



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

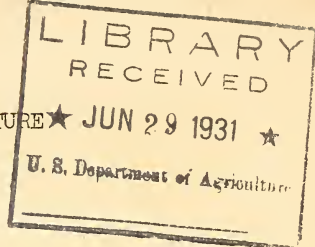
*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

UNITED STATES DEPARTMENT OF AGRICULTURE
Bureau of Agricultural Economics



COORDINATION OF FARM MANAGEMENT RESEARCH IN THE WESTERN STATES

By C. L. Holmes, In Charge, Division of Farm Management and Costs

Presented at the Annual Meeting of the Western Farm Economics Association
at Moscow, Idaho, June 11, 1931

The assignment to discuss coordination of farm management research between the Western States and the United States Department of Agriculture is a most gratifying one in view of the program of the Division of Farm Management and Costs and its close relation with State farm management workers in all of its research effort. Of the sixty or seventy projects being carried on in various parts of the country by our Division, all with the exception of two or three are conducted cooperatively with State agencies.

Farm Management as a field of research has to do with the economic problems of the individual farmer. State farm management workers are up on the firing line in this campaign. If a program of research in farm management conducted by a Federal agency is to be effective it must be geared to State effort. There is also a reciprocal phase of this relationship. Though the farm management problem is an extremely localized one, down to the individual farm and its operator; nevertheless, the problem is also national in its scope. The farmer finds himself face to face with economic conditions which are world wide in their ramification. He must compete with farmers in various parts of the country and abroad; therefore, a program of research aimed at meeting his problems must be comprehensive enough to give him the benefit of knowledge of what his competitors are doing and the forces and conditions under which they are working in order that he may know the nature and strength of the competition he must meet. Probably quite as much, therefore, the State has need of an agency whose field extends beyond State borders as the Federal Department has need of localized connections which will enable it to make its efforts vital.

I understand from correspondence with this Association's secretary, and from the minutes of last year's proceedings, that a considerable amount of discussion was entered into as to the coordinating function which this Division might perform in connection with farm management research work in the States of this region. I believe it was suggested that a man be employed whose special function would be to coordinate farm management research work, and, so far as possible, eliminate duplication on such phases of farm management problems as are common to several States. It is a matter of regret that we have not been able to comply more fully with the spirit of these suggestions. The lack of personnel is primarily

responsible for our seeming failure. We are devoting a considerable amount of research time to projects in this region and we hope to devote still more time in the future, and to meet, as far as possible, our responsibilities by full participation in a unified regional program.

In the present paper it is my desire to discuss briefly the following considerations with reference to research work in the Western States and the coordination of effort among the various agencies involved:

1. Objectives of farm management research.
2. Some important essentials to the effectiveness of farm management research and to the use of its products in view of the present agricultural situation.
3. The outline of a proposed regional program in farm management research.
4. A proposal for the coordination of farm management research effort in the Western States.

Objectives in Farm Management Research

One of the most important requirements in any field of endeavor is occasionally to get far enough away from the whole structure to view it in perspective and to determine with as much clarity as possible what it is for and whether or not it is achieving the ends for which it was brought into existence. We need thus to look at our farm management research effort and to raise the questions - What is it for? Who is to benefit? What ought it to achieve, and by what means? The specific objectives of various research agencies interested in the same general problems may be different in detail but are not likely to be out of accord. This is true with reference to the agencies in farm management research set up by Federal and State.

Farm management research had its beginnings in the efforts of State agencies. Only a few States participated in this early beginning. Subsequently a substantial expansion in farm management research effort came with the establishment of it in the Federal Department. In these earlier efforts there was but little in the way of cooperative work. As interest in farm management problems expanded and more State agencies were financed for the beginnings of farm management research work a new phase of the Federal effort developed. It came in the form of cooperative projects in which the part of the Federal agency was very largely that of helping finance State projects. There was not in the case of most of these newer projects any very close relationship between the Federal worker and the primary data gathering involved in the project. The intimate understanding of the qualitative factors in the problem, which should come from any well conducted farm management research project, were secured primarily by State rather than Federal workers. It was only occasionally that State and Federal workers participated very closely in the analysis and interpretation of the data. More recently we have tried to remedy this situation by having responsible staff members of this Division work in close cooperation with similarly responsible State workers in the entire prosecution of the projects, from the planning and conduct of the field work through the tabulation and interpretation to the final preparation for publication. We are doing this partly because we

have a growing consciousness for the need of concentrating in the Federal Department as intimate a knowledge of American agriculture and its economic problems as is possible. More and more the various branches of the Federal Government having an interest in agriculture are working toward national and regional agricultural policies. What is more fundamental as a basis for a rational working out of policy than an understanding of the farmer's own economic situation and the problems and conditions which confront him, both external and internal to his own business. Such an understanding should result from an adequately conceived and effectively executed farm management research program.

An occasion for the stock-taking of our effort, such as was just mentioned, comes annually in the Division with the preparation of the budget and the presentation of data supporting our budget recommendations. Those responsible for approving and voting funds insist upon reasons why the funds should be forthcoming. One important benefit of this annual procedure is that it compels us to think on what we are really trying to do in our research program and how successful we are in reaching our objectives. On the most recent occasion of this sort I put down the following as the objectives of this Division:

First; to achieve an intimate understanding of the farming industry in every part of the United States, including the financial and business organization; the nature of its personnel; its production program; the physical, technical, economic, and personal factors which have been and are now shaping it; and to determine the trends of its future development. We want to acquire this intimate understanding, first of all, on the part of our own staff, and, second, to generalize it by means of publication, participation in outlook conferences, and the supplying of material for extension work and other types of adult education as well as the more formal education in farm economy presented in farm management courses in our agricultural colleges.

Second; the determination, so far as possible, of the form of farm organization and method of operation representing highest comparative advantage - that is, the best and most profitable use of farm resources - for every agricultural region and area and for various combinations of conditioning factors within these regions and areas. This objective is, of course, a part of the preceding one but carries it definitely into the field of farm business administration; whereas the first is directed more toward the general and collective aspect of farming.

Third; to find the most practicable ways and means for reducing the costs of agricultural production through the adoption of more efficient farm organization and farm practice and through the most effective adjustment of size of farm, distribution of labor, and use of all farm resources. What we need to turn our attention to in connection with farming costs is the matter of efficiency in both organization and operation which will mean a larger output for the use of a given amount of the factors of production and hence put the producer in a stronger competitive position by enabling him to produce at lower costs. This seems undoubtedly the process by which readjustments to new price relationships must come about.

Fourth; to coordinate and analyze all data secured in pursuit of the foregoing objectives, and such other information as may bear on the problem, for the purpose of determining the nature of the readjustment necessary to place American farming in a satisfactory economic position and to hasten the process of such readjustment. This, of course, has reference to the utilization of farm management research results in extension programs, outlook making,

and general educational activity.

Inadequately as these objectives are stated, I venture that they express to some extent, at least, the things the State farm management workers have been thinking about in the setting up of their program and projects. In view of the intimate way in which the State research man is connected with the educational efforts of his institution, there must always be a somewhat closer connection between his program and that of extension and classroom teaching work than can be true of the Federal worker. The efforts of these two groups of research workers, however, should be so coordinated as to contribute jointly both to the educational uses which are primarily State responsibility and the broader needs of the Federal Department.

Some Essentials in Making Farm Management Research Work Effective

It may be worth-while, before discussing the specific elements of a farm management research program, to note briefly some essential considerations in effective research in this field. For the most part the things to be noted here are obvious, but it seems to be a besetting sin of the research worker, as well as many other classes of workers, to overlook many things which are very obvious and at the same time very fundamental in the working out of his problem.

1. First of all, it would seem that our research should be vital, that is, directed at actual problems. This seems too obvious to further notice. "Pass on," you will say, "to your next point." But are we sure always as to the real nature of the problems we are attacking? Are they always obvious facts to us? The research worker in farm management must have a broad vision of his problem in order that he may appreciate the bearing of external forces and conditions upon the individual farm business which he is studying; but, quite as much, he must have a penetrating vision in order that he may readily discern the factors that are at work within the farm organization itself and which, I believe, all too frequently escape the scrutiny of the farm management research man. We are all too familiar with the results of the worker who sees no more than the mere taking of records, the tabulating of them, and the pointing out in his text the obvious quantitative results to be found in his tables. We have had in our own Division the dreary task of reading too many manuscripts which were evidently the result of such a program.

In the earlier days of farm management research with, objectives less clearly defined, it was not surprising that a more or less formalistic attitude was taken toward it, particularly on the part of experienced workers. Charged with the responsibility of using research funds; it was perhaps to be expected that he should merely do another survey or conduct another cost study. However, with almost three decades of farm management research experience behind us in this country and with a growing appreciation on the part of administrative officials and the public of the economic problems confronting agriculture, and of the nature of the farmers' position in the whole problem, it seems obvious that we should proceed in the use of the limited funds at our disposal to think carefully into the nature of each problem before we attack it. We should select carefully what to study and determine in advance the essential facts, both quantitative and qualitative, that are required.

2. In the second place, it seems to me that our research efforts should be directed not merely at the immediate aspects of a problem for the purpose of getting quickly limited results, much needed to meet emergency situations; but that a considerable part of our research energy be devoted to the more fundamental factors underlying the urgent problem. Under the present condition of agricultural depression there is tremendous pressure for immediate results from research because those results are sorely needed as a basis of some sort of program either extension or otherwise. All of our research institutions are feeling more and more the pressure of these immediate service tasks and are realizing that the more fundamental aspects of research are suffering from lack of attention. In the case of our own Division the necessity of spending a larger and larger amount of time on the very necessary, and - let us hope - fruitful work connected with the making of outlook reports, is cutting seriously into the time and energy necessary for the prosecution of our research projects.

Further, the nature of the research projects themselves is being influenced by this demand for quick results. I can illustrate it by one instance, that of a farm power study which we recently conducted in cooperation with local agencies in ten States. Recent changes in the farm power situation urgently demanded information on power duty of tractors as compared with horses, upon the relative costs of power from the two sources, and many other aspects of an immediately urgent nature. It was possible, in this study, to do no more than meet these immediate demands. The more fundamental problems of real farm economy in terms of size of business, financial requirements, and modification in the organization of the farm, tied up in this shift from animal to mechanical power, could not be touched upon, much as we recognize the desirability of it. What we need to do is to resort now to some intensive studies on the more fundamental aspects of this important problem.

Some other specific lines of inquiry of a more fundamental nature may be mentioned. The whole range of problems centering in the physical law of diminishing returns as it affects the application of fertilizer or the feeding rations of livestock or the amount of labor and power most profitably employed in crop production need the sort of study which thus far we seem to have been unable to give it.

3. The third essential has to do with research method. It is important that we shall not let our method run away with us. In other words, the consideration back of method is the problem to be attacked and the results to be obtained rather than any abstract perfection in method itself. I believe there is constantly a tendency to stereotype our methods and to determine whether this or that one is valid or proper as contrasted with some other method which we are prone to condemn. In a field so complex as farm management our research method must be kept flexible, and adaptable to the specific nature of the problem being studied. Long discussions on the technique of sampling and of testing of samples have been engaged in, probably without an adequate realization of how complex a thing a farm is and how many of its hundreds of characteristics are involved in a farm management inquiry. The growing attention to research method is certainly all to the good. However, we should guard against taking wholesale any generalizations with reference to method and procedure. The effective research man must be able to modify his method to meet the specific characteristics of the problem he is studying. It would seem that controversies as to the validity of the survey method or of the cost analysis method is very largely beside the point.

The real question is as to how the research worker can best get at the realities in the farm situation. He will need to determine, first, what is the problem, then, what are the facts needed to throw adequate light upon it, how to get them in a most dependable and adequate form, and then to see the relationships. There is no substitute, in the form of automatic method, for the ability to do effective analytic thinking and adequate synthesis of the results of analysis in the process of interpretation.

4. One essential which, to my mind, has been too much neglected all through the development of farm management research, is the necessity of recognizing the farmer himself in the farm problem as a responsible organizing and directing agency. This realization is essential to the making of research results educational, and not merely rule-of-thumb directions to the farmer on how he should set up and run his business. We have, I think, been too frequently prone to use our research efforts as a means of diagnosis of the farming situation with a view of writing a prescription of such general application that it might come under the classification of old fashioned patent medicine. We have probably been too prone to regard the results of our research work as being, ideally, such as to relieve the farmer of the necessity of thinking out his own problems; whereas at best all that we can hope to accomplish, and what in the long run will be most effective in the way of accomplishment, is to furnish him with an adequate basis and equipment for thinking through his own problems and arriving at his own decisions with reference to the organization and management of his business. It is important that we call ourselves to task frequently in order that we shall not forget the importance of this fundamental point of view - that of the farmer's own responsibility and the hopelessness of our aiding him toward more successful farming except through a recognition that he is master of his own economic destiny.

Finally, we should recognize the desirability of a most intimate working relationship between the research man and the extension man in farm management. If research is to be most worth-while it must be more than getting facts and more than analyzing them. It must involve the living into the farmer's problem on the part of the research man. If extension work is to profit by the results of research it cannot, except in a very limited degree, come through the mere handing over of facts, even though they be most properly analyzed and garnished. The extension man himself must live into the problem pretty much as the research man does. Busy as the extension man is at all times I am inclined to think that he would get further with his problem if he took some of his time for association with the research man as the latter goes about his task of studying the farmer and his business problems, and in thinking through the relationships which he finds in the processes of interpreting his research results. In other words, it seems to me extremely desirable that the extension man participate at least to a limited degree in the research process itself. He might serve as an assistant to the research man. In this way he should be able not only to benefit himself and to enrich his store of material for extension work; but he should be able to help the research man very materially in keeping his feet on the ground and keeping his procedure keyed to the vital considerations of the problem he is studying. This sort of cooperation is admirably exemplified already in several of the States of this region.

SUGGESTIONS FOR A COORDINATED RESEARCH PROGRAM

We are now ready to discuss a program of farm management research, together with a proposed division of labor upon the various projects, the cooperation which should be involved, and the coordination of its various elements. Such a program should be shaped with due consideration to the nature of agriculture in the Western States, to the peculiar agricultural situation both local, regional, and general, in which the problems have their setting, and the amount and quality of the resources available to support such a program. It should, of course, be shaped to meet the objectives determined upon and be made to conform to the best conceivable in the way of research method. Most important of all, it should be planned with a view of supplying a constantly growing body of information and interpretation for the various educational and policy-forming agencies concerned with Western States agriculture.

In presenting suggestions for such a study, I am keenly aware of the substantial developments in farm management research in the various Western States and of the very considerable volume of results which have already come from these State programs. Nor are cooperation and coordination entirely new elements in the situation. This Division has some of its more pleasant and profitable cooperative relations in connection with projects being prosecuted in the West. It is only with a view of working toward a more comprehensive and complete program and a still better alignment of research effort toward unified objectives that I venture to suggest the following outline:

- I. Studies on the collective or general aspects of the farm management problem.
 - A. Types-of-Farming Projects
 - B. Local price studies
 - C. Elasticity of Supply
 - D. Interregional Competition and Commodity Studies

- II. Individual Aspects: or Farm Organization and Management
 - A. The farmer's program of production
 - B. Size of farm
 - C. Farm Improvement
 - D. Farm technique, including farm power, machinery, crop and livestock practice, and farm operation
 - E. Efficiency and costs
 - F. Financial organization and management, including long-time capital, operating capital, reserves, and credit relations
 - G. The human element in Farm Proprietorship

Let us take up the various items in this outline for detailed comment. In the first place, the division of the field into its collective and individual aspects may need some defense. It seems to me that the farm management research worker may clarify his thinking on the organization of his work to a considerable degree by making this distinction. Although farm management as a function is very distinctly a matter of the individual farmer and his farm, nevertheless, the farmer must work in an environment, partly physical and partly economic, which both the farmer and the research man should adequately understand. No farm management research worker can have an adequate appreciation of the individual

farmer's problem of economy unless he understands pretty thoroughly the economic and physical environment to which the farmer must adjust himself in his job of making a living and getting ahead in the world. Further, if we are to take the educational point of view as to the value of farm management research results we must supply the farmer and his advisors with a fairly adequate understanding of this environment. This is my justification for the considerable amount of attention given in this outline, and in the program of the Division, to what I have termed the collective aspects of the farm management problem.

The first item in this group, the type-of-farming studies, is, at the point of departure at least, as well as a considerable distance along its way, collective in its nature. It is essentially a general picture of the agricultural industry in its lights and shades geographically presented. To be sure, geographic differences in the agricultural industry are not the only ones nor the most important, but geographic treatment in the characterization of the agriculture of a State or region has such unmistakable utility that we tend to put the emphasis upon that phase.

Most of the type-of-farming research work already done under formal projects has been carried on in the Mississippi Valley where conditions are comparatively uniform and where the job has probably been easier than in regions of more heterogeneous natural conditions such as are found in the West. At the outset, it is to be recognized that this work bears a very close relationship to research in land utilization and economic geography. The essential characteristic of a type-of-farming study which differentiates it from other closely related studies is the point of view and method of procedure. Type-of-farming research takes its departure from an interest in the internal business organization of the farm; it seeks to determine model types of farm organization. The internal relation of farm enterprises and the close connection of this study with farm organization studies themselves are the unifying considerations which give this type of research its character and identifies it as within the field of farm management.

Several different research procedures have been followed in pursuing type-of-farming studies. In its beginnings it is essentially a reconnaissance whose immediate objective is to reveal the general nature of the farm management problems to be studied. For this reason it resorts to the use of comprehensive data such as census figures in order to depict the agriculture in broad terms and to mark out the boundaries of areas having generally similar farm economy. From this point it may proceed in one or both of two directions. It may confine itself entirely to the general aspects of the agricultural industry, area by area and region by region, and seek to determine the causal factors which have shaped agricultural development and are now determining the trends of its future development. The other direction in which it may be developed is toward the more intensive farm organization studies themselves. The first step in this direction is the determining of model types of farm organization within each area. The extent to which this is pursued depends upon the judgment of the research worker and upon the nature of the program of which the study is a part, as well as upon the immediate and long-time objectives. If it is pursued any great distance it becomes identical with the individual farm organization study in its various aspects.

In our divisional program we are conceiving the first of these directions of development to be the major one in a type-of-farming study. First of all, this keeps it in the collective rather than the individual part of the program. Further, the seeking out of causal relationships is the most essential part of a program directed at a full understanding of our agricultural problems and in developing a basis of fact and analysis on which to build an educational and policy-forming program. For example, we must first know the relationship between the recent extension of the wheat and cotton areas to the nature of the soil, surface, and rainfall as well as to the general technical picture of this new phase of farming in order to form any intelligent judgment as to what should be the nature and extent of readjustments to meet the conditions imposed by the new price phase in which these regions find themselves.

A careful consideration of plans for this type of study is peculiarly in order just now not only because of the need for the results but because of the early availability of new and important data from the fifteenth Federal census. For the first time the census is to report on types-of-farming based on a classification of farms determined by sources of income. Dr. Elliott, who formerly was in charge of the type-of-farming studies of this Division, has had charge from the beginning of the tabulations and analysis of this phase of the agricultural census. A series of State bulletins is in process of preparation. This material should be of great significance in connection with this sort of study. Further, the use of it by the States and the Federal Division of Farm Management should be made as early as possible before the material gets out of date and while it can be of maximum value in the present agricultural depression. Situated as we are in our offices as a near neighbor to the Census Bureau, our Division is enabled to digest and make available for joint effort on this line of projects all of the resources of the Federal Census. This is one of the fields in which there can be an effective division of labor under a series of cooperative projects which will give us a new inventory of Western States agriculture and form the basis for a unified, coordinated program of farm management research. It should be understood that the Census material, supplemented as it will be by the new data already referred to, is only a part of the data needed in the types-of-farming studies. We need, particularly in the Western States, to gather all available data on topography, soils, and other physical conditions, and we need more particularly a close scrutiny of the farming itself as a basis for interpreting the quantitative data secured. It is at this point that we want to tie up most closely with the State men. With their greater familiarity with the details of the agriculture of their respective States it will be, it seems to me, primarily their function to contribute to the interpretative phase of these studies. The next item in the collective group is local price studies. This represents an aspiration rather than any very significant start. Such work as this Division has already done in this field has been only incidental and in connection with the local farm organization studies. Logically, it represents a field of joint interest between farm management and price analysis and we already have a tentative agreement with the Division of Statistical and Historical Research for the future carrying out of a series of such projects.

Information with reference to local farm prices is of great importance in connection with farm organization work. The departure of local prices from central market prices is a thing which varies both regionally and seasonally. An understanding of the extent to which these variations go and the causes for the seasonal variations are essential to understanding the farmer's problem of readjusting his production program. In this respect local prices constitute one phase of the economic environment which we seek to examine in type-of-farming studies.

So far as I can see, there is no particular logic in the determination of what agencies shall be predominantly active in these projects. It is not a thing which can be delegated to one State agency and be used by another; since the local price pattern will be different for each State. It would seem to lie within the field of cooperative Federal and State activity, just as most of the other localized aspects of the problem do.

The third item in this collective list is elasticity of supply. This also is closely related to the type-of-farming work since it seeks to explain the dynamic phases of farmers' programs of production and their response to the various phases of commodity price cycles. It seeks to answer the question of the extent and timing of changes made in the volume of output by farmers of any given commodity in response to price changes. This Division has made a start on this work by studying the variations in flax acreage, variations in the output of hogs, and similar variations in dairy output. Some interest in this work has been manifested on the part of certain States and we are getting some calls for cooperation from the Middle West. It is a type of study which lends itself particularly to statistical analysis and as such tends to be a one-man sort of research task which may possibly be more logically the work of this Division than of the States in a coordinated program. Nevertheless, we invite the interest of the State men in this and shall be more than willing to establish cooperative relations where they are desired.

Interregional competition, the fourth item in this list, is of growing interest and importance in this period of instability and need for readjustment. The wheat farmers of the United States are more and more asking the question as to how long continued the severe competition from other lands is likely to be. Similarly, the growers of Idaho potatoes are interested in the probable expansion of the potato acreage in other States and its effect upon the prices they will be able to get. Basic to these considerations is a study of relative efficiency and comparative costs between producing regions and of enterprise competition and comparative advantage as between alternative enterprises in each of the competing regions involved in any commodity. It is most assuredly a thing involving the general aspects of the agricultural industry but for its adequate treatment it involves most intensive farm organization studies, not only within the given region concerned but also within the competing regions.

The interregional nature of the problem of competition puts this sort of study well within the realm of the Federal Department. Limitations of State funds and State research men's time, and the impracticability of working outside State boundaries, effectually prevent State

men from studying conditions in other States and regions. It is the responsibility, therefore, of the Federal Department to bring together such information as may be available and to supplement it where necessary in order to supply the essential information. This Division is carrying on a group of studies which, for lack of a better term, we call commodity studies whose first objective is to meet this sort of problem. Up to this time we have confined our efforts primarily to a series of cooperative projects on commodities such as apples, or some other rather highly specialized crop, and have tried to show in a comprehensive way through projects usually cooperative with a number of States, the production methods and production costs under the varying conditions found wherever the commodity holds an important position. We have had on the whole more demand for this type of study than we have been able adequately to meet. Quite recently, at the suggestion from the New York Station, we have undertaken a somewhat different attack. The request was for a nation-wide poultry study. We knew that many States had been studying the farm management aspects of poultry farming, both specialized and general. We knew also that we could not finance a major study of so important a commodity if it meant gathering original data in adequate amounts. We, therefore, approached State workers on the proposition of utilizing already gathered material in order that we might put it together in an attempt to paint a national picture of the poultry industry. The response has been gratifying indeed. We hope that we may be equal to the task of coordinating and interpreting the vast amount of information which has been offered us. It would seem that this Division might render a similar service with reference to many commodities which State workers have studied.

The second general group of studies, entitled Individual Aspects of Farm Organization and Management, embraces the central field of farm management research and is one in which the major investment of research funds up to this time has been made. In a sense, all of the considerations listed under this general topic constitute one major project and in many cases have been studied jointly rather than separately. Under most conditions I think that we may well favor the single project approach rather than to divide it into many limited phases. There are special situations in which limited aspects of the farm organization problem may be studied to good effect. However, the farmer is interested in all of these things and as we need to study his problem from his own point of view, there is considerable advantage in a type of project which covers the whole range.

Let us examine some of the sub-divisions of this group from the point of view of their significance in the present agricultural situation and their place in a farm management research program. The farmer's program of production is meant to include the whole matter of crop rotation and livestock enterprises in their complementary, supplementary, and competitive relations. It may well be considered the center of interest in the farm organization study. Size of farm is a matter of growing importance in the readjustment of Western States agriculture which seems so imminent in many areas. Under farm improvement is contemplated such matters as the type and size of farm buildings, farm and field layout, and other problems of building and maintaining the farmplant. Farm

technique is a phase of major importance in present-day farm organization and particularly in the West where the introduction of new machines and power units has gone so far toward upsetting the traditional methods. It is in this connection, perhaps more than any other, that the matter of relative costs enters in and in which the effectiveness of the farmer as an operator, as distinguished from his function in planning and organizing, is to be considered.

Under efficiency and costs are contemplated such comparative studies as usually enter into a general farm organization project designed to measure the effectiveness of various methods of operation and to compare these efficiencies on various farms by indexes or other means of measurement.

Under financial organization and management there is contemplated a study into the pecuniary background of the whole physical setup and operation of the farm. The financial problems involving securing and investing of capital, the creation of adequate financial reserves, and the establishment and maintenance of credit relations, have assumed added importance in view of the depressed condition of agriculture in many parts of the region. The new technique itself has fundamentally changed the capital structure of the farm, in terms of both long-time capital and operating capital. We have probably assumed, mainly on the basis of the added efficiency which the new technique has made possible, that it has given certain of our newer areas a strong comparative advantage over similar areas where the new technique is not so readily adaptable. We have failed fully to appreciate the financial aspects of this question. For one thing, it has changed the proportion between out-of-pocket costs and those costs represented by the use of the farmer's own time and that of his family. In so doing, it has made the farm business somewhat less immune to shocks of unfavorable prices and drought visitation. When we build up a capital structure we must realize that the costs must be met by current income or from reserve. They can not be met by contracting the standard of living. We need to do a lot of thinking on this phase of the farm organization problem, particularly in the dry-farming areas of the Western States..

The specific setup for research covering this general field of farm organization and management is of major importance. In general, both the Federal Division and the individual State has a vital interest in the results. At the same time the results from any given project designed to meet the problems of a particular localized situation are useful in only a limited extent outside of that area. It, therefore, does not lend itself well to a division of labor between the States although there are cases where type-of-farming areas overrun State lines, in which an effective division of labor may well be worked out. On the whole, however, this type of project seems to lend itself to a joint sharing of expense and responsibility between the individual State concerned and the Federal Department. The extent to which the Federal Department can enter upon projects in all of the areas of interest both nationally and to the State depends upon the extent of its finances. Obviously, only a limited number of projects can be conducted at a given time on the basis of our present budget. It is of utmost importance that the areas selected represent major problems and important sectors of the

agricultural front. Space does not permit our discussing the specific forms which these projects should take, the type of information which should be gathered, and the type of analysis which may best be applied. These are matters which must be left largely to the cooperating parties to be adjusted to the peculiar needs connected with each individual project.

The last item under individual aspects is that of the human element in farm proprietorship. This Division has made a limited start in the study of this important phase. It has been our feeling that most farm organization studies have inquired into the organization itself and not the man behind the organization; although it has been generally recognized that he is the essential element responsible for the efficiency or non-efficiency with which the unit is organized and operated. To be sure, a considerable amount of attention has been paid to farm tenure as it affects farm organization. What we need more particularly to study is personal traits and individual background in their effect upon a farmer's ability to organize and manage a farm successfully. This Division is just rounding out the first phase of a project cooperatively conducted with the Minnesota Station in which we have attempted to do a little experimental work in research method in this field. The results are tentative as yet and we expect to carry the experiment very much further. It seems likely, however, that it will be possible to add this aspect to almost any general farm organization study and thus to add to our understanding of the significance of the human element in farm economy.

Within the limits of a paper of this sort it has been possible only briefly to sketch the considerations in a coordinated program. It remains to make my suggestion promised in the Introduction for a plan to coordinate, as far as possible, the farm management work in the various Western States with the work of this Division. I do not believe it is feasible for any Federal man to assume the whole responsibility of leadership in this important matter. I suggest, therefore, that a committee or council be established composed of representatives from each of the States and from this Division, something after the model of the New England Research Council, whose function it would be to study the need for farm management research from the point of view of the region as a whole, to suggest a division of labor on such projects as need not be studied by each State, and work out the whole program of cooperation and coordination suggested in the discussion of this Association last year.

The considerable travel expense involved in the meetings of such a council would preclude any very frequent getting together. Perhaps at the start an annual meeting in connection with the meeting of this association would have to suffice. Much could be accomplished through correspondence. The chief advantage, it would seem to me, would arise from the understanding and unification which would result. I wish to assure the members of the Association that this Division is more than ready to participate in any movement which promises to knit together more closely the work of farm management research men and to make more profitable their already valuable effort.

