prepared here have been made available to the managers of each unit to aid them in successfully carrying out their duties, but much of the responsibility for insuring their advantageous use is in the hands of the general association. It should encourage the succeeding managers of each unit to make an effort to utilize the information offered, seeking the guidance of trained individuals for interpretation of it and for other problems arising in their management. It is proposed:

(1) That members be elected to the advisory council who are professionally trained and willing to counsel with the managers.

(2) That provisions be made for definitely describing the duties of the manager and to provide him with sufficient time to perform them efficiently.

(3) That provisions be made for securing reference material to supplement the information provided by the study and making it available for the use of each unit manager. References might include:

a. The School Cafeteria - Bryan, Mary de Garmo. F.S.Crofts and Co. New York, 1938.
b. Food Buying and Our Market - Monroe, Kyrk, Stone. M. Burrows and Co., New York, 1938.
c. Food for Fifty - Power and West. John Wiley and Sons, New York.
d. Montana Extension Bulletin 159, The Winter Cook Book, and others on nutrition.

(4) That an effort be made to preserve the material organized and presented here, so that each succeeding manager may find it available at the beginning of his term when it will be most helpful.

SUMMARY

The Montana State College Student Housing Association has had commendable success in cooperatively providing economic living and social development for its members. However, in its present student-managed status, problems inevitably occur each year when a large percentage of new members are admitted and new officers assume leadership. To lessen the degree of chance in the attainment of successful cooperative living in the Student Housing Association, this study was made to provide guidance to the inexperienced managers who carry most of the responsibility of the operation of the project.

The nutritional adequacy of the meals served in the two units during the Fall Quarter, 1939 was studied and found to be satisfactory for both the men's and women's groups with the following exceptions:

(1) Unit A had a noticeable deficiency in the "protective" fruits, vegetables and cereals and had used above standard amounts of meats, fats, sugars and sundries.

(2) Unit B had a deficiency in eggs and whole grain cereals but in most cases had much more than necessary according to the standards used.

At the beginning of the study it was assumed that the cooperative groups were primarily interested in maintaining meals at minimum cost, however, it was found that the groups were maintaining their food service more nearly on

the moderate cost level. Recommendations for improving the nutritional adequacy of the meals at this moderate cost level are as follows:

To the women: Substitute whole milk for skim milk or supplement it with butter or cream. Since use of eggs was a little inadequate, add one more per person per week. Use more citrus fruits and tomatoes, particularly canned ones when the price of fresh ones are high. Provide more leafy, green or yellow vegetables (particularly cabbage). Reduce meat allottment and replace some of the beef with pork when as low in price as at present. Use less vegetable fat (especially if butter is used to supplement milk). Make more use of cereals emphasizing the less expensive and whole grain cereals. Use less white sugar replacing some of it with molasses and brown sugar.

To the men: Whole milk may be safely reduced since the total supply was abundant and more butter and cream were used than needed to supplement the skim milk. Use more dried vegetables and fruits, more root and less canned vegetables for economy. Reduce meat use by one-third, (particularly beef). Use less total amount of fat (butter in particular if whole milk used in present amounts). Emphasize the use of more whole grain cereals. Reduce granulated sugar by one-third or more and supplement it with molasses.

Menu-planning guides, menus and quantity recipes* were compiled on the basis of the minimum cost, since they may be easily converted to a higher level with a few additions and yet are available in case the lowering of food costs should become desirable.

The food buying practices were studied and the following practices found to be used:

(1) The bid requests used by both units were incomplete and unsatis-

factory making impossible the decisions about type and place of purchasing based on comparisons of value and price.

(2) Both units placed frequent orders during the fall quarter for the same foods. In many cases these foods could have been successfully stored in amounts, making more than one order per quarter unnecessary.

(3) Multiple daily orders and frequent purchase of the same foods during the quarter were made by both groups. It was no doubt due to the inexperience and lack of time of the managers and the absence of much essential information that these unbusiness-like methods were used. Provision for much of the needed information was made through this study by the establishment of continuing food purchase records and preparation of food buying guides*. Suggestions and recommendations were given for establishment of business-like methods and economic practices.

Guidance was given to the present managers through frequent visits and conferences, but it is thought that the material in this study will be of more benefit to the succeeding student managers. In order to facilitate the use of the material in the future, suggestions were made to the general association for adjustments in the By-Laws** and to provide additional guidance through especially qualified advisory council members and a reference library in the units.

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*On file in Home Economics library.

**Some of the suggested adjustments appear in the new Constitution and By-Laws adopted April 17, 1940. The section containing these appears in the Appendix, page 88.

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Index for Appendix

1. New Constitution and By-Laws of Montana State College Student Housing Association, Manager and Secretary-Treasurer of the Units -- 1940 88

2. Practices Recommended for Student Cooperative Houses, 1937. 89

3. Menus Served to Unit A -- Used for Scoring 91

4. Menus Served to Unit B -- Used for Scoring. 93

5. Menus Prepared to Meet Dietary Requirements at Minimum Cost. 95

6. Menu Adjustments Made by Manager of Unit A 102

7. Menu Planning Guides. 105

8. Suggested Quarterly Order. 128

New Constitution and By-Laws

Of Montana State College Student Housing Association

adopted, April 17, 1940.

ARTICLE VI. SECTION 3. MANAGER AND SECRETARY-TREASURER OF THE UNITS.

The management of the business of each Unit shall be vested in a Manager. He shall be assisted in the administration of the Unit by a Secretary Treasurer.

A. Election: The candidate for Manager or Secretary-Treasurer shall have fulfilled the following requirements:

1. Shall be a member of the Unit.
2. Shall have submitted a written application to the Executive Council for the position he wishes to fill at least three weeks prior to the time of election.

From the qualifying candidates, the Manager and Secretary-Treasurer shall be elected by the members of the Unit at a regular meeting of the Unit held between February 15 and February 28. He shall serve an apprenticeship without pay and shall assist in the performance of the duties of the office so that he may gain experience to fit him for efficient service in that office.

The Manager and Secretary-Treasurer shall serve for a term of one year beginning on the first day of summer vacation following their election.

B. Duties of the Manager: The Manager shall have the responsibility for all buying and ordering for the Unit.

The Manager shall be in charge of the repair, maintenance and improvement of the property of the Unit.

The Manager shall be responsible for the assignment of duites of the Unit to the members and probationary members.

The Manager shall inform the Secretary-Treasurer of all purchases and orders made and of expenses incurred. He shall prepare a monthly, quarterly and yearly inventory for the Secretary-Treasurer.

The Manager shall at all times conduct the business of the Unit in as efficient manner as possible.

PRACTICES RECOMMENDED FOR STUDENTS' COOPERATIVE HOUSES

Drawn up by a student committee, 1938

1. Conservation, allowing the organization to grow on its own merits without too much artificial stimulation.

2. Demand that payment of bills be made very punctually. There may be borrowing among members or by members from outside, but absolutely no leniency on the part of the cooperative house manager.

3. Records should be kept complete and accurate.

4. All bills should be paid with cash. Credits should not be taken.

5. Obtain cooperation and good will of college administration, students and town fork.

6. Refrain from any antagonism toward fraternities, sororities or town merchants.

7. Every member mush share the house duties equally.

8. Physical coercion should not be practiced in order to get work done. Offenders should be brought before the executive council for verbal reprimanding and warning.

9. A feeling of service and mutual help among members should be encouraged.

10. House duties should be done on a daily basis; that is, all members doing a daily assignment for a period such as a quarter.

11. Checks should be signed only by association managers.

12. Great stress should be given the management. Managers should be motivated primarily with cooperative philosophy and ideals rather than monetary gain.

13. A thorough educational program should be incorporated in the activities.

14. It is considered a good practice to inform senior classes of high schools about the existence of the cooperative.

15. All prospective members should be throroughly acquainted with the cooperative program and know of the responsibilities that they must assume.

16. House officers for the ensuing year should be elected for a period previous to the closing of the school year in order that they may work with outgoing house officers for a time.

17. It is desirable to look forward to charging a fairly high deposit at the beginning of membership. This deposit should be used for laying in stocks of goods in large quantities and to make greater savings possible. This deposit should be refunded at the end of the member's participation.

18. Monthly payments to the cooperative should be slightly in excess of the actual costs in order that a surplus may be built up.

19. Each cooperative house should have a manager who manages the house as his part of the work program. He pays for the expenses as do other members.

20. All members, including officers, assume house duties on an equal basis.

2. Quarterly auditing of books is recommended.

22. House cook should be paid on a cash basis, and probably should be employed for sometime previous to the opening of the school year in order that she may can goods and make other similar savings. The cook should be a cook only and the buying of the commodities left up to the general cooperative manager.

23. It should be insisted and enforced that manners, neatness, cleanliness, courtesy, and sobriety should be maintained by all members at all time, and that the best rules of etiquette be followed at all house functions.

24. It shold be the effort of the cooperative house to maintain high scholastic standards.

25. Accurate typowritten minutes of all meetings should be kept in a loose-leaf book, together with the rticles of Incorporation, By-Laws, and Amendments.

MENUS SERVED TO UNIT A--USED FOR SCORING

Breakfast	Lunch	Dinner
	Sunday	
Cinnamon rolls	Minute steak, gravy	
Oranges	Mashed potatoes	
Coffee, milk	Creamed carrots	
	Pear and cream cheese salad	
	Rolls, jelly	
	Apple roll, coffee	
	Monday	
Prunes	Montana Stew	Meat Loaf
Toast, apple butter	Creackers	Potatoes
Cereal, cooked	Bread and butter	Spinach
Coffee, milk	Fruit salad	Bread and butter
	Milk	Gingerbread
	Tuesday	
Oranges	Creamed eggs on toast	Sausage, gravy
Muffins	Apple, date, celery salad	Baked potatoes
Cereal, prepared	Bread and butter	Parsnips
Coffee, milk	Milk	Chocolate pudding
		Bread and butter
	Wednesday	
Tomato Juice	Jambozettee	Beef birds
Biscuits and honey	Cole slaw	Mashed potatoes
Cereal, prepared	Bread and butter	Rutagagas
Coffee, milk	Fruit jello salad	Bread and butter
	Tea	Peach cobbler
	Thursday	
Oranges	Cornbread and honey	Pot roast
Toast, cinnamon	Pea salad	Potatoes, carrota
Cereal, cooked	Fruit	Bread and Butter
Coffee, milk	Bread and butter	Orange, cocoanut custard
	Cocoa	
	Friday	
Prunes	Baked squash	Halibut
Toast, apple butter	Mixed fruit salad	Mashed potatoes
Cereal, cooked	Bread and butter	Green beans
Coffee, milk	Cookies and milk	Bread and butter
		Carmel tapioca
	Saturday	
Oranges	Hot potato salad	Meat loaf
Toast, honey	String beans	Onions, creamed
Cereal, cooked	Constarch pudding	Pickles
Coffee, milk	Bread and butter	Bread and butter
	Milk	White cake with chocolate sauce
		Coffee

	Sunday	
Hot cakes syrup, honey Grapefruit Coffee, milk	Roast beef, gravy Oven tanned creamed potatoes Peas and carrots Health salad Rolls, jelly Cherry pie Whipped cream Coffee	
	Monday	
Oranges Toast Cooked cereal Coffee, milk	Date muffins Honey Boiled squash Peaches	Hot Tamale Pie Mashed potatoes Glazed parsnips Bread and Butter Raspberry whip
	Tuesday	
Stewed apricots cornmeal mush Buttered toast Coffee, milk	Goulash Banana orange salad Bread and butter Peaches	Meat loaf Escalloped potatoes Dainty rice pudding Bread and butter
	Wednesday	
Stewed prunes Toast, apple butter Corn flakes Coffee, milk	Tomato rice soup Cabbage augrautin Bread and butter Chocolate pudding	Steak Gravy Baked potatoes Spinach Molded lime fruit salad Bread and butter Junket
	Thursday	
Oranges Biscuits and honey Cooked cereal Cocoa	Corn fritters Syrup Cabbage and carrot salad Bread and butter Tarts	Boston baked beans Steamed brown bread Honey Waldorf salad on lettuce Peach bavarian
	Friday	
Apricots French fried toast Syrup Milk, coffee	Macaroni and cheese Tomato aspic Bread and butter Bread pudding	Salmon croquettes Mashed potatoes, lemon Peas Bread and butter Peach upside down cake
	Saturday	
Tomato juice Whole wheat muffins Cooked cereal Cocoa	Vegetable chowder Mixed fruit salad Bread and butter Milk Gingerbread	Pork chops Gravy Baked potatoes Scalloped tomatoes Bread and butter Fruit jello

MENUS SERVED TO UNIT B--USED FOR SCORING

Breakfast	Lunch	Dinner
	Sunday	
Oranges	Baked ham	Cocoa
Dry cereal	Candied sweet potato	Cold meat
French fried toast	Mashed potato	Cheese sandwich
Coffee	Creamed peas	Bread and butter
	Perfection salad	JAm, peanut butter
	Suet pudding and hard sauce	
	Bread and butter and coffee	
	Monday	
Oranges	Lyonnaise potatoes	Roast beef
Oatmeal	Creamed peas and carrots	Mashed potatoes
Toast	Raspberry banana jello	Gravy, dressing
Coffee	Biscuits, honey	Creamed cabbage
	Milk	Pickles
		Bread and butter
		Dried apricots and
		Pineapple upside-down
		cake and coffee
	Tuesday	
Fruit	Creamed ham and potatoes	Liver & onions, bacon
Hot cereal	Fruit combination salad	Baked potatoes, rolls
Fried eggs	Cornbread	Butterscotch pudding
	Milk	and whipped cream
		Coffee
	Wednesday	
Oranges	Creamed hominy	Roast beef, dressing
Hot cereal	Buttered cabbage	Potatoes, gravy
Toast	Jello fruit salad	Buttered beets
Coffee	Bread and butter	Bread and butter
	Jam, milk	Cherry pie and coffee
	Thursday	
Grapefruit	Meat balls	Meat loaf
Hot cereal	Boiled potatoes	Mashed potatoes
Toast	Carrot and raisin salad	Buttered asparagus
Eggs	Biscuits and honey	Catsup, bread & butter
Coffee	Milk	Chocolate pudding
		Coffee
	Friday	
Fruit	Scalloped salmon	Halibut steak
Hot cereal	Potatoe salad	Scalloped potatoes
Toast	Breaded tomato	Creamed corn, pickles
Coffee	Canned raspberries, milk	Bread and butter
		Gingerbread & whipped
		cream, coffee

	Saturday	
Oranges	Oyster stew	Pork chops, gravy
Hot cereal	Scalloped corn	Mashed potatoes, peas
Toast	Hot biscuits, jam	Bread and butter
Coffee	Pear salad	Choc. cake - peaches
	Milk	Coffee
	Sunday	
Oranges	Roast pork - gravy	Peanut butter sandwiches
Hot cakes	Mashed potatoes	Apples
Eggs	Bread and butter	Milk
Coffee	Applesauce, ice cream	
	Fig newton Nabiscos, Coffee	
	Monday	
Oranges	Oyster soup	Hamburger loaf
Hot cereal	Creamed hominy	Potatoes, gravy, string beans
Toast	Gelatin salad - string beans	Pickles, catsup
	Peas	Bread and butter
	Rice pudding	Gingerbread & whipped cream, coffee
	Milk	
	Tuesday	
Bananas	Breaded tomatoes	Sausage and side pork
Hot cereal	Fried potatoes	Potatoes, buttered
Toast	Fruit salad	Corn, buttered cabbage
Eggs	Cornbread & syrup	Bread and butter
Coffee	Milk	Apric. & pineapple upside down cake, wh. cream, coffee
	Wednesday	
Stewed prunes	Chili beans	Veal roast, dressing
Hot cereal	Lyonnaise potato	Browned potatoes; peas
Toast, jam	Lettuce, bananas	Pickles, bread and butter
Coffee	Biscuits & jam	Canned blackberries
	Milk	Frosted graham crackers
		Coffee
	Thursday	
Oranges	Creamed potatoes and ham	Pork chops; cream gravy
Hot cereal	Spinach	Mashed potatoes; corn
Toast	Pear and cheese salad	Buttered asparagus
Eggs	Bread and butter	Bread and butter
Coffee	Doughnuts, milk	Butterscotch pudding
		Coffee
	Friday	
Canned fruit	Omelet	Codfish sticks
Hot cakes	Apple and celery salad	Baked potato, carrots
Coffee	Hot bread; jam	Spaghetti and tomatoes
	Milk	Bread and butter
		Cherry pie; coffee
	Saturday	
Oranges	Baked beans	Italian spaghetti
Hot cereal	Cabbage salad	String beans; pickles
Toast	Bread and butter	Bread and butter
Eggs	Cookies; jam	Bananas and cream
Coffee	Milk	Brownies; coffee

MENUS FOR THE COOPERATIVE UNIT B
PLANNED TO MEET DIETARY REQUIREMENTS AT MINIMUM COST

Breakfast	Lunch	Dinner
FIRST WEEK:		
	Sunday	
Sliced oranges Rice Crispies French Fried toast Coffee	Sandwiches: peanut butter and mashed banana; cheese Fruit jello Milk	Roast Pork and gravy Cinnamon apple Mashed potato Buttered string beans Celery curls Rolls Chocolate steamed pudding with hard sauce Coffee
	Monday	
Banana Oatmeal Whole Wheat toast Poached Egg Coffee	Mashed potatoes with pork gravy Hot stewed tomatoes Ground carrot and orange salad Date muffin Cocoa	Meat-loaf roll Dressing and gravy* Riced potatoes Harvard beets Whole wheat bread Prune whip Coffee
	Tuesday	
Stewed apricots Hotcakes Coffee Blackberry jam and brown sugar syrup	Golden-rod eggs on whole wheat toast Cheese Puffs* Apple-pineapple-marshmallow salad Bread and butter Milk Sugar cookies	Brown stew Boiled potatoes* Creamed celery and carrots Rye bread Squash Pie with whipped cream Coffee
	Wednesday	
Tomato juice Cream of wheat* Whole wheat toast Creamed eggs Coffee	Escalloped potatoes with hamburger Shredded cabbage and green pepper with top milk and vinegar dressing Whole wheat bread Canned blackberries Milk	Roast Lamb shoulder Mint jelly Boiled potatoes Butter peas Creamed corn* Rolls Graham cracker pie Coffee

Breakfast	Lunch	Dinner
	Thursday	
Baked apple Oatmeal White toast Cocoa Honey butter	Spanish rice with bacon Hard cooked egg on shredded lettuce Whole wheat bread Milk Chocolate cookies	Liver in tomato sauce Mashed potatoes Fried parsnips White bread Gingerbread with lemon sauce Coffee
	Friday	
Stewed prunes Cracked wheat Whole wheat toast Scrambled eggs Coffee	Cream of split pea soup Fresh fried potatoes* Tuna and apple salad Crackers Raisin bread Raspberry jello Milk	Steamed salmon loaf Tartar sauce Escalloped corn* Baked onions Carrot and celery sticks Whole wheat bread Canned apricots and meringue Coffee
	Saturday	
Virginia Pears Cornmeal mush Baking powder biscuit cinnamon rolls Coffee	Hot slaw with canned corned beef Fried potato cakes* Carrot and stewed prune salad Whole wheat bread Jam Milk	Chili Crackers Pirate Gold (buttered carrots and peas and green pepper) Whole wheat bread Fig steamed pudding Hard Sauce Coffee
SECOND WEEK:		
	Sunday	
Canned grapefruit Shredded wheat Fried cornmeal mush Syrup Coffee	Chili and crackers Pickle sandwiches Apple Milk	Rump Roast Mashed Potato Creamed onions Pineapple and shredded carrot jello Rolls Butterscotch sundae Coffee

Breakfast	Lunch	Dinner
Monday		
Stewed apricot Cream of wheat* Toast Coffee Fried eggs	Macaroni and Cheese Banana, apple and pineapple salad Whole wheat raisin bread Cocoa	Corned beef Boiled potato Boiled cabbage Mashed squash Whole wheat bread Gingerbread and apple sauce Coffee
Tuesday		
Bananas Oatmeal Toast Coffee	Beef biscuit roll Buttered carrots* Shredded cabbage with red and green peppers Whole wheat bread Cocoa	Liver and rice loaf Fried potato* Creamed asparagus Buttered rutabagas Applesauce cake Coffee
Wednesday		
Applesauce Brownies Whole wheat toast Boiled eggs Coffee	Tomato soup, crackers Hot potato salad Biscuits* Honey or jam Milk	Beef steaks Baked potato Normandy carrots Lettuce and thousand island dressing Rolls Chocolate cake - coffee
Thursday		
Tomato juice Oatmeal with raisins Toast Coffee	Hamburgers Fried potatoes* Cold slaw Buns Fruit jello Milk	Goulash (Beef stew) Catsup Boiled potatoes String beans Carrot-onion and/or corn, green pepper salad Deviled egg on lettuce Whole wheat bread Butter scotch pudding Coffee
Friday		
Stewed prunes Hot cakes Syrup Coffee	Baked rice and cheese Lyonnaise string beans* Orange and grapefruit salad Rye bread Fig cookies Milk	Codfish balls (potato) Spinach Creamed carrots and celery* Pickles Whole wheat bread Cherry pie Coffee

Breakfast	Lunch	Dinner
	Saturday	
Grapefruit juice Cracked wheat Cinnamon toast Scrambled eggs* Coffee	Baked beans Apple, cheese and date salad Brown bread Milk	Tamale Pie (Gr. beef) Creamed peas Cabbage, pineapple (crushed) with coconut White bread Bread Pudding Coffee
THIRD WEEK:		
	Sunday	
Stewed apricots Wheaties Toast Scrambled eggs* Bacon Coffee	Peanut butter and pickle sandwiches Banana Jello Milk	Chicken legs (gr.veal) and gravy Boiled potatoes Normandy carrots Pickled beets Rolls Suet pudding, hard sauce Coffee
	Monday	
Canned peaches Oatmeal Toast Coffee	Spanish rice Banana and apricot salad Cinnamon rolls -baking powder biscuit Milk	Sausage Fried apples Mashed potato* Mashed rutabaga Perfection salad Whole Wheat bread Cottage pudding with chocolate sauce Coffee
	Tuesday	
Orange Cracked wheat and raisins Toast Honey-butter Coffee	Potato soup and bacon Apple and peanut salad Muffins Canned blackberries Milk	Mutton stew Boiled potato String beans Carrot-celery-cabbage salad Rolls Cherry cobbler Coffee

Breakfast	Lunch	Dinner
	Wednesday	
Stewed prunes Hot cakes and syrup Fried eggs Coffee	Breaded tomato Fried potato* Cottage cheese and green pepper Whole wheat bread Cocoa	Beef roast and gravy Mashed potatoes Butter squash Pickles Whole wheat bread Chocolate pudding Coffee
	Thursday	
Grapefruit Brownies Coffee cake (baking powder biscuit) Coffee	Vegetable soup dumplings Carrot-celery-peas-onion-cabbage salad Toasted peanut butter sandwiches Donuts Milk	Hamburger steaks and gravy Boiled potatoes* Breaded parsnips Tomato aspic Apricot bread pudding Coffee
	Friday	
Baked apple with Oatmeal Orange toast Cocoa	Clam Chowder Hot tomatoes (canned) Cheese-peas-pickle salad Cornbread, syrup* Milk	Golden salmon steaks Tartar sauce Baked potato Creamed peas Whole wheat - raisin Strawberry and lemon jello Coffee
	Saturday	
Tomato juice Cream of wheat* Toast Poached eggs* Coffee	Navy beans, hamhocks Hot slaw Whole wheat bread Applesauce Milk	Italian spaghetti Browned potatoes * Spinach Whole wheat bread Canned pears and Peanut cookies Coffee
FOURTH WEEK:		
	Sunday	
Oranges Puffed wheat French toast Coffee	Brown gravy and bread* Perfection salad Graham crackers with icing Milk	Roast pork, shoulder and gravy Applesauce Mashed potato Buttered peas Rolls Strawberry ice cream White cake Coffee

Breakfast	Lunch	Dinner
Monday		
Stewed prunes Oatmeal Toast Scrambled eggs Coffee	Cornbread and cheese sauce Fried potato* Wilted lettuce Steamed apple with date stuffing Milk	Baked stuffed heart Mashed potato Lima beans in milk* cold tomato (canned) Whole wheat bread Chocolate custard Coffee
Tuesday		
Grapefruit ½ Brownies Toast Coffee	Cream of split pea soup Crackers Buttered carrots* Cottage cheese and pineapple salad Muffins Jelly Cocoa	Spareribs and sauerkraut Boiled potatoes Buttered beets Whole wheat bread Rice custard with brown sugar sauce Coffee
Wednesday		
Tomato juice Oatmeal with raisins Toast Coffee Fried eggs	Spinach au gratin Cornfritters and syrup* Cucumber lime jello Whole wheat bread Milk	Meat balls in mushroom soup Baked potatoes Candied parsnips Pickle and egg sliced on lettuce rolls Dutch apple cake Coffee
Thursday		
Applesauce Cracked wheat Orange toast Coffee	Pigs in blankets Mashed potatoes* Carrot and sauerkraut Whole wheat bread Cocoa	Beef boiled dinner Boiled potatoes Onions-turnips-carrots-cabbage Tomato relish Steamed fig pudding with lemon sauce Coffee

Breakfast	Lunch	Dinner
	Friday	
Stewed apricots Farina Hot cakes Coffee	Oyster chowder Buttered peas Macaroni salad* Rye bread Milk Carmel custard	Salmon croquettes baked potatoes Creamed cabbage Carrot strips White bread Lemon pie Coffee
	Saturday	
Canned grapefruit Dynamite Toast Coffee	Escalloped corn custard American cheese, dill pickles and lettuce sandwiches Whole wheat bread Rice pudding with raisins Cocoa	Pork sausage and Country gravy Mashed potatoes Buttered onions* Beet pickles Cornbread Apple brown Betty, cream sauce Coffee

*May be omitted by Unit A.

MENU ADJUSTMENTS MADE BY THE
MANAGER OF UNIT A FOR THIRD AND FOURTH WEEK

Sunday
Breakfast: Changed entire breakfast since very few get up and we do not think it necessary to fix so much for breakfast.
Lunch: Had Swiss steak which was left over.
Dinner: We had the Swiss steak on our quarter of beef so thought we should use it. We like a salad on Sunday. Did not have enough carrots so had to have Normandy carrots. We consider pie as more "special" than suet pudding and as I had time to make them we had cherry pie. The girls had been asking for them.

Monday
Breakfast:
Lunch: Changed the salad to plum and apple because we had no bananas. Did not have cinnamon rolls because had just had them Sunday morning.
Dinner: Did not fry apples because we didn't have any apples we wished to cook. Replaced cottage pudding with peach cobbler because the cook can make it successfully.

Tuesday
Breakfast: Had prepared cereal because had no cracked wheat
Lunch: Had canned vegetable soup because cook's soup is not good. Omitted blackberries.

Wednesday
Breakfast: Had toast in place of hot cakes; girls' preference.
Lunch: Omitted potatoes, not needed.
Dinner: Had carrots in place of squash since not available. Thought two chocolate dishes per day too much.

Thursday
Breakfast: Had biscuits only; coffee cake not needed (menu misinterpreted*)
Lunch: Omitted vegetable soup, had had on Tuesday, replaced with eggs on toast. Had raisin salad to use apples.

Friday:
Breakfast: We had grapefruit instead of apples because we had grapefruit on hand and only delicious apples. I guess Mrs. Alexander didn't know how to make orange toast was the reason we didn't have it and I don't know her excuse for not making cocoa.
Lunch: We had corn chowder instead of clam because we didn't have any Clam chowder. We didn't need the hot tomatoes (consequently no citrus*)
Dinner: I changed the salmon steak to salmon patties for steaks made the dinner too expensive with the birthday cake. We didn't have peas because I think peas once a day is enough. The potatoes were not good enough to bake.

Saturday
Breakfast: Had the figs cooked to replace tomato juice (consequently no citrus*)
Lunch: Had some salmon and Spanish steak left over so used in place of beans and slaw.
Dinner: Omitted potatoes; had carrots in place of spinach. The cake was a failure of two nights ago so sort of "fixed it up" with custard sauce in place of fruit. (writer's remarks *)

March 3, 1940.

Sunday
Breakfast: Had hotcakes instead of French toast; self-service and everyone was satisfied.
Dinner: Changed entire menu; had formal dinner.

Monday
Breakfast: Won't eat cereal. Had grapefruit instead of prunes because no prunes were cooked. Left off eggs.
Lunch: Had scrambled eggs instead of cornbread and cheese sauce because we had yolks left from cakes yesterday. Had apple and celery salad instead of wilted lettuce because we had them on hand. Had graham crackers with frosting because we don't want to steam our apples and had no dates.
Dinner: We had tomato aspic instead of tomatoes because we like it better.

Tuesday
Breakfast: We like this type of breakfast.
Lunch: I wasn't there. They liked the cinnamon apples which we had for salad.
Dinner: They like the spareribs but did not care for the dessert. I think this meat is very expensive.

Wednesday
Breakfast: Not many of the girls eat oatmeal but the others never complain.
Lunch: I think the spinach with cheese and the corn fritters, too, make the meal too heavy so we didn't have the corn fritters. We put pear in the jello instead of the cucumber to give more fruit and because they are cheaper. Gave those who wouldn't eat spinach, Welch rarebit.
Dinner: Had mashed potatoes because our potatoes are not good for baking. We didn't have any parsnips on hand so had just the carrot salad.

Thursday
Breakfast: Didn't have this breakfast. Had no apples for applesauce and I don't know why we didn't have orange toast. Had no cracked wheat. Had stewed figs, Cream of the West, cinnamon toast, and coffee and milk.

Lunch: Had apple, orange and raisin salad and jambozette. We didn't have any carrots or sauerkraut on hand and the jambozette was cheaper than the pigs in blankets.

Dinner: We didn't have the tomato relish. I consider this a moderate cost dinner which was quite favorably accepted by the group.

Friday:

Breakfast: Had oranges instead of apricots because there were no apricots cooked and the oranges were spoiling. This is a typical breakfast of the Cooperative House.

Lunch: We had macaroni and cheese instead of the oyster chowder and macaroni salad because the girls prefer it. I do not think peas are as favorably accepted at noon as at night and they are more expensive than a salad but we had them anyway. (good*)

Dinner: We had creamed salmon on biscuits because we had had salmon croquettes the week before. We had lime jello salad instead of creamed cabbage because we didn't have any cabbage. We had graham crackers with peaches and whipped cream (rich*) because the day's men was already very "heavy" -- hot cakes, macaroni, biscuits (not in menu originally*), etc.

Saturday:

Breakfast: We had stewed apricots instead of grapefruit and biscuits instead of toast because we are tired of toast.

Lunch: Had macaroni left over in macaroni salad. Also had apple and celery salad for a fruit. Had chipped beef on toast because of several special requests. Had oatmeal cookies instead of rice because we had had rice once.

Dinner: Had rolls because I had time to make them instead of cornbread. Had gingerbread because we don't have any apples to cook. Didn't have any beet pickles.

MENU MAKING SUGGESTIONS

Daily Requirements (a)

Diets should be balanced by the day rather than by the meal. Each day, each person should have:

1. A pint of milk -- for each adult (used in cooking or as beverage). (b)

2. Two servings of vegetables besides starchy ones (potatoes, corn, dried beans, peas.) One of these should be a green, leafy or yellow vegetable.*

3. Two servings of fruit, raw, canned, or dried. One of the day's servings of fruit or vegetable should be eaten raw unless canned tomatoes are used. Tomatoes (raw or canned) or citrus fruits should be served daily.

4. At least two servings of meat, fish, eggs or cheese. (When eggs are available, use one per day per person. When expensive, use at least two to four per person per week. May be used in cooking or served as eggs.) (c)

5. Two servings of whole grain cereal. (Whole wheat bread satisfies need). (c)

6. Sugars, starches, fats to supplement. (One-half pound of butter per person per week is ample.)

(Budget allowance controls other choices.) (c)

*

Leafy	Green	Yellow
spinach	asparagus	carrots
lettuce	broccilli	parsnips
cabbage	string beans	rutabagas
beet tops	green peas	squash
endive	green pepper	

(a) Adapted from talk given by Frances Smith, Montana Extension Service, Feb. 1931. "Buying Health with Your Food Money."
(b) "Diets to Fit the Family Income" Stiebling and Carpenter. Farmer's Bulletin, No. 1757, U. S. D. A. Sept. 1936, p. 10.
(c) Original text.

MENUS FOR COOPERATIVE UNIT ____							
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
BREAKFAST Fruit Cereal Bread Egg Beverage Etc.							
LUNCH Main Dish Vegetable Salad Bread Sweet Beverage							
DINNER Meat or Equivalent Accompaniment Potato Vegetable Salad or Relish Bread Dessert Beverage							

Explanation of Use of Menu Plans

Meals vary in size and content from day to day depending on the customs of the groups served and the division of the nutritive requirements throughout the day. However, in most parts of our country, there is an accepted pattern for meals which provides a breakfast of a fruit, cereal, bread, beverage, often an egg and sometimes bacon, ham, honey or jam. Lunch is usually a hot dish (meat, cereal or vegetable), an accompanying vegetable or salad, a bread, a beverage and something sweet. A simple dinner pattern consists of meat, equivalent, an accompaniment of gravy, dressing or sauce; potatoes; vegetables, baby or (yellow, green and red) or white; often a salad, relish or pickles; bread, dessert and beverage.

The form on page 106 was prepared as a convenient worksheet for recording weekly menus. It makes possible the quick comparison of the same meals through the week.

It is well to keep in mind that milk should be served as a beverage at least once a day and maybe cocoa or other drink made with milk. There are many ways to include the required two vegetables a day other than potatoes. They may be the main hot dish in lunch, accompanying vegetable or the salad in lunch. In dinner they may be included in the meat dish, as the accompanying vegetable dish or salad. It is not necessary to have salads for both meals, however.

The two fruits per day may also be put into a number of places in the menu as the regular fruit (or tomato juice) for breakfast, or for lunch as the salad or sweet dish. (If the salad is fruit, it is customary

to omit the dessert.) Often fruits are used in dinner as meat accompaniments, as salad, or in the dessert. Whole grain cereals may be served as breadkfast cereal, in bread, with meat or luncheon hot dish, in the luncheon dessert or in the dinner dessert.

With the suggestions that follow it should not be difficult to plan nutritious meals at moderate or low cost.

I. BREAKFAST SUGGESTIONS

A. FRUIT

1. Citrus: when fresh ones are in season, use them daily; when not in season, use canned grapefruit juice and tomato juice.
2. Dried fruits: two or three servings per week as:
   a. sauce: apple, apricots, prunes, peaches, figs
   b. in cooked cereals: raisins, dates, figs
   c. in dessert
3. Apples: One, two or three servings per week depending on season as:
   a. sauce; stewed, baked with cereals and raw
4. Canned, served as sauce:
   a. raspberries
   b. blackberries
   c. apricots
   d. peaches
   e. grapefruit
   f. pears, plain or Virginia (lemon juice or brown sugar)

B. CEREAL (Use whole grain when possible)

1. Cooked: should be served at least 3 or 4 times per week
   a. with cream and sugar
   b. with butter and salt
   c. moulded, fried and served with syrup
   d. with fruit,-figs, dates, apples and raisins
   e. with baked apple and cream

C. BREADS

1. Hot breads: alternate these with cereal two or three times per week
   a. hot cakes, syrup and butter or sugar and syrup
   b. french fried toast
   c. coffee cake--biscuit dough
   d. cinnamon rolls, biscuit and bread dough
   e. milk toast
   f. creamed tomato toast
2. Toast
   a. butter, honey or jam
   b. cinamon, orange juice and powdered sugar
   c. orange slices and brown sugar
   d. toast loaf - melted butter poured over sliced loaf and baked

D. EGGS

1. Scrambled
   a. plain
   b. with ham
   c. with chipped beef
2. Creamed
3. Boiled
4. Fried
   a. alone
   b. with ham or bacon
5. Baked
   a. in milk
   b. in bacon rings
   c. poached

E. MEAT (seldom necessary)

1. Sausage
   a. link
   b. country
2. Bacon
3. Ham
4. Chipped beef and creamed on toast

II. LUNCHEON MENU SUGGESTIONS

A lunch should have at least one hot dish which may be: meat extended, meat substitute, some vegetables, some breads, a beverage or soup. Choose one main dish, one or two accompanying vegetables, a salad (kind and amount depending on rest of menu), bread and something sweet to satiate appetites this may be bread, salad, beverage or a simple dessert.

A. HOT DISH

1. Meat substitutes or equivalents

a. Cheese

(1) with macaroni
(2) as augratin vegetable (spinach, asparagus, cabbage, potatoes)
(3) welsh rabbit on toast, over strained canned tomatoes on toast, tomato flavor
(4) with rice, baked
(5) mexican rabbit on toast (fried green pepper, cheese, egg, corn and tomato)
(6) with creamed eggs
(7) with cornbread
(8) with saurkraut and bacon
(9) puffs

b. Eggs

(1) with cheese
(2) scrambled with: bacon, cut asparagus, tomatoes, green pepper, spinach, chipped beef
(3) creamed on toast
(4) cuban on toast: beaten eggs poured over frying sausage and onions (only small amount of sausage required)
(5) goldenrod on toast
(6) fried on toast
(7) baked on toast
(8) scalloped on toast
(9) poached in stewed tomatoes and onions on toast.

2. Meat extended: Use meat once daily as meat alone. It may be used more often if extended with starch foods; as a left over; and to flavor other dishes.

a. See under Dinner Suggestions, Ways of Serving Economical Meats, page

b. Others

(1) corned beef chow chow (sauerdraut)
(2) hamhock and pineapple scallop
(3) chop suey
(4) veal souffle and gravy
(5) beef biscuit, roll and gravy (left overs)

3. Soups and Chowders

a. See under Dinner Suggestions, Ways of Serving Economical Meats, page

b. Vegetable

(1) Cream of: tomato, split pea, potato, celery, mixed vegetable, bran, fresh pea, carrot and corn
(2) Chowder: potato, lima bean, corn

4. Hot salad
   a. Hot potato
   b. Hot slaw

5. Vegetable hot dishes
   a. See section B, VEGETABLES (those marked with asterik, page
   b. Combinations not mentioned above
      (1) peas, corn, fried onions, and rice

B. VEGETABLES (possible main dish for lunch marked with an asterik*)
Vegetables, as previously mentioned, may be included in either lunch or dinner. Tomatoes and green leafy and yellow vegetables are served daily. The ones adapted to lowered cost diets (cabbage, carrots, string beans, peas) are apt to become monotonous unless special care and interest is taken to have variety.

1. Tomatoes: Should be used frequently on low cost diets.
   a. Canned
      (1) hot or cold--as sauce
      (2) cooked with cereals, macaroni, spaghetti, rice, noodles, hominy*
      (3) soup--cream of, with rice
      (4) stewed with onions
      (5) with meats: pot roasts, meat loaf, spanish steak, stew*
      (6) with eggs: scrambled, souffle*
      (7) with meat*
      (8) with cheese*
      (9) scalloped with bread or cracker crumbs, cubes of dry bread or toast
      (10) in combination with other vegetables
      (11) aspic salad (pickle and celery may be added)
   b. Puree
      (1) in soups
      (2) sauces
      (3) with meats
   c. Fresh
      (1) fried with onions
      (2) sliced
      (3) salads, quartered, sliced, etc.
      (4) half green-half ripe, breaded and fried*
      (5) in place of canned when market supply abundant
   d. Juice
      (1) beverages, hot or cold
      (2) with saurkraut
      (3) with pineapple juice
2. Leafy, Green and Yellow
   a. Cabbage
      (1) cold--see salads
      (2) hot--hot slaw* boiled* bubble and squeak*
      creamed saurkraut* in boiled dinner
      augratin* hot sour cream dr.*

b. Spinach and greens (beet, turnips, etc.)
   (1) Hot: with butter, vinegar, and hard boiled egg*
   with bacon dressing (smothered)*
   leaf with carrots*
   with cheese and bread crumb casserole*
   spinach and cheese souffle*
   augratin*

c. Celery
   (1) raw--see salads and as curls, sticks, stuffed
   (2) cooked--in soup*, with carrots and peas or string beans, buttered, creamed.

d. Lettuce and endive, etc.
   (1) raw--see salads (as garnish, use shredded)
   (2) hot--wilted (outer green leaves or new leaf)*

e. Peas--canned or fresh
   (1) cooked--cold in salads, with creamed meats, creamed, buttered, soup (cream of - and others)*, with carrots and celery, beets, etc.

f. Green beans--(cut, string and wax, canned and fresh)
   (1) cooked--salads, garnish, buttered, creamed, augratin, with other vegetables - corn, celery - lyonnaise

g. Asparagus--(use canned - lower grades, green spears, cut and soup cut)
   (1) hot--creamed; augratin*; cassarole with crumbs, white sauce*; with creamed chip beef,*; soup, cream of*; buttered.
   (2) Cold--salad tips (expensive)

h. Green Onions--salads, relish

i. Carrots (bulk cheaper than bunch, not as crisp but satisfactory for cooking)
   (1) raw--see salads, sticks, curls and relish
   (2) hot--sliced; shredded; diced; julienne; glazed; Normandy (like Harvard beets); with onion buttered; stuffed, (cheese, spinach, rice or peanut)*; with other vegetables buttered or creamed; peas, beets, celery, potatoes, asparagus, cabbage, spinach, onion, green pepper.

j. Parsnips, rutabagas
   (1) hot--fried, creamed, with egg sauce, buttered, glazed, mashed with marshmellows, mashed with pineapple, with apple and bread crumb cassarole*.

k. Squash
   (1) hot--baked, mashed, baked in cream*, diced, buttered, glazed and with pineapple*

3. Other Vegetables
   a. Onions
      (1) hot--baked, breaded, fried, creamed, boiled, with other vegetables and meat.
      (2) raw--spring and Bermuda.

b. Turnips
(1) hot-- boiled, creamed, breaded and fried

c. Cauliflower--(more expensive, use only once in a while)
(1) hot-- augratin*, buttered, creamed
(2) cold-- salads

d. Beets
(1) hot-- Harvard, buttered, sliced, diced, small whole, quartered
(2) cold-- pickled and salads

e. Corn--canned, dried, fresh (creme style canned, less expensive)
(1) hot-- creamed,; scalloped, (with celery)*; chowder*; with sausage or weiners*; succotash; with tomato and bread crumbs*; fritters*; mashed potato rolls*; soup, cream of*; in Spanish rice*; souffle*; with lyonnaise string beans.

4. Starchy
a. White potatoes
(1) baked--with butter, mashed in half shell (plain and with riced carrots)
(2) boiled-with gravy or butter, mashed with butter or gravy or riced; parsleyed; potato puff, eggs, bread crumbs and cheese; mashed potatoes and cheese; mashed brown potatoes (left over boiled ones); Franconia, boiled, then browned with roast; boiled, rolled in fat and cheese and browned in oven.
(3) fried--boiled, sliced and fried (pan); raw, sliced and fried, (pan); mashed, leftover, fried; mashed, leftover, rolled in crumbs and fried (patties)*; lyonnaise*.
(4) scalloped--alone, with cheese, or breadcrumbs*; with meat, as extender*; with thickened meat broth; with onions, tomatoes, bread crumbs.
(5) salad--hot and cold
(6) with other vegetables--in stew
(7) soup---cream of*

b. Sweet Potatoes
(1) baked--cassarole with apples*
(2) boiled-glazed, mashed with butter; with pineapple, diced or sliced with butter and marshmallows.

5. Protein Vegetables--dried beans, peas, lentiles (although preparation time long these may be an inexpensive "main dish" for lunch or dinner. Excellent on cold days.)
(1) kidney beans--chile con carney*; soup, cream of*; salad, with cole slaw.
(2) navy beans--Boston baked*; with hamhock; boiled with salt pork bacon and milk*; soup, cream of*; salads.
(3) lima beans--baked*; with tomatoes*; with apple, baked*; with hamhock and milk*; salads, hot and cold; lyonnaise*; soup, cream of*.

(4) split peas--soup*.

C. SALADS -- It is often via the salad that the raw fruits and vegetables are included in the daily diet. The following suggestions contain the most commonly available low cost foods in Montana.

1. Fruit
   a. Apple
      (1) In combination with: celery, cocoanut, nuts, raisins, dates, diced pineapple; crushed pineapple and cocoanut; chopped peanuts; peanut butter dressing; tunaflakes; cabbage and peanut; cabbage and peanut butter dressing; oranges and chopped peanuts, oranges and cocoanut; Bermuda onion and fr. dressing, beets and gelatin, stuffed dates.
      (2) Cinammon apples and citrus fruits; and cheese (American or cottage)
      (3) Waldorf salad--apples, celery, walnuts, dressing (may have grapes, marshmallows).
   b. Fresh fruit other than apple
      (1) Citrus-- see apple; combination of orange, grapefruit, and marshmallows or bananas; orange and onion (Bermuda or green) and French dressing; grapefruit and grape; grapefruit and carrots, shredded or ground; orange and carrots shredded or ground (orange may be ground whole); orange and raw cranberries ground and powdered sugar; grapefruit and cucumber slices
      (2) Fall pears and American cheese
      (3) Banana and nut
   c. Canned Fruits
      (1) Citrus-- pineapple and cheese (Am. or cottage); pineapple and shredded carrot (diced or crushed); pineapple and shredded cabbage; pineapple and tomato sliced; grapefruit and peach or apricot; grapefruit in place of fresh above.
      (2) Other-- fruit jello; pears and cheese (Am. or cottage); pear cheese, nut ball.
   d. Stewed dried fruit salads
      (1) apricot and banana (whole or strained); stuffed date, prune, fig with cheese (cottage or American).
      (2) Canned
         (a) drained on shredded lettuce
         (b) Aspic (juice with gelatin)
   e. Cucumber
      (1) see other salads - combined
      (2) with pineapple - in lemon jello

f. Lettuce: Lettuce should be shredded except on special occasions - to make use of all leaves possible and to insure their being eaten.
(1) shredded or cut in slices with: Thousand Island dressing or tomato sauce dressing.
(2) shredded or in leaf as garnish.

2. Vegetable
a. Cabbage
(1) slaw-- hot and cold; with raisin or date; with lemon jello; with cheese.
(2) perfection salad
(3) with: pineapple and cocoanut; bananas and cream dressing; shredded or diced apple (red skins left on); pineapple; diced or sliced or crushed; shredded carrots; ground carrots and pineapple; celery and green pepper; Bermuda onions and celery and cream dressing; beets, horseradish and vinegar; chopped peanuts or (peanut butter dressing); French dressing and celery (marienated); chopped beet mix and hard boiled egg; dates and pineapple; dates and apple; pineapple and apple; dates and peanuts (or peanut butter dressing); cheese and green and red peppers;
(4) As garnish in place of lettuce.
b. Beets
(1) pickled beet, sliced or diced with cucumbers sliced or diced
(2) cooked beets and string beans
(3) Beet rings--cottage cheese and green pepper
(4) pickled beets and raw or cooked cauliflower
(5) See cabbage
(6) beets sliced or diced or juliene with hard boiled egg slices.
(7) diced beets, cooked carrots in saurkraut, jello, gelatin
c. Carrots
(1) health or golden glow - gelatin
(2) shredded raw or juliene cooked with string beans and onions.
(3) shredded with: ground orange, or all may be ground; peanuts; with raisins; with both; peanut butter dressing with raisins; raisins and diced red apples; cocoanut and cream dressing or French dressing; grated cheese and paprika; saurkraut.
d. Tomato
(1) Fresh
(a) sliced with: cucumber; hard-boiled eggs; onions, green beans; dressing
(b) quartered with: dressing, diced hard-boiled eggs, diced or sliced cucumbers; cheese (American or cottage)
(c) spring salad with other vegetables
(2) Canned
(a) drained on shredded lettuce
(b) aspic (juice with gelatin)

e. Cucumber
(1) see other salads - combined
(2) with pineapple - in lemon jello

f. Lettuce: Lettuce should be shredded except on special occasions - to make use of all leaves possible and to insure their being eaten.
(1) shredded or cut in slices with: Thousand Island dressing or tomato sauce dressing.
(2) shredded or in leaf as garnish

3. Meat, Fish, Egg, and Cheese. The following salads may be used alone as main dishes* or with a vegetable as main dish for lunch.

a. Cheese
(1) Cottage cheese with: jello; tomato aspic; cherry; pineapple
(2) American cheese with: pineapple; peas, celery or pickles; grated with pineapple ring; with cinammon apple; in cole slaw.

b. Egg
(1) hard cooked: with peanuts and celery; stuffed on lettuce; with vegetables; with sardines, salmon or tuna*; in aspic; with fresh tomato slices.

c. Fish
(1) Tuna with: apple*; lettuce and celery*
(2) Salmon with: shredded cabbage*; lettuce and celery*; tuna and starches (see below)*
(3) Sardine in tomato sauce*

d. Meat
(1) beef: corned, cole slaw*; chipped, cole slaw*
(2) ham: leftover, ground, with celery and lettuce and hardcooked eggs*

4. Protein Vegetables
a. Beans
(1) Navy: baked with apples*; with pickle*
(2) Lima with: pickle*; pickled beets*; apple*; shredded carrots*; celery and American cheese*;
(3) Kidney with: cole slaw*

5. Starch
a. Macaroni and spaghetti and noodles with: tuna, salmon, sardine*; onions and cucumber*; peanut butter dressing and chopped celery*; celery and cheese grated*; tomato and cucumber and onions*.

D. SALAD DRESSINGS: Dressings need not be expensive to be satisfactory. Their purpose is to blend flavors of a salad, season, and to make it juicy.

1. Cooked: (consists of flour, egg, vinegar and a little fat--least expensive and therefore recommended)
   a. Basic: dressing for vegetables, fruit and other salads
   b. Cheese: basic dressing, add grated cheese and decrease flour
   c. Peanut butter: basic dressing, add peanut butter to taste
   d. Whipped cream: basic dressing, add to taste - used on fruits.
   e. Fruit juice: use as liquid in basic
   f. Tomato: add catsup or tomato paste to basic - serve with lettuce.
   g. Thousand Island Dressing: vegetables chopped (celery, pickles, beets, hard-cooked eggs)

2. Cream Dressings:
   a. for cole slaw: sweet or sour cream, vinegar, salt, pepper, sugar (onion, juice, etc., to taste)
   b. For other cabbage salads: same as above or used in part with mayonnaise or cooked dressing.
   c. Horseraddish cream: use on fish salads or meat salads.

3. Mayonnaise:
   a. With filler or flour or cornstarch dressing.

4. Bacon Dressing: on greens - hot. Bacon, fat, vinegar or pickle juice

5. French Dressing: expensive, seldom used.

E. HOT BREADS and SANDWICHES: (possible main dish for lunch)*

1. Biscuits

2. Muffins: plain, bran, cornmeal; fruit - blueberry, blackberry, current, raisin, date, orange.
3. Cornbread: with butter, honey*, syrup*, cheese sauce*; tomato cream sauce*.
4. Spoonbread: with butter and syrup*

5. Boston Brown Bread:

6. Date Bread: steamed

7. Fried Bread: bread dough, pan fried and cut in pieces.

8. Scones: deep fat fried bread dough or baking powder biscuits*.

9. Cinammon rolls: baking powder biscuit and bread dough.

10. Potato pancakes: with gravy*

11. Gingerbread:

12. Milk Toast:

13. Creamed tomato toast*

14. French fried toast*

15. Sandwiches:
    a. Cheese
        (1) Cottage cheese with raisins; jelly, jam or marmalade; moistened with tomato juice; chopped pickled beets; dried fruit pulp.
        (2) American cheese creamed with: chopped raisins or dates; mixed with pimentos; or grated with hardcooked eggs and salad dressing and prepared mustard.
    b. Hard-cooked Eggs:
        (1) Minced with: green peppers; seasoned with salt and pepper; moistened with mayonnaise; spinach or chopped parsley; pickles and mayonnaise; bacon or ham; ground meat, pickles, mayonnaise; minced ham cut in small pieces; celery and lettuce moistened with salad dressing.
    c. Peanut Butter:
        (1) Mixed with: honey; mashed banans; raw ground carrots; prune pulp; raisins, chipped beef run through food chopper and moistened with orange or lemon juice.
    d. Vegetables:
        (1) Brown bread with lettuce, home-made relish spread
        (2) Brown bread with cheese and lettuce.
        ( ) Whole wheat bread with sliced tomatoes, cheese and lettuce.
        (4) Mashed pinto beans with catsup and chili sauce.
        (5) Mashed beans with chopped pickles and salad dressing; with relish.
        (6) Grated carrots with honey or jelly; cocoanut moisted with mayonnaise.
    e. Fruits
        (1) Chopped apples with raisins and nuts; ground carrots, honey.
        (2) Raisins ground and moistened with mayonnaise.
        (3) Dried apricots, cocoanut and salted peanuts ground, mixed with mayonnaise.
        (4) Ground celery and apples moistened with mayonnaise.
        (5) Ground raisins and dates between buttered brown bread.
    f. Meat and Fish
        (1) Salmon with chopped carrots or cabbage and salad dressing; hard cooked eggs, pickles, chopped cabbage and salad dressing.
        (2) Crisp bacon and lettuce.
        (3) Sardines minced and moistened with lemon juice or vinegar.
        (4) Fried liver and bacon ground with piccalilli.
        (5) Ground meat of any kind with pickles and salad dressing.

F. BEVERAGES

1. Milk
2. Cocoa, chocolate
3. Coffee
4. Ovaltine
5. Postum
6. Hot tomato juice
7. Hot punch

G. SWEETS: After the nutritional requirements for minerals, vitamins and proteins have been satisfied, it is quite often true that a person may still feel hungry and is in need of food for energy and vitality, and satisfaction. This may be supplied as a dessert for lunch or dinner. When the lunch is light, a richer, more elaborate dessert may be used. However, care must be taken that expensive desserts are not used too often for lunch for custom often requires these as dinner desserts. On page of "Dinner Suggestions" are given several desserts for dinner and lunch. It should be kept in mind that a sweet salad, bread or beverage usually makes a lunch dessert unnecessary.

III. DINNER SUGGESTIONS

Dinner, whether eaten at noon or at night, is considered the main meal of the day because it contains the meat dish. The short noon hour has necessitated having dinner at night for most college groups. Menu makers often start with this meal and build the rest of the day's menu around it. The choice of the meat or its equivalent affects the plan for the rest of

the menu economically (an expensive meat cut would be balanced by a less expensive lunch and breakfast); nutritionally (a full serving of meat for dinner would meet the daily protein requirements and therefore it would be unnecessary to include in lunch and breakfast), (a meat dish with starch would affect rest of menu by reducing the amount of additional starch); and traditionally (roast pork is usually accompanied by apples, lamb with mint jelly or sauce, etc.).

Potatoes usually accompany the meat unless the meat is combined with a starchy food such as rice or macaroni or is a starch-protein equivalent of meat (such as baked beans).

Another vegetable or two may be chosen to fulfil the nutritional requirements and increase attractiveness of meal. Care must be taken to choose those which harmonize with the meat and with each other.

The salad, relish, or pickle may supplement one of the vegetables or be in addition to them making the meal more interesting and elaborate. The choice of this course would affect the luncheon menu. (Two salads a day are seldom necessary).

Bread is always served with dinner. It may be whole grain (if needed for nutritional requirements) or white. For more elaborate service, rolls are desirable and are generally parkerhouse.

The dessert and beverage are usually served together. The choise of dessert is dependent upon the rest of the meal and the rest of the day's menu, and upon the occasion. Considering the nutritive needs? the dessert may be of fruit to supply that need. It may contain a necessary whole grain cereal (bread puddings, and some steamed puddings). Considering economic

needs; fruit, cream and pastry desserts are apt to be most expensive. The cheaper ones are those made with starch, gelatin or dry bread. They may be equally palatable, especially if combined with fruit or fruit flavoring. Considering preparation: a baked dessert with a dinner made in the oven may require more oven space than available. A dinner requiring a great deal of last minute preparation should have a dessert that can be prepared ahead of time. A dessert which takes a great deal of time to prepare such as pie should be used on the days when the lunch and dinner are simple to prepare. Considering the occasion: a guest meal dessert is expected to be a little more than ordinary in flavor and attractiveness. This often means more expense and preparation time.

A. MEAT: LOW COST CUTS AND THEIR USE

In preparing meals at lowest possible cost, flavor becomes a very important factor. Meals which are flat in flavor are uninteresting and as a result will not be enjoyed. Even a small amount of meat skillfully used will supply pleasing flavor.

Economical Meats

Beef	Name of Cut	Method of Use
	Neck	stew, soup,--highly flavored
	Shank	stew, soup
	Plate	stew, pot roast
	Brisket	pot roast and boil
	Short-ribs	roast, pot roast
	Chuck	pot roast
	Chuck steaks	fry, Swiss
	Rump	roast, pot roast
	Heel of round	roast, pot roast
	Ground (hamburger)	fry, loaf
	Oxtails	soup
	Heart	bake, stew
	Kidneys	fry, stew
	Brains	fry, bake
	Porterhouse stead ends	stew

Veal	Shoulder	roast
	Shoulder chops	fry
	Rump	roast, pot roast
	Shank	stew
	Neck	stew
	Breast	stew
	Ground	fry, loaf
Pork	Shoulder steaks	fry
	Fresh picnic shoulder	roast
	Smoked picnic shoulder	roast
	Fresh Boston butts	roast, pot roast
	Ham hocks	cooked in water, flavor beans, etc.
	Spare ribs, fresh & smoked	bake, stew
	Sausage	fry, loaf
	Bacon squares	fry
	Salt pork	fry, season
	Pig's feet	boil
	Liver	bake, fry, stew, loaf
Lamb	Shoulder	roast
	Shoulder chops	fry
	Breast	stew, roasts, stuffed
	Neck	stew
	Shanks	stew, soup
	Heart, etc.	
Fish	Canned--pink salmon, dark tuna, sardines	loaf, salads, creamed cassaroles, croquettes
	Salted--cold fish	cassarole and creamed, chowder
	Smoked--kippered salmon	creamed, salads, (expensive)
	Fresh--Halibut & salmon	steaks (expensive)

Types of Cooking

To Roast and Bake -- Use of dry heat which develops flavor but tends to toughen. Therefore, use more tender (and expensive) cuts.

To Stew --Use of moist heat which tends to reduce flavor and toughness. Therefore, use highly flavored meat; tough (and generally less expensive.) Use of long time in preparation and adding flavor in seasoning.

To Pot Roast -- Use of combination "dry" and "moist" heat. Use of long time in preparation, small amount of moisture, depending upon steam for cooking. May use tougher cuts of roast, heart, shoulder, rump, etc.

To Fry or Panboil - Use of hot surface and grease. Quick and tasty, however, tends to toughen and requires tender meat, sliced thin. (not more than two inches)

1. Ways of Serving Economical Meats

a. Ground Meats:
(1) Without extender
(a) hamburger steads and gravy; (sausage or ground veal)
(b) Meat loaf; (hamburger and sausage) (ham and ground pork)
(c) mock chicken legs
(d) sausage and liver loaf
(2) With "Starch" extender
(a) rice, hamburg and/or sausage balls - "porcupine balls."
(b) spaghetti, ground meat and tomatoes
(c) meat loaf roll and bread crumb dressing
(d) noodles and hamburg and/or sausage or ground hamhocks.
(e) pasties (in pastry crust)
(f) biscuit and ground meat roll and gravy
(g) tamalie pie
(h) croquettes
(i) hamburg and buns
(j) souffle and ground meat or fish
(k) hominy and sausage
(3) With Vegetables
(a) Escalloped potatoes; tomatoes; corn, etc., with meat flavor
(b) stuffed green peppers
(c) chili
(d) sausage and fried apples
(e) bubble and squeak (cabbage and hamburger)
(f) potatoes creamed, with meat (ham, hamburger, pork)
(g) sausage and vegetable loaf
(h) sausage and saurkraut
(i) meat balls, tomatoes and onions
(j) meat balls, mushroom soup

b. Stew meat: Beef, pork, veal, ham hock
(1) Without extender
(a) brown stew
(b) braised shortribs
(c) beef or pork cubes in cream

(2) With cereal extender
(a) Stew with dumplings
(b) meat pie, biscuit dough
(c) hash on toast
(3) With vegetables
(a) goulash
(b) boil d dinner, ham, corned beef, beef boil, veal and mutton boil
(c) corned beef and cabbage
(d) spanish pork
(e) lamb stew
(f) creole flank
(g) shepherds' pie

c. Pot Roasts: veal, beef, pork
(1) Beef and veal with: onions; pork and tomatoes; pork, ham with above vegetables and others; tomato sauce; pork and cream sauce; mushroom soup.
(2) Beef; shortribs and dressing
(3) Veal shoulder, stuffed
(4) Pork spare ribs and kraut
(5) Veal fricassee with rice

d. Roasts
(1) Stuffed shoulder, lamb or pork
(2) Roast ham shoulder, picnic, and butt, raisin sauce
(3) Roast spare ribs; and apple dressing; and saurkraut
(4) Roast, stuffed breast of lamb with onions
(5) Rump or chunk roast with browned potatoes
(6) Rolled lamb shoulder
(7) Pork shoulder, picnic and butt

e. Meat Soups and Chowders
(1) Oxtail with vegetables -- with or without tomato
(2) Beef shanks, soup and noodles
(3) Hamhook, salt pork or bacon with bean, pea or potato
(4) Saltpork with vegetable chowder
(5) Meat broth, vegetables and dumplings

f. Liver and Heart
(1) Liver with: onions; tomato juice or canned whole; rice loaf
(2) Escalloped liver with: potatoes, rice, macaroni, spaghetti or noodles
(3) Liver stew with vegetables
(4) Breaded liver with cream sauce
(5) Roast, stuffed heart

g. Fish
(1) pink salmon loaf
(2) Creamed salmon on rice, toast, potatoes, spaghetti
(3) Salmon patties
(4) Salmon croquettes
(5) Escalloped tuna and potato, rice, noodles, spaghetti or macaroni
(6) Creamed tuna on toast or shredded wheat

(7) Golden salmon or halibut steak (dipped in egg and crushed cornflakes)
(8) Chowders
(9) Creamed kippered
(10) Salt codfish and rice

h. Miscellaneous
(1) Chipped beef on toast
(2) Corned beef, slaw (salad)
(3) Corned beef and cabbage

i. Left overs
(1) Meat pie -- pork and beef roast
(2) Shepherds' pie -- pork and beef roast
(3) Meat or fish loaf with noodles, rice, spaghetti, potatoes
(4) Tamalie pie
(5) Pork curry and rice
(6) Chop suey
(7) Croquettes

B. VEGETABLES: see under 2, Lunch

C. SALADS: see under 2, Lunch

D. DESSERTS:

The type of dessert included in the meal depends upon the rest of the meal and the occasion. (Desserts often used for lunch)*

1. Fruit
a. Fresh*
(1) Apples: raw; stewed, fritters; sauce; baked (alone; with raisins; with marshmallow; with mincemeat)
(2) Bananas: with cream; with lemon sauce
(3) Berries: with cream
(4) Grapes
(5) Melon: alone; with ice cream
(6) Oranges: raw; sliced with cocoanut
(7) Pears: raw; stewed; Virginia (brown sugar and baked)
(8) Rhubarb

b. Canned*
(1) Berries; sauce
(2) Cherries: sauce
(3) Grapefruit: sauce
(4) Peaches: sauce; Virginia (brown sugar and baked)
(5) Pears: sauce; Virginia (brown sugar and baked)
(6) Plums: sauce
(7) Pineapple: sauce, between sliced doughnuts

c. Dried: apples, apricots, peaches, prunes, figs, raisins
(1) Stewed: sauces all; with cream; stuffed with nuts
(2) Whips: all

2. Puddings*
   a. Made on surface of stove in double boiler
      (1) Starch
         (a) Indian (cornmeal)
         (b) Rice, rice custard with brown sugar sauce
         (c) Tapioca cream, chocolate
         (d) Cornstarch, blanc mange, chocolate, caramel
         (e) Junket, almond, caramel, cinnamon, chocolate, raspberry, lemon
         (f) Custards -- graham cracker pie
      (2) Starch with fruit
         (a) Rice with raisins, dates, orange or lemon, pineapple (glorified; apple (snowballs)
         (b) Tapioca with fresh, canned for dried fruit
         (c) Cornstarch with cocoanut, orange, nuts, cherries, pineapple
         (d) Junket with fresh, canned or dired fruits
         (e) Custard with fruit (apple, orange, banana, pineapple, dried fruit, nut cocoanut
         (f) Any of the above with jam or jelly topping
         (f) Graham cracker roll
   b. Steamed
      (1) Starch
         (a) Chocolate
         (b) Bread, butterscotch and chocolate
      (2) Starch and Fruit
         (a) Suet pudding
         (b) Bread with raisins, date, prunes, apricots, canned fruit
         (c) Prunes
         (d) Carrot
         (e) Fig
         (f) Date
   c. Baked
      (1) Bread: with or without fruit
      (2) Date
      (3) Chocolate
      (4) Rice
      (5) Custard*
      (6) Fruit souffle*
      (7) Cobblers
      (8) Fruit rolls
      (9) Brown betty*

3. Gelatin*
   a. Alone: with cream, plain or whipped; with jelly or fruit topping.
   b. With fruit and nuts, whipped or plain
   c. Bavarian cream (gelatin whipped) plain or with fruit, nuts.

4. Frozen
   a. Ice creams -- any flavor, plain or with fruit or sweet topping
   b. Sherberts --plain, any flavor
   c. Hay stacks --cookie and whipped cream, chilled
5. Cakes
   a. White -- butter, any flavor, angel food, mocha
   b. Chocolate-- butter, angel food
   c. Spice -- with or without fruit (eggless, milkless, butterless cake)
   d. Cottage pudding -- chocolate, butterscotch sauce
   e. Gingerbread -- alone, hard sauce, lemon sauce, whipped cream, applesauce, topping, upside down apple or pear*
   f. Upside down pineapple, dried apple, or prune, or apricots; mixed fruit.
   g. Dutch apple cake (Scotch applecake - dried apples)
   h. Short cake --fruit and berries in season
   i. Applesauce
   j. Tomato soup cake
   k. Fruit cupcakes
6. Pies
   a. One Crust
      (1) Custard with or without fruit
      (2) Cream (blanc mange) with and without fruit
      (3) Pumpkin or squash, or carrot, sweet potato
      (4) Berry -- fresh or cooked
      (5) Lemon
      (6) Sour cream
      (7) Cottage cheese
   b. Two crust
      (1) Apple
      (2) Rhubarb
      (3) Berry
      (4) Apricot
      (5) Peach
      (6) Mincemeat
      (7) Raisin
   c. Deep dish
      (1) Apple
      (2) Peach
      (3) Apricot
      (4) Cherry
   d. Tarts
      (1) Berry
      (2) Raisin
      (3) Fig, date, dried peach, apricot
      (4) Marmalade

M.S.C. STUDENT HOUSING ASSOCIATION
Unit B

Date August 15, 1940

Requests John Doe Grocery Store to state prices for which they would agree to sell the following:

(If article is not stocked as described - give description of kind nearest in quality and state price. If price is subject to change, indicate.)

Terms: five per cent reduction on monthly bill. Credit extended thirty days.

Quantity	Size or Unit.	Description, Brand, Grade, Style, etc.	Unit Price	Total Price	Remarks
		Beverages			
2 cs.	12/½ lb.	chocolate - unsweetened	1 20	2 40	Hershey's
1 cs.	6/2 lb.	cocoa - plain	90	90	"
6 cn.	20 lb.	coffee - perculator grind (state brand)	4 50	28 00	delivered on request
1 cs.	12/5	grapefruit juice - fcy.	3 00	3 00	
10. cs.	6/10	Tomato juice - fancy.	6 30	63 00	
		Cereals			
1 cs.	12/18 oz	all bran	2 10	2 10	brands
2 cs.	12/16 oz	Branflakes	2 10	4 20	" Kellog's
8 cs.	24/13 oz	Cornflakes	1 90	15 20	" "
1 cs.	48/1 lb.	cornstarch			Amaizo
10 cs.	9 lb.	cornmeal, yellow fine	33	3 30	
8 cs.	6/2 lb.	crackers, white two-inch	1 02	8 16	A-1
5 cs.	6/2 lb.	crackers, graham	1 20	6 00	A-1
10 pkg.	5 lb.	Dinamite	33	3 30	
3 sk.	27 lb.	Farina	1 25	3 75	
6 sk.	98 lb.	flour, white, patent all purpose or family	2 50	15 00	Harvest
3 sk.	9 lb.	flour, graham, coarse	28	84	Bloom
1 sk.	49 lb.	flour, cake	2 60	2 60	brand
2 sk.	100 lb.	macaroni, elbow, U.S. No.1	3 55	7 10	
1 cs.	20/1 lb.	oatmeal, highgrade	5 80	11 60	
2 cs.	24/8 oz.	Shredded wheat	1 50	3 00	
1 sk.	100 lb.	rice, bluerose fcy.	4 00	4 00	
1 sk.	25 lb.	spaghetti-farina U.S.No. 1	92	92	
3 box.	5 lb.	tapioca - minute	90	2 70	
20	lbs.	wheat cereal-whole, coarse	14	2 80	Farago
Additions:					

Signed _____

M.S.C. STUDENT HOUSING ASSOCIATION

Date _____

Requests _____ to state prices for which they would agree to sell the following:

(If article is not stocked as described - give description of kind nearest in quality and state price. If price is subject to change, indicate.)

Terms: To be made in two deliveries, Oct. 1, 1940 and Dec. 1, 1940.

Quantity	Size or Unit.	Description, Brand, Grade, Style, etc.	Unit Price	Total Price	Remarks
		Fruits, Canned			
6 cs.	6/10	Apricots, halved, pitted	2 40	14 40	
1 cs.	24/2½	unpeeled, choice	2 65	2 65	
3 cs.	6/10	Apricots, water pack	2 15	6 45	
3 cs.	6/10	blackberries, choice	2 50	7 50	
1 cs.	6/10	blueberries, water pack	3 65	3 65	
2 cs.	6/10	cherries, red pitted sour water pack	3 00	6 00	brand BitterRoot
5 cs.	12/5	Grapefruit, broken segment or substandard	2 50	12 50	samples requested
7 cs.	6/10	pears, Bartlett halves,	2 35	16 45	
1 cs.	24/2½	choice	2 90	2 90	
6 cs.	6/10	Peaches-clingstone halves	2 25	13 50	
1 cs.	24/2½	choice	2 60	12 60	
6 cs.	6/10	peaches, water pack or substandard	1 70	10 20	
8 cs.	6/10	pineapple, broken slice	3 25	26 00	
8 cs.	6/10	crushed	3 00	24 00	
6 cs.	6/10	plums, station prune, choice	2 50	15 00	
2 cs.	6/10	plums, water pack	1 60	3 20	
1 cs.	6/10	raspberries, red choice	3 50	3 50	
Additions:					
2 cs.	6/10	cherries, red sour; pitted water pack	2 75	5 50	Red Valley
5 cs.	24/2½	Plums, Italian Fcy. (special)	2 65	13 25	Del Monte

Signed _____

M.S.C. STUDENT HOUSING ASSOCIATION

Date _____

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Terms: _____.

Quantity	Size or Unit.	Description, Brand, Grade, Style, etc.	Unit Price	Total Price	Remarks
		Dairy Products			
6 cs.	48/1	condensed milk	2 86	17 16	Morning
4	25-30 lb.	Longhorn cheese-90 or above score	5 00	20 00	as requested.
		Fats and Oils			
200	lbs.	lard leaf, hard	09	18 00	
2 cn.	20 lbs.	peanut butter - Spanish hydrogenated	2 40	4 80	brand School Boy
1 cn.	5 gal.	salad oil, corn, deodorized	4 25	4 25	Amaizo
3 cn.	45 lb.	vegetable compound	4 50	13 50	Henson's
		Fish, Canned			
4 cs.	48/1-tall	salmon, pink	6 80	27 20	Alaska
1 cs.	48/1-tall	tuna, dark	7 50	7 50	
		Flavorings and Extracts			
1	pint	almond, imitation	25	25	Schillings
1	pint	lemon, imitation	25	25	"
1	quart	mapletone, imitation	1 75	1 75	"
1 cs.	40/1 qt.	vanilla, imitation	2 70	2 70	"
		Fruits, Dried			
2 box.	25 lbs.	apples, choice or standard	3 12	6 24	
3 box	25 lbs.	apricots, slabs, No. 2 choice	3 38	10 14	
1/2 bx.	20 lbs.	coconut, shredded, choice	15	1 50	
1 box	25 lbs.	dates, Hallawi, pitted, stand.	8 70	8 70	
1 box	25 lbs.	figs, white, choice 80 lb.	2 00	2 00	
4 box	25 lbs.	prunes, Calif., 50-69 Choice	1 38	5 52	
3 box	25 lbs.	raisins, Thompson seedless choice	1 40	4 20	

Additions:

Signed _____

M.S.C. STUDENT HOUSING ASSOCIATION

Date _____

Requests _____ to state prices for which they would agree to sell the following:

(If article is not stocked as described - give description of kind nearest in quality and state price. If price is subject to change, indicate.)

Terms: _____.

Quantity	Size or Unit.	Description, Brand, Grade, Style, etc.	Unit Price	Total Price	Remarks
		Jellies and Jams			
2 cs.	12/5	blackberry jam, pure fruit and sugar	5 25	11 50	Fruit Maid
1 pail	30#	crabapple jelly	2 50	2 50	
1 pail	30#	currant jelly	2 00	2 00	
1 pail	30#	apple butter	3 25	3 25	
		Spices			
4 only	2 oz. can	all spice	10	40	Schilling's
4 only	2 oz.	bay leaves	10	40	
1 doz.	1½ oz.	celery salt	07	85	
2 pk.	1#	chile powder	1 00	2 00	
4 cn.	1#	cinnamon - dark Cassia	45	1 80	
1 cn.	1#	cloves, ground	48	48	
3 sk.	2 oz.	cloves, whole, first grade	08	16	
2 cn.	2 oz.	curry powder	08	08	
2 cn.	1#	ginger	35	70	
3 cn.	3 oz.	garlic salt	11	33	
3 cn.	1#	mustard, dry	45	1 35	
2 cn.	1# n	nutmeg, light	48	96	
2 cn.	1#	paprika	70	1 40	
1 can	6 #	pepper, black	40	40	
4 cn.	2 oz.	sage leaves	40	1 60	
		Soups			
2 cs.	12/5	tomato	3 00	7 20	Van Camp's
2 cs.	48/1	mushroom	4 46	8 92	"
2 cs.	48/1	tomato	3 75	7 50	Campbell's

Additions:

Signed _____

M.S.C. STUDENT HOUSING ASSOCIATION

Date _____

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(If article is not stocked as described - give description of kind nearest in quality and state price. If price is subject to change, indicate.)

Terms: _____.

Quantity	Size or Unit.	Description, Brand, Grade, Style, etc.	Unit Price	Total Price	Remarks
		Sundries			
2 cn.	10 lb.	baking powder, alum phos.	1 35	2 70	Calumet
4	1 oz.	cream of tartar	05	20	
2 cs.	6/10	tomato catsup, choice	2 25	4 50	sample re-
1 cs.	12 oz.	Kitchen Boquet	4 40	4 40	quested.
3 cn.	6/10	mustard, yellow prepared	55	1 65	
1 each	2 oz.	food coloring, red, green, yel.	12	48	
1 cs.	24/1 lb.	soda, baking	2 36	2 36	Arm &
2 sk.	50 lb.	salt, fine grained table	1 00	2 00	Hammer
3 bottles	6 oz.	A-1 sauce	25	75	
		Sweets and Desserts			
1 cs.	12/24 oz	Creme dessert powder, ½ butterscotch, ½ chocolate	4 50	4 50	Royal
6 cs.	12/26 oz	Gelatin dessert powder, 3 cs. lemon, 1 cs. strawberry 1 cs. lime, 1 cs. raspberry	4 35	27 10	Jello
2 cs.	6/10	molasses, med. color	2 42	4 84	Bake Good
3 sk.	cwt.	sugar, med. brown	5 75	17 25	
10 sk.	cwt.	sugar, granulated beet, med. fine	5 80	58 00	
1 sk.	50 lbs.	sugar, powdered, standard	3 25	3 25	
6 cn.	gal.	honey, extracted, amber	30	1 80	
2 cs.	24/1 lb	marshmallows	1 70	3 40	Campfire
		Nuts			
1 cs.	25 lb.	walnuts, broken emeralds	7 50	7 50	
12	lbs.	peanuts, Jumbo shelled, salted.	15	1 80	
Additions:					
6 cs.	12/26 oz	Royal Gel. Dessert	4 15	24 90	

Signed _____

M.S.C. STUDENT HOUSING ASSOCIATION

Date _____

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Terms: _____.

Quantity	Size or Unit.	Description, Brand, Grade, Style, etc.	Unit Price	Total Price	Remarks
		Vegetables, Canned			indicate brand
4 cs.	6/10	asparagus, cut, green	4 00	16 00	Golden
2 cs.	24/2	asparagus, green, spears, ex-standard	5 29	10 58	Valley
14 cs.	6/10	beans, stringless, cut, stan	1 75	24 50	sample re-
2 cs.	24/2	size 4-5	1 95	3 70	quested.
2 cs.	6/10	beets, Julienne, standard	2 00	4 00	
14 cs.	24/2	corn, creamed standard	2 00	36 40	Sonny Boy
3 cs.	24/2	corn, kernel, extrastandard	3 50	7 00	
2 cs.	24/2	hominy - standard	1 80	3 60	
15 cs.	6/10	peas, sweet, seive 4, exstan.	1 90	34 20	
3 cs.	24/2	peas	1 95	5 85	Golden
3 cs.	6/10	pickles, dill large imitation	2 65	5 20	Valley
2 cs.	6/10	pickles, sweet relish, firm, liquor 18 bauma or above	4 00	8 00	
3 cs.	24/2½	sauerkraut, extrastandard	2 25	6 75	
4 cs.	6/10	spinach, extrastandard	2 00	8 00	
10 cs.	6/10	tomatoes, extra standard	1 90	19 00	Wood Cross
3 cs.	24/2½	tomatoes, " "	2 30	6 90	
4 cs.	12/5	tomato puree, heavy	1 25	7 00	
		Vegetables, Dried			
2 sk.	100 lb.	beans, great nothern - U.S. No. 1	3 10	6 20	
1 sk.	100 lb.	beans, Mexican red, No. 1	3 50	3 50	
1 sk.	100 lb.	beans, lima large, No. 1	4 90	4 90	
5	lb.	peas, split chick No. 1	2 00	4 00	to be de-livered as needed.

Additions:

Signed _____

M.S.C. STUDENT HOUSING ASSOCIATION

Date _____

Requests _____ to state prices for which they would agree to sell the following:

(If article is not stocked as described - give description of kind nearest in quality and state price. If price is subject to change, indicate.)

Terms: To be purchased at height of season in entire amounts if storage facilities available.

Quantity	Size or Unit.	Description, Brand, Grade, Style, etc.	Unit Price	Total Price	Remarks
		Vegetables, Fresh			
3 sk.	cwt.	beets, topped, U.S.No.1,med.	2 00	6 00	
10 sk.	cwt.	carrots, topped. No. 1	1 80	18 00	
10 sk.	cwt.	cabbage, old firm, No. 1	1 30	13 00	
50 sk.	cwt.	potatoes, Bliss Triumph No. 2	1 20	60 00	
150	lbs.	pumpkin, 50; squash, 100;	02	3 00	
4 sk.	cwt	rutabagas, No. 1	1 40	5 60	Oct, Nov.
1½ sk.	cwt.	turnips, No. 1	1 50	2 25	" "
3 sk.	cwt.	onions, No. 1	2 00	6 00	" "
2½ sk.	cwt.	parsnips, No. 1	1 50	3 75	" "
		Fruits, Fresh			
34 box	40 lb.	apples, Jonathon U.S. Com.	85	28 90	
20 box.	40 lb.	apples, Winesap (in winter) U. S. Commercial	1 10	22 00	
6 box.	40 lb.	pears, Bartlett, U. S. Com.	1 00	6 00	
10	suitcase box	prune-plums, French U.S. No. 2	60	6 00	

Additions:

Signed _____

M.S.C. STUDENT HOUSING ASSOCIATION

Date August 18, 1940

Requests Doe Bakery to state prices for which they would agree to sell the following:

(If article is not stocked as described - give description of kind nearest in quality and state price. If price is subject to change, indicate.)

Terms: _____

Quantity	Size or Unit.	Description, Brand, Grade, Style, etc.	Unit Price	Total Price	Remarks
		Bread			
		To be delivered daily, approximately 25 1½# loaves or 40 1# loaves			
	1½ lbs.	whole wheat, fresh	11		
	1½ lb.	white, day old	08		
	1½ lb.	cracked wheat, fresh	11		
	1 lb.	white raisin, fresh	09		
	1 lb.	whole wheat raisin, fresh	09		
	1 lb.	raisin, rye	08		
	1 lb.	whole wheat prune, fresh	09		
		Cookies*			
		nabiscoes			
		vanilla custards			
		chocolate custards			
		Fig newtons			
		vanilla wafers			
Additions:					

Signed _____

*No amounts are given since this depends upon cook's time and ability to make cookies. Considerable savings are made by having cook prepare them if possible.

M.S.C. STUDENT HOUSING ASSOCIATION

Date _____

Requests John Doe's Dairy to state prices for which they would agree to sell the following:

(If article is not stocked as described - give description of kind nearest in quality and state price. If price is subject to change, indicate.)

Terms: Five per cent reduction on total bill. Credit extended thirty days.

Quantity	Size or Unit.	Description, Brand, Grade, Style, etc.	Unit Price	Total Price	Remarks
5	gal.	Whole Milk: Grade A raw., i.e. from inspected cows; bacteria count below 100,000 per c.c. at time of delivery butter fat content 3.5% Amount subject to change on request.	30		to be delivered daily before noon in sanitary containers.
		Grade B Pasturized: from inspected cows, bacterial count below 100,000 per c.c. at time of delivery. Butter fat content 3.5%			"
7	gal.	Skim Milk: same as above with 1% butterfat content.	15		
1	qt.	Cream: whipping, same as above with 35% or above butter content	45		"
5½	gal.	Ice cream: 10-12% butter fat	1 00		on request
Approx.	720 lbs.	Butter: 90 score or above wired in ¼ lb cubes and wrapped in 1 lb. packages delivered - 60 lbs. per week	30		
12	lbs.	Cottage Cheese, dry	05		delivered on request.

Additions:

Signed _____

M.S.C. STUDENT HOUSING ASSOCIATION

Date August 15, 1940

Requests John Doe Meat Market to state prices for which they would agree to sell the following:

(If article is not stocked as described - give description of kind nearest in quality and state price. If price is subject to change, indicate.)

Terms: _____.

Quantity	Size or Unit.	Description, Brand, Grade, Style, etc.	Unit Price	Total Price	Remarks
		All meats to be properly aged after butchered. All cuts to be trimmed and prices given on the net weight of trimmed meat. All bones to be saved. No frozen meat acceptable.			
To be delivered in 50 - 60 lb. lots.		BEEF: Choice, U.S. No. 2 Steer or Heifer Sides-approx. 250-300# Hindquarter, forequarter, Wholesale cuts: loin, Rump, Round (cut in roast or steak) Shoulder (roast or steaks), Rolled rib, Boneless stew (maybe U.S. No. 3 or good), Plate and Shortribs.			
To be delivered in 25 - 35 lb. lots		Ground Shoulder, Meat Loaf, Hamburger			
20 lbs.		Liver, Class A			
5	hearts	Heart			
		LAMB: Not over eighteen months of age. Fell unremoved			
To be delivered in 50-60 lb. lots		Wholesale cuts: Leg, Shoulder, Stew (neck, shank, Breast, flank)			
Additions:					
		Signed _____			

M.S.C. STUDENT HOUSING ASSOCIATION

Date _____

Requests _____ to state prices for which they would agree to sell the following:

(If article is not stocked as described - give description of kind nearest in quality and state price. If price is subject to change, indicate.)

Terms: _____.

Quantity	Size or Unit.	Description, Brand, Grade, Style, etc.	Unit Price	Total Price	Remarks
To be delivered in 50-60 lb. lots.		PORK: U. S. No. 1, meat type or Shipper type hogs. Gilts or barrows. Whole Wholesalecuts: shoulder, loin roast, loin chops, shanks, ribs spare, Stew (neck)			
To be delivered in 30 - 35 lb. lots 20 lbs.		Ground shoulder, country sausage, link sausage Livor.			
To be delivered in 50-60 lb. lots 20 lbs.		VEAL: 8 - 10 weeks of age when butchered, Choice or good grade. Wholesale cuts: Stew (neck, breast, shanks, shoulder) Liver, best quality			

Additions:

Signed _____

M.S.C. STUDENT HOUSING ASSOCIATION

Date _____

Requests _____ to state prices for which they would agree to sell the following:

(If article is not stocked as described - give description of kind nearest in quality and state price. If price is subject to change, indicate.)

Terms: _____

Quantity	Size or Unit.	Description, Brand, Grade, Style, etc.	Unit Price	Total Price	Remarks
		Meat, (continued) SMOKED, DRIED OR SALTED, etc.			
		Bacon: slabs uniform in width and square ends and wide. From choice or good pork.			
		Dry Salt Pork:			
		Ham: good quality, light red color, plump, fat trimmed, dry, firm -- leg, ham, hamhocks, hambutts.			
4	3 lb. cartons	Chipped Beef: equal amounts "insides" and "outsides"			
		Corned Beef: brisket			
3-4	5 lb. bundles	Weiners: large size, tender skin			
		Lunch Meat: boiled cold ham, No. 1 quality; baloga 55% beef, large; liver sausage; summer sausage			
Additions:					
		Signed _____			

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