

Example 3. - The cropping system was revised on a Grade A Dairy farm Franklin County which had 120 acres of cropland. Budgets were worked for different crops and fitted into a rotation which would give the highest return of T.C.N. per acre with the least cost per hundred pounds of T.D.N. produced. By revising the cropping system on this farm and by making a change over a period of two to three years, there would be a net increase in income of approximately \$1500.00. This increase in net income would be obtained by producing more feed on the farm for the 30 dairy animals and reduce the cost of purchased concentrates and roughages.

Example 4. - A Grade A Dairy Farmer in Bedford County. His available capital to invest in the farm operation is very limited. Therefore, he is extremely cautious about making changes that would require additional capital investment.

A farm business analysis was made in 1961 using the farmer's own records and discussed with the farmer based on 1960 records. The analysis indicated several areas of inefficiency. One of these inefficiencies was a high purchased concentrate feed cost per cow of \$145.00. A concentrate ration was budgeted, using average yearly prices, which indicated a savings of \$20.00 per ton or a total savings based on his volume of \$1300.00 per year.

Farmer A made the change in late 1961. This was essentially the only change that was made in the farm operation. His records showed a decrease in purchased feed cost from \$145.00 in 1960 to \$64.00 in 1962 without a decrease in milk production. Net farm income increased from \$1454 in 1960 to \$3116 in 1962 for a total increase of \$1662.

\$5.20 per hundred and charging \$5.00 for grinding and mixing the home mix feed would cost him \$55.60 per ton. This feed would contain 1487 pounds of T.D.N. and would cost \$3.74 per 100 pounds of T.D.N. This would be a saving of \$29.40 per ton or \$1.46 per 100 pounds of T.D.N. Based on last year's feed volume it was estimated that the farmer could save \$2400 per year.

In checking with this farmer later it was determined that he had made this switch from the commercial ration to the home mix. The farmer reported that he had reduced his feed cost by \$23.00 per ton and that he had increased his milk production by 600 pounds per cow according to his D.H.I.A. records. Based on his present volume this farmer said he would save \$2000.00 per year on feed cost.

Example 2. - Worked with a Floyd County farmer to determine his fertilization program and crop rotations for 1963. Crop rotations recommendations were also made for future years. By using high analysis fertilizer at a reduced and more economical rate, the farmer could save \$13.00 per acre for fertilizer on his cropland. In 1962 the mail-in record showed that he spent \$25.00 per acre for fertilizer on cropland. Budgets prepared by using recommendations on fertilization from the Agronomy Department for his area and soil type showed a cost of \$13.00 per acre. On 96 acres of cropland, this would mean a saving of \$1248.00 in fertilizer cost. A change in rotation from 1 year corn, 1 year small grain, and 1 year clover-orchard grass was recommended to two years corn, 1 year small grain and 2 years clover-orchard grass. This would give as much or more T.D.N. per acre and reduce the cost of seeding the clover-orchard grass for hay. The farmer indicated he would make this change starting in 1964.

PHASE - FARM MANAGEMENT - ORGANIZATION AND ANALYSIS OF THE FARM BUSINESS  
(GENERAL)

Due to the awareness of farmers of their inefficiencies and the effect this has on net farm income there is constantly being more demand for better management practices. Through the analysis of existing records information can be obtained to use in budgeting alternatives to correct these inefficiencies thus increasing net farm income.

The objectives of this phase of farm management are to demonstrate to farmers methods of correcting inefficiencies and poor management practices thus providing a means to obtain higher net farm income.

Considerable time has been spent this year working with farmers not on the mail-in record program or participating in the farm management schools. On many of these farms, only one phase of an enterprise was worked with, whereas on others the complete enterprise was considered. The only way the success of this type of program can be evaluated is through complete farm records which are not always available to Extension Agents; however, the procedures and methods of this program can be evaluated through similar work with farmers on the mail-in record program. However, examples of suggestion and recommendations made should be cited to illustrate the procedures and methods used. In cases where records were available to evaluate the success or failure of the changes made these examples will also be cited.

Example 1. - As was reported in the February monthly report for Bedford County a Grade A Dairy farmer in Bedford County was feeding a commercial 16% protein feed which was costing him \$85.00 per ton. He had several bushels of corn which he was selling at \$1.20 per bushel. The feed contained about 1500 pounds of T.D.N. (Total Digestible Nutrients) which was costing \$5.67 per 100 pounds of T.D.N. It was suggested that he switch to a home mix using his corn and soybean oil meal. Valuing his corn at \$1.20 per bushel and soybean oil meal at

The grade A dairy farmer is experiencing low net income and is considering other enterprises. He has available land to produce silage and grain, but budgets show that his net income per cow is only \$4.25 per year so he is ready to make some changes. We have determined his available resources, budgeted several alternatives, and are in the process of determining the size of enterprises that will be most profitable to the farmer.

The general livestock farmer is considering retirement and wants to sell his machinery and lease the farm and livestock to his tenant who has been on the farm for twenty-six years. The tenant is naturally interested in selecting the enterprises that will be most profitable to him so he has called on the assistance of the Extension Service. We are now in the process of Budgeting and determining the enterprises that will be most profitable.

The young tobacco farmer attended the farm management school and while there asked the agents for some help on increasing his net income. He realizes that he should not depend upon tobacco and cash grain alone for his income for the next several years. His farm is now in the process of being linear programmed and it is felt that some type of livestock will be added to utilize some of his available labor and also as a means of marketing his grains at a higher price.

Through budgeting, many weaknesses on these farms have been uncovered and some minor changes have already been made so these farmers are very much interested in seeing the results of the programming.

#### PHASE - FARM MANAGEMENT - LINEAR PROGRAMMING

As the agents work with farmers in West Central District, many problems such as feeding rates for dairy or beef cattle, fertilizing rates, machinery selection and use, and crop rotations come up and in most cases a complete or partial budget is worked up using the farmer's figures. These budgets are discussed with the farmer to give him an economic view of what he could expect by making a change, or adding an enterprise. By using these budgets, the farmer has a little more information to use in making his decision, and his decision will be on a sound basis.

Some farmers are beginning to wonder if their farm is being operated at the most economical level and if the enterprises engaged in are the most profitable for their individual situation. When a question such as this comes up, then a partial or complete budget will not be sufficient. The agent, along with the farmer, must take a complete look at the farm to see first what is available such as land, labor, capital, and of course, the level of management, and then complete budgets are worked up to determine the requirements and expected incomes of several selected enterprises. These enterprises are then combined and compared to see which will return the highest income. The enterprises are selected using the maximum number of livestock or acres the farm can handle depending on the resources available. Other enterprises are then selected that will use the resources such as labor, land, etc. that are remaining. The farmer then has a plan to follow that should return the maximum returns to him using his available resources. Of course, the decision as to whether or not the plan will be put into action is left with the farmer.

In West Central District there are now three farms that are in the process of being linear programmed; one grade A dairy farm, one general livestock farm, and one tobacco-grain farm.

3. Would you be interested in participating in future schools of this type?  
If yes, list your suggestions for topics to have covered.

(Response)

All farmers answered yes except one who wrote 'possibly' to the first part of the question. Topics to cover ranged from "Breeds of Dairy Cattle," to "Linear programming."

4. What is the best month for you to attend future schools?

(Response)

December, January, February, March, November and July - in order of popularity.

5. Any other comments on school arrangements, instructions, etc.?

(Response)

"Glad I could attend." "Schools (students) should be divided between enterprises." "Thank you for asking me to come." "Glad I had the opportunity to attend." "I would like to see more schools of this type." "Have a place where your feet won't get cold (Bedford)." "Round table discussion won't help." "We needed four days instead of three." "More of the same." "Thanks a million for the school."

(Response)

"outstanding," "Well planned and well presented," "Will help me make some important decisions in the future." "Time well spent." "Something to think about." "An eye opener." "Very timely and up to date." "Will help me in trying to cut expenses." "Thought provoking." "A great help to me." "This has been presented in a way that anyone should be able to understand it." "Vital to all farmers." "We need to spend more time on each topic." "Invaluable to me." "We need more of this." "Very good." "I don't see how I can keep on farming without this type of schooling." "Even though I received a degree in agriculture in 1955, I did not get this material presented in such a useful form." "A great benefit." "I have begun to get an idea of how to correct some of my problems." "I need a bigger head." "Helped me to point out the weak points on our farm." "The areas dealing with fertilizer purchases was particularly informative and needed." "Better than I had anticipated."

2. What is your opinion as to the quality of the instruction, visual aids, etc.?

(Response)

"Good." "Simply illustrated." "I don't think the visual aids can be beat." "Instructors were very good." "They sent the best (instructors) they had." "Well prepared and well explained." "Outstanding instruction, would like to have more." "Instructors were very well qualified." "Good quality." "Excellent." "Splendid." "It is obvious that a lot of time and effort went into this material." "Well above average." "First Class." "Quality of instruction was 75% very good, 25% not as effective." "Tell people (farmers) what information will be needed in school." "Instructors were outstanding, helpful, cheerful and friendly." "Everyone willing to help." "The agents knew their material." "Instructors seemed to be very interested in their work." "Some charts were a little confusing." "If I didn't understand they were very nice to give additional help." "Well planned and conducted in a business manner."

The three day workshop was then condensed to a one day presentation that was presented to all county Extension agents at the District Training meeting in October. This was the first opportunity the agents had to hear and evaluate the workshops to be held in their counties.

The first series of schools were started on December 2 and included the Counties of Bedford, Botetourt, Montgomery, Franklin and Pittsylvania.

Listed below are the attendance figures for this series of schools. It should be understood that each county was working for 20 farmers (students) in each school.

County	*Number of Farmers Signed Up	Attendance 1st Day	Attendance 2nd Day	** Attendance 3rd Day	Average Attendance Per Day	Average % of Number Signed
Bedford	21	17	20	16	17.7	84.1
Botetourt	17	16	12	13	13.7	80.6
Montgomery	18	15	12	10	12.3	68.3
Franklin	20	17	17	15	16.3	81.5
Pittsylvania	20	18	17	16	17.0	85.0

\* Number of farmers who actually paid the \$6.00 registration fee.

\*\* Extremely cold and snowy weather persisted during the 3rd day of school.

Each farmer was asked to complete a questionnaire at the end of the third day. The purpose of the questionnaire was to evaluate the effectiveness of the school and determine interest in future schools.

Listed below are the questions asked and the answers given by the farmers. In summarizing the answers it was necessary to group the responses into a limited number to give a cross-section opinion rather than give each individuals answers. Each item of criticism was given regardless.

1. Give your comments on subject matter covered as to usefulness, timeliness, and appropriateness to your farm situation?

#### A. 1. Phase - Farm Management - Farm Management School Program

It has become generally recognized that many farms are operated far below their potentials in terms of net farm income. It has also been demonstrated that through relatively small adjustments the net farm income can be substantially increased.

In 1962 a group of farmers in a five county area in Virginia proved that farmers are willing to participate in organized management workshops, to analyze their own farm situations and methods by which they could make adjustments for higher net farm income. This group of farmers plus other farmer organizations urged that this type of educational program be expanded to cover a much greater number of farmers. One particular farmer group at a state convention passed a resolution that the organization encourage the Extension Service to provide more of this type of schools for all farmers.

The immediate objectives of this program is to organize and hold a series of farm management workshops in each county in West Central District for the purpose of teaching principles and assistance in applying these principles to individual farm situations. The long-time objective of the workshop is helping farmers increase their net farm income.

Early in 1963, District Agent, County Agents and Farm Management Agents in West Central District met with specialists to determine the interest in these workshops and to organize a program to be presented in the sixteen county district. Farm Management agents prepared and presented the material at the schools with the county agents making arrangements and acting as host in their respective counties. Participation was to be limited to 20 selected farmers for each county. The schools are three days per county for six hours each day.

The farm management agents spent approximately 15 days working together in developing and rehearsing the school program. Many more days were spent working individually in developing various sections of the program.

in the 1962 records as the changes have not been fully completed.

Number of milking cows increased from 20 to 26 which reflects in total investment per cow, which decreased from \$1973 to \$1458.00 per cow. Purchased feed cost decreased from \$164 to \$127 per cow. Gross milk sales increased from \$9,784 to \$12,182 while total farm expenses decreased by \$2958 which resulted in a \$2241 increase in net farm income. Total machinery expense increased less than \$100 while labor cost increased by only \$152.

Farmer C, a part-time dairy farmer in Bedford County had been in the Grade A dairy business for several years. This farmer had been in the mail-in record program for the years 1960-1961 and 1962. The farmer received an accounting and business analysis, for each of the years in the program, which pointed out extreme inefficiencies in the management and organization of the farm business. Labor, machinery and milk production efficiencies were extremely poor.

Specific recommendations were made in each of these efficiency categories. It was suggested that the herd size be increased to better utilize labor and machinery. This could be possible, by additional investment in cows. Since the farm was selling on a non-base market, no investment in base quota was necessary. It was suggested that the concentrate feed cost be decreased by the use of a simpler ration which could save as much as \$23 per ton. Another suggestion was to increase corn silage acreage to utilize the present storage space, and as a means of decreasing total feed costs.

The records for the period 1960-1962 showed no improvement in the farm organization and as a result the farmer "sold out" and now depends on off-farm employment.

The comparison of record figures for the three year period are shown below.

	<u>1960</u>	<u>1962</u>
Dairy Feed Purchased/cow	\$185	\$199
Hired Labor Cost	\$4176	\$4072
Number of cows	29	27
Machine Cost/Acre Crops	\$75	\$998
Man Equivalents	2.0	2.2
Investment/Cow	\$2550	\$2866
Milk Sold/Cow	10,793 lbs.	10,279 lbs.
Net Farm Income	+ \$1644	- \$3339

Farmer A, a Grade A Dairy farmer: Franklin County, has been on record program since 1961.

On Farm A, the largest adjustment was made in the concentrate feed purchased per cow. In 1961, the cost of concentrates purchased amounted to \$97.00 per cow. In 1962, the cost of concentrates purchased per cow came to \$69.00. This was a saving or reduction in purchased feed cost of \$28.00 per cow. This savings of \$28.00 in purchased feed cost per cow on 45 cows in the milking herd amounted to a savings of \$1489.00. This savings was reflected in net farm income of \$1648.00 and a labor income increase of \$1194.00 with an increase of 2% return on investment. This farmer changed from a commercial concentrate mix to a corn and soybean oil meal with minerals mixture which was ground on the farm with a portable mix mill. The farmer revised his cropping system to include continuous corn on bottomland and increased corn production on upland in a rotation with alfalfa. This change in cropping system and increased production of corn was obtained without increasing machinery or labor costs.

The cost benefit ratio on this farm was approximately 1 to 30.

Farmer B, a Grade A dairy farmer in Bedford County, started farming with a C grade dairy about 10 years ago and progressed into the A grade business.

In 1961 an analysis was made on the farm business based on 1960 records. This analysis, as explained to the farmer, indicated that the available farm resources were not being utilized anywhere near their potential. Specific recommendations made were an increase in cow numbers to more efficiently utilize the resources of land, labor, machinery and buildings. The introduction of corn silage to the feeding program was also suggested as a means of providing more feed at a cheaper cost with the objective of decreasing feed cost per cwt. of milk and increasing total production per cow.

Shown below are the results of changes that were made using a comparison of records for 1960 and 1962. Some of the suggested changes are not fully reflected

PHASE - FARM MANAGEMENT - VPI MAIL-IN RECORD PROGRAM

It has become generally recognized that good farm records are a basis for sound farm planning and organization. Many farmers realize that the only way of increasing profit margins is through improved efficiencies and lowering total costs through planning and analysis based on good records. It has been demonstrated on numerous occasions that through relatively small adjustments, based on record analysis, the net farm income can be substantially increased.

The objectives of the mail-in record program are two-fold: The first being to provide basic, up-to-date and realistic input-output information on various crops and livestock enterprises for use by Extension agents in carrying out a successful farm management program. The second objective being to demonstrate the keeping of a complete set of farm accounts for use in planning and organizing farm records not enrolled in the program.

During 1963 there were approximately 100 farmers who received a detailed accounting and business analysis based on 1962 mail-in records in West Central District. In each instance the records were reviewed with the farmer and recommendations for improvement were discussed.

Informal observations have indicated many changes taking place on the record farms however, the only method of accurately evaluating the results of the program is through comparison of several years records from the same farms. Below are shown actual examples of changes that have taken place on farms that have participated on the record program. One farm did not show improvement. However, to be realistic in our evaluation, we know that every farmer does not make necessary and recommended adjustments. The example farms were from different counties in West Central District.

ANNUAL NARRATIVE REPORT  
FARM MANAGEMENT PROGRAM  
WEST CENTRAL DISTRICT - 1963

THE ANNUAL NARRATIVE FARM MANAGEMENT REPORT CONTAINED HEREIN  
REPRESENTS THE WORK OF THE FOLLOWING AGENTS:

R. K. PAINTER - COUNTY AGENT-AT-LARGE  
MILFORD D. WELCH - ASSISTANT COUNTY AGENT  
ROBERT L. FRANCIS - ASSISTANT COUNTY AGENT  
\*EVANS R. SCYPHERS - ASSISTANT COUNTY AGENT  
CHARLES E. BROWN - ASSISTANT COUNTY AGENT  
until October 1, 1963

\* Evans R. Scyphers works jointly in West Central and Southwest  
Districts. He worked full time in West Central District until  
July 1, 1963.