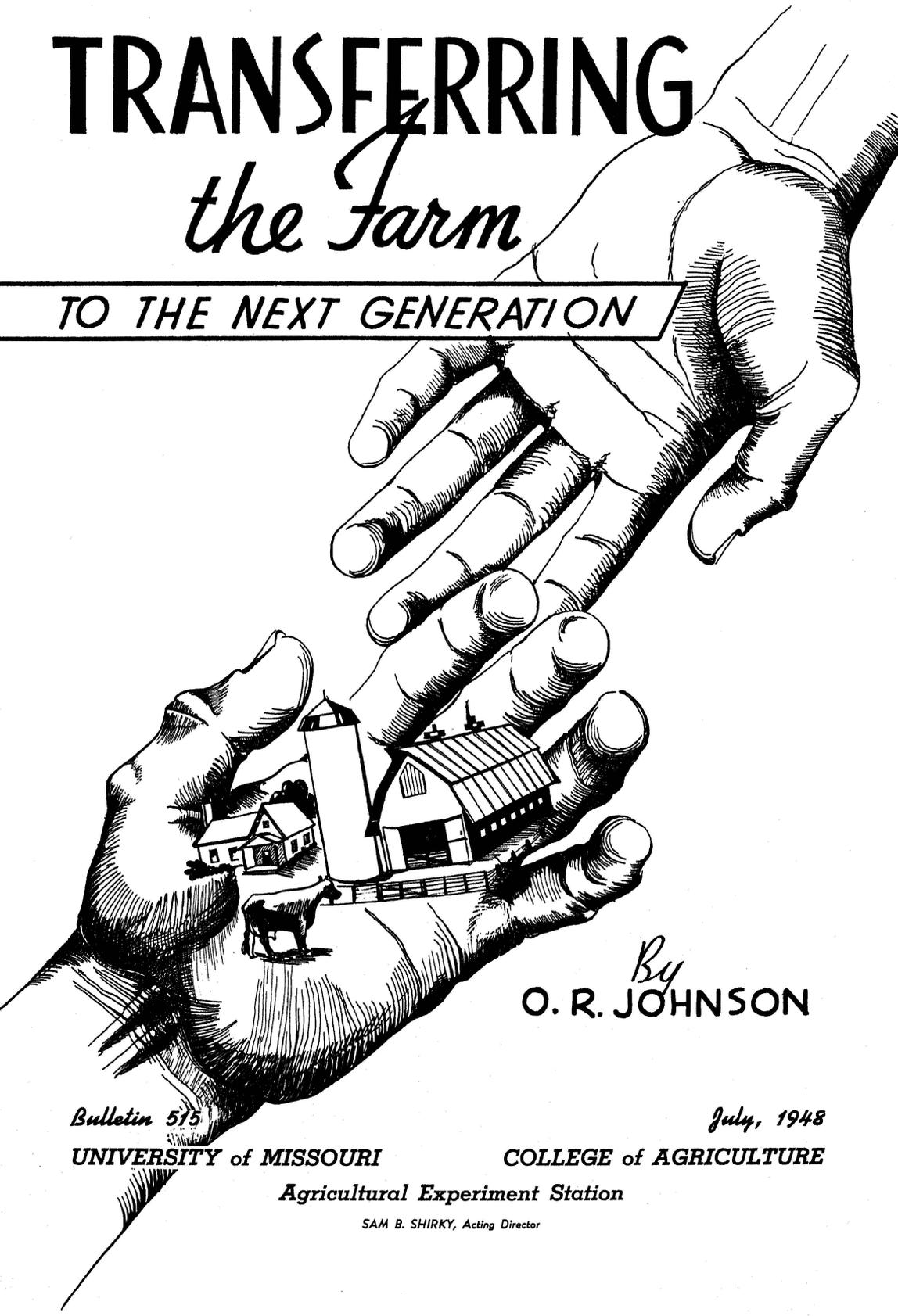


TRANSFERRING *the Farm*

TO THE NEXT GENERATION



By
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This Bulletin at a Glance

Transmitting the farm from father to a single heir is desirable from the standpoint of maintaining a farming unit of adequate size. This makes it necessary to satisfy the claims of other heirs without requiring a subdivision of the farm, and—if possible—without loading down the operating heir with an impracticable burden of debt.

This suggests a more practicable method of passing the farm on to a succeeding operator by making him liable for the rent value of the property plus an additional sum which, within a reasonable period of years, will amortize the capital value of the property.

Such a procedure introduces the problem of inheriting rent income rather than capital value of an heir's share in the estate.

This would cause inheritance to appear more like a limited term annuity. The peculiar nature of farm land may justify careful consideration of such a possibility.

Such a program reduces the operating heir's problem to one of paying for the farm on a commodity basis or by "payments in kind."

Such a manner of purchase of the farm removes the hazard of variation in the price level.

It requires careful appraisal of the productive value of a farm.

The next step would be to correct productive value for advantages or disadvantages which the farm might possess as a home.

Then it would be necessary only to compute from this resulting value annual commodity rent payments which would amortize this amount over a period of the active lifetime of the purchaser.

Annual payments would be made in commodities or the money equivalent of those commodities.

The same procedure could be followed in transferring an adequate farm unit from an elderly operator to a young beginning operator not possessing an heir's interest in the estate.

In such a program, only the factors of equity and economic feasibility have been considered. Legal aspects of the problem must be left to those trained in the law.

The objectives have been many, chiefly four:

1. To enable well adapted young men and women to succeed the preceding generation in operation of adequate farm units.

2. To avoid burdening such young people with fixed charge debt obligations which they may be unable to carry, thereby completely preventing their succession to a good farm unit because they cannot provide an acceptable initial down payment.

3. To assure them of permanent occupancy so long as they can operate the farm effectively.

4. To protect the interests of all parties having shares in estates thus transferred.

Transferring the Family Farm to the Next Generation

O. R. JOHNSON

Introduction

Transferring our farms from one generation to the next grows more and more complex. Few farms are large enough to be divided to meet all claims without reducing the individual share below the minimum size needed to provide the new owner with an acceptable business opportunity.

Very little new farm land is available for beginning operators. The amount of capital necessary to acquire title to the farm and essential equipment is farther beyond the reach of the young operator now than ever before.

Most farms, in fact, have reached the point where they require considerable capital outlay for replacement and modernization of buildings and other improvements. With increasing cost of labor, it becomes more important that improvements must be planned to save as much labor as possible.

For the same reasons, the young farm operators must have more power and equipment in order to carry on with much less dependence on hired labor. Capital requirements for equipment and power are two to six times as great as a generation ago.

Changed techniques and farming practices, along with a greater degree of specialization, have increased the cash requirements to meet current operating expenses.

This modernizing of farm equipment to get around the high labor cost problem makes it desirable to maintain a fairly large farm unit for economical distribution of the overhead cost of such equipment.

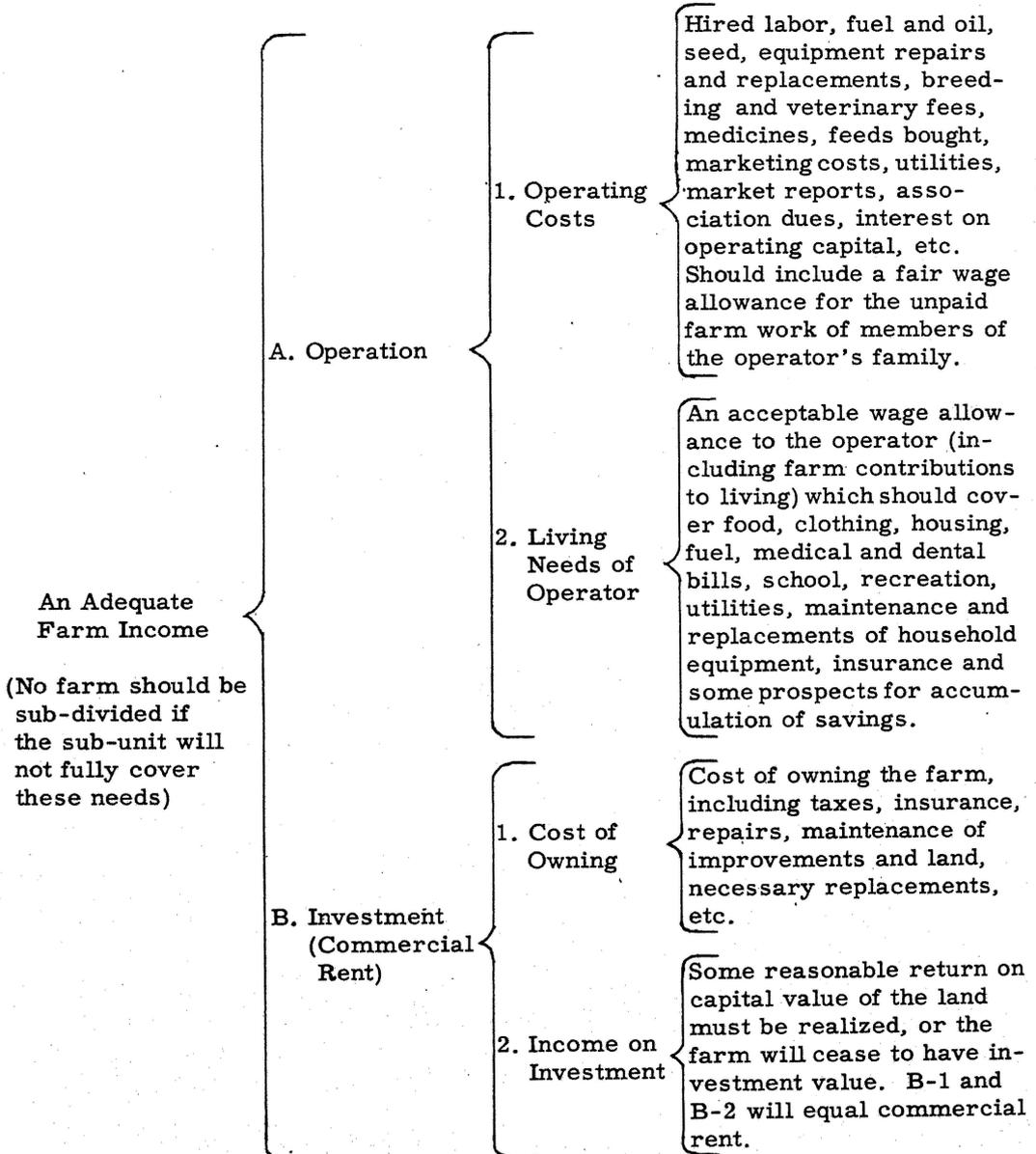
In reference to the increased requirement for capital investment in farm and equipment, it must be noted that facilities for financing farm business have been improved in recent years but they still lag behind financing practices in non-farm industries.

Reducing the heavy physical labor requirements of farming has in effect extended the active operating life of a farm owner, postponing the age of retirement.

Urban living costs and the availability of modern conveniences in the country home have deterred many farm owners from moving to town; therefore they expect to retire on the farm. This often involves building another set of living quarters for the father or his succeeding heir.

Where hired labor is kept on the farm it is now less frequently housed in the farm operator's home than a generation or two ago. This requires a laborer's cottage on the farm or the expense of his transportation to and from the farm. Providing a home for the regular hired laborer is generally less expensive than keeping him in a nearby village. And he is worth more if he lives on the farm.

The Burden Farm Income Must Bear



The Present Situation

Availability of Farms:—During the past five years the number of tenant farms presumably available for renting has declined. Now approximately three farms out of ten are still available for rent. There remain available no new lands sufficiently well adapted to farming to justify anyone counting on this possibility. On the contrary, the past five years of high prices and high farm incomes have greatly decreased the debt load of owner operators and caused many former tenants to become owner operators with substantial down-payments on their farms. Farmers are probably in a stronger financial position than for many decades. Any prospect of an appreciable increase in the number of farms available for rent or for purchase at distress sale prices in case of a business recession is very remote. Certainly such a prospect should not be depended on to help new operators become established.

Furthermore, modern equipment and methods have caused present well-established farm operators to enter the market for additional acreage. Because of technological developments we not only have little present opportunity for beginning farmers to acquire farms, but we have more present operators than will actually be needed to use effectively all available acres and provide farm products at the lowest possible cost to consumers. It is estimated that beside the shrinkage in number of farms in the past five years, we could take a further 20 per cent shrinkage and thereby decrease the cost of our agricultural production, at the same time actually increasing the supply of products.

Thus from the standpoint of having our lands effectively used in the hands of the more effective farm operators, there may be a further shrinkage in number of farm operators rather than a subdividing of present units in order to make a place for this new generation of young farmers.

There is another phase of this same problem which should not be ignored. Non-farm young people often make very effective and useful additions to rural communities. Many of these young people have been beneficiaries of high urban incomes and wages which have enabled them to accumulate funds with which to finance the operation of farms. Oftentimes they will make great contributions to the effectiveness of farming and rural living. In the education of young people our emphasis at the present time is more and more in the direction of fitting them for the vocation which best suits their wishes and aptitudes.

Capital is More Significant.—The problem of necessary capital to carry on farming in a satisfying and effective way looms large in the path of the young folks who want to farm. There are several angles to this capital situation. In the first place, the cost of the land itself, if it is purchased outright, while not as high as it has been, is still very formidable. This obstacle looms even larger when we remember that the number of acres required for the more common farming systems in Missouri has considerably increased because of technological changes.

Improvement Capital Needed.—Then there is the matter of farm improvements. Farm improvements become important for two reasons. First, many of our farm improvements have deteriorated to about the limit of their usefulness. Many will require replacement in the near future.

Second, and perhaps more important, many of these improvements are obsolete from the standpoint of efficient use of labor. Labor costs have become a very formidable element in farming, with a direct impact on the improvements required to offset increased wages and scarcity of well-adapted farm workers. Many farms will require a considerable capital outlay to remodel present improvements or provide new ones which will save labor in carrying on normal farming operations. It has been estimated that the improvements needed to modernize Missouri farms may easily require a new capital outlay equal to half the present market value of the farms.

Capital Needs for Equipment and Power Have Increased.—A second development which has changed the need for capital very materially is the development of modern farm machinery and equipment. Fifty years ago from one to two thousand dollars would fairly represent the investment in the machinery and power used to perform the work on a representative farm. Today it will require two to five times this amount of capital to equip the same farm unit adequately. It is not unusual today to find a farmer with an investment of four to ten thousand dollars in farm power and machinery without being over equipped. In some cases the capital tied up in farm power and machinery may easily equal or exceed the normal capital value of the land itself.

In 1900, a single farm worker farming 80 to 100 acres of crop land had about all he could do. Today, if he does not produce at least double the earlier level of output, he is either incurring costs which make the necessary selling price of the product prohibitive to the average consumer, or he must take for his work a wage far below that realized by urban workers. Modernization of the farm in both methods and volume of production is the only known means whereby

farm workers can justify wages somewhere near those being received by non-farm workers of no greater skill.

Capital Requirements for Breeding Animals and Supplies Are Likely to Continue Higher from Now On.—Prices of things farmers use in production have more than doubled since 1935-39 and are 65% above the 1940-44 level. This calls for correspondingly more operating capital for materials and farm supplies. Should the beginning farmer regard this as only a temporary situation or a more or less permanent increase?

This question will be answered largely by whether or not we may expect non-farm wages to remain where they are, or rise, or fall. The evidence so far certainly does not indicate any decline in non-farm wage rates. Technological improvements in non-farm production might offer some hope of lower prices for things farmers use in production. So far, however, the advantages of technological improvement seem rather quickly to be absorbed in increased wages to labor and management. So far, hourly wage rate increases have kept well ahead of improvements in technology of production which might otherwise have brought lower prices. So long as present policies continue, we need not expect reduced capital needs for farm supplies.

Livestock inventories have, on the average, increased about two and a half times. This has been due to two influences. One of these is the general rise in the price level since 1939. The second influence has been the necessary added emphasis on more productive breeding stock on farms. This emphasis on more productive cows, hens, brood sows, seed, improved soil treatment, etc. is sound economics. It is the farmer's effort to lift the output of the present farm unit toward a level that will permit agricultural living to compare more nearly with the living of other groups.

Industry has made determined efforts to reduce costs. Usually, the moment cost reductions have been achieved, the gains therefrom have been fully absorbed in increased wage rates for organized workers. No beginning farmer would seem justified in expecting prices for goods to use in production and prices for breeding stock, seed, etc. to return to the '35-'39 level or to some other level very far below the present.

The Cash Expense Needs of the Farm Have Greatly Expanded.—Still another development which has increased the capital requirement in farming is the much larger cash operating expense account. When farmers kept work horses and grew all the feed for those horses, and when they grew this work stock on the farm, the whole power equipment of the farm was provided at very little cash outlay. Breeding expenses were minor. The tax load was equally modest. Purchase of

commercial feeds was almost unknown. Farmers were troubled very little by cash outlays for veterinary service, breeding fees, serums, inoculations, and similar items. Farmers could generally finish the farm year with no more than a few hundred dollars cash money requirement. Living costs were equally modest from the standpoint of actual cash needs. Most of the family living was obtained directly from the farm. Transportation was furnished entirely by the farm. Young people's cash requirements in connection with their schools and social activities were modest indeed compared with requirements which today are accepted as a matter of course.

All of these developments have greatly increased the investment and operating capital needs of a modern farm. This is no small matter when young people try to assemble the capital now needed to start farming operations.

Modern Farm Machinery Has Increased the Minimum Practicable Size of the Farm Unit.—Farming is still a two-man job. This does not mean that ways cannot be found to overcome some of the handicaps of one-man farming, but the most effective use of resources will generally be realized when at least two able-bodied workers are available for the various farm tasks. Modern farm equipment has not changed this situation materially. It has only made possible the increase in output per worker necessary to maintain approximately the farm-nonfarm worker output ratio.

MEETING MODERN REQUIREMENTS

Adjusting the Size of the Farm Business.—There are two ways in which the size of the business can be increased to meet modern requirements. Either more acres must be farmed with the old degree of intensity, or operations must be greatly intensified on the same acres formerly used.

Farming more acres is a solution in relatively few cases. This would involve taking acres away from someone else. This may involve transferring acreage from one use to another or from one farmer to another. It may eliminate one farm in the interest of making another farm a more effective unit. If it results in better use of the acres transferred or in the release of an ineffective farm operator to some more useful work there is a net gain. Such results are not always obtained and opportunities in this direction are limited at best. Expanded acreage for individual farm units therefore offers a satisfactory solution in relatively few instances.

A better prospect usually exists for improving the efficiency with which present acres are operated. This effectiveness is achieved by one of three means.

The first of these will be through revision of methods which result in greater accomplishments per worker. On a dairy farm for instance, milking machines and modern milk rooms with cooling and sterilizing equipment can at least double the number of cows which one worker can care for. The same reasoning applies to poultry and some other livestock activities.

MINIMUM ADEQUACY

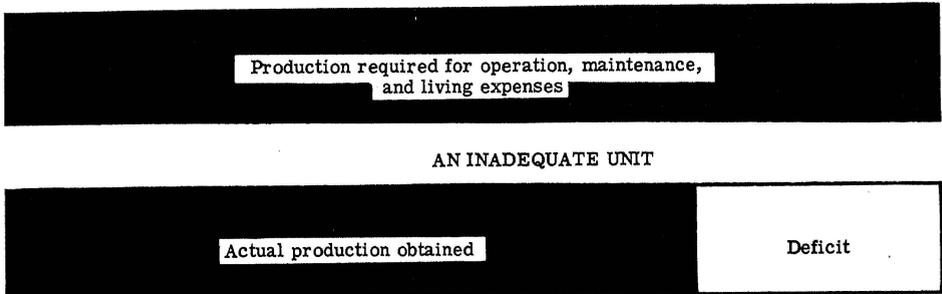


Fig. 1.—The farm unit, even at minimum size for adequacy, must produce enough for operation, maintenance and living expenses.

The second means of intensification is that of keeping more productive cows, hens which will lay more eggs per year, or brood sows which will farrow more pigs per litter. It would also include better feeding, sanitation, and handling methods which must go along with improved breed capabilities. Use of fertilizer, improved seed, and cultural practices are part of this method of increasing the size of business through better use of present resources.

Still a third means, effectively used by men who are good feeders and handlers of livestock, is that of concentrating on feeding and management of animals and purchasing more of the supplements used. This method must be associated with activities of farm operators in heavy grain and feed producing areas.

Even on present farms improved technology makes possible a great increase in the supporting capacity of present acres with no considerable increase in labor or other requirements. In the same area, there has been found a variation of as much as 400% in the supporting capacity of comparable acres of land.

Thus, there are found a number of means of improving the effectiveness of the size of the business which do not involve merely moving back the boundary fence and thereby encroaching on the boundaries of adjacent farms. They do however, mean increased capital needs to permit utilizing these improved methods and techniques.

Adjustment to Meet Price Changes.—The ability of a farm enterprise to absorb the shock of shrinking prices or increasing costs may be considerably less when purchased feeds, commercial fertilizer, etc. are a regular part of the enterprise. This will be true if operators expect to maintain normal farming activities. If the farmer goes back toward self-sufficiency in defense against declining prices, then he will tend to reduce cash expenses for feeds, fertilizers, etc., shrink his production schedule, and get along at the expense of conservation of the land.

The expanding cash needs for farm operation and living have probably made the farm family less able to survive any considerable drop in prices received for their products. Each new development seems to make farming more like an industrial business in this regard.

Farm Business Financing Has Improved but Still Lags Behind Non-Farm Financing Methods.—While considerable modification of customary farm financing methods have resulted in better financing, there is still much to be done to bring the financing of farm production more nearly in line with that of non-farm production. We may have put rubber tires on the old wagon wheels, but the wagon itself is still drawn by a slow work-team while the urban financing program is propelled by the most up-to-date financing vehicles.

Credit Must Still Be Well Secured and at Fixed Costs.—The farmer still has to accept complete personal liability when he uses credit. That credit still calls for a fixed rate of payment and it is generally secured by tangible capital security regardless of the nature of the project. The idea of the reward to capital (interest allowed) being contingent on the earnings of the industry, which is almost the rule rather than the exception in industry, has not yet been adapted for use in agricultural financing. Not only does agriculture have very limited access to low-cost capital, but the farmer user of that capital must guarantee a fixed rate of interest to be paid for the use of the capital, and must pledge very tangible physical properties for the repayment of the capital itself. An investor in non-farm business is willing to buy a piece of paper with no security behind it except an historic earnings record.

The idea that a farmer's ability to pay a high or a low rate for the use of capital should have any relation to his contract to pay, has not yet been integrated into the farm financing program. The farm is still an individual business unit, dependent on the whims of weather, markets and the continued effective functioning of a single farm operator. There is no historic earnings and dividend paying record to support a contingent interest rate on credit used. There is often little in the way of liquid assets on which creditors might depend. In case

of unavoidable misfortune, liquidation of the business is a slow and expensive process.

Farm Operator's Active Years Increased Through Mechanization.

—Another gradual, but at the present time, increasingly significant development is the effect of mechanization on the length of period of active operation of farms by farm proprietors. The physical requirements for successful farm operation have been considerably reduced during the past two or three decades. Farmers may work about as many hours as they ever did, although there are indications that even this has been reduced. Certainly the amount of heavy physical labor required of a farm operator has been very materially decreased. As a result, a man 70 or 75 years of age is still able to take care of most of the physical requirements of carrying on farming operations.

Thus the passing of the war emergency when older farmers were urged to remain on the job has not found them retiring from active participation as might have been expected. With power equipment they can carry on as they would have been unable to do without the aid of power to take the more strenuous physical jobs off their shoulders. This may have added five or ten years to the normal cycle of active management for farming operators. This results in an additional block in the way of young men who normally would have expected to take over. At this particular time, this delay has been unusually lengthened because of wartime influences. Thus, there are really two causes for lengthening the active operating life of farm managers in the present generation, namely wartime urgency and declining demands on physical resources of these operators.

Retirement From the Farm Is Now Too Expensive.—Another factor of far reaching significance, which contributes to keeping farm proprietors on the farm beyond former normal retirement age, is the greatly increased cost of retirement to town or city. The expense of providing himself with a home and other actual living costs in town have approximately doubled in the last ten or fifteen years. Thus, a proprietor who might have moved away from the farm and lived satisfactorily on the rent income from that farm can no longer do so. He, therefore, is forced to keep on farming in order to retain that part of his living which comes directly from the land. This is probably forcing many farmers to retire on the land. In fact, this has been regarded for many years as a highly desirable method of retirement when age has robbed men of their ability to continue active farm operations.

These developments have been aided by the increasing availability of electricity and other modern conveniences for the farmer. An elderly farm operator can now retire to a completely modern cottage

on his farm and enjoy every convenience of the city at much less than the cost of providing such convenience in the city itself.

Table 1.--Cost of Production, Total Production, and Net Rents of Nodaway County Farms, with Varying Acreages 1/

Acres*	Cost of Production (Feed Units)						Total for Living and Cost of Production	Total Production**	Net Rent
	Family Living	Operating Expenses	Interest on Tenant Capital	Landlord's Necessary Expenses	Interest on Landlord's Improvement Capital	Operator's Management Charge			
80	1535	233	66	252	168	....	2254	1980	-274
120	1535	479	64	364	221	....	2663	2842	179
160	1535	638	95	397	308	95	3068	3703	635
200	1535	493	110	512	341	164	3155	4565	1410
240	1535	686	133	493	382	221	3450	5427	1977
280	1535	922	159	960	377	269	4222	6289	2067
320	1535	1202	433	755	408	312	4645	7151	2506

*Midpoints of class intervals of grouping by size.

** $X_1 = -2610.53 + 21.546X_2 + 124.807X_3$.

Tables 1 and 2 are taken directly from Missouri Experiment Station Research Bulletin 308. In Table 1, a constant living level is assumed. Actual operating and real estate expense are given in terms of feed units, a unit being a bushel of corn or its equivalent. These data from a good farming section in Missouri show the amount of product available after all living and operating costs are met, which together with the interest charge on improvement capital might be used for interest and capital payments on the capital value of the real estate. The important thing is that it shows even in a good farming area there are some farms with no balance remaining after living and operating costs are met. Consequently, there is no chance to eventually pay for such a farm. The farm unit would be inadequate if handled in this manner.

Table 2.--Acres Required to Afford a Net Rent at Various Levels of Land Quality in the Big Creek Watershed, Callaway County, and Nodaway County 2/

Productivity Index	Big Creek Watershed			Callaway County			Nodaway County		
	Acres Required	Percent of Average Acreage	Feed Units per Acre	Acres Required	Percent of Average Acreage	Feed Units per Acre	Acres Required	Percent of Average Acreage	Feed Units per Acre
50	...	...	8.84	...	...	8.20	...	...	11.63
60	...	...	10.60	...	...	9.83	...	...	13.95
70	311	136	12.37	540	245	11.47	211	123	16.28
80	248	109	14.14	315	143	13.11	159	92	18.60
90	207	91	15.90	222	101	14.75	127	74	20.93
100	177	78	17.67	172	78	16.39	106	62	23.25
110	155	68	19.44	140	64	18.03	91	53	25.58
120	137	60	21.20	118	54	19.67	79	46	27.90
130	123	54	22.97	102	46	21.31	71	41	30.22
140	112	49	24.74	90	41	22.95	63	37	32.55
150	103	45	26.51	80	36	24.59	58	34	34.88

2This table taken directly from Research Bulletin 308, shows for three different areas in Missouri the influence of productivity on the minimum necessary acres in the farm unit to provide income above living, operating, and maintenance costs, which might be used to pay for the farm. In all three areas there were farms providing insufficient total physical production to make possible the eventual acquiring of ownership by payments from surpluses. The only way in which an operator could hope to own one of these inadequate farm units would be to reduce his living requirements below minimum adequacy, to get income from outside with which to make payments, or to operate the land much more effectively than it has been operated so that margins would appear where no margin now exists.

Father and Son Provide a Two-Man Farm Labor Force.—These developments along with the almost prohibitive wage scale for hired

workers now prevailing are tending to emphasize the importance of having available the services of both father and son to achieve maximum efficiency. The typical diversified farm of the great central basin has long been recognized as better adapted to a two-worker setup as a minimum. Thus, it is found economically more expedient for a father to retire on the farm and maintain limited participation in the labor and management of the farm.

In effect, this reduces the demand on mother and the other children of the farm family. This has occurred at a time when increasing school and extra curricular demands on children reduce the help they can give in farming operations.

Really all of these forces seem to be working together in the interest of both father and his grandchildren. The father who is semi-retired can take care of most any class of livestock and help in field operations, when these operations call for two-man activities, better than could a hired worker who cannot be provided with more than temporary employment. Also the boys and girls of high school age, a considerable percentage of whom will not spend their adult lives on the farm in any event, are enabled to concentrate on their school training, including vocational training, which will better equip them for work when they reach maturity.

Character of the Farm Labor Supply Is Changing.—In many instances, the farm operator no longer depends on his own family, supplemented by a neighbor's son, to provide most or all of his labor needs. Nor does he, as frequently as formerly, keep the "hired hand" in his own home and board him at the family table.

There are several contributing causes to this situation. First, perhaps is the tendency for neighbors' sons to be in school more of the year and more years than formerly. Fortunately for the boy, and the community later, he is able to be in grade school at least eight months out of the year for eight years. Then he is more often found in high school, with vocational specialization, for two to four more years, which may be extended to six or eight years with some junior college or university work added. And there are usually many extra curricular activities in which he participates during the school year, which reduces his serviceability to some degree, but gives him experiences more comparable to those of other young men.

Thus fathers often must look elsewhere for assistance in those busy spring and autumn months of the corn belt diversified farm year.

The more dependable of available hired workers are usually married men and will require living accommodations for their families on or near the farms where they are employed. This calls for a second

dwelling on the farm or a considerable wage allowance to cover living and commutation costs if the worker must live in town.

Even if he is single, farm families seem less ready than formerly to keep the hired man in the home. Furnishing room and board to a worker, not a neighbor boy, and, usually an older worker, is less easily fitted into the family living pattern.

Many Farms Not Equipped with Laborer's Cottages.—Many farms do not have adequate living accommodations for present day available married hired workers. A generation ago the need was less and the necessary capital not even then available to provide such a dwelling. Living requirements have increased, and quarters which once were tolerated are no longer acceptable.

There is some reason to regard the provision of a second dwelling, which may be used at times for hired workers but which eventually will serve as the place to which father can retire when son takes over, as a more essential part of a normal set of farm improvements. Such foresight may also contribute materially to the "acceptability" factor in providing a hired worker with living accommodations.

A Home on the Farm for the Regular Hired Worker is Usually More Satisfactory.—Keeping a hand in town and letting him commute to the farm is usually not as satisfactory as having him live on the farm. With many livestock enterprises the presence of the working force on the farm at all times greatly reduces risk in connection with these enterprises through having available assistance for emergencies which occur in connection with livestock farming. Commuting workers are quite satisfactory for most cash crop operations, but are less satisfactory with livestock enterprises.

A further advantage lies in the net cost to the employer of keeping the hired worker on the farm as compared with paying him enough more to allow him to live in town and commute to his work. For a well adapted worker, the cash wage offered with a comfortable modern cottage on the farm, with the usual privileges (garden, fuel, milk, meat, and a place to keep some hens) becomes as attractive in the form of real income as a much higher cash wage if he must live in town. City rents plus transportation to and from the farm are increasing burdens on cash wage rates for farm workers who cannot be offered farm accommodations.

This rather extended review of developments which are occurring and which are closely related to the methods by which farms can be passed on from one generation to the next indicate that if farming of the future is to be conducted on adequate farm units, adequately equipped for efficient operation, and providing prospects for living and income comparable to those enjoyed by their urban neighbors; then

considerable modification of the present typical farming setup is indicated.

Present Farms May Not Be Able to Provide All These Desirable Requirements.—Many farms as they are now operated, are not sufficiently productive from a total physical volume standpoint to afford these circumstances. The problem of son succeeding father on a farm unit which is not easily subject to expansion other than through greater intensification is very different from that of a generation or

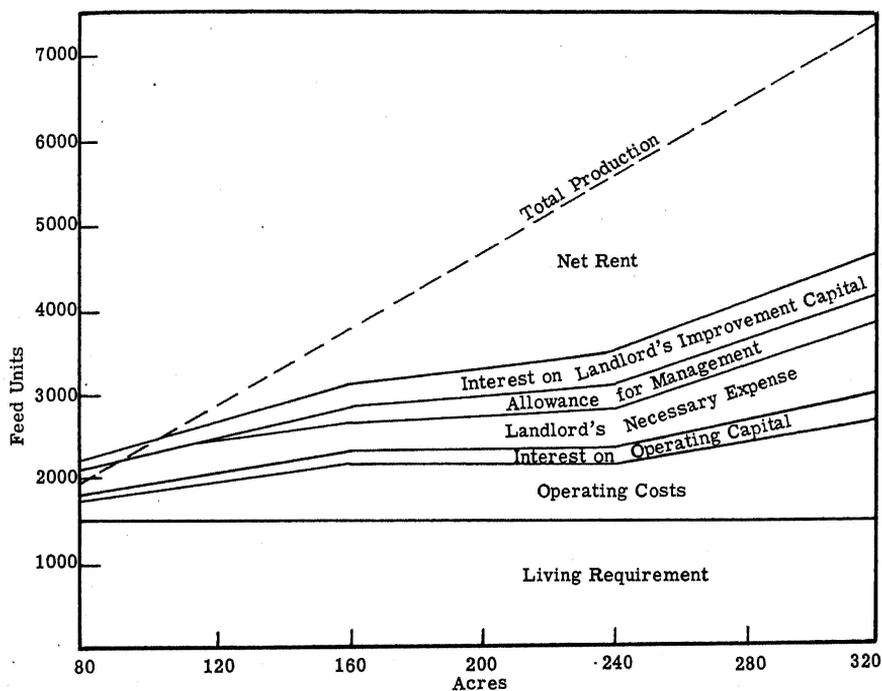


Fig. 2.—Production costs, total production, and net rents of farms of varying acreages in the Nodaway County Area.³

two ago, when the son could move on to the new frontier and establish his home there. The present situation is not likely to be greatly changed in succeeding generations so far as physical resources are concerned. Present planning for orderly transfer of an adequate farm unit from one generation to the next must, therefore, be worked out so carefully that it may apply to generations as yet unborn.

Present Customs and Practices Will Not Meet the Need.—Western Europe and the Orient provide examples of what happens to rural living levels with successive subdivision of estates as generations

³Taken directly from Research Bulletin 308, Figure 5, shows graphically the effect of acres operated on farm unit adequacy with a constant level of productivity. Until a farm became at least 100 acres in size, there was no net rent after living and necessary operating costs were met. The detailed analysis of this situation will be found in Missouri Experiment Research Bulletin 308.

pass. Such a condition would not be acceptable in America even if we did not have the added arguments of mechanization and other measures which increase production per man.

Neither are we willing to change the rules of inheritance permitting the entire farm unit to pass on to one heir, leaving the other children without heritage, or more or less dependent on the one who would inherit the farm. Therefore, it becomes increasingly urgent that we face frankly this problem and try to develop means of avoiding uneconomic or inequitable procedures.

For many years an expression "recapitalizing the farm every generation" has been used in our everyday discussion of succession. This expression formerly could be treated rather lightly, but it can no longer be so treated in view of present capital requirements and the imperative need of maintaining adequacy of a farm business unit.

PLAN OF TRANSFER MUST BE FAIR AND PRACTICABLE

Our problem then becomes one of examining the possible means whereby farms of adequate size and productive capacity may be transmitted from one generation to the next. Where the next generation has adequate financial resources and acres to use the available sharing and financing methods of acquiring that farm and still have adequate capital with which to efficiently operate the new units, there is no problem.

But for farms not large enough to divide among the heirs without destroying adequacy of the resulting units, or for heirs who do not have adequate means for buying the interest of other heirs to maintain adequacy without assuming an unbearable debt load, the problem is very real. Any acceptable method must avoid burdening the beginning operator with an unbearable load of debt or inadequate operating resources, while at the same time it must not deny to others who have property rights in the land the enjoyment of their birthright.

Is Inheritance of Farm Land Unlike Other Kinds of Inheritance?—

Both by law and custom, inheritance of land is regarded much like that of any other kind of property and is considered as a right to capital rather than to a share in income from land. Probably our biggest difficulty has arisen from that very conception. Some light may be thrown on the problem by reviewing a few of the characteristic differences between land and capital.

Land has value because it provides rent income because of its productive powers or its advantage of location. It is tangible and comparatively durable. It has inherent productive powers and is scarce.

On the other hand capital is man created. One can buy things with it. It earns interest instead of rent. From a use standpoint, capital is depreciable to a point of complete disappearance. Capital is divisible into small units without destroying its usefulness. On the other hand, land is not susceptible of indefinite sub-division or expansion without seriously affecting its usefulness.

Should Land, or the Rent Income of Land Be Inherited?—It is perhaps this latter characteristic of land which might well lead one to question the assumption that heirs have a right to the inheritance of unlimited fractions of an original unit of land. This along with the fact that individuals cannot consume land or spend it to obtain consumption goods but can only get benefit from it through the receipt of rent income suggests that perhaps land and its inheritance should be regarded from the standpoint of its rent income or what it will produce. From this consideration, the conclusion may be drawn that what really should be inherited is the right to a share of the rent income of land. This rent is easily expressed in some capital unit and is divisible and dependable. Rent has a perfectly good commercial connotation.

Inheriting Rent Income Would Simplify the Financing Problem for the Beginning Farmer.—If inheritance were regarded from this standpoint, the major obstacle confronting the young man who wants to farm but who does not own an adequate farm would have been removed. It would be perfectly feasible for one heir to pay to the other heirs their share of the rent income from such a farm. Often it is fatal for one heir to shoulder the capital burden of borrowing enough to purchase the shares of other heirs in the estate.

It is a simple step from this point to one of regarding the farm as possessing product value rather than capital value. If for the sake of developing the point of view, our thinking is transferred from the capital to the rent income concept, we at once see how the typical young farm operator would avoid a common mistake of many beginning farmers. Many try to make a living and accumulate savings to purchase a farm which they do not own and whose productivity is insufficient to provide complete ownership. A considerable percentage of the farms in the United States (perhaps one half), are so limited in their total productive power as now operated, and under typical price and cost conditions, that they cannot possibly give the operator and his family an acceptable level of living, pay operating costs, commercial rent, and leave a surplus sufficient to permit the operator to acquire complete ownership of the farm within his active lifetime.

Many American Farmers Depend on Rent Income and Wages for Their Living.—The average farmer in the United States lives as well as he does because he lives in part on the rent income of his farm

and in part on the labor earnings he realizes from farming that land. In other words, if he owns the land, the rent which should be credited to the land supplements wages for labor and management. Herein lies the grounds for the assertion that most farmers are "underemployed" and much land is submarginal in that after paying reasonable wages to the operator and interest on operating and improvement capital there is not enough left out of the gross production to provide economic rent, to say nothing of allowing commercial rent which would include complete maintenance of the property.

Beginning Farmer Might Start Without an Impossible Debt Load.

—The foregoing has in it the suggestion that perhaps with an adequate farm unit a well trained young farm operator might be entrusted with the property without a heavy mortgage debt with a fixed interest charge, but with a contract that annual product rent or its equivalent would be paid at a sufficient rate to provide complete ownership of the farm within that man's normal lifetime. Thus, whatever other resources he possessed could be devoted to the effective operation of the farm. Actually the gains from such a process would be in two major respects. First, no down payment of capital would be required with mortgage and fixed interest charges specified. Second, permanent tenure equivalent to that enjoyed by owner-operators would be assured. The farm still has to be operated with sufficient effectiveness to earn a living for the proprietor, provide other income sufficient to cover operating expenses, maintenance costs and sufficient surplus to pay for the farm within the contract period.

Paying for the Farm on a Commodity Basis Removes Important Hazards.—It also removes the hazard of price fluctuations because payments are made in commodities or their equivalent in money. Commodity income is highly dependable. Much of the embarrassment of debt burdened farm operators in 1931-34 and in earlier depression periods was due to price fluctuations and not to any failure in the realm of physical production.

Implementing the Transfer of the Farm.—The buyer is assuming the risk of seasonal variation in yields in addition to responsibility for keeping taxes paid and keeping the improvements and soil in a good state of maintenance. Crop insurance would permit some shift of part of this risk.

Under such a program, the value of the farm is "frozen" at a specific level of productivity at the time the purchase contract is drawn and accepted. Subsequent improvements in productivity would accrue to the benefit of the purchaser. Any decrease in productivity would be to his disadvantage and would mean that the percentage of

the total production which he must pay annually would increase as productivity of the land decreased.

Land transfer to a son or a neighbor's son could be accomplished by means of a land purchase contract which would specify method of payment in annual rents rather than by a lump sum payment of cash which the young operator does not have. Such a contract could fully protect both parties and the land, be transferable, and could be terminated at any time only by voluntary agreement of both parties, so long as each has not violated its terms. The purchaser could have substituted for the contract a deed and transfer of title whenever the accumulated annual payments have become sufficient to allow financing with ordinary banking methods.

Determination of a Fair Product Value of the Farm Would Be the First Step.—What is the annual rent value of a farm? It really consists of the usual commercial rent plus an amount which, when accumulated with interest over a period of years, would equal the capital value of the farm. An illustration would be the semi-annual payments made on an amortized Land Bank loan. These payments cover interest on the loan and repayment of that loan in the contract period. A loan of \$10,000 at 4% and running 34½ years would be completely repaid by semi-annual payments of \$270. If corn is worth one dollar per bushel it would require 270 bushels of corn or its equivalent every six months or about 546 bushels annually (paid at end of crop year, and not in advance) to retire the loan.

If the number of years covered by the contract is reduced the size of the annual payments would be increased; as the years pass the portion allowed for rent would shrink and the amount credited as a repayment of principal would increase.

Both seller and buyer, owner and purchaser would have to agree on a fair value for the farm, and the annual rate at which this would be paid (interest and principal). Then this amount would be converted to the product or products most commonly produced in that community. The contract would then be written in terms of this product. It could cover the full value of the farm, or this value less whatever down payment the buyer could spare without sacrificing needed operating capital.

The purchase contract would specify that the purchaser would pay annually to the seller a specific number of units of farm product of a definite grade, or the cash equivalent value of those units the year the payment is due. The payment could be one product or a combination of products. It could be in bushels of wheat or corn, bales of cotton, pounds of beef, pork or butter fat, or any other product. In any event, the specific grade of the commodity or commodities must

be agreed upon. In practice no doubt the money value of that quantity of product of the specified grade would probably be the form of payment. In case of those products traded in the "Futures" market, both buyer and seller could use the hedging process if they deemed it advantageous.

Every annual payment the purchaser made would bring him one year nearer complete ownership of the property. The purchase contract might provide for extra payments if the tenant found this feasible, thus decreasing the period of time between purchase and complete ownership.

Rights Embodied in Such a Purchase Contract Should Be Transferable.—There is no economic reason why such a contract could not be transferable. Either purchaser or seller should be able to sell their interest in such a contract. Such a sale would no doubt need to be made with the approval of both parties for rather obvious reasons. A purchaser of the seller's interest in the contract would be buying the right to the payments still due. He would also be obligating himself to assume title to the property in case the other party to the contract, for any reason, found himself unable to complete his payments. A person acquiring the purchaser's interest in the contract would be reimbursing the purchaser for the payments already made, and would be acquiring the privilege of completing the contract and thereby acquiring title to the farm.

The seller of the property would be in the position of an owner of a matured annuity contract, except that the annual income from such an annuity would be specified as a given quantity of a given grade of farm products, or the cash equivalent of that quantity at the time payment is made.

The Purchase Contract Should Specify Maintenance of the Farm.—Reasonable maintenance of the farm should be included in the terms of the purchase contract. Sellers of farms where formidable mortgages are involved face the possibility that the new operator will seriously deplete the productive resources of the farm for a few years and then allow delinquency in payments on the mortgage to restore a depleted farm to the mortgage holder. Depletion may be sufficient to make down payments plus payments on mortgage debt seem like modest annual commercial rents. Terms of a purchase contract could be so drawn as to avoid largely the prospect of such an eventuality.

A purchaser could be credited with any additions in the way of improvements made on the farm. This would not affect the size or number of annual payments, but in case of difficulty in meeting an annual payment could be of benefit to the new operator by influencing creditors to postpone dispossession action.

Table 3.--Illustration of the Application of Annual Rent Payments in the Purchase of a Farm.

Land Classification	Acres	Gross Rent Income	Conversion Factor	Corn Equivalent Value (in. bu.)	
Intertilled Crops, Corn.....	40	480 (at 2/5 rent).....	1.00	480	
Small Grain, Wheat.....	40	200 (at 1/3 rent).....	1.04	223	
Meadow (rotation).....	20	10T (at 1/2 rent).....	.60	214	
Permanent Open Pasture.....	40	960 cow days.....			
Woods Pasture.....	14	140 cow days.....	.175	192	
Building Block and Waste (annual use value).....	6	\$120.00.....	---	200	
Total.....	160			1309	
Less Taxes and Upkeep at 3 bushels per acre.....				480	
Net Corn Equivalent Rent Value.....				829 bu.	
Corn Equivalent Value of Farm Capitalized at 6%.....			13,816 bushels		
Corn Equivalent Value of Farm Capitalized at 4%.....			20,725 bushels		
			Number of Payments (years)		
Annual Payment Needed to Amortize (in bushels)-		25	30	40	50
At 6%.....		1,080.8	1,003.7	918.2	876.5
At 4%.....		1,326.6	1,198.5	1,047.1	964.7

Notes on Table 3.—In the above illustration the land classification used is typical of the distribution of acreage for much of our medium grade agricultural land. Gross rent income for harvested crops is the most customary rate used in Missouri for land of this grade. The rent income for pasture land is converted to corn equivalent and to cow days for the most customary cash rent rate for this quality of pasture, using a corn equivalent factor of 9.8 pounds of corn equivalent per cow day. The rent income for building block is the estimated use value converted to corn equivalent on the basis of the most customary rent allowance for a farm of this quality, and a 60 cents per bushel allowance for corn. The conversion factor to corn equivalent is based entirely on the net energy equivalent evaluation of the different crops. The tax and upkeep charge is also converted to bushels of corn from the dollar cost for taxes and upkeep taken from representative farm cost records for this quality of land.

Attention is called to the results from computing the amortization rate for 25, 30, 40 and 50 year periods. Using a capitalization rate of 6 per cent and a 50 year period for amortizing the productive value of the farm, the operator would have to pay only 47.5 bushels of corn or its equivalent above the net rent value to become complete owner of the land in 50 years. On a 4 per cent basis he would have to pay 135 bushels per year above the net rent value. On a 30 year basis at a 6 per cent capitalization rate he would have to pay 174.7 bushels above the net rent rate to own the farm in thirty years. This would have to come from his share of the crops or from his income from livestock operations. Few farmers could spare the excess charge over net rent to amortize the principal in 25 years; but 30 annual payments or more are readily within reach of most good operators on a reasonable sized farm.

Prompt surrender of the property with partial or total loss of principal payments already made, plus improvements added to the farm would be the maximum penalty a purchaser would pay for failure to observe reasonable maintenance and conservation practices.

In an effort to illustrate how the program would work, Table 3 presents a purely illustrative example of how payments are computed, what the total payment would be, and how it would be affected by the period of time covered by such a purchase contract. This table is taken directly from bulletin 378 of the Missouri Experiment Station. In a further effort to show how important its functioning could become, there is given the following examples of present situations to which such a procedure could appropriately be applied.

CASE I. Farmer "A", 65 years of age wishes to retire from active supervision of his farm. He could sell it outright to some one with ample resources to completely finance the transaction. In this case, he would have the problem of reinvesting this capital in such a way that he would have the income from it and perhaps some of the principal to meet his living needs through the remainder of his life.

Or if the purchaser did not have cash enough for complete payment, the seller might take back a mortgage on the farm as security for any unpaid part of the consideration, in which case he would be interested in the way the farm is treated while it remains as security for money owed him.

He might prefer to have the farm stand as an income producing investment without his having to retain responsibility for its operation or maintenance. He might rather have his capital in the farm than have it paid him in a lump sum. With these thoughts in mind, he turns to the possibility of assisting a worthy, dependable, industrious young man who wants to become a farm operator. The young man he has in mind does not have enough capital to make a reasonable down payment on a farm and the necessary additional capital to operate such a farm effectively.

The present owner does not wish to turn over the farm to the young man without a fair prospect that the boy can operate the farm, make an acceptable living, meet his yearly payments, and keep the farm in good shape from a soil conservation and improvement maintenance standpoint. The owner does not even want to look forward to the possibility that the farm might need to be repossessed by his wife or other heirs after he is gone. Consequently, by use of a purchase contract, he proposes to transfer the farm to the young man who has ample operating capital but no additional resources.

This contract will require first of all adequate maintenance of the farm. Second, it will require an annual product payment (or its

equivalent) for a period of years, determined by the amount of product from normal production which the purchaser can spare over and above operating expenses and necessary living allowances. The amount paid each year is computed just as the amortization payment on an amortized loan is computed. The total consideration is determined by a fair appraisal, and when compared with the annual product which the young man can spare, will give the number of years it will require to completely pay for the farm. Each year's payment must be sufficient to cover the proportionate part of the principal and interest on unpaid balance. It can be computed either as a constant rate of payment or as a decreasing annual sum. If the buyer uses a good system of farming and efficient methods, he will be able to complete his payments in fewer years than if he uses average or poorer methods.

The purchase contract could permit additional payments on any annual payment date. It could specify that he may refinance with any of the usual lending agencies whenever the payments have reduced his total obligation sufficiently to make customary commercial facilities available. Under such a program, the purchaser has acquired the operating privilege of a good farm with little likelihood of being dispossessed so long as he keeps up his annual payments and maintains the property. He is not required to sacrifice operating capital to make an adequate down payment on the appraised value of the farm, as is often the case when a substantial down payment is required.

The contract could require the purchaser to carry term or other form of insurance to protect the creditor in case of death or disability of the purchaser. (A kind of bond of performance)

From the seller's standpoint, the most important items would include: first, protection of the property from exploitation and depletion. He has virtually exchanged his farm for a contract to receive a specific number of annual rents, and therefore must be concerned that for at least a considerable portion of the time involved, the farm will be maintained in at least as productive a state as when the transfer was made. This period would normally be determined by the years required to cause payments to accumulate sufficient equity that ordinary farm financing facilities may be utilized to refinance the entire transaction.

Again the vendor is concerned that unailing collection agencies be at all times available to take over the task of collecting annual payments and also check on performance of contractual obligations. This duty could be performed by one of many banking or estate management concerns already licensed to perform duties of trusteeship.

When the final annual payment has been made the vendor or his representative would have issued to the purchaser a clear title to the

property in the form of a warranty deed.

If the seller preferred, the purchase contract could leave responsibility for taxes with him, thus necessitating collection from the purchaser of additional product sufficient to cover the tax item over and above that needed to cover interest and principal payments. The only reason this arrangement was not specified above is that tax payments required may vary through the years, and consequently, must be computed from year to year, while the amortization payment is a constant payment and can be specified in the contract for the entire period.

CASE II would be one where parents desire to pass on to one of the children the responsibility for management and eventual ownership of the property. Most of the considerations involved in the purchase contract mentioned in Case I would still be applicable. Parents might wish to reserve living accommodations or other security arrangements similar to a "Bond of Maintenance"¹ which could be readily accomplished under such terms. The purchase contract could become part of the father's estate and subject to the same inheritance rules as any other form of property.

While the contract would not represent a specific capital sum, but would represent the specified number of annual rents, there is no reason why it would not be susceptible of computing a present worth and be transferred on that basis, assuming that one or more of the heirs would prefer cash rather than annual rent income.

The purchaser might at any time, buy out the interests of any or all heirs in the purchase contract, thus reducing the *net* payments due or shortening such a contract. If he purchased the claims of all others represented in the contract, he would be entitled to a warranty deed to the property, except for the obligations represented by the "Bond of Maintenance" supplement, in case one had been included in the purchase agreement.

In the foregoing, it appears that there would be introduced into the financing procedure a flexibility which is not now a feature of customary transfer of title to farms. In addition to placing certain risks where they belong or eliminating them altogether, as already indicated, certain other important gains are realized. These include relieving all interested parties except the purchaser of responsibility for management and maintenance of the property. Furthermore, it gives the purchaser permanence of occupancy similar to that he would have if he acquired title to the property through direct purchase involving ordinary mortgage financing.

¹Wisconsin Experiment Station Bulletin 157, September, 1945, Parsons and Waples.

Annual Rent Financing Program Could Cover Operating Capital Needs.—If the farm unit is of sufficient productive capacity and if the purchaser requires operating capital in addition to the land, it would be possible to cover operating capital costs as well as real estate capital charges in the annual product payment. Thus, the farm business could be financed 100% with such a purchase contract. If the farm is worth \$20,000 and the seller has \$10,000 in livestock and equipment which can be transferred with the land, then the purchase contract can be drawn for \$30,000 with the annual rent specified sufficient to amortize \$30,000 in the time period agreed upon. In case seller and buyer decide to include all operating capital such as livestock, equipment, feed, and supplies in the transfer, the "Bond of Maintenance" already referred to would often be required as a necessary supplement to the "one hundred per cent financing" agreement. Thus, it would be possible to use such a program to transfer a farm unit to a son and at the same time, assure the father and mother that they would be provided for, during the remainder of their lifetime.

All this is accomplished without involving heavy fixed charge debt assumptions on the part of the son, and without jeopardizing the rights of other heirs in the estate. Considering the greatly increased requirements in the way of operating capital, cash operating costs and the greatly increased capital value currently attributed to real estate, it would seem that provisions something like those here outlined would help remove this barrier to succession.

Doubtless other instances of need to which such procedure can be adapted will be found in some communities. It is recognized that this process is better adapted to commercial farming areas. In order to meet contractual obligations of a purchaser, the farm must be of sufficient productivity to provide above operating and maintenance expenses and living needs, sufficient surplus to meet the annual carrying charges and payments on the purchase price. The tendency might be to transfer farm units to more capable and effective operators, or to those willing to accept less than a standard living level, in order to acquire occupancy of the farm, assured employment and eventual ownership, even if at temporary sacrifice in living standard.

Farms providing only a subsistence could not be transferred on such a basis. This should serve the useful purpose of revealing to a prospective purchaser the fact that such a farm is a subsistence unit, and has no debt paying power.

On the other hand, it would be possible for beginning farmers who have some additional regular capital resources or an outside source of income, to use this additional resource to make up the margin which the farming activities do not promise to provide.

In this report no attempt is made to indicate needed changes in, or additions to, present legal safeguards in developing the use of such a method of transferring farms from one generation to the next. This task is left for those trained in the legal profession. Only the matters of good land use and fair treatment to succeeding generations have been considered.

The impossibility of continuing the old methods of farm transfer would seem to be obvious if we would retain young men and women on our farms under circumstances enabling them to live about as well as others, provide permanent occupancy of the land and at the same time avoid burdening the buyer too heavily with debt.

The process probably involves a re-examination of the relation between the land, those who farm it, and those who depend on it for their food supply. It probably draws a clearer line of distinction between the character of agricultural land, as property, and other forms of property. It perhaps also emphasizes the greater importance of assuring young people of continuing occupancy of a specific farm without impossible capital requirements.

In this process the assumption must be that a fair appraisal can be made of the productive value of a farm. At present, such appraisal is not too accurate, but is being improved from year to year. Even now it is possible to closely approximate a fair productive value of farms and make allowance for other factors influencing estate values.

Improvements on a farm would need to be valued on a "use" basis which would be a gain to most beginning farm operators. Any operator able and willing to pay more than their "use" value for improvements would not be prohibited from doing so but would be doing it with full knowledge of what it implied.

The program emphasizes conservation of soil and farm improvements and eliminates risk due to price level fluctuations. It does not abolish any present method of transferring farms. It should make unnecessary the granting of loans in excess of a farm's ability to carry such a loan. It should prevent a purchaser pledging so much of his capital as a down-payment on real estate that he does not have left an adequate amount of operating capital.