Income Tax
Rules and
Agriculture

Report of Seminar Sponsored by M. G. and Johnnye D. Perry Foundation and University of Missouri

Special Report 172, 1975
Agricultural Experiment Station
University of Missouri-Columbia
This publication presents the papers delivered at the second UMC-Perry Foundation seminar on agricultural marketing and policy.

As the cover title indicates, the topic this year relates to how income tax rules affect agriculture. The focus is on the overall effect on production, price, and stability, and especially on the organizational structure of agriculture.

UMC-Perry Foundation seminars are held annually under terms of an agreement between the Perry Foundation and the University of Missouri. The object of the seminars is "to promote the development of information relative to the socio-economic forces that bear on the welfare of family operated farms and ranches, and upon the income to those operators; to disseminate that information widely among agricultural leaders of the nation; and to provide a forum ... for discussion ... by leaders of organizations, institutions, and legislators."

The Perry Foundation was established in Robstown, Texas, in 1946 as a memorial to members of the Perry family who did much for the agriculture of South Texas. It both sponsors and carries on research in agriculture. The Foundation is dedicated to working toward a prosperous agriculture and the welfare of the people on the land.

Contents

Income Tax Law and Regulations Affecting Agriculture, by Charles Davenport page 5

How Large Farming Operations Use Tax-influenced Investment, by Willard F. Williams page 11

Utilization of Special Farm Tax Rules, by W. Fred Woods and Thomas A. Carlin page 17

Consequences of Income Tax Law and Regulations:
  Cattle Feeding, by V. James Rhodes page 28
  Orchard Development, by Hoy F. Carman page 34
  The Structure of Agriculture, by Lauren Soth page 38

An Income Tax Policy for Agriculture
  Charles Davenport page 40
  J. Carroll Bottum page 45
  W. Fred Woods page 48
  William A. Peterson page 50

Summary, Conclusions, and Challenges, by Harold F. Breimyer page 51

The World Population-Food Balance, by Douglas Ensminger page 54

Published December 1974 by University of Missouri-Columbia -- an equal educational opportunity institution. Columbia, 65201.
INCOME TAX RULES
AND AGRICULTURE

Report of Seminar on
Agricultural Marketing and
Policy

jointly sponsored by

University of Missouri-Columbia
and
M. G. and Johnnye D. Perry Foundation
of Robstown, Texas
held
December 5-6, 1974
Columbia, Missouri
As one of the few lawyers at this seminar I feel a little like Daniel in the lions' den and I hope others here will restrain themselves as well as the lions did. There are some advantages in being first on the program, as you may have forgotten my talk by the time the session is over.

We are here to talk about the tax law governing agricultural investment. Generally speaking, there are two methods by which farmers may report their income taxes. One is the so-called farmer cash method. Its most important feature is that inventories of goods on hand need not be reported in the calculation of income. Income and expense are, as a rule, taken into account when received or paid. The cash method does not convert capital expenditures into immediately deductible expenses. For instance, land, buildings, and other similar expenditures are not affected by the provision.

The accrual method, the second choice, is different from the cash method in several significant respects. Under it, income is realized when the right to receive the account is fixed. This is essentially when a sale is made, even though the cash may not be in hand. Likewise, an expense is deducted when the obligation is fixed -- when the fact and the amount are fairly well fixed. However, the most significant difference is that some sort of inventory is required. For farm tax reporting, the inventory under the accrual system is handled slightly differently from commercial accounting. The ending inventory is added to income received during the year, and beginning inventory is subtracted. Thus, inventory values are adjustments to income. This differs from commercial accounting where the ending inventory is subtracted from expenses, and the beginning inventory is added to expenses. In other words, in general commercial accounting inventory values are functions of expenses rather than income. The difference has entered into some important court decisions but are not important for purposes of this seminar.

Other methods of accounting are available to farmers. I doubt anyone here is interested in the crop method, because it applies only to pineapples and sugar cane crops that require more than one year to grow. Other, hybrid, methods need not detain us.

Pre-productive Stage Expenses

Those are the accounting methods. In addition, there is a concept in the tax law of "pre-productive stage" expenses. The farming cycle is basically divided by the Internal Revenue Service into three periods. The first is the preparation period -- everything that occurs before the land is ready to be planted. Then there may be a so-called development, or pre-productive stage. You find that with perennial bush and tree crops that produce an annual crop: Orchards, vineyards, things of that nature. From the time the plant is in the ground until it produces a commercial crop is the pre-productive or development period. The IRS as long ago as 1918 held that those expenses could be deducted. Except for citrus and almond orchards since 1969 and 1970, pre-productive expenses have been deductible at the election of the taxpayer. This option differs from most commercial accounting where comparable kinds of expenditures would be capitalized and amortized or written off at some future time. In the case of herds and flocks there is a question whether or when there is a true pre-productive stage. If an individual starts to raise cattle, knowing that it will take five years to build the herd up to the break-even point, the five year period would be the pre-productive stage.
A few cases have held that the pre-productive expenses of a herd may be deducted. The difficulty for livestock is that, unlike fruit and nut crops, the line between the pre-productive stage and the production stage that follows is very difficult to draw and may vary from time to time and from place to place.

Once the pre-productive stage is over, whether it be animal or plant, most expenses are deductible. The important line is between the preparation and pre-productive periods. Because expenses that fall into the preparation period must be capitalized, shrewd taxpayers try to push the pre-productive stage back as far as possible.

There are a couple of very interesting court cases, one successful, and one unsuccessful. The first involved citrus prior to 1969, when pre-productive expenses could be deducted. In order to raise a viable orange tree from seed, the top must be bent over and a bud must be placed at the top. The tree may be taken out of the nursery and planted in an orchard only after additional growth. A shrewd taxpayer found the cost of buying a budded tree ready to plant in the orchard to be $2.75. He then asked a nurseryman what he would charge for a seedling which would grow in effect the seed in the ground -- which would then be budded and grown in the nursery until ready for planting in his orchard. Finding it to be 30 cents he told the nurseryman that he would buy the seedlings from him. Although the man did not take possession of the little trees, he deducted all costs in excess of 30 cents. The Government had shown that there was a market only in trees valued at $2.75 that were ready to plant in the orchard, and none in seedlings. The question was whether the man could deduct costs incurred from the time the seedling was planted until it was moved to the orchard. Was that period a preparation period or a pre-productive period?

The Tax Court, and finally the Ninth Circuit held that he could make the deduction. He had to capitalize only 30 cents per tree, and the $2.45 difference was deductible over the years.

In another case on exactly the same point, decided in Illinois where there is no citrus, the court did not reach the same conclusion.

Within the last two weeks there has been a case in which a farmer-taxpayer willing to pay $330 for a milk cow worked out a deal with his supplier of cattle under which he would purportedly pay $28 for a calf. The other $302 would be raising costs. His hope was to capitalize the $28 and deduct the $302. However, he in effect had a guarantee that he would get either a milking cow or his $330 back. Because he had no risk of loss he lost his deduction of $302.

The first case is a how-to-do-it case, and the second a how-not-to-do-it instance. The essential difference was that the first man took the risk of loss, but the second was not willing to take that risk. Somewhere in between these two extremes are insurance programs. A few years ago a cattle breeding and feeding prospectus was put out in California that had a life insurance program for cattle. The name of this life insurance program was "Lucky Stiff" and presumably if one were to take the risk of loss, but insure with Lucky Stiff, both the cost of the insurance and the raising cost of cattle would become deductible.

The concept of pre-productive expenses applies whether or not the taxpayer is using cash or accrual accounting. It just does not make any difference. In this a number of people make a mistake. The taxpayer does not have to be on the cash method in order to make use of pre-productive deductions.

The consequence of the pre-productive concept is to permit both cash and accrual taxpayers to deduct expenditures which clearly under prior case law and generally accepted accounting principles are capital expenditures. This is especially true regarding growing plants. The treatment of herds
and flocks is not so clear. An accrual-basis livestock farmer will have to take an inventory, and if this is done, even during the pre-productive period, the benefit of deducting the pre-productive expenses will be lost.

If a taxpayer is on the accrual method two problems arise in taking inventories. First, the product must be counted or measured, and that may be difficult. Second, the product must be valued.

There are four methods of valuing farm inventories. One is to use cost, but the ascertained of cost may be difficult, and this difficulty is one of the justifications offered for the excusing of inventories if the farmer so chooses. The second method is the lower of cost or market value. Obviously, if cost cannot be determined, this method may not be used.

The third method is the farm price method which values inventories at disposition value less direct costs of disposal. This method is generally considered objectionable because if there is any unrealized appreciation in those things that are counted, it results in incorporating that appreciation as income. Remember that the inventory value will be added to income, so that if you buy a cow at $100 and put $200 worth of feed in her, but she has a $400 value, the difference between the $300 total cost and the $400 value would be taken into income if the farm price method is used. Of course, you don't have the cash; all you have is the cow. Consequently, the farm price method is not used very widely.

Most livestock producers, if they are on an inventory method, use the unit livestock method. In this one puts all cattle into certain age categories -- yearlings, two-year-olds, three-year-olds, milking cows, breeding cows, that sort of thing. Each classification is then arbitrarily valued at estimated cost when the inventory is first established. A one-year-old would have one value; a two-year-old would have another value; and that's the inventory value.

There are several problems with this method of inventory. First of all, in order to change the value that is assigned to a particular classification of animals, one must have permission of the Commissioner of Internal Revenue. Normally that permission is not easily or quickly given, and if values are fluctuating, that is obviously not a very satisfactory answer.

In this inventory one must also include all raised livestock, even though not held for sale. Thus draft and breeding animals, if raised, must be included. This has opened up an interesting question with respect to those animals, namely, whether or not they are depreciable. A lot of people say, "Yes, they are depreciable." I do not know the answer to that, because I've looked at authoritative sources which indicate that if draft and breeding animals -- and now I guess sporting animals as well -- are in a unit livestock inventory the unit livestock value itself takes depreciation into account. If so, there is no separate depreciation deduction. In other words, the value itself is supposed to account for depreciation.

Under the unit livestock method, if animals are not specifically identified, the first-in-first-out method is used. That led to the Auburn Packing case where the taxpayer was a cattle feeder. There is a rule under the unit livestock method which holds that if cattle are bought during the first part of the year and add value during the year, a full year's growth or value is added. In other words, if you buy cows on June 29th and you add $100 for the year's increase in value, even though you held the cow only part of the year, you still add that $100 to your inventory at the end of the year. The corollary of that is if you buy an animal in the second half of the year, nothing is added for any increment in value. In the Auburn Packing case, the cattle feeder had an inventory at the end of the year that was smaller than his purchases in the second half. When that fact was put together with the first-in-first-out rule, the taxpayer
was allowed to deduct all of his raising cost, even though he had in his inventory a number of animals which had been purchased in the first part of the year to which he should have had to add increments of value.

The government argued that first-in-first-out accounting could not be used by a cattle feeder in the unit livestock method. It is interesting because that is the second case which seems specifically to hold that a cattle feeder is a farmer. Back in the 1930's the Tax Court had taken a different view and said that such taxpayers were not farmers. More recently the authorities hold to the contrary.

Prepayment of Expenses in Cash Accounting

I will shift now and go back to the cash method of accounting and prepaid expenses. Prepaid expenses have -- if you will -- helped the tax shelter world go round. There are several kinds of expenses which might be prepaid, and the law differs from expense to expense. I want to run through a few of these.

The first is interest. Prior to 1968, everyone thought interest could be prepaid for at least five years' time and a deduction taken for it. Due to a number of fantastic real estate deals which the Treasury defined as abuses, in 1968 the Treasury held that prepaid interest could not be deducted by a cash basis taxpayer for any period that extended more than 12 months beyond the end of the year in which the payment was made. In other words, you could make a payment in 1974 that would permit a deduction that would cover 1974 and 1975, and you could get a deduction for it. But if you made a payment for 1974, 1975, and 1976, the whole amount had to be prorated to the various periods. That ruling was attacked severely, but the committee reports accompanying the 1969 Tax Reform Act say that the ruling was accurate. The Tax Court concurred as recently as 1974, when it held that the ruling was valid and proper as applied to the facts of the case before it.

With regard to labor and services, management services in a cattle feeding operation for example, quite a number of cases deny deductions for prepayments of management services -- say of payments made in December 1974 for all of 1975. These cases include accrual-basis taxpayers as well as cash-basis ones. Despite the fact that the law appeared quite clear, in two 1971 rulings the IRS held that the prepayment of services in an oil drilling contract could be deducted in the year of payment. It is a most interesting ruling because there is literally no case law, except one case which the Federal District Court in California decided in 1954, that had ever permitted such a deduction, but quite a lot of case law to the contrary. Consequently, deductibility of prepayments of labor and services is up in the air now. I do not see the difference between fattening a calf and drilling an oil well.

Next is the question of feed and supplies. In many of the syndicated cattle feeding operations -- I focus more on feeding than breeding -- the juice, if I may put it that way, in them was to buy feed right at the end of the year and deduct it against the current year income, and then feed the feed to the cattle the following year. The income would be realized when the cattle were sold. In late 1973, after a couple of years of hemming and hawing, the IRS finally issued a ruling holding that there would be no more deduction for prepaid feed and supplies where such deduction resulted in a material distortion of income. That is basically the same test that was set out on the prepaid interest ruling. A group, in Oklahoma I believe, sued the IRS to enjoin the enforcement of that ruling. The District Court granted the injunction, but the 10th Circuit annulled the injunction. So I take it that the IRS is now at least free to question deductions for prepaid fees and supplies. If there is a material distortion of income, the feed and supplies may be deducted only as fed.
In other expenses, such as rent, insurance, and the like, there's no question but that prepayments either by an accrual basis or cash basis taxpayer must be capitalized and amortized only as they are used up.

In addition to these prepaid expenses, there are a number of other opportunities by which, in effect, to write off capital expenditures. I am sure you are familiar with soil and conservation expenses under Section 175 of the Code, fertilizer expenses under Section 180, and land clearing expenses under Section 182. I will not dwell on those. All have their peculiar limitations and qualifications.

**Capital Gain**

The next aspect of agricultural tax laws is that of capital gain. Certain kinds of assets fall into Section 1231 of the Code. Under that Section, if everything that goes in results in a net gain, then everything is treated as long-term capital gain. On the other hand, if everything that goes in results in a net loss, everything is treated as ordinary income, giving an ordinary loss deduction for the net. Sale of livestock and many other farm assets falls under Section 1231. In a tax shelter operation, we would be concerned with livestock and with farms, vineyards, orchards, that kind of thing. They would fall within Section 1231. In order to have an animal in Section 1231 and obtain long-term capital gain on it, one must hold it for a period different from other assets. Usually one obtains capital gain by holding an asset for six months and one day. But for livestock generally one must hold the asset 12 months. For cattle and horses the holding period is 24 months. That raises an interesting definitional problem: what do you do with a mule? a beefalo that is 19/32 beef and 13/32 buffalo? If the animal has been held more than one but less than two years, maybe the gain is 19/32 ordinary and 13/32 capital gain. I do not know the answer to that question. You might also like to know that mink are livestock and that turkeys, chickens, frogs and snakes are not.

Generally that was the way the law stood prior to 1969. While Congress did a lot of things in the 1969 law I am not sure it changed the law very much. All it did was make it more complex by a seven step program. The first step was to establish something known as an excess deductions account. If a taxpayer had nonfarm income in excess of $50,000 and also a "farm loss" in excess of $25,000, the taxpayer was required to keep something called an excess deductions account for the amount by which the farm loss exceeded $25,000. Thereafter, upon sale of an asset which ordinarily produced capital gain, e.g., breeding livestock, a race horse, or a mink, the gain would be converted to ordinary income to the extent of the amount in the EDA. This provision is an incredibly complex piece of legislation; all kinds of exceptions are made for various kinds of transactions. It is a very difficult concept to enforce and indeed I doubt it can be enforced uniformly. The purpose was to limit capital gain on farm assets. It did not apply to more than three or four thousand farmers. When you consider there are some three million farm returns, you can see it does not apply to a large percentage.

There was also a provision that generally provided for recapture of soil and water conservation expenses; that is the Section 175 deductions and the like where the land has not been held 10 years at the time of sale.

There was also a recapture of depreciation on livestock. If livestock had been depreciated, any gain on the sale, to the extent of the depreciation, will be treated as ordinary income. The present holding periods for livestock were established. Previously the period had been a year for everything and it was changed to 24 months for cattle and horses and 12 months for other livestock.
There is a provision which eliminates tax on like-kind exchange (property for like-kind property) and Congress was concerned about trading heifers for steers and the like, and specifically said that it was not a like-kind exchange.

Also in 1969 the capitalization of development costs of citrus groves was required for the first four years of the pre-productive period. In 1970 that provision was expanded to include almonds.

Section 270 relating to hobby losses was repealed. It was repealed because it was a very difficult provision to apply and indeed applied only in a very capricious and arbitrary way to those who were not well enough advised to know how to avoid it. Section 183 was enacted in its place. Section 183 deals with something called activities not carried on for a profit and if one happens to fall into that unhappy category he may deduct the expenses of that activity only to the extent of his income from it. There are certain priorities about the way expenses are taken and applied against them first.

That, generally speaking, is where we stand today. Let me close by telling you that the estimated cost of these deviations from general commercial accounting result in lost revenue to the Treasury of about $900,000,000 per year, which is a very substantial revenue loss.
HOW LARGE FARMING OPERATIONS USE
TAX-INFLUENCED INVESTMENT

Willard F. Williams, Horn Professor
Texas Tech University

My remarks, as will be observed, will not conform exactly to the title. My approach appears justified. In the first place, my experience with tax influenced investment is confined mainly to commercial cattle feeding operations. In connection with them I have conducted a number of investigations referred to as "due diligence studies." These were authorized by representatives of the investors with full cooperation of the cattle feeding firms. I therefore have had an opportunity to inquire into all aspects of the management and use of public funds by such firms, but I am not familiar with practices of others.

Secondly, the issues at firm and industry levels are much broader than the question of how the funds are used. There is a question of need. In fact, the more basic questions are, "Who will finance agriculture and closely related industries and how shall it be accomplished?" I address myself first to these questions.

The Need for Public Financing

In approaching the subject matter of this seminar we need to recognize the radical changes taking place in agriculture during the early 1970's. Nearly everything that marked the farm policy scene since the 1930's has changed. Some of the changes are temporary, but others are more lasting. Question has even arisen as to whether any large scale feedlots or public cattle feeding funds would remain in existence by the time of this seminar.

In addition, we are now presented with the question of how productive U. S. agriculture really is. Considering the tighter supplies of mineral raw materials, what is its true capacity? There also is the question of organizational or structural effects on the nation's agriculture.

In my view, and here I begin to expose some of my biases, the trend toward fewer, larger and more commercialized and industrialized operations in agriculture will continue. This trend along with more vertical integration will be accelerated. I believe this does not necessarily imply the early disappearance of the typical Corn Belt farmer. Here as elsewhere, the smaller scale farmer will be a part of the American farm scene for many decades and, perhaps, indefinitely. Definitions of the word "typical," however, will change and the basic underlying trends toward larger-scale corporate agriculture, despite recent reverses, will continue. These trends probably will accelerate as the corporate structure gradually adapts itself to agriculture.

Consider the cattle feeding industry. As you know, events of 1974 delivered a staggering blow to cattle feeders but especially to the commercial custom cattle feeding sector. One of the great things about the agriculture of this nation, however, is that adversity always seems to generate new ideas, new thinking, and startling new directions. In the past month, I have heard of more new or revised ideas about cattle feeding than during the previous two or three years. Many of these center on products, ranging from guar to pumpkins, that might substitute for more expensive feed ingredients. Others, emanating from both agriculture and financially interested outside sources, are concerned with new organizational structures for production, marketing, and feeding. Producing more exclusively for particular markets, contracting, hedging and revised methods of financing are receiving new attention.

Many aspects of the current structure of the cattle feeding industry developed out of adversity. Custom feedlots, for example, are not an accident.
They arose out of the depressed conditions of 1963-64 in answer to serious questions about who would own the cattle on feed and who would share the risks. Larger scale feedlots developed in the search for efficiency, product control and organization. However, even before the onset of recent economic problems it was clear that this was not enough. Cattle feeders, and in fact much of agriculture, have found it necessary to reach out for the expertise and the business management principles typical of incorporated nonfarm business organizations.

Results have been most interesting. In numerous situations, the philosophy and practices of conventional cattlemen and those of corporate executives from outside agriculture have mixed like oil and water. An example or two may be appropriate. The original board of one large horizontally and vertically integrated firm, engaged mainly in cattle feeding, consisted almost exclusively of cattlemen. The first president was a man who had developed from a cowboy in one of the yards to feedlot manager and part owner. Each original director in this firm still manages a particular feedlot or other entity of the company more or less independently and apart from business activities of the central organization. Many serious business mistakes were made in the early life of the firm. Partly as a result, it was found necessary to replace the president with a man possessing more experience in business and finance. Additional directors were appointed and, interestingly, each of these was from outside agriculture or had considerable non-agricultural business experience. Top management remains relatively weak but as the influence of the original agriculturalist stockholders wanes, it will strengthen.

Another well-known conglomerate operates cattle feeding activities from the top down. The chairman of the board and the president are professional corporate managers rather than agriculturalists. As a result, feedlot managers and other persons with agricultural backgrounds and typical cattle industry philosophy have disappeared from the scene. They have been replaced by young college graduates with good technical training but little experience. Again many mistakes have been made, but in this case modern business training is there and, these days, experience is being acquired rapidly. New ideas and directions are emerging from the new, aggressive management of this firm.

The cattle industry, I am convinced, will emerge larger and stronger than before from the depressed conditions that are likely to continue over the next two years. Cattle feeding is here to stay and will recover to a more vigorous condition than ever but perhaps in dramatically changed form.

To a large extent the name of the game today is "capital management." By this I mean the development of a sufficiently large and flexible capital base, with assured financing, that the firm is able to live comfortably through bad times until good times return.

The capital requirements of cattle production and feeding are such that relatively large organizations are required. During 1968-73, internal sources of financing for development and growth of the cattle feeding industry in line with apparent consumer requirements became inadequate. The necessary funds simply were not available within agricultural circles. Public funds became essential. These were acquired through the public sale of stock, private partnership arrangements with wealthy individuals outside agriculture, special Subchapter S corporations, and limited partnerships. Tax shelter aspects of some of these avenues of investment, while secondary to the principal requirement for outside financing, helped immeasurably to attract funds to cattle feeding.

When the ravages of the current severe liquidation phase of the cattle cycle are finished, a new and massive infusion of capital to the industry will be required. Agriculture still is our largest industry and appears destined
for labeling as the growth industry of the 1970's. Unless crop and livestock producers, individually or through their organizations, are able to provide the necessary capital for growth, it will be forthcoming from outside sources. This will mean backward integration by meat packers, processors, food companies or others into cattle feeding and ultimately into farm or ranch production. Already there is evidence of new moves in this direction. It is the outsiders, basically, that are beginning to recognize emerging opportunities within various sectors of the cattle industry. And this interest is not confined to cattle. The fences between the cattle industry, or agriculture in general, and other sectors of the economy may recede further.

As another example, a meat packing and food processing firm with which I am currently working has acquired one of our larger Texas panhandle feedlots. Home base of the firm is one of the larger eastern Corn Belt cities. The feedlot, with capacity for 45,000 head, currently is feeding 12,000. Prior to the onset of recent adversity ownership fell into the hands of the meat and food processing firm. This resulted from managerial and financial problems under ownership by cattle-oriented stockholders and managers.

The optimism evident throughout this firm is surprising and refreshing. Progressive ideas are mainly responsible and these are emanating not from the feedlot sector but from top management in the East. The feedlot will be filled immediately ahead on a pre-sold, contract basis.

Unless smaller volume producers and feeders lose some of their independence and begin working more actively and effectively toward cooperative types of feeding and marketing organizations, they may not survive. For success, the word "cooperation" itself must be revitalized and changed to include fully adequate financing, modern and imaginative corporate business principles, and full acceptance of specialized knowledge in the areas of breeding, nutrition, animal health, economics, hedging and marketing. This, of course, would require some basic changes in industry attitudes.

The point of this discussion is that there is a great need within agriculture for the expertise and financial resources available from public sources. The limited partnership arrangement is not new. It was employed for many years in the gas and oil industries as a device for garnering risk capital. Its use in cattle feeding, another high risk capital area, was greatly needed.

The limited partnership device was pioneered within the cattle feeding sector of the economy by two or three individuals. One was an accountant with considerable experience with cattle feeding and tax deferral investments. Another was an individual with a degree in agriculture but with experience as a bank president in corporate finance. This man is now part of the top management of a cattle feeding firm that has made the transition from traditional and conventional agricultural philosophies and practices to those of the modern business world. Cattle feeding losses over the past year have been largely offset through several profitable land development deals and, since the summer of 1974, through hedging. The firm was in position to lend depleted limited partnership funds sufficient capital to continue.

Generating Public Funds

The ingenuity of cattle feeders in acquiring adequate supplies of capital must be admired. The problem, however, was serious. About 1967-68, it became clear that something needed to be done quickly.

In Texas as in most states, we have an individual independent banking system with fairly stringent laws against branch banking. By the late 1960's the country banks had reached their loan limits and even those in central cities such as Amarillo and Lubbock, where only one or two were at all interested
in agricultural loans, were straining correspondent relationships. Most banks at that time were not far from the point where they had been having the bank's brand placed on all cattle under chattel mortgages. Few were willing to lend on cattle outside the immediate area where they could be inspected periodically by bank personnel. The problem was particularly difficult for cattle feeding firms with feedlots in several different states. A Texas lawyer or cattle feeding club with plans for feeding in New Mexico or California, for example, found it extremely difficult to obtain financing.

Lawrence Warehouse Systems, pioneered by cattle feeders, helped greatly toward solution of the interstate problem. With the cattle under bond and a warehouse receipt, a Texas feedlot was in position to request financing for the feedlot or customers in any of the major financial centers including San Francisco, Chicago or New York.

A few firms established subsidiary finance corporations of their own. These were most advantageous to interstate firms. For example, one in California, which works through one of the larger Los Angeles banks, finances many of the cattle fed by the firm for customers in Texas and New Mexico, with no apparent problems.

In the search for outside funds, a few of our cattle feeding firms became public rather than closely held corporations. In general, efforts by these firms to acquire capital through public sale of stock were not particularly successful. In some cases, however, it was through stock trades that ranches or other additional facilities or enterprises were acquired.

A few also developed special high investment partnership programs designed to attract wealthy individuals or firms. For one firm, with a minimum limit investment requirement of $150,000, these private program offerings were highly successful until, of course, much of the capital that had been obtained in this manner was lost during 1973-74. In this case, guarantees on a high percentage of the original investment made the losses especially serious. Such private partnership offerings have been brought under the surveillance of SEC. A formal prospectus and SEC approval are now required.

The limited partnership was by far the most successful device. Much pioneering development was necessary. Most security dealers and state security commissions, as well as the general public, were unfamiliar with limited partnerships, especially as they applied to cattle feeding.

In developing a limited partnership, a separate wholly owned corporation usually, but not always, is formed to serve as the general partner. For example, Wheatheart Cattle Feeders formed Wheatheart Cattle Company for this purpose with its own interlocking board of directors. The president of the cattle company, the general partner, while an officer in the parent company, spends virtually all of his time on fund business.

Early in the year, prospectuses are prepared on any new issues. Written according to SEC specifications, these are detailed and emphasize all types of risks and possible conflicts of interest. Organizational characteristics of the firm, all fees, and audited financial details of the firm are laid bare. Following approval by SEC there is little excuse for any prospective investor not to understand the risks he would assume by investing.

The partnerships are sold through members of the National Association of Securities Dealers (NASD) but the general partner normally reserves the right to sell directly at the eight percent commission received by the dealers. Before some of the larger securities dealers will recommend the offering to their various branch offices across the country, they often require special analyses referred to earlier as "due diligence studies." In these studies, technical
and business management capabilities of the entire firm and subsidiaries are emphasized.

Selling usually is done from September through December. Some have a December 1 cut-off date so that prepaid feed can be purchased prior to January 1.

How Public Funds Are Used

My studies have indicated that, in general, the private and public partnership programs have been managed exceptionally well. Generally, however, management was negligent in one particular area. I refer to hedging. I was amazed to find that until this past summer none of the companies with which I have become familiar did any significant amount of hedging for themselves, the funds, or others. Instead, the dollar averaging theory, supported by a widely quoted study out of Rice University, was adopted and embraced tenaciously. One major firm still clings to it and still has undertaken very little hedging. Most others, however, have made 180 degree directional changes in this matter. In fact, some now have adopted sophisticated techniques for forecasting breakeven costs and have adopted a philosophy of buying cattle only when they can be hedged profitably.

The basic purpose of the funds, so far as the general partner and the parent company are concerned, is to keep feeding facilities operating as near capacity as possible. Custom feedyards operate much like hotels as they sell services, space, feed, and management at predetermined fees. If the feedlot is operating near capacity, the feeding company will make a comfortable return on investment regardless of cattle prices. This, of course, is a potential source of conflict of interest. In the short run the parent company might be guilty of buying feeder cattle and operating under conditions in which there is little possibility of profits. It also might load the funds with so many charges that under normal conditions profits are virtually precluded.

There probably have been some abuses. In general, however, managers take a very serious view toward their public funds. They know that unless their funds return acceptable profits, the firm will acquire a poor reputation among securities dealers and that public funds will no longer be available. In this respect, the firms offering limited partnerships are highly competitive.

The funds are leveraged about two to one. In earlier years, it was two and one-half or three to one but all have become more conservative. Some of the funds were so large that even lead banks as prominent as the First National of Chicago found it desirable to enlist other banks as participants.

To the extent found practicable, feed grain is prepaid and this practice will continue so long as there are tax advantages or compelling economic reasons for doing so. Other storable feeds such as hay or silage also are often purchased on a prepaid basis. In earlier years when the funds were being initiated, high percentages of the cattle needed for the year also were purchased in the fall, either for immediate placement or for growing or back-grounding. More recently, more of the cattle have been purchased on a scheduled basis through the year.

Management practices in connection with fund cattle gradually have been improved. Most of the firms now employ not only accountants and specialists in finance but one man who is exclusively concerned with the cattle. He buys or executes orders for purchases and inspects the cattle on arrival at the feedyard under arrangements in which the cattle, if rejected for any reason, belong to the order buyer or the original seller. This individual along with others is made responsible for monitoring progress of the cattle during the feeding period. This is accomplished through visual inspection but even more thorough-
ly through use of highly detailed daily computer printouts. These daily "yard sheets" go through the hierarchy of the management team, any one of whom may ask for further information. In some instances, the established role is management by exception. The fund specialist also may be made exclusively responsible for decisions concerning the sale of fund cattle. In selling, however, he generally will consult closely with other persons inside and outside the firm.

Concluding Comments

Prominent custom cattle feeders, especially those employing public funds, are fully aware of all of the arguments and controversies concerning tax shelters and their possible effects. Industry leaders have been working with the technical staff of the Ways and Means Committee and the Treasury Department toward solutions. Incidentally, they find Ways and Means the more receptive.

The industry itself has been doing some soul-searching and long range planning. What is desired is fair and equitable tax legislation that will enable the industry to operate on a sound business basis with public funds and in a tax climate that is not constantly subject to change. It is believed that the industry needs to retain some tax incentives commensurate with the risk involved.

The Treasury proposal referred to as LAL (limitation on artificial accounting losses) is not considered fair or equitable. LAL would prevent the deduction of farm losses against nonfarm income only when crops or livestock are to be sold in a later year. The complete prohibition of an inter-year basis seems unduly harsh. Since farm losses would be deductible against non-farm income within the year, marketings could become exceptionally large in November and December. Numerous possible instances could be cited of inequities among farmers that would result from enactment of the LAL proposal.

Possible upward effects of prepaid purchases on grain prices are recognized but, to my knowledge, the extent of these effects has not been determined statistically. Alleged effects of concentrated purchases of feeder cattle on feeder prices and on fat-feeder price ratios also are acknowledged. It also is understood, however, that these effects are not "all bad." The practices have tended to increase demand for grain and feeder cattle at a time of year when market supplies of these commodities normally are seasonally large and prices seasonally low. In addition, feeder cattle purchases, as mentioned earlier, became more evenly distributed through the year as public programs matured. In any case, responsible cattle industry leaders and their organizations are devoting considerable thought to possible remedies.

The charge that the growth of tax shelters tends toward waste of capital resources appears largely unfounded so far as cattle feeding and most of agriculture are concerned. There undoubtedly have been abuses and instances of investments of an uneconomic nature. However, nearly everyone within agriculture, and especially firms employing public funds, want to eliminate possibilities for such abuses. The firms most directly involved, with few exceptions, are managed by intelligent, reputable and responsible people. To these people, the long run benefits of access to public risk capital are too great to jeopardize through abuses for short term gains. Use of public funds has permitted the cattle feeding industry to adopt new lower cost technology and management practices and to improve efficiency.

If tax loss incentives are effectively prevented, many cattle feeding companies will nevertheless attempt to sell limited partnerships, strictly on economic grounds. I suspect that if this becomes necessary, they will be successful. Some firms already are making plans with this possibility in view. Trends toward fewer, larger commercialized farming or feeding operations might be slowed but they probably cannot be halted.
Who are the users of the special farm tax rules? "Farmers" is the automatic response. We usually think of farmers as people whose occupation is farming, but the IRS (Internal Revenue Service) definition of a farmer is anyone who operates or manages a farm for gain or profit. The term "farm" embraces the farm "in the ordinarily accepted sense" and includes stock, dairy, poultry, and truck farmers as well as plantations, ranches, and all land used for farming operations. An individual need not reside on his farm to be a farmer. He may operate his farming business himself or through a tenant, manager, or agent; furthermore, he is engaged in the business of farming if he is a member of a farm partnership. To sum up, the term "farmer" is not a very restrictive answer to our opening question. Let us then talk about the utilization of special tax rules by people with farm earnings.

In this paper we will attempt to summarize the extent to which people with farm earnings utilize special income tax rules, both those related to the farm business and those available to all taxpayers. In addition, we will touch upon one or two tax related topics of potential interest to the agricultural community.

What and How Much?

The considerable interest in users of farm tax rules stems, in large degree, from the fact that this special tax treatment accorded to income from farming, when combined with large amounts of nonfarm income, can produce the ideal tax shelter. Obviously, not all who use the farm tax rules are seeking tax shelters. But the available evidence, circumstantial and otherwise, indicates the apparent presence of agricultural investments heavily motivated by income tax considerations.

The Federal income tax structure provides a substantial preference to investments by high income taxpayers. First, the progressive income tax rate, when combined with provisions to induce additional business spending (e.g., accelerated depreciation), makes the benefits from many deductions increase as one's income tax bracket rises. Secondly, the preferential capital gains rate encourages high bracket taxpayers to convert ordinary income into income from capital gains, thus reducing total tax liability. The special farm income tax rules further contribute to the attractiveness of these basic features. This situation goes against basic notions of equity, whereby benefits

* Views expressed are the authors' and do not necessarily represent those of the U. S. Department of Agriculture.

1 However, a taxpayer who receives a fixed rent--without reference to production--is engaged in the business of farming only if he materially participates in the operation or management of the farm. (See Charles Davenport, Farm Accounting Rules and Crop Share Rents: Farm Corporations and Their Income Tax Treatment, ERS unnumbered, U.S. Dept. Agr., April 1974, pp. 1-33).


3 For example, costs of raising breeding livestock can be treated as an operating expense for Federal income tax purposes. Yet the proceeds from the sale of such livestock can be treated as capital gains income. High income taxpayers could benefit greatly by using these special tax rules.
of specific tax provisions should be income-neutral, all things considered.

A Joint Economic Committee study of Federal subsidy programs estimated total fiscal 1970 subsidies to agriculture at $5.7 billion.\(^4\) Of 18 separate programs identified, the second largest, costing an estimated $880 million, was agricultural tax subsidies (Table 1). In 1974, due to an increase in the cost of tax benefits associated with rising farm incomes and a decrease in direct benefit commodity stabilization programs, the agricultural tax subsidy was the largest Federal farm "subsidy" program, amounting to $1.2 billion out of a total of $4.8 billion, or 25 percent of the total Federal subsidy program for agriculture. The JEC staff further projected that tax benefits would make up 44.7 percent of all Federal agriculture subsidies for fiscal year 1975.\(^5\)

Characterization as Federal Subsidy

Lest there be any objection to our characterization of farm tax rules as a subsidy, let us point out that this view has considerable support.\(^6\) The Joint Economic Committee of the U. S. Congress defines a subsidy as

"...the provision of Federal economic assistance, at the expense of others in the economy, to the private sector producers or consumers of a particular good, service or factor of production. The Government alters the price or cost of the good, service or factor as a quid pro quo for certain economic behavior by the recipient or the forbearance of it. The assistance may take the form of ...implicit payments through the reduction of a specific tax liability."\(^7\)

Direct agricultural subsidy programs have long existed both for key U.S. farm crops and for more general purposes. Examples are those for land improvement and land purchase. As such, these programs are subject to budget constraints and periodic legislative review. On the other hand, the special tax rules provide an indirect or implicit subsidy over which the Government has essentially no control and little precise information as to who gets it, how much, or, indeed, even if it is necessary.

At least two schools of thought exist concerning the existence of preferential tax treatment for agriculture. One faction contends that the special farm tax rules were a deliberate injection into the Federal tax structure. Agriculture, it is argued, is a critical industry for a strong, dynamic national economy. Thus, continued investment in our agricultural plant should be encouraged through the tax system. Those holding this view would support continued, and even extended, preferential tax treatment for farming.

The other view holds that farmers have been permitted to use cash accounting and ignore year end inventories (a key to the preferential treatment issue) as "...an historical concession....to provide a unitary and expedient bookkeeping system..."\(^8\) Farmers were supposedly unable to cope with anything more than the most elementary accounting methods, and, due to their relative isolation, did not have access to professional accounting assistance. Admittedly, such practices result in a distortion of income and clearly violate basic accounting principles. Adherents of this argument maintain that today's farmers

\(^5\) Same source as footnote 4, page 18.
\(^6\) Same source as footnote 4.
\(^7\) Same source as footnote 4, page 1.
Table 1--Gross Budgetary Costs of Federal Agricultural "Subsidy" Programs
(In millions of dollars)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Direct Cash Payments:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commodity Purchase</td>
<td>688</td>
<td>735</td>
<td>845</td>
<td>625</td>
<td>280</td>
</tr>
<tr>
<td>Cotton Production Stabilization</td>
<td>828</td>
<td>917</td>
<td>824</td>
<td>813</td>
<td>715</td>
</tr>
<tr>
<td>Feed Grain Production Stabilization</td>
<td>1,644</td>
<td>1,504</td>
<td>1,052</td>
<td>1,846</td>
<td>1,171</td>
</tr>
<tr>
<td>Sugar Production Stabilization</td>
<td>93</td>
<td>84</td>
<td>88</td>
<td>89</td>
<td>89</td>
</tr>
<tr>
<td>Wheat Production Stabilization</td>
<td>863</td>
<td>874</td>
<td>878</td>
<td>863</td>
<td>477</td>
</tr>
<tr>
<td>National Wool Act</td>
<td>53</td>
<td>72</td>
<td>113</td>
<td>68</td>
<td>0</td>
</tr>
<tr>
<td>Dairy and Beekeeper Indemnity</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Agricultural Conservation Program (REAP)</td>
<td>185</td>
<td>150</td>
<td>196</td>
<td>29</td>
<td>90</td>
</tr>
<tr>
<td>Cropland Adjustment</td>
<td>77</td>
<td>78</td>
<td>67</td>
<td>52</td>
<td>50</td>
</tr>
<tr>
<td><strong>Tax Subsidies:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expensing and Capital Gains From Farming</td>
<td>880</td>
<td>820</td>
<td>840</td>
<td>900</td>
<td>1,200</td>
</tr>
<tr>
<td><strong>Credit Subsidies:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commodity Price Support</td>
<td>40</td>
<td>17</td>
<td>26</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Storage Facility and Equipment</td>
<td>2</td>
<td>0</td>
<td>-1</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Rural Electrification</td>
<td>239</td>
<td>195</td>
<td>230</td>
<td>257</td>
<td>220</td>
</tr>
<tr>
<td>Rural Telephone</td>
<td>0</td>
<td>0</td>
<td>37</td>
<td>72</td>
<td>76</td>
</tr>
<tr>
<td>Miscellaneous Farm Credit Programs</td>
<td>95</td>
<td>49</td>
<td>53</td>
<td>244</td>
<td>218</td>
</tr>
<tr>
<td>Community Facilities</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>77</td>
<td>192</td>
</tr>
<tr>
<td><strong>Benefit-in-Kind:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency Livestock Feed Program</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>Fertilizer Development</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5,694</td>
<td>5,502</td>
<td>5,261</td>
<td>5,982</td>
<td>4,811</td>
</tr>
</tbody>
</table>

1Individual items may not add to totals due to rounding error.


no longer need this special treatment and that artificial and invalid distinctions between agriculture and other businesses should be eliminated.

A more moderate view might hold that, in the interests of equity and good judgment, the nature and extent of the indirect tax subsidy be clearly identified, evaluated, and made subject to the same budgetary restraints as are direct Federal agricultural subsidies.

**Utilization of the Farm Tax Rules**

At least three separate groups make extensive use of special tax provisions for U.S. agriculture: (1) continuing or "ordinary" farmers who depend upon agricultural earnings for their major source of livelihood, (2) tax shelter investors who are generally believed to be motivated primarily by tax considerations, and (3) investors for whom the tax shelter feature is an attractive consideration but not the primary incentive.9

9"A realistic look at the advantages to be achieved by tax sheltering confirms the good sense of the proposition...that the tax benefits are the icing on the cake. An investment which has no intrinsic merit, apart from the tax benefit, should probably be avoided." (D. Lee Bawden, Administrative Guidelines for
Most public attention has been focused on groups (2) and (3). And supporting evidence for many discussions has been based on the analysis of the high income portion of the personal income distribution. For instance, 83 percent of the 8,750 taxpayers with farming operations and gross incomes over $100,000 in 1970 deducted slightly more than $239 million in farm losses from their other income. It is difficult to believe that these losses in particular were not heavily affected by use of the special tax rules. However, concentrating on only one segment of people with farm earnings gives an incomplete picture of the use of special tax provisions.

For all individual taxpayers, nearly 1.3 million reported farm losses in 1970 totaling $2.9 million compared with less than 1.7 million reporting farm profits of $5.6 million (Table 2). Oddly enough, sole proprietorships reporting farm losses paid more total taxes than did those with farm profits—they contributed 53 percent of the Federal income taxes collected from the group even though they accounted for just 43 percent of the returns reporting farming operations.

Table 2—Farm Earnings, Taxable Income, and Tax Liability of People with Farm Earnings, 1970

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Farm profit</th>
<th>Farm loss</th>
<th>All returns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Returns.........</td>
<td>1,000</td>
<td>1,651</td>
<td>1,255</td>
<td>2,906</td>
</tr>
<tr>
<td>Farm earnings...</td>
<td>mil. dol.</td>
<td>5,599</td>
<td>-2,922</td>
<td>2,677</td>
</tr>
<tr>
<td>Taxable income..</td>
<td>mil. dol.</td>
<td>7,845</td>
<td>7,469</td>
<td>15,314</td>
</tr>
<tr>
<td>Tax liability...</td>
<td>mil. dol.</td>
<td>1,653</td>
<td>1,871</td>
<td>3,524</td>
</tr>
</tbody>
</table>

Source: Special tabulations by the U.S. Dept. of Treasury, Internal Revenue Service, from the 1970 Sole Proprietorship Tax Model.

But although loss returns contribute more to total taxes than profit returns, farm losses are not particularly concentrated at high income levels. Relatively low income taxpayers had the highest proportion of farm losses. And most losses were small ones. Forty percent of total farm losses were reported by individuals with less than $5,000 in basic income,11 and more than 90 percent of 1970 farm loss returns reported a loss of less than $5,000.


11 Basic income is defined as adjusted gross income plus excluded capital gains, dividends, and other adjustments to income. It more nearly reflects the income available to the taxpayer for personal consumption, investment, and other purposes than does adjusted gross income.
Losses of $10,000 or more were reported by about 3 percent of the loss group, and these were concentrated in two basic income classes--those with negative basic incomes\(^{12}\) and those with $25,000 or more.\(^{13}\) Only 0.2 percent of 1970 sole proprietorship returns reported farm losses of $50,000 or more. These data do not, however, refute the existence of high income tax loss farmers who own or invest in large farming businesses operated at a loss for the purpose of reducing income tax liability, although they do suggest that such individuals are not typical in American agriculture.

But while high income tax loss farmers may not be typical, their losses are probably motivated more by tax than real economic considerations. Nonfarm income was substantially higher for individuals reporting farm losses than for those reporting profits. For instance, (1) farm loss returns reporting farm sales of $100,000 or more reported seven times as much nonfarm income as did those with farm profits, (2) three times as many individuals with basic incomes of $50,000 or more reported farm losses than reported farm profits; and (3) there was a distinct tendency for larger farm loss returns to be found in Standard Federal Administrative Regions containing major cities.

If special farm tax provisions are intended to benefit taxpayers primarily dependent upon farming for their livelihood, these special rules appear to be abused by taxpayers seeking tax shelters. However, the majority of farm loss returns, in terms of size of loss and amount of nonfarm income reported, do not appear to be tax shelters. These, in the absence of additional information, may be considered by many as "legitimate" farm losses claimed by the intended beneficiaries.

**Capital Gains.** About one-third of the 2.9 million individuals filing farm income tax returns in 1970 reported capital gains. Although the proportion reporting capital gains within basic income classes increased as basic income increased, a high proportion of those reporting capital gains had low basic incomes. For example, 33 percent of those reporting capital gains had basic incomes of less than $5,000. More than 60 percent had basic incomes of $10,000 or less. Total capital gains, however, were generally concentrated in the higher income groups.

Average capital gains reported per individual, with the exception of the negative basic income group, increased sharply as basic income increased from $1,070 per farm taxpayer with less than $3,500 in basic income to $152,950 for taxpayers with basic incomes of $100,000 or more. When taxpayers were classified according to value of farm products sold, a similar pattern was observed.

As expected, livestock farms reported the largest proportion of farms with capital gains while crop farms had the smallest proportion. However, average capital gains per taxpayer were the largest for fruit, vegetable, and tree nut farms; livestock farms had the smallest average capital gains, smaller even than average capital gains for crop farms.

Due to the combination of farm tax rules permitting the current deduc-\

---

\(^{12}\) The reader should be careful in interpreting the "negative basic income" class. A major weakness in the basic income concept is that it does not distinguish between true economic losses and accounting losses as a result of special tax rules. Unfortunately, we know little about those reporting negative basic incomes. We expect that many in this group actually have tax induced losses.

tion of certain development expenses and the preferential capital gains treat-
ment under present U.S. income tax law, it has been generally believed that
the taxation of capital gains as ordinary income would improve the progressiv-
ity of the income tax burden in agriculture. The analysis of 1970 farm tax
returns did not support this view. Substantial increases in tax liability
occurred for both high and low basic income groups with smaller increases for
those in the middle income range.

The distribution of both taxable income and tax liability would have
been changed little by the abolition of the preferential tax treatment for
capital gains. However, the total tax bill of persons with farming activities
would have increased by more than $750 million, or an average tax increase of
$500 per taxpayer. 14 Although the distribution of tax burden was changed
little, individuals with basic incomes over $25,000 would have borne three-
fourths of the increase in taxes with those with $100,000 or more income pay-
ing 54 percent of the increase.

Taxing capital gains as ordinary income would have increased the tax
bill of taxpayers with fruit, vegetable, and tree nut farms most and those
with field crop farms least. Although livestock farms reported the greatest
frequency of capital gains, their increased burden was less than for all other
types except field crop farms.

Use of Cash Accounting. More than 97 percent of the individuals report-
ing 1970 farm earnings used the cash method of accounting. Only 75,776 of the
2.9 million farm tax returns were reported on the accrual method. 15 Surprising-
ly, there was little difference in the proportion of loss returns between the
users of the two methods: 43.9 percent of the accrual returns reported farm
losses as did 43.1 percent of the cash basis returns. Unfortunately, we have
no data on the users of the accrual method by type of farming operation.

Investments in Beef Breeding Herds. The initial publicity given the
tax loss farming issue centered on investments in beef breeding herds. The
opportunities for the combination of tax loss and economic gain were widely
advertised prior to the 1969 tax reform act. And even though the 1969 legis-
lation reduced the tax attractions of these investments by perhaps as much as
one-third, 16 some publicity persists.

However, an ERS simulation study completed in 1972, based on prices
prevailing in the 1959-70 period, showed that investments in beef breeding
herds were not profitable for nonfarmer-investors unless they were in the 50
percent marginal tax bracket and above. Even then, the investments were
profitable only if product prices and input costs were very favorable. 17 The
study found no economic incentive for these type investments through manage-
ment companies without the special incentive provided by preferential capital

14 Capital gains from nonfarm investments are also included in this estimate.
We were unable to distinguish between farm and nonfarm sources. Therefore,
we cannot compare this figure with the total agricultural tax subsidy esti-
mate cited earlier.

15 Same source as footnote 10, page 106.

Analysis of the Tax Reform Act of 1969 and the Elimination of Capital Gains

17 V.L. Harrison and W. Fred Woods, Farm and Nonfarm Investments in Beef Breed-
gains treatment and the offsetting of nonfarm income by farm losses currently allowed under the nation's tax law.

Subsequently, a USDA survey of the ownership of the U. S. beef breeding herd revealed that investors apparently were in agreement with the conclusions of the above study. The survey found that almost 95 percent of the nation's January 1, 1974 herd of 53.6 million animals was owned by the farm operator on whose farm or ranch the cattle were located. Of the approximately 3 million head owned by someone other than the farm operator, 1.9 million (63 percent) were owned by others classified as farm operators. Just over a million head were actually owned by nonfarm interests—2.0 percent of the total beef breeding herd. And one-fourth of these were owned by nonfarm individuals with less than 20 animals each.

Recent Developments in Limited Partnership Investments. The structuring and promotion of tax-sheltered investments in agriculture has heavily utilized the limited partnership vehicle. Although limited partnerships are apparently participating in a broad range of agricultural enterprises—eggs, wine grapes, citrus and other grove type crops, cattle breeding and feeding, and general crop farming—the heaviest concentration of limited partnerships seems to have been in the area of cattle feeding. By mid 1973, tax shelter funds were conservatively estimated to have channelled possibly as much as $350-400 million of tax induced equity capital into the cattle feeding industry, primarily in the form of limited partnership investments. Since this capital is usually highly leveraged, it may have provided financial support for as much as one-fourth of total feed lot inventory capital requirements nationally. Although much of this equity investment was dissipated through 1974 developments in cattle feeding, the tax benefits generated substantially exceeded the original equity investment. Unpublished ERS estimates as of May 1, 1974 indicated that there were some 110 cattle feeding funds in the U. S. These funds had organized an estimated 540 limited partnerships and attracted some 20,000 investors who had invested equity capital of approximately $500 million.

Since investors in agricultural-limited partnerships are classed as "farmers" under the tax rules, they report the results of their farming operations on individual income tax returns and are included in those farm loss returns earlier discussed.

Itemized Deductions. Up to this point we have concentrated on tax provisions which relate primarily to the business aspects of farming. People with farm earnings also benefit from many provisions not directly related to farm production. Actually, the subsidy effect of these provisions to all taxpayers far exceeds that of farm tax rules to farm taxpayers. Recent estimates for 1970 suggest that the use of special deductions for medical expenses, State and local taxes, charitable contributions, and interest payments primarily on home mortgages subsidizes all American taxpayers by around $12 billion. This does not include several other special deductions which also appear on schedule A of form 1040.

In 1970, 2.2 million people with farm earnings itemized deductions—over 77 percent of those filing a farm tax schedule. This group claimed


itemized deductions amounting to $4.1 billion. Had those itemizing deductions used the standard deduction for 1970, their tax liability would have increased by $242 million or $108 per return. Had all deductions been disallowed including the standard deduction, tax liability for this group would have increased $1,221 million or $544 per return. This figure exceeds the tax subsidies from expensing and capital gains provisions for farmers.

A high proportion of people with farm earnings itemize deductions at all income levels (Table 3). The incidence of the tax, medical, and interest deduction generally increased as the level of basic income increased. Because these items appeared less frequently on low income returns, special circumstances must have enabled these lower income units to benefit from itemizing in 1970. For example, casualty losses, thefts, and special business deductions may well have exceeded the standard deduction for many taxpayers at these income levels. This result suggests that a relatively high proportion of low income taxpayers may have temporarily low incomes.

Table 3--Proportion of All Returns Utilizing Selected Special Deductions by Size of Basic Income, 1970

<table>
<thead>
<tr>
<th>Basic income classes</th>
<th>Percent itemizing</th>
<th>Percent reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Tax deduction</td>
</tr>
<tr>
<td>Less than $2,000</td>
<td>63</td>
<td>4</td>
</tr>
<tr>
<td>2,000 to 3,499</td>
<td>74</td>
<td>14</td>
</tr>
<tr>
<td>3,500 to 4,999</td>
<td>78</td>
<td>33</td>
</tr>
<tr>
<td>5,000 to 6,499</td>
<td>79</td>
<td>40</td>
</tr>
<tr>
<td>6,500 to 7,999</td>
<td>82</td>
<td>49</td>
</tr>
<tr>
<td>8,000 to 9,999</td>
<td>81</td>
<td>49</td>
</tr>
<tr>
<td>10,000 to 12,499</td>
<td>82</td>
<td>56</td>
</tr>
<tr>
<td>12,500 to 14,999</td>
<td>82</td>
<td>61</td>
</tr>
<tr>
<td>15,000 to 24,999</td>
<td>84</td>
<td>70</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>88</td>
<td>82</td>
</tr>
<tr>
<td>50,000 to 100,000</td>
<td>95</td>
<td>93</td>
</tr>
<tr>
<td>100,000 or more</td>
<td>97</td>
<td>97</td>
</tr>
<tr>
<td>Total</td>
<td>77</td>
<td>50</td>
</tr>
</tbody>
</table>

A Good Year for Farmers and IRS. Average income per farm operator family increased by over $6,000 between 1972 and 1973 due largely to high export demand for farm products and bad weather. Average farm operator family income will likely be almost as high in 1974 as the record $19,600 reported in 1973. These record income levels could also produce record high income tax bills for many farmers.

Actual data on the recent tax liability of people with farm earnings will not be available for 2 or 3 years. However, we have estimated that individuals and families filing a schedule F paid over $8 billion in Federal income taxes in 1973, up 137 percent from 1970, the latest year for which we have actual data (Table 4). Our estimate of the tax bill for 1974 is almost as high as that of 1973.

Several caveats should be noted about our estimate. The increase in tax liability is not totally due to increased farm income. As is well known, farm families received a large percentage of their income from nonfarm sources. We estimate that about 80 percent of the increase in tax liability

Table 4--Estimated Tax Liability of People with Farm Earnings, 1971-1974

<table>
<thead>
<tr>
<th>Year</th>
<th>Total tax liability (Million dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970 (actual)</td>
<td>3,524</td>
</tr>
<tr>
<td>1971</td>
<td>3,699</td>
</tr>
<tr>
<td>1972</td>
<td>5,309</td>
</tr>
<tr>
<td>1973</td>
<td>8,364</td>
</tr>
<tr>
<td>1974</td>
<td>8,277</td>
</tr>
</tbody>
</table>

1/Estimates are based on special tabulations from the 1970 sole proprietorship tax model provided by the Internal Revenue Service. The estimating procedure developed by the authors assumes that taxpayers behave in subsequent years as they did in 1970. An index of average farm operator family income was used to project the personal distribution of income. Tax liability was calculated by income class and aggregated to national totals.

Between 1972 and 1973 was due to increases in farm income, with the rest due to increases in off-farm income. Secondly, we suspect our estimate is on the high side. The recent backlog in farm machinery orders suggests that many farmers have reinvested some of their income. To the extent that this was extraordinary, tax liability would be reduced. Also, the use of income averaging most likely increased, further reducing the expected tax bill.

Thus, not all the recent increase in farm incomes went into farmers' pockets. About 30 percent of the estimated $10 billion increase in taxable income between 1972 and 1973 was probably consumed by increased Federal income tax liability. The years 1973 and 1974 will certainly point out to our constituency that increased incomes mean higher tax bills. Thus, "Uncle Sam makes out too."

Related Tax Topics

Before closing the discussion on special farm tax rules, let's touch on two related topics of interest to the agricultural community.

Effect of the Proposed 5-Percent Surtax. Most persons are aware of the economic package proposed by President Ford on October 8, 1974. Perhaps the one item which drew the most interest from the general public was the 5-percent surtax on adjusted gross incomes above $15,000. As the Treasury explained this proposal the next day, the first $15,000 of adjusted gross income for taxpayers filing joint returns would be exempt from the surtax. And only that component of tax liability which was due to incremental income above $15,000 would be subject to the 5-percent additional tax.

A discussion of the merits of such a proposal is outside the scope of this paper. However, we have made some preliminary estimates of the impact on people

with farm earnings if it applied to tax year 1974. Our estimate of the increase in 1974 tax liability for people with farm earnings is about $264 million. This represents 3.1 percent of total 1974 estimated tax liability.

About 38 percent of people with farm earnings would be affected by the surtax proposal. The impact of the surtax would be very slight until income reached a relatively high level. Our estimates suggest that the full impact would not be effective until basic income reached $100,000 or more.

Table 5--Estimated Effect of President Ford's Surtax Proposal on People with Farm Earnings, 1974

<table>
<thead>
<tr>
<th>Basic Income Class</th>
<th>Total 1974 Tax Liability (Mil. Dol.)</th>
<th>Surtax</th>
<th>Percent Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>15,000 to 24,999</td>
<td>1,533</td>
<td>18</td>
<td>1.1</td>
</tr>
<tr>
<td>25,000 to 49,999</td>
<td>2,036</td>
<td>70</td>
<td>3.4</td>
</tr>
<tr>
<td>50,000 to 99,999</td>
<td>1,373</td>
<td>61</td>
<td>4.5</td>
</tr>
<tr>
<td>100,000 or more</td>
<td>2,362</td>
<td>115</td>
<td>4.9</td>
</tr>
</tbody>
</table>

Welfare Reform. Welfare reform may well be a "front burner" issue in 1975. Both the Department of Health, Education, and Welfare and Representative Martha Griffiths (D-Mich.) of the Joint Economic Committee are putting finishing touches on proposals to replace much of our current welfare system with a modified negative income tax. Both proposals apparently will guarantee a minimum income to all individuals including, for the first time, the self-employed. Those of us servicing the farming community will most likely be called upon to provide information concerning the potential impact of such proposals. For farming is still the most prominent sole proprietorship business in the U.S.

We have little insight at this time of precisely what the actual proposals will contain. However, several general aspects will be of concern. For example, how will self-employment be defined? How will self-employment income be determined? How will business assets be treated in the system if asset limitations are imposed? These questions have been explored in the JEC Subcommittee Studies in Public Welfare. Additional insight will be gained when the results of the "rural negative income tax experiment" are available.

To distinguish income from salaries and wages from self-employment income, Bawden has suggested that a self-employment activity be defined as one in which owned or rented business assets complement labor input. Thus, income is based solely on output rather than viewed as a direct factor payment. For those renting business assets, the question of involvement in operating

---

24 We are aware that the surtax was proposed for tax year 1975, but we are somewhat reluctant to "gaze into our crystal ball" and suggest what incomes might be for 1975.


26 Representative Griffiths plans to introduce a welfare proposal to Congress about the time this speech is delivered.


28 Same source as footnote 27.
decisions becomes a critical variable. This definition may well serve most situations. However, sticky interpretations may arise for closely held family corporations and some partnerships.

We do not know how income might be measured. IRS rules may well provide the most workable framework from both an administrative perspective and for minimizing the bookkeeping burden on potential participants. However, the cash accounting option used by most farmers would give a high degree of flexibility in managing income so as to maximize the degree of participation. Thus, we might expect some fairly strong limitations relating to income carry-over. The carry-over system takes into consideration past income in determining current program benefits. To help get around this problem, Bawden had suggested requiring an accrual accounting system. Although accrual accounting would make program administration somewhat easier, it would put more burden on potential recipients. Whatever the outcome, the prospect of integrating both positive and negative income tax activities could create a new agricultural clientele with a different set of problems and objectives. In addition, a new dimension to the use of farm tax rules would be created.

Finally, serious thinking has been given to the idea of discounting proposed negative income tax payments for business equity above some minimum level. The self-employed do have the option of substituting current income for incremental increases in net worth. The objective would be to limit the extent of this substitution in order to participate in a negative income tax plan.

Concluding Comments

We hope the above material will be helpful in placing the utilization of farm tax rules in proper perspective. We hope, also, that we have shed new light on some myths concerning special farm tax rules. For example, we reject the notion that tax loss farming is a vast playground for the "super rich" to shelter large amounts of nonfarm income from IRS. Only a small proportion of those reporting farm losses could be so categorized. Whether this is good or bad is a moral judgment for each person to make.

All people with farm earnings report capital gains income. This may not be surprising when we reflect that farming is a capital intensive business. We do note, however, that the "rich" have more of it than do the "poor." If capital gains were taxed as ordinary income, the effect on the income distribution of people with farm earnings may not be as great as we suspected.

Do investments in beef breeding herds offer a panacea for the wealthy nonfarm investor? Maybe so, but nonfarm investors far from dominate ownership patterns. And is the biggest "gravy train" the limited partnerships in cattle feeding? One more year of high feed grain prices may make many think otherwise.

Many farmers have as much to gain or lose from general tax provisions as they do from special farm tax rules. Thus, they should have as much interest in the outcome of debates over the medical, interest, or tax deductions as they do over the special treatment of livestock or any other farm tax provision. Thus, treating farmers as special cases should not be unduly emphasized in debating the issue of basic tax reform.
In 1974 we had the opportunity to witness the most dramatic consequences of the impact of income-tax-motivated investment ever to occur in the agriculture of the Midwest-High Plains area. While many cattle industry people are aware that there is some connection between their present problems and tax laws, they have difficulty in penetrating the triple veils of income tax regulations, investor behavior, and economic analysis in order to see what has happened. Even those of us who have studied these developments carefully would admit that it is impossible to make a precise assessment of how much the tax-loss investor contributed to the year's cattle bust.

Certainly, high feed grain prices, the timing of price controls and the phase of the cattle cycle must share much of the blame. Nevertheless, there are lessons about taxes to be learned, lest we repeat the whole process in a few years.

We start first with the fact, developed by other speakers, that we have on the books an income tax structure with such progressive rates that a high income person is expected to pay 50 to 70 percent of his top receipts in taxes. It's hardly surprising that such people have canvassed the entire economy for investment opportunities that would enable tax avoidance. In addition, they have prevailed upon the government for a great variety of legal ways to avoid that tax bite. I hope these last few remarks make it clear that I do not take a moral position against tax avoidance. My concerns are for economic consequences.

While the policy discussions come later in this seminar, it's obvious to me, as an economist, that we can't effectively close tax loopholes until we reduce the tremendous incentive for those loopholes represented by the extreme progression of the rate structure. Let's quit kidding ourselves that the federal income tax can take away more than 50 percent of a people's income.

Second, let's be sure that we are clear about the motivations of the so-called tax-loss-investor. Recently a national farm magazine had a story about a successful young farmer who was in partnership with two wealthy investors. Quite a point was made that these investors wanted to make money from the farming operations and that, therefore, they were not tax-loss-investors. The confusion in the story is the assumption that tax losses and making money are mutually exclusive. They are not, as has been shown by earlier speakers. When you are in the 50 percent bracket, your thinking has to concentrate on after-tax returns. The tax-loss investor in cattle feeding expects to make money by arranging a tax loss (not a real loss) in the current accounting period in order to reduce his present income taxes. Then he expects to handle his finances in the next accounting period in such manner as to avoid paying those taxes which he postponed in this period. He hopes to make profits before taxes over the total transaction, but it's quite possible for the transaction to improve his after-tax income even though there were no pre-tax profits. An important consequence of such motivation is that the tax-loss investor, in order to maximize his after-tax income, is willing to accept a lower economic

---

*The author gratefully acknowledges the contributions of two former students, Dr. Stephen Matthews and Dr. Joseph Meisner.

return (pre-tax income) on his investment than lower income investors in the same industry will accept. Tax-exempt bonds are a good example. Market returns are lower on tax-exempt bonds than other bonds because high income investors bid down their returns to a level nearly comparable with the after-tax returns to them on the other bonds. The consequence for other investors is this rule: if you don't need a tax shelter, you have no business buying tax exempts. Another important consequence of such motivation is that the tax-loss investor is usually willing to undertake riskier investments when half or more of the money invested would go to Uncle Sam otherwise.

Now let's develop the background for how all of this relates to cattle feeding. Cattle feeding has changed so rapidly that many persons in agriculture aren't familiar with all that has happened. Cattle feeding has grown tremendously in the past 15 years as a result of plentiful feed supplies and a growing demand for beef. Most of that growth has been in the new commercial lots of the High Plains rather than in the farmer feedlots of the Corn Belt.

About 55 percent of the fed cattle marketings last year were from lots of 4,000 head or more capacity and about 37 percent were from lots of 16,000 head or more.

Most of the cattle in these large lots are owned by customers rather than by the feedlot firms, although there are a few well-known exceptions such as the giant Monfort yards. Thus, most large commercial lots are in the animal hotel business. Like other innkeepers, their earnings depend upon their success in finding enough lodgers—cattle in this case—to keep the place full. At first, farmers, ranchers, and local businessmen were the principal customers. As the lots grew in volume, they outgrew local sources of customer capital. Large investors from the metropolitan centers were then sought. About 1969, tax-loss investors and large custom lots discovered the mutual advantages of the limited partnership and other special arrangements. The investor discovered a way to postpone and perhaps avoid income taxes. The feedlot discovered a huge supply of customer capital that would accept very low before-tax returns.

The marriage prospered beautifully for a while. A survey of large lots, taken by a special Tax Committee formed by the feedlots, found that the number of outside investor cattle doubled from December 1970 to December 1971 and doubled again the next year. At its peak in 1973, investor cattle were probably close to one-fifth of all the nation's cattle on feed. They were mostly in the bigger lots. Investor cattle constituted one-half or more of the cattle in many of the large, fast-growing lots.

Something in excess of 300 million dollars poured into feedlots within a three year period. While some limited partnerships accepted individual investments as small as $3,000, the bulk of the money came in much larger chunks. One study in Texas reported that the average number fed per customer in 1972 was 3,000 cattle, which would have required an equity investment of 150 to 200 thousand dollars.

Since a tax deferral via cattle feeding can usually be arranged very quickly, it has been particularly attractive to people who realize rather late in the calendar year that they have an income tax problem. A consequence of these late investments has been almost frenzied bidding for feeder cattle and feed in November and December as lots strove to get that tax-loss money invested. One manager, lacking such outside funds, commented that there was no use going to the Amarillo feeder cattle auction when the managers of funds were bidding.

With that background as to recent developments in tax-loss cattle feeding, let's try to appraise the tax consequences. A recent study by the Joint Economic
Committee of Congress suggested that three tests ought to be applied in appraising the consequences of a tax subsidy:

1. Does it correct a market deficiency?
2. How do costs (in lost taxes) compare with benefits?
3. How are benefits spread among income groups?

From the public interest point of view, has there been a shortage of capital in cattle feeding that justified public subsidy? Although a few persons will disagree, my answer is unequivocally, no. Some may ask, doesn't the very fact of the entry of tax-loss-capital show that it was needed? Not when such capital has an advantage over existing capital. The industry actually had too much capital, which funded the unrealistically high feeder cattle prices in the fall of 1972 and 1973. Feedlot managers indicate that many of their farm and ranch customers dropped out when the funds helped to drive up feeder cattle prices to dizzy heights. Likewise, many Corn Belt feeders left their lots empty rather than compete in such markets.

Approached from another angle, the capital—both equity and debt—involved in cattle feeding is seen as tiny compared to the total capital invested in American agriculture. It's easy to see why fast-growing feedlots concentrated in a dozen counties in Texas might find capital scarce, even while usual capital sources were more than adequate in the Corn Belt.

The argument that the tax subsidy in cattle feeding has had a favorable cost-benefit ratio is no more convincing than the argument that there was a "market need" for the capital.

In a competitive industry, the injection of tax-subsidized capital usually means an income transfer from taxpayers to consumers. If we could look at a cattle industry that had been in long-term equilibrium, receiving tax subsidies all the while, we would likely find a moderate sized cost (say $200 million a year) to taxpayers. While the fund promoters and feedlots would capture some benefits, a lion's share would likely be passed to consumers. Gains and benefits might be roughly equal. There would be some redistribution of income from lower to higher income individuals.

However, in a sector which cycles like the cattle industry, we cannot hope to experience such long term equilibrium results. Instead, the injection of tax-loss capital has kicked off a long chain of events which is not yet complete, and which is difficult to summarize adequately.

The feeding industry lost great sums of money in 1974. Most of the highly leveraged investment funds became broke or nearly so. Investors realized not only tax losses but also very real losses. The U. S. Treasury has shared these losses—probably on a dollar for dollar basis. Information is not available to measure accurately these total losses to the Treasury in taxes in the past 4 years, but they must be in the neighborhood of a few hundred million dollars.

Where are the benefits to offset those losses? They are hard to find. Some lucky investors who got in and got out before the crash did receive benefits. However, those investors who lost their total investments are more typical. The cow-calf producers were beneficiaries in 1972-73 to the extent that feeder cattle prices were driven up by tax-loss bidding. However, that bidding in a sense has contributed to the greater crash of feeder prices in the fall of 1974. The final measure of benefits to the ranchers is not likely to be very substantial.

There are other possible beneficiaries. The fund promoters and the
associated feedlots obviously benefited in the earlier years, but as many have since teetered on the edge of bankruptcy, they may deny receipt of any long term benefits. What about benefit to consumers? If the stronger feeder prices of 1971-73 encouraged the keeping of more breeding stock, then consumers may reap some benefit in the next few years from larger supplies of beef.

In our final tally, we need to include the impacts upon the relative fortunes of farmer-feeders of the Midwest compared to the large lots of the High Plains. These impacts extended, of course, to the associated agribusinesses and communities for which cattle feeding is an important economic base. One of the great revolutions of postwar agriculture has been the move of cattle feeding from the Midwest to the Southern High Plains. Undoubtedly, much of that switch can be attributed to the advantages of cheap feed, favorable climate, and economies of scale possessed by the growth regions. Yet in the past three years there have been ample reasons for Corn Belt feeders to feel that they were losing out to a system that had tapped the resources of the U. S. Treasury. It is one thing to lose a competitive struggle with a more efficient competitor; it is another to lose to a tax-subsidized competitor.

In summary, then, I find the tax-subsidy in cattle feeding to lack justification on all three counts. First, there were no market barriers to the inflow of capital into cattle feeding which would have created a need for tax-subsidized capital. Instead, the tax-subsidy brought in too much capital and added a small, but significant, contribution to the present market bust. Second, the benefits are so difficult to locate that it seems very likely that they were far less than the costs to the Treasury—and ultimately to the rest of us as taxpayers. Third, because of the 1974 cattle market crash, the distribution of benefits has been like leaves in a windstorm rather than a logical serving of a public purpose.

Defenders of this tax-subsidy may argue that its association with a market bust puts it in the worst possible light. It is plausible that in a different economic climate the public assessment of the cost-benefits would be more favorable. However, I am not aware of a possible state of the economy in which a clear benefit-cost ratio can be shown for this type of public subsidy of the production and consumption of beef.
CONSEQUENCES OF INCOME TAX LAW AND REGULATIONS:
FINANCIAL MANAGEMENT PRACTICES

Leonard R. Kyle
Department of Agricultural Economics
Michigan State University

For many years before 1945, few farmers were concerned about income tax rules. Very few paid any sizable amount of tax. Now that about 50 percent of farm production comes from farms which gross over $100,000, income tax management as a part of financial accumulation is being developed into a real art. Production plans, growth strategy and investment planning can all be geared to methods of operation which help a farmer reach his financial objectives while using tax dollars to carry as much of the load as possible.

Of course, the first fundamental is to put together a business operation which is fundamentally cost efficient. But then in order to avoid getting caught with high marginal tax rates, the second rule is to plan how to adjust present or new ventures to anticipated profits and taxes. Using dollars which would otherwise be paid as income tax offers a unique form of leverage which most farmers do not understand.

This all begins with dynamics, or growth with perpetual debt. Tax reporting and most traditional thinking about ways of avoiding tax are usually confined to a single year. In that way the opportunity is missed of always pushing ahead larger expenses in anticipation of expansion, alongside relatively lower income being realized in the current year. This is very easy to do as long as the cash basis of reporting is permitted. A dairy farmer who raises extra heifers thereby expands his herd without paying tax on his inventory accumulation. Ordinary crop production items bought ahead for an expanded operation the following year fall in the same general class. Also, buying big ticket machinery in the fall does the same thing in form of depreciation and that very beneficial item, investment credit. Small farmers who have little intention of expansion will wake up some day and insist that all farmers be put on an accrual basis. This will partially force paying tax each year on the income earned instead of allowing bunching of sales from carried-over inventories or juggling expenses by time of purchase.

An integral part of the tax advantage of continuous growth is the fact that borrowed money is tax deductible. Particularly during times of rising land values, it is therefore quite desirable to keep equity levels at 50 percent or less. This is not liked by people who have a value system which calls for paying debts as rapidly as possible.

Both of the above ideas point to the advantage of continually buying land, especially where it is usable in a given business. The tax advantage is greatest if the land needs development to improve its productivity. This may call for draining, leveling, or even irrigation. If this can be timed to periods when a farmer falls in a high marginal tax bracket, tax dollars will go a long way toward creating a more valuable capital asset. The costs will have been offset as investment credit, depreciation, or just ordinary operating costs, if one is clever enough to do it gradually with regular farm machinery and hired labor. Some high bracket taxpayers have spent a lifetime in a land development and speculation business which is run in tandem with a profitable farm.

Another feature of buying farm property as a tax shelter comes from the effect on cash flow resulting from book deductions which reduce the tax from other sources. A farm bought on a low down payment contract may have 25 to 50 percent of the value assigned to "depreciable property." The annual tax deduc-
tions as depreciation can exceed the down payment and end up as a paper loss for tax purposes when, in fact, a sizable net cash balance is flowing into the owner's check book. He can then use this to make payments on the principal. All tax savings must be viewed on an annual basis. Continuous delay is quite an advantage, especially during times when interest rates are 10 percent or higher. Money then doubles in only a little over 7 years. Also, with continual venturing, entrepreneurs sometimes make mistakes and encounter unprofitable years. Tax savings give them more leeway.
CONSEQUENCES OF INCOME TAX LAW AND REGULATIONS: ORCHARD DEVELOPMENT

Hoy F. Carman
Associate Professor of Agricultural Economics
University of California, Davis

Income tax provisions permitting current deduction of capital costs associated with orchard, grove, and vineyard development provide a significant investment incentive for those tree and vine crops exhibiting current net profits. The incentive is presently available to all developers of all orchard and vine crops except citrus and almonds. The value of the incentive can be substantial and exists whether the orchard is held for its productive life or sold for capital gains.¹ For more than a decade the incentive has been packaged and successfully sold to nonfarm investors as a tax shelter.

Citrus and almonds were popular nonfarm investments until their tax shelter advantages were terminated by capitalization requirements which became effective in 1970 and 1971. Investor interest quickly shifted to other perennial crops with a favorable economic outlook. These crops included wine grapes, avocados, walnuts, and kiwi fruit. Most observers agree that nonfarm investment (partially motivated by tax considerations) was an important factor in the recent rapid expansion of California wine grape acreage. However, with a large grape crop, static per capita consumption, and wine grape prices dropping to 25 to 40 percent of 1973 levels, investor interest has waned just as it has done in cattle feeding.

Impact

Since we are considering an area in which few data exist, we must use scattered observations and our theoretical tools to evaluate impacts. With this limitation, any conclusions are general and largely in terms of direction of influence rather than a quantitative estimate of the impact of a tax provision.²

Income tax incentives, whether in livestock, orchards, or other activities, increase after-tax returns from investments in the "favored" enterprises. The general effect of these incentives, while difficult to quantify, is to increase investment and ultimately production over the level which would exist without the incentives. In fact, several countries use income tax incentives to encourage agricultural development through land reclamation and development, crop establishment, and expansion of livestock numbers. Increased investment and expanded production have a number of potential economic implications. I'll briefly examine a few of these within a framework emphasizing the supply and demand for inputs and outputs associated with orchard and vine crops.

Inputs. Major inputs for the development of orchard and vine crops include land, labor, capital, management services, and nursery stock. The price impact of an increase in the demand for these inputs as a result of increased development is related to the amount of the input required and its elasticity of supply. This, of course, varies by crop and area.

¹Budgeted examples demonstrate that the increased present value of deducting development costs currently instead of depreciating them is about equal to the tax advantage of sale for capital gains. See Hoy F. Carman, "Tax Loss Agricultural Investments After Tax Reform," Amer. Jour. of Agr. Econ., 54:4, Part 1, November 1972, pp. 627-34.

²The very limited number of quantitative estimates available tend to be based on budgeted examples rather than actual experience. The confidential nature of tax returns precludes detailed analysis by anyone other than Treasury Department researchers.
Previous work in the form of budgeted examples leads me to believe that the increased acreage of California orchard and vine crops due to tax incentives is a comparatively small percentage. The increase depends on the tax bracket of the investor and the crop but I believe that for most crops it will range from zero to five percent of the acreage.\(^3\) Note that in a short period the proportion of new plantings due to tax incentives could be much higher. The above figures are for a long-run situation.\(^4\)

Given a relatively small percentage increase in the total acreage of California orchard crops as a result of tax incentives, we can speculate on the impact of input prices. The requirements for capital and labor have been small relative to the total supply of these factors. There has probably been little or no increase in prices as a result of orchard development incentives. While the supply of land is limited, there is a large amount in California suitable for orchard development. Tax incentives have undoubtedly strengthened the overall level of prices of orchard land. They have definitely helped increase prices of land for specialty crops requiring micro-climates and particular soil types. Included here is land suitable for avocados and premium varietal wine grapes. The increased demand for farm management services may have resulted in some increase in fees. The longer run impact is a definite expansion in the quantity and range of services offered. The nursery industry has undoubtedly benefited from increased prices and sales volume. It is worth noting that nursery interests have been involved in some of the large public tax shelter offerings to nonfarm investors.

**Product Prices.** The increase in orchard plantings as a result of investment incentives and the impact of increased production on crop prices depends on the elasticity of tree planting and the price elasticity of demand for the individual crops. Total revenue to producers of crops with inelastic farm level demand will decrease; for crops with elastic demand, total revenue will increase. Previous research indicates that the farm level demand for most tree crops is inelastic.\(^5\) Thus, producers of orchard and vine crops receive a tax incentive but as a result of increased production they also receive lower product prices. Many producers will have lower total crop revenue as a result of the planting incentives. Their after-tax income as a result of incentives may be lower than without incentives. However, after an analysis of five California orchard crops we concluded that "it appears that . . . benefits to growers as a group (including new entrants taking advantage of the tax subsidies) are positive for most commodities."\(^6\) However, there are orchard crops where producers as a group do not benefit. In addition, since the distribution of incentive depends on the income of the developer, individual producers may suffer even when the producer group benefits.

Research for the five crops mentioned above indicates that consumers have been the major beneficiaries of orchard development tax incentives. Increased production at lower per unit prices resulted in an annual gross social return to consumers ranging from $0.12 to $15.00 per dollar of incentive.\(^6\) We had no evidence of the efficiency of the tax incentive versus other incentives which could achieve the same result.

---

\(^3\) Estimates for five California crops by tax bracket of the investor can be calculated from a previous article. If we assume that all developers were in the 50 percent tax bracket (probably higher than existed) the increased acreage would be: apples, 2.38 percent; apricots, 3.20 percent; avocados, 6.48 percent; Freestone peaches, 1.75 percent; and olives, 0.14 percent. See Hoy F. Carman and James G. Youde, "Alternative Tax Treatment of Orchard Development Costs: Impacts on Producers, Middlemen and Consumers," Amer. Jour. of Agri. Econ., 55:2, May 1973, pp. 184-191.

\(^4\) Another analysis in the form of a case study of five large California farms using a utility-maximizing risk framework found that farmers would

Continued on Next Page
Thus far in the discussion we have not considered problems of the distribution of tax benefits, the relationship of agricultural and tax policy, adjustment problems associated with the orchard asset, and the impact of tax incentives on the structure of agriculture. It is these problems which are central to the controversy surrounding tax shelter investments in agriculture.

**Tax Incentive Problems**

All taxpayers have an interest in orchard development tax incentives but it is the participants who have the largest stake in the outcome of current discussions regarding possible limitations. The following problems relate to this producer group and to agriculture.

**Equity.** It is doubtful that a government expenditure program based on agricultural policy requirements would distribute payments in the same pattern as does the orchard tax subsidy. The subsidy program is open-ended with the largest subsidy going to the taxpayer with the highest taxable income, whether from farming or other sources.

Tax subsidies are hidden government expenditures. Given the pattern of payments, the orchard tax subsidy can only serve to reduce the progressiveness of our income tax structure. An alternative is a cash grant rather than a tax deduction or refund. If it were determined that the nation needed increased acreage of a particular orchard crop the government could pay the developer for 50 percent of qualifying expenditures. While this would be equivalent to allowing the 50 percent bracket taxpayer to write off costs, it has the attractive feature of equal subsidy regardless of other income of the investor and it gets the amount of subsidy out in the open.

**Policy.** There is little evidence of any effort to coordinate national agricultural policy and income tax policy. Tax policy as it applies to agriculture has developed piecemeal and current discussions of possible reform tend to ignore agricultural policy. This is an unfortunate situation, especially when one considers that most possible tax law changes being discussed will influence agricultural investment.

There are examples of present orchard tax policy which are directly opposed to other government programs. The most striking example is the development subsidy available for cling peaches at the same time a state marketing order provides for tree removal and a green drop.

It is often argued that nonfarm investors provide large amounts of capital not available from other sources. I'm not familiar with an agricultural credit policy which includes nonfarm investment. The government did enact a loan guarantee program for cattle feeders when nonfarm investors lost both money and their interest in cattle feeding. As a source of funds, nonfarm investment may be here today and gone tomorrow. In addition, the cost of the funds must be questioned. Some organized investments allocate up to 40 percent of revenue for packaging the investment, real estate commissions, sales commissions to brokers, and administration.

---

4, Cont.


6 See Carman and Youde as cited in footnote 3, p. 190.
Adjustment. A long-run cycle of production and prices is a common phenomenon with most orchard and vine crops. Returns can remain high for several years even though acreage expands rapidly, since several years typically elapse between planting and first commercial production. I believe that orchard tax subsidies accentuate cyclical price and production patterns. The subsidy encourages over-allocation of resources when returns are favorable. Low prices as a result of over-production will tend to persist because of the fixed nature of the orchard asset.

It was large plantings which led citrus and almond producers to request capitalization requirements for those two crops. I expect to hear similar requests in the not-too-distant future from California grape and avocado producers. Existing producers have ample reason to request capitalization requirements for their crops. Capitalization makes it more expensive to develop new orchards, thus slowing expansion. In addition, increased development costs lead to higher values for existing orchards, especially young bearing orchards.

The desirability of a partial approach such as requiring capitalization for only citrus and almonds must be questioned. Investor interest immediately shifts to other crops. Concentrated interest is likely to lead to overplanting of these other crops. The shift to grapes and avocados in California is an example that comes to mind.

Structure. The possible impact of tax subsidized investments, particularly those packaged and marketed as tax shelters, on the structure of agriculture is a source of controversy. Farmers have tended to have rather strongly held values concerning personal freedom, farming as a way of life, and the family farm. Many of the operating characteristics of tax shelter investments, whether conducted individually or through a limited partnership, are opposed to these values. These characteristics include increased contract production and vertical coordination, absentee ownership, and centralized direction by investment managers and farm management companies.

Existing farmers may be able, however, to more fully utilize their management skills and realize economies of size through their association with nonfarm investors. This also implies larger and fewer farms.

Concluding Remarks

Income tax incentives for orchard development have undoubtedly increased the acreage and production of tree and vine crops. The impact of these increases has probably been a rise in price of land, especially land suitable for specialty crops such as avocados and premium wine grapes. The nursery business is probably larger than it would be without incentives and nonfarm investment has resulted in an increase in the quantity and scope of farm management services available.

Producers may or may not have benefited from planting subsidies. Here the subsidy must be balanced against decreased product prices. Consumers have benefited from lower prices but the hidden nature of the subsidy prevents determination of its efficiency. Perhaps the same result could be achieved at lower cost.

Problems associated with orchard development subsidies include the distribution of tax benefits, coordination of tax and agricultural policy, adjustment of fixed orchard assets, and possible impact on the structure of agriculture. Any discussion of tax law changes affecting orchard development needs to come to grips with these problems.
CONSEQUENCES OF INCOME TAX LAW AND REGULATIONS:
THE STRUCTURE OF AGRICULTURE

Lauren Soth
Editor of the Editorial Pages
Des Moines Register and Tribune

In our lifetime we have seen an earthquake of change in the structure of agriculture. The change has been so great that the nature of the industry and way of life have been altered.

In 35 years, the number of farms has been cut by more than half. Many parts of the farming business of the 1930's have been taken off the farm and are now functions of what we call agribusiness: production of farm power, most seeds, fertilizer.

New functions have been added, such as killing weeds by chemicals and vastly improved chemical control of diseases and insects. The materials come from off-farm business agencies and increasingly the actual work on the farm is done by them.

In less than a half century there has been a greater change in American agriculture than in all the preceding century and a half of our national existence--and, perhaps, in a thousand years before that.

The character of the industry is different. We don't even know what to call farming any more. Is broiler production in industrialized setups farming? Is the California factory-of-the-field, producing fruits and vegetables, farming or something else? When agribusiness firms do everything from the soil preparation to the harvesting, what part is farming and what part nonfarm business?

We usually explain all this by the advance of technology, the application of science to agriculture. But today I want to mention another factor in recent years--taxation.

Maybe you will say taxation also is a phase of the general revolution in technology which has led to urbanization, more economic functions performed by specialized units, and more done by government. The old separation of private and public has been blurred.

This means we pay for more things and services through taxes and less through direct purchases in the markets.

The speed of the conversion of economic systems has brought unequal impacts and distortions. One of these, I think, is the effect of taxation on size and organization of farms.

The modern society has been shifting rather rapidly from taxation based on property and unit levies (excises) on transactions to income levies, with varying (progressive) rates--the higher the income the higher the rate of tax.

With agriculture going through such a metamorphosis, taxes have caused radical diversions in investment and allocation of resources. I have no idea what all these effects have been, and no one else does. But that they have been large, I am sure.

The development of large cattle feedlots is not a consequence of mere technology. The cost studies I have seen show insignificant economies of scale beyond a unit of 500 head. The advantages of large-scale grain farming, wheat,
corn, soybeans or other enterprise, are fully realized by much smaller units than many of those which have been put together in recent years.

Something other than technology has been acting as a force toward larger scale. Spreading of improved management over bigger production and marketing units undoubtedly is a main reason. But taxes also seem to be an important part of it.

A recent study for the Treasury by a couple of young economists, Robert Evenson and Finis Welch, carries implications of this. They found enormous differences among areas of the country in the incidence of the federal income tax on farming.

Middlewest states with high proportions of family farms of moderate size pay much larger income taxes in relation to income than do Southern, Far West and coastal states.

In the four years 1967 through 1970, Iowa, Illinois, Nebraska, and North Dakota, with 19 percent of the net farm income as computed by USDA, paid more than 40 percent of the nation's farm income tax.

California, Florida, Louisiana, Mississippi, Alabama, Georgia and South Carolina together also had 19 percent of the national farm income. They paid less than 2 percent of the farm income tax.

The Internal Revenue Service figure on taxable farm profits amounted to 30-50 percent or more of the USDA farm income figure in the North Central States, whereas it was only 3-20 percent in most of the other states.

The Internal Revenue Service profit figure is much smaller than the USDA figure for net income partly because of the capital gains factor. Income from appreciation of assets has amounted to about 40 percent of net farm income in USDA figures. This largely escapes taxation, according to Evenson and Welch.

I am not going into that question. For my purpose here, it is the difference in ratios for different types of farming that is important.

In Iowa, the highest percentage state, the figure was 53, and in Arizona and New Mexico, it was 3 percent. Missouri had 30 percent.

The exceptions to the general regional differences also are revealing from the viewpoint of size of farm and the nature of the farming business. Washington, New York, and Michigan all had relatively higher proportions of taxable income, and they also have a considerable number of small and general-type farms.

You might expect that federal income taxation would give an advantage to small farmers as compared with large farming businesses. Farm-produced food and fuel and rental value of homes are largely not taxed. These non-money sources of real income are more important for family farms than for the bigger farms.

But the comparison made by Evenson and Welch indicates that the tax advantage is with the big operations.

With the cash accounting privilege, of course, farm firms can deduct against current income, expenditures for land development, soil conservation, irrigation and other capital outlays. This permits building up assets without paying taxes, or, in effect, an interest-free government loan.

I don't have the facts to say what all may be involved in the difference in tax liability of farming in different areas. But it does seem to me that taxes encourage big-scale farming.
Before considering kinds of changes one might look for in agricultural tax law, let us review briefly what the present law does and its consequences. I will use two simple examples. Let us start with the easier case which presents the deferral benefit. A farmer on the cash method of accounting does not use inventories. Thus, let us suppose that a calf is born during the year and by the end of the year $100 worth of feed is in that animal. To arrive at a proper commercial accounting and tax accounting concept of income most businesses with that kind of asset on hand would have to inventory the asset and reduce the costs and expenses of the year by $100. Farmers do not do that. Consequently, for this $100 cost that is in the calf at the end of the year, if there were no other farm income there would be a $100 farm loss. Let us assume that the person has other income and is in the 70 percent tax bracket. Then that farm loss will have, when the income tax return is filed, a value of $70 as tax deduction.

It may be that at some time in the future the animal will be sold and the $100 will come back into income. The tax will then be paid on it because the asset will have a zero basis, as no costs were capitalized with respect to it. Consequently, when the animal is sold, and let us assume it is sold for $100, $70 in taxes will have to be paid. However, the taxpayer will have had the use of the $70 for a one or two year period. It is really an interest free loan from the Federal Government. That is the deferral benefit.

There is another benefit which can be called an exemption benefit, negative income tax, or something of that nature. Going back to the same example, if the animal can be sold at capital gain rates, only one half of the sales price will be taken as income. Again assuming that it is sold for $100, that would mean that but $50 would be taken into income. A 70 percent tax bracket applied to that $50 would give a tax detriment at the point of sale at $35. Since the tax benefit taken when the feed was written off was $70, the tax detriment on the sale is only $35. The net difference is $35 and that is just as good as any $35 check the U. S. Treasury could write you. This has been described in various ways. I personally like to refer to it as the negative tax benefit.

Let me say one thing more about the two primary kinds of benefits that are available because of the farm tax rules. We generally focus on farm losses. That is a mistake. The farm loss problem, if we can put it that way, is only the most visible part of the problem; and some people are not happy just to look at farm losses but talk about syndicated farm losses and things of that nature. A syndicated farm loss is just a way of breaking up farm assets so that you can put the tax loss in some individuals and other attributes of ownership and management in some other individual. The problem really is not one of farm loss. It is a problem that extends across the entire farm economy. If you are talking about crop farming, the major advantage for a crop farm of all these rules is merely to decide which year in which a certain income or expense is to be recorded for tax purposes. That is, if there is other income you might hold your wheat crop over into January rather than sell it in the prior year, to put off the income until the following year. On the other hand, another technique might be to prepay or postpone expenses until such time as they would give a better benefit. But largely speaking, that is all there is for field crop farmers -- I am not thinking of nut and fruit and vine crops. The major benefits for field crop farmers might be called do-it-yourself averaging technique.
The deferral benefit and negative tax benefit are not limited to but are largely found in livestock, breeding cattle, cattle feeding, horse racing, and fruit and nut crops.

Proposals

The question next arises, what kinds of proposals could be made to deal with the problems? I will start with what I think is the proper solution, and talk about some of its issues and difficulties.

A proper solution is really a four point program. The first would be to require, across-the-board for all people, full inventorying including that for feed and supplies. If you are not willing to bite the bullet on that I think you can forget about ever getting any effective legislation in this area. The second step would be the extension of the holding period for some assets required for them to fall within section 1231, and potentially result in capital gain. That is simply because, given the nature of animals and the uses to which they may be put, the present holding period allows ambiguity about the purpose for holding. It requires some longer holding period to decide whether these assets really are being used in the business or are being held for sale.

The third proposal would be to require full cost capitalization during the pre-productive period. That has to do with the growing vineyard and walnut orchard, kiwis, and the like.

Fourth and last, let us repeal the present complex provisions such as EDA, Section 1252 and 183. They do not help and they are either accountants' and lawyers' nightmares or dreams, depending on your point of view.

A number of criticisms have been offered relative to changing to accrual accounting. The first is that it is too difficult for the average farmer. I think that is based on some belief that farmers are of subaverage intelligence. There are a lot of techniques that can be applied to even the smallest of farmers. But the truth of the matter is that farming today is not a small enterprise. I do not have at my fingertips the statistics on the size of farms, but the size of the average farm is growing greatly, and it seems ridiculous to suggest that an enterprise that may have $200,000 worth of capital resources cannot afford to hire an accountant. And despite all the argument about techniques not being available, farm accounting books have been written since 1731. Furthermore, it is quite clear that for credit needs, farmers are doing this now anyway. You cannot walk into a bank and get a loan on the basis of a cash accounting statement. The banker will laugh at you if he is a good banker, and if he is not a good banker he probably will not be in the business very long.

A second argument raised about this solution is that it would strike down or take away the inducement to bring in outside capital, and the farm sector would be damaged. That is really an argument for the economists; but it is always the argument of the person who has the advantage at the particular moment. Farms in this country have always needed outside capital; I am sure they did back as far as the Civil War, and they got it without a tax system that fed money to them in the way that I have described.

Further, if we are devoted to free enterprise, why not let the free enterprise market decide whether or not the capital would be induced into an industry?

The third argument raised is that there may be some difficulties in the years of transition, when a farmer has to change from a cash accounting method to an accrual or inventory method. That is a technical problem that could be worked out, as by an extended period of transition.

The fourth and perhaps most telling argument against this solution is that it would not be effective. That argument is made by a good friend of mine who practices in Corpus Christi, Texas. He says that all of this would
not be effective because the present inventory methods would not result in deferring the expensing of adequate amounts. The answer to this is that once inventory accounting were required we could ask the question as to what the proper inventory method might be. We could then revise the technical rules.

I think there is no question that the approach I have sketched here is the proper solution. Indeed, in my opinion it is the only solution.

Adding New Limits

The other route, of adding on still more limits and exceptions, is like telling my four children they can fight but be careful not to get hurt. When we start creating exceptions, we are trying to keep from hurting somebody. The consequence is to add still more complexity. And the more specific the exception, the more complex the law.

Further, going that route gives the legislature an opportunity to get off the hook and to tell you that it has done something when in fact it has not.

Many of these so-called solutions are what I would call limitations on the use of farm losses. The proposals are legion. I will mention two very briefly, and state what I believe to be the theory on which they are premised.

One would have allowed a complete deduction of farm losses if the nonfarm income did not exceed $20,000. If the nonfarm income were more than $20,000, the loss would have been trimmed to $10,000, I think by being phased step by step down to $10,000 as nonfarm income increased up to probably $40,000 or so. The theory of this bill, it seemed to me, was to define a farmer as one who has limited nonfarm income, and then to confine the use of the so-called farm accounting rules to that person. This again was an effort, rather than to correct a bunch of skewed rules, to save those rules for people who are sometimes called "legitimate farmers." This approach would leave an advantage for one who has farm gains as well as farm losses, and he could continue to use these rules to his advantage and to defer taxes in a continually expanding operation.

Then there was the Senate Finance Committee version of the farm bill in 1969. It is worth mentioning because its theory was different. If a taxpayer had nonfarm income of $50,000 and a farm loss of $25,000, then the loss in excess of $25,000 would have been limited to ordinary farm income plus half of the deductions in excess of $25,000. Now the theory of that proposal was that capital gain is the difficulty in the farm area. By disallowing half of the deduction the bill was really attempting to say, "since the income which these deductions will produce will be only one-half taxed, then the deductions should be allowed only to the extent of one-half." It seems to me that that theory does not explain all the difficulty with the present farm tax rules.

A number of other solutions are available. Senator Metcalf had one in 1969 that was basically a limitation on the use of farm losses. Its theory was very close to that of the first proposal I mentioned above. Common to nearly all these proposals is the right to deduct any amount of farm loss, against any kind of income, if proper accounting rules were used.

That provision was put in in order to take care of the person who says, "Gee, but my loss is an economic loss and is not an artificial loss induced by these tax rules which apply only to agriculture."

In April 1973 the administration offered a proposal, LAL (limitation on artificial accounting losses). A limitation on artificial losses is also a restriction on the use of farm losses. It was, however, to operate only on the amount of the loss that comes from the artificial accounting rule. So it would operate only on the artificial losses. Under the most recent proposal, if I understand it correctly, the right to deduct certain expenses
would be limited -- the artificial deductions (which will be defined later on) would be limited to total farm income and nonfarm income if the nonfarm income did not exceed $20,000. For each dollar of nonfarm income in excess of $20,000, the deductible farm loss would be reduced by one dollar. At $40,000 of nonfarm income, all artificial deductions (as defined by this proposal) in excess of farm income would be disallowed. Again, another simple solution: Disallowed deductions which could not be taken concurrently under this proposal could be carried over against farm income in future years.

The artificial deductions as defined by this proposal were prepaid supplies to be consumed in a later period; prepaid feed as we talked about yesterday; the pre-productive expenses for orchards, vineyards, and similar operations, but not for breeding livestock; and prepaid interest. Those were the artificial deductions.

There were a number of difficulties with this solution. The inclusion of prepaid feed seemed to be aimed only at cattle feeding operations. I do not think there could have been much argument with that, because it was an effort just to reach cattle feeding operations that were largely syndicated. The inclusion of prepaid interest, and even more of prepaid feed, amounts to attacking a problem that largely did not exist; because, at least with respect to interest, the Internal Revenue Service through its rulings has done a fair job in the prepaid interest area.

As to the pre-productive expenses, incurred with orchards, vineyards, and other assets of that nature, they are not defined, and some persons believe that pre-productive expenses would not include labor, depreciation, and general overhead. If you would accept that, I do not know what you are left with. Is there anything? Maybe a little fertilizer, the cost of water; and those would be the only artificial deductions. So obviously a lot of the expenses would not be reached. Hence, many of the major expense items would not be reached by that proposal.

Given all of those difficulties with the proposal, it is clear that the applications of the bill would not have been wide, and in my mind there is doubt that there is any improvement over what we have. You cannot even say that it is simpler than what we have.

There were some other features of the proposal. I might run quickly through those.

Corporations, other than the family corporation and Subchapter S corporations, would be required to use the accrual accounting and inventory methods of accounting. I believe that it would require full cost capitalization of the pre-productive period expenses. A family corporation, as one that is excused from using the accrual and inventory methods of accounting, would be a corporation where 75 percent of the voting and 75 percent of all the stock is owned by a family consisting of brothers, sisters, ancestors, descendants, or the estate of the taxpayer. It is interesting how we continue to create new definitions and new attribution rules, in effect attributing ownership among taxpayers.

Another fork of the proposal is that where breeding (dairy or sporting) livestock were involved, the deduction for losses would not be allowed in excess of the amount of capital an individual had at risk. Because it was specifically stated there was no risk to the extent of non-recourse loans -- and I quote or paraphrase because I do not quite understand this -- there is no risk to the extent the taxpayer will be reimbursed for a loss where he had a stop-loss order, a guaranteed repurchase, insurance, or similar arrangement. Now I do not know what that means. Do they really mean insurance? I do not know. Because there are lots of kinds of insurance -- what kind of insurance? Anyway, the effort was to list, to limit the deductions, not to allow the leveraged deduction if you will. I think that in the cattle feeding area, this would be acceptable to cattle feeders.
I want to spend a few minutes evaluating this proposal, because it is the one which has been tentatively adopted by the Committee on Ways and Means, and I suppose it is the one which is going to receive the most attention. The only really positive feature I can find about it is the repeal of EDA -- and I do not believe it goes so far, however, as to repeal section 1252 as well.

Secondly, it is another complex set of provisions, which would be substituted for an already complex law. And complexity is the price we pay to preserve a tax shelter for some while trying to put others out into the cold, harsh weather of the graduated income tax. At least in its present form, the coverage of the proposal -- Who is covered? When does it apply? How does it apply? is far from certain. Also, the proposal is most in need of amplification because, for instance, in the pre-productive expense area, the kinds of expenses that would be picked up for some crops would differ substantially from the kinds of expenses that would be picked up for other crops. There is no reason to differentiate on that level. Furthermore, tree and plant crops receive treatment different from livestock. The risk rules for livestock are at odds with the rules applicable to other shelters such as oil and real estate. I have some difficulty with applying these kinds of risk rules in the farming industry when they do not apply in oil and real estate. It is pretty clear that leveraged investment is the thing which makes the oil tax shelters and many of the real estate tax shelters go round.

You should also note that, at least to some extent, these provisions will force some people to take an inventory or do something of that nature in order to decide what supplies they have on hand at the end of the year: to decide what part of their expenses for the year are artificial expenses. It is interesting that that is going to be required because the major argument, other than the economic argument, against the use of proper accounting has been that inventories could not be taken. If you accepted that argument at face value, Congress would be requiring that which it has consistently said could not be done. Furthermore, there is an assumption in this solution that the problem lies in farm losses, in the use of farm losses against non-farm income. But it does not face up to the fact that the real problem is the deviation from good accounting methods. I think the assumption on which the proposal is built is wrong. Except for perhaps some few livestock operations, the proposal will affect so few operations that it may properly be described as a hoax, or at least a gimmick designed to fool the public while pacifying those whose ox would have been gored by effective changes. We did that in 1969, and as we are working up to it again in 1975, I guess. It is just another non-reform bill that only makes things more complex.

Conclusion

In concluding my remarks, I think that one must decide what his values in life are, and even though you may, in your own particular situation, be gaining some small or some large advantage out of the present accounting rules, if you really want to take care of this problem you should get back to the proper solution is. If you do not, there is going to be continual tinkering, complexity, outrage, instability, and probably Congressional action. Because the benefits, even under any of the proposals I have mentioned, are still so great that the public is going to be aware of them, and there is going to be a lot of visibility to their use. If you are looking for stability, what you should do is get hold of your Congressman, and tell him you do not want any more of these gimmicks, and tell him you want the right solution, NOW. You will get at least some stability for a substantial time in the future. If you could get the right solution written into the law, it would be my guess that it would be very difficult for special interests in the future to start carving out exceptions. With that I conclude.
Our federal income tax system has three objectives: (1) to raise revenue, (2) to redistribute wealth, and (3) to encourage or discourage certain activities in our society. The graduated federal income tax schedule is an example of the first two objectives and the child deduction features and the liquor and tobacco taxes are examples of the third. Therefore, to use the federal tax to encourage the kind of society we want is an accepted concept and now practiced.

Last year at this conference I emphasized a point which I wish to allude to briefly again. It is that we all have varying productive capabilities as a result of our environment and heredity. Thus, if we reward people on their productivity, we get a wide variation in incomes. However, we put considerable emphasis in our society on justice and equality. We also know that if everyone's income is the same, productivity tends to fall to the level of the least productive. Thereby, everyone has less. Thus our continuing problem is to find that mix of rewards that keeps production up and also provides some justice in the distribution of income. This concept must be kept in mind as we consider changing the tax laws that affect farm producers.

Furthermore, we should not approach this problem as though we were trying to "get" someone who ought to have paid taxes but didn't. We are rather asking the question, if tax laws were changed, would they encourage the society or system that more people think is desirable?

It has often been said that an old tax is a good tax or old tax is no tax. The meaning is that in both cases economic adjustments and expectations have previously been made to the tax. It is changes in taxes which bring about many inequities. Therefore I would suggest some advance warning or delay be provided in the effective date for any changes, and that the number of changes be kept as few as would accomplish the objective.

Fortunately, no important national revenue issues are involved in the changes being suggested at this conference.

About three years ago a task force was set up in the colleges of agriculture to analyze the issue of who is going to control agriculture. Following preparation of background material we held discussions at a number of regional meetings around the country. Among other things three issues were consistently raised by producers: (1) how can we keep open markets for agricultural producers, (2) how can we get our supplies at competitive prices, and (3) how can we adjust our tax laws so that the wealthy individual or organization entering farming does not have an advantage tax-wise over the typical farmer? It seems to me these are important and worthy issues that should be considered. At this conference we are considering the third issue.

An analysis of the data indicates that while, for the major farm commodities the individual commercial farmer is competitive in farm production, the changes which have taken place on the input side of farming and on the marketing side, as well as the tax situation, have put many economic pressures on the independent farmer today.

When this country was founded, there was much debate whether the land was to be distributed in large blocks to corporations and plantations or to family farmers. Those who favored the family farm land pattern won out. The government supplemented this pattern of farming by the Homestead Acts, the establishment of the Land-Grant Colleges, and much other legislation.
The march of technology has brought this question before us again. I believe as Kenneth Boulding has said, "Once man has worshipped at the tree of knowledge there is no going back." We must learn to ride the new technology. It does not mean, though, that we have to be victims of it in our economic and social structure. Man can shape his social and governmental destiny now just as he did in the founding days of this nation.

In this day and age when we are trying to give meaning in our industrialized society to the individual's dignity and work, it seems questionable that we should move independent farming into the same centralized control pattern. It would be particularly undesirable to move farming in this direction because of artificial rather than real economics in the tax, supply and marketing areas.

Now, as has been previously said at this conference, the principal tax opportunities for the wealthy and the large organizations arise from provisions that (1) delay payment of tax, or (2) reduce the tax rate through capital gains.

In regard to the delayed payment issue, it would seem that consideration should be given to the proposal of limiting all farm losses to nonfarmers to some modest figure for any one year. Where the production facilities are owned, the limit might be higher than otherwise. Disallowed losses could be carried forward with no limit on years or amount. The opportunity to shift to the accrual method should be kept available, and should be required for non-farm operators with gains or losses from farming above $10,000 per year. Orchard crops could all be treated in the same manner as citrus and almonds now are.

These changes should limit the large in and out livestock feeder and land developer from shifting his income from one year to another. It should not greatly disturb the small part-time farmer from reporting his losses. Some escape clause might be included for the large nonfarmer when a crop or livestock disaster occurs.

With regard to capital gains, it would seem that those from livestock might be limited to 15 percent or thereabouts of the total sales from any one class of livestock for any year. This would not seriously discriminate against the regular hog producer who markets part or all his sows each year under the capital gains procedure. It would allow in most cases for the selling of some livestock for breeding purposes, where the producer was not a regular producer of breeding animals.

After 10 years in the business of producing any class of livestock the individual might retire and obtain the same capital gain privileges that exist under present regulations. This would not discriminate against the regular producer. Perhaps an undue hardship or disaster clause should be included to take care of special situations where individuals are forced out of business.

During periods of sustained land appreciation and anticipated appreciation, nonfarm capital tends to be drawn into land purchase partly because of the greater savings to high income individuals or groups from the capital gains opportunity. There does not seem to be a simple way to handle this issue. It raises the question of what our land use policy should be. This whole area of land use policy deserves further study.

As has been said in North Central Regional Extension Publication 32, "to whatever extent subsidized investment raises the price of basic resources in farming, whether it is the price of land or equipment or breeding (or feeding) stock, the subsidized investors gain a competitive advantage over all those who get less subsidy or none at all. In this way, rules for tax deductions and concessions have much to do with who is going to control U. S. agriculture in the future."
Summary

Limiting the use of farm tax losses in any one year and confining capital gains in the case of livestock to use by farmers in their normal operations would go a long way toward equalizing the advantages that nonfarm investors now have over traditional farmers. They would not require major changes in the federal farm tax system or seriously change the typical farmer's situation. They would decrease the opportunity of the nonfarm investor to enter farming because of special tax savings.
As a prelude to our discussion, let me do two things: Give a brief historical perspective of our Federal income tax and cover some of the general requirements for a "good" tax structure.

The U. S. income tax is now 61 years old. A large faction of the Congress in 1913 favored imposition of the tax at a flat rate (initially 1%). Another faction demanded a graduated rate combined with large exemptions. The late Champ Clark of Missouri assured the House of Representatives that the "wit of man" had never derived a tax more fair or just than one with rates based on the ability to pay. Opponents expressed the fear that the proposed tax with its low rates was just the cow's nose under the fence; that once an income tax was enacted, its rates would tend to rise. Senator Borah of Idaho was outraged by such anxieties and derided a suggestion that the rate might eventually climb as high as 20 percent. Who, he asked, could impose such socialistic, confiscatory rates? Only Congress. And how could Congress, representatives of the people, be so lacking in fairness, justice, and patriotism?

That 1913 Law was enacted, as we all know too well. Its provisions were set forth on 26 printed pages and the instructions for the original Form 1040 required but one page. Today the provisions of the Internal Revenue Code run to several thousand pages and the booklet of instructions to the individual taxpayer contains 30 pages, with frequent suggestions that the taxpayer also consult supplemental materials.

The complexities that have been introduced into the income tax law by Congress, the Internal Revenue Service, and the Courts since 1913 have been prompted by one or more of the following motives: to gain additional revenue, to correct alleged inequities in the impact of the law on taxpayers, to influence the national economy, or to achieve some desirable social purpose. Thus, the United States tax system, like that of any other country, has developed in response to many influences--economic, political and social. One way it has not developed is that it has not been constructed by a master architect in line with the optimal requirements for a "good tax structure." Even so, ideas as to what constitutes a "good" tax system have had their influence.

The following are generally considered some of the most important requirements for a "good" tax structure:

1. The distribution of the tax burden should be equitable. Everyone should be made to pay his "fair share." By equity we mean two things. First, that people with equal incomes should pay approximately equal taxes (vertical equity). Secondly, people with higher incomes should pay more taxes than people with lower incomes, or horizontal equity.

2. Taxes should be chosen so as to minimize interference with economic decisions in otherwise efficient markets. At the same time, taxes may be used to correct inefficiencies in the private sector provided they are a suitable instrument for doing so. But taxes should
neither distort resource allocation nor skew income distribution except in conformity with national policy goals.

(3) The tax structure should facilitate the use of fiscal policy for stabilization and growth objectives.

(4) The tax system should permit efficient and non-arbitrary administration and it should be understandable to the taxpayer.

(5) Administration and compliance costs should be as low as compatible with other objectives.

These various objectives are not necessarily always in agreement and where they conflict trade-offs between them are needed. For instance, corrective use of tax policy may interfere with equity.

Generally, taxes perform three functions:

(1) To provide revenues to finance the necessary expenditures of governments;

(2) To finance transfer payments such as Social Security; and

(3) To provide for the adjustment or redistribution of income and wealth.

Generally speaking, it is my opinion that when we ask taxes to go beyond these functions we get into trouble. When we try to use the tax structure to provide business subsidies we introduce inefficiencies into the system. Such subsidies can be far better provided through other methods. Considerable speculation and circumstantial evidence exists that special farm tax provisions may have contributed, in part, to changes in farm structure in recent years. In effect, they have created a subsidy to a portion of the farming sector---but not necessarily to farmers or farm operators. Major and unintentional distortions in farm and general resource allocation and income distribution can and possibly have resulted from income tax laws and rulings.
AN INCOME TAX POLICY FOR AGRICULTURE

William A. Peterson
Attorney, Marshall, Missouri
Member Missouri House of Representatives

I am very grateful to be invited to this seminar. This is a new experience for me. I was introduced to the bruising world of agricultural economics when I lost a bill overwhelmingly in committee concerning establishing a family farm law. I am a farmer, born and reared on a farm. These issues of economics are extremely vital.

My family farm bill was subjected to lots of criticism, much of it justified. And would you believe I had a problem defining a farmer? An overwhelming problem. I didn't know what to do about it. Do you? The value of the family farm unit and ranch, if we can express it in those terms, may not mean anything under income tax rules now. Even before we had an income tax we had farmers. They are still out there, and a function is performed there. There is a value, and I hate to be terribly philosophical about this, but I believe it, that there is a value to what we say, even in an esoteric way, the family farm is, the family ranch is, and the values that it holds, not only as a viable economic producer of food and fiber but the values it has in the public interest in our rural areas—the small businessmen and banks it supports and the overall effect on quality in the rural areas. In the same way we don't want all these rural people going to the city. The cities have no place for them. They have no jobs for them and they have no place for them to live. So there is a socioeconomic sense to this. When I hear Professor Davenport talk and Dr. J. Carroll Bottum talk, I suspect they are not talking about the same thing.

I had previously assumed that the result of our income tax regulations was intended. That shows you how naive I am. I had assumed that the results were intended and it disturbed me deeply that the inequities of the results were intended by someone. I retained this view even after I entered the Legislature. Realization comes late but it nevertheless comes.

The overview that I have received here today, and I hope it will be assimilated and put out for public consumption, has highlighted what I believe the problems to be while raising other problems, and I would be perfectly delighted to get some of the answers that all of us seem to be probing for and have some difficulty in arriving at because the goals are not uniform.

The small family farm as such probably really doesn't exist so much any more but the small family farmer does in the context I am talking about, and the investment from nonfarm high bracket investors certainly contributes to a boom and bust type of thing, as in oil and perhaps cattle feeding and the whole economy. But it's significant to those who feed cattle. It's significant to grain farmers.

The broader sense of the corporate impact is an entirely different issue in my opinion although not unrelated to income tax. But the predatory type of tactics that arise out of overwhelming market position of vertically integrated and conglomerated corporations either through backward integration or forward vertical integration is related yet a different problem. It probably cannot be handled entirely in our income tax law. The possible injury to market competition is supposed to be dealt with through our anti-trust laws, though they are rather ineffectively enforced at this time.

So I do want to say that for whatever this means, I am a proponent of the family farm and ranch concept, but I sure don't know what to do about it.
Any discussion of the subject of how income tax laws and rules affect agriculture encounters the mental obstacle that haunts all teachers of economic policy. That obstacle is the human habit of individualizing policy actions. The person who does that looks at any law or regulation as it individually affects him, as though he lived off by himself and he alone were subject to it.

This is the way some farmers look at income taxes. A farmer who cannot see beyond his own checkbook will beg for any and all tax concessions. That farmer will not understand that the same concession used by others may leave him no better off than before, and perhaps worse off.

The roundabout collective effect of a tax can be sharply different from its initial individual effect.

To put this principle more bluntly, a tax break for one man doesn't help him a bit if it helps his competitors even more.

A third language for saying the same thing goes back to the Charles Wilson malapropism of twenty years ago. The former chairman of General Motors saw unity between the interests of that company and the country. Most of the U.S. public corrected the gentleman, declaring that what is good for General Motors is not necessarily good for the country. We can say that what is good for a cattle breeding operation, or cattle feeding, or orchard may not be good for cattle breeding generally, or all feeding or all orcharding, or the country. But the real punch line is that what appears good for a particular ranch, feeder, or orchard when its general effect works all the way through the ranching, feeding, or orcharding industry and back to the individual operation.

At the beginning of this seminar we had a little trouble recognizing this principle, this obstacle to understanding the overall meaning of income tax rules to agriculture. Later, though, we got on track. We then discussed the collective consequences of income taxes applied to agriculture.

Several Effects of Taxes

We considered how taxes affect (1) productivity in agriculture, (2) stability, and (3) the broad concept of equity. The last, equity, had overtones of the effect on the structural organization of agriculture. It in turn led to long and unresolved discussion on how to define a farmer, or a farm.

With regard to productivity, it is almost axiomatic that any reduction of cost of production, including cost of finance capital, will add somewhat to productivity, though perhaps with a lag. One ironic twist, noted by several persons, is that the defense of increased productivity did not seem so convincing until very recently. Prior to the last couple of years much direct subsidy went to reduce gross farm production and give some support to prices of farm products. Many persons were concerned about over productivity.

My vote goes to the thesis advanced by Professor Carman that tax rules add somewhat to production in favored industries but not to the extent of
great magnitude. Perhaps tax rules have contributed somewhat more to total beef production than to orchard output. When nonfarm investors rushed to put cattle into feedlots the total volume of feeding may have increased a little, prices of feeder calves were pushed somewhat higher, and the price of beef to consumers was shaved a bit. Professor Williams makes great claims for the effect of tax rules on volume of feeding but the expansion in feeding in his area of Texas was offset to some degree by reductions in parts of the Corn Belt.

With respect to the effect of tax rules on instability, all I will do is vouch for the germaneness of the point. Jim Rhodes believes the effect is substantial. I have no better knowledge. I am sure the net effect is not of opposite nature, that is, toward more stability. But I am also pretty sure that just as cattle would get fed without the tax incentive, we would have instability without the tax rules. Cattle production and feeding were notoriously unstable before someone got clever in exploiting the fine print of IRS regulations. So I don't have anything to add on this aspect.

But insofar as tax shelter investment in cattle feeding makes it more unstable, as seems to have been the case the past two years, an interesting paradox arises. The tax deduction rules are sometimes defended, as Professor Williams told us, on grounds of the high risk in cattle feeding. Insofar as sheltered financing adds to the risk, we come full circle. We then prescribe tax deductions to cure an ill they themselves contributed to.

This is not far fetched. Some feedlot managers reportedly would favor a cutback in tax deduction rules so as to reduce the volatility in tax shelter investment.

This conference put much stress on equity. Probably the equity considerations arise from two basic facts. One is that all tax shelter deductions from progressive income taxes are more attractive to the high bracket taxpayer (including high income farmers) than the lower bracket one. The second is that the tax loss feature of tax rules can convert an economic loss into a private gain. In cattle feeding, for example, an operation that on a dollars and cents basis loses money may nevertheless be profitable for an investor who can get enough tax savings from it. This latter instance may not be equitable for society and it absolutely creates inequity for feeding operations that lack a tax benefit.

Probably the most indisputable statement made at this seminar is that tax-loss-financed cattle feeding can crowd out feeding not financed with a tax shelter (subsidy). The same rule applies to any other farm enterprise that qualifies for a tax concession.

There are other equity aspects. Tax laws in agriculture are by no means neutral among ways to organize agriculture. The cattle feeding example I have just referred to helps custom feeding and hurts farmer feeding. Tax rules tend to favor large size of farming operations, for the reason expressed by Fred Woods; namely, that high income people (who get the bigger tax breaks) tend to invest in the larger farm operations.

Some regional discrimination is present. Corn Belt agriculture, particularly crop farming, has been affected only mildly by tax rules because its field crops do not lend themselves so well to tax loss financing or other income tax features.

Because income tax rules can affect the structure of agriculture and thereby also, as Dr. Soth pointed out, the structure of the rural community, it is appropriate to define what kind of agricultural and rural community we want. We must do that before we set out to make any changes in tax law.
On the other hand, it is hard to know whether it is necessary to specify a structural goal in the language of tax law. Perhaps we can make choices as to desirable kind of taxes without incorporating language defining a farmer, or a farm, or a family farm, or whatever concept we want to use. Perhaps Soth's and Professor Bottum's idea of seeking something close to structural neutrality is all we can ask. Yet Bottum expressed confidence that a reasonable definition of a farmer or a farm can be arrived at.

The conference was not able to come to firm conclusions on this matter. Nor can I.

Papers by Professor Davenport, Mr. Carlin, and Mr. Woods contain a wealth of detailed legal and statistical information, plus Woods' criteria for a sound tax policy. This can be referred to in the papers and will not be summarized here.

Nor is it possible to capsulate all the proposals advanced as to a desirable tax policy. However, they tended to fall into two classes. One would make drastic changes in existing law, including eliminating some of the present tax deductions. The other would be more cautious, only modifying the present law and putting on more limits, such as the maximum amount of deductible loss in farming. Overall, the prevailing sentiment was to reduce the amount of tax subsidy financing of farming. There was confidence that finance capital is not chronically short, and that giving various kinds of farmers and farms an equal chance to compete would be a desirable goal -- perhaps a sufficient one.

I find myself sympathetic. But I also warn against too glib acceptance of the principle of neutral tax laws. No tax law is totally neutral. Ours is a high tax economy, and all tax levies implicitly have side consequences that were not intended.

This point of accidental or inadvertent consequences leads to my final point, and one that received much attention in the seminar. It relates to the almost hidden, unexposed nature of so much tax-deduction financing of agriculture. Basic tax laws are enacted with full exposure. Direct subsidy to agriculture and other sectors via appropriations is always in the public eye. But subsidy by means of deductions from nominal tax rates gets much less attention.

Granted, Professor Williams may be correct when he declares that agriculture would get less total subsidy directly than it does indirectly, although the size of past direct subsidies for price support and conservation partly refutes him. But our conference seemed to hold a consensus, and I join in it, that in the interest of making wise public policy for agriculture it is just as important to look into indirect subsidization by means of tax deductions as into comparable subsidization done directly. In order to learn more about the deduction features of our income taxes and the sheltered investments they lead to, 55 persons came together for this seminar. This itself is an accomplishment, and promising of more attention to this important subject in the future.
THE WORLD POPULATION-FOOD BALANCE

Douglas Ensminger
President, Mid-Missouri Associated Colleges and Universities and
Professor of Rural Sociology
University of Missouri-Columbia*

I view the world population-food balance today pretty much along the
line of the Humpty Dumpty nursery rhyme:

Humpty Dumpty sat on a wall;
Humpty Dumpty had a great fall;
All the King's horses and all the King's men
Couldn't put Humpty together again.

Although there is presently enough food to meet the immediate world
needs providing it could be equitably distributed, the balance between enough
food and not enough food for the decades ahead is in doubt. When population
growth exceeds the food supply, as it seems certain to do, it is doubtful if
"All the King's horses and all the King's men" will be able to put the
population-food ratio back in balance without traumatic world experiences.
Major segments of the population may first die as a result of malnutrition and
starvation.

My reading of the population-food production trends leads me to conclude
that it is no longer a question of, "Will world population growth exceed avail­
able food supplies?" but rather, "When will this occur?" I further conclude
that because of the present close food margin in the world, and given the
devastating effects adverse weather can play, the present population-food
balance must be accepted as the greatest threat to the human race in this
century.

Many problems grow out of what is now accepted as a trend toward a world
demand for food greater than the quantity available. For the U.S., we must
first understand our own psychosis about food reserves. It is understandable
that the American farmer, supported by farm organizations and the Senate and
House Agriculture Committees, fears food held in reserve. We have lived
through two decades of U.S. agricultural surpluses and we bear the scars.

We face a worldwide educational task regarding the emerging world
population-food imbalance. One could be either optimistic or pessimistic
about the two recent U.N. world conferences on population and food. I, for
one, saw gains in both conferences. Both contributed to world understanding
of the magnitude, complexity, and crisis nature of the emerging population­
food imbalance.

Some of the more important statements coming out of the two U.N.
conferences are:

1) Population growth rates are the dominant cause of the emerging world
food crisis.

2) FAO forecasts that by 1985 the developing countries will have an
annual market demand deficit of between 80 and 90 million tons of

*Also Chairman, Committee on World Population and Food of International
Association of Agricultural Economists and FAO.
3) The U.N. estimates that there are a minimum of 400 million people in the world whose income is so low that they cannot purchase enough food to meet minimum nutritional needs. Mr. Robert McNamara, President of the World Bank, ups the U.N. figure to 800 million, or one-third of the world's population. If you take the U.N. figure of 400 million, the food required to meet the needs of the developing countries is estimated at 20 million tons a year. If you accept the World Bank's figure, the necessary imports to fill the poverty gap double to 40 million tons by 1985. When market demand is added, the deficit of annual food needs of the developing countries for 1985 is in the range of 100 million tons--more in a year of adverse weather and less in a good crop year.

The procurement cost, to say nothing of physical handling problems, puts in question the advisability of thinking about meeting food needs of this magnitude from exports of the major food producing countries. While the three majors, the U.S., Canada, and Australia, will be under increasing pressure to supply the deficit, it seems clear that the bigger effort to close the food gap will have to come from the developing countries themselves.

4) Highlighted by the recent U.N. World Food Congress is the need for the U.S. to formulate both agricultural and food policies which take into account the U.S. requirements, exports for world trade, and meeting humanitarian needs of the world community.

5) Since the U.S. does not now have food surpluses, and domestic and foreign markets can in the future be expected to be greater than U.S. production, the world community must share the cost for buying and shipping U.S. food grains to Third World countries.

6) The decision taken at the world Food Congress to set up a World Food Council under the U.N. to coordinate both food aid and investment funds for Third World agricultural development must be accepted as a significant first step.

7) The developing countries have three alternative ways to increase agricultural production. They can bring more land under cultivation, increase acreage under irrigation, or step up yields per acre. There is substantial acreage of potentially productive land in Africa and Latin America. To bring it under cultivation will take time and billions of dollars. Since high yielding varieties, especially of wheat and rice, require heavy fertilization and controlled irrigation, steps must be taken to increase the irrigated area. This too will take time and money.

This leaves higher production per acre as the most feasible and least expensive method of increasing food production within the developing countries. The following comments are pertinent:

a) The new high yielding varieties, fertilizer, and water technology apply only to the 12-15 percent of the world's agricultural land now irrigated.

b) Given the world energy crisis, both fertilizer and power for agriculture will be short. Increased fertilizer prices are placing a heavy financial burden on the developing countries, making it mandatory that they cut back on their fertilizer imports.

c) Agricultural technology for irrigated land is reasonably adequate, but that oriented to uncertain and limited rain-
fall is inadequate.

d) Needed is an agricultural technology less dependent on costly inputs, and one that is human-labor-oriented for the major source of power.

e) Many of the developing countries are critically short of agricultural technicians. For example, Tanzania, a country of 14.5 million people, has only 11 persons trained for agricultural research.

f) Government agricultural policies are ill-chosen, and political commitments in support of agriculture are weak, in most of the developing countries.

g) Few of the developing countries have passed and implemented land reform legislation favorable to the small farmers including tenants and croppers.

h) The institutional infrastructure serving agriculture is inadequate in all developing countries, and unfavorable to the small farmer.

i) Despite current progress, few of the developing countries have strong, viable administrative infrastructures.

j) The one factor that above all others has restrained agricultural production in developing countries the past two decades is traditionalism and insecurity—the insecurity of the millions of small, decision-making farmers. The situation is likely to continue for the next two decades.

We could list other relevant factors in the emerging population-food imbalance. Overall, as I analyze past decades of experience relating to agricultural production and population in developing countries, my conclusion is that the world's food crisis is today more related to social, political, energy, and weather problems than it is to technological and economic factors. The world's population problem is social, economic, technical, and political.

The past two decades of emphasis on economic growth and the introduction of Western technology, institutions, and "know-how" to Third World countries have brought the human race to the brink of disaster. A third of these people now live in dire poverty and millions face starvation as population increases faster than food production. Given the magnitude of the food crisis, both immediate and long term, now is not the time for either the developing countries or the developed countries to blame each other for the policies the developing countries adopted with developed countries' aid. Volumes could be written about who influenced whom as developing countries patterned after the West in industrialization, modernization of agriculture, and rural-urban migration.

We know from the record that most of the Third World countries under colonial rule were concerned about the plight of their people, most of whom were poor and all of whom lived without hope for a better tomorrow. To assist the newly independent Third World countries President Truman's Point IV program was brought into being. In the beginning it was highly pragmatic, innovative, and strongly oriented to self-help, people-development programs. We bent over backward in not wanting to impose our values, our structures, and our ways of doing things. But both developing and developed countries changed their thinking dramatically as the U.S. interrelated its military assistance with economic aid, and aid increasingly became interrelated in turn with U.S. foreign policy. Then as the U.S. moved beyond "know-how" to the
financing of major development projects, we increasingly set forth criteria which we felt would provide the greatest economic return on investment. Programs of substantial social overhead cost and long time payoff were viewed with disfavor. Many plans of developing countries were formulated with our built-in economic aid assumed, and their priorities were modeled after the West.

India initially had a strong commitment to involve all the rural people in development and to see to it that all rural people benefited. But Nehru was not able to get his Congress party to pass legislation to make land and water equitably available to all India’s cultivators. India’s administration was excessively bureaucratic, highly rigid, and unbending in opposing decentralizing decision-making. Institutions were tightly controlled by the elitist, and institutions functioned to serve the elitist.

Increasingly, pressures mounted within India as well as from the aid-giving countries to place greater emphasis on industrialization and modernizing of agriculture.

It is not enough to point up the negative. Needed are answers. What policies, programs, and strategies have worked? All the developing countries of the world are now confronted with the hard choices.

I have a vivid memory of the early fifties when there was a great deal of speculation about which of the world’s two most populated countries--China or India--would have the greater success in raising the level of living of their large populations. Which country would raise enough food for its people--democratically committed India, or China with its commitment to communism?

I remember as clearly as if it were yesterday a 1951 meeting when the late Paul Hoffman, then President of the Ford Foundation, told me that the Ford Foundation’s interest in assisting India was to help India succeed in using democratic methods to improve the level of living of its poverty-ridden people. He added that he saw no hope for world peace unless the masses of poor people could be fed and helped to live better.

So the great experiment was under way. Democratic India committed herself to rural development, with three objectives--to involve all the people, to improve the level of living of all the people, and to make the country self-sufficient in food.

China, with early assistance from Russia, emphasized industrialization, following the Russian model of big industries.

Over the past 25 years India shifted to an emphasis on industrialization, including a more technological agriculture.

China's political emphasis shifted to integrated rural development through communes, having as its objective involving all the people with built-in assurances that all would be beneficiaries. Under the communes, land and water are equitably available to all the people.

Today, after 25 years, the facts support a conclusion that China’s 650 million peasants have achieved food enough, employment, health, and education for all, and a new sense of security never before known to them.

India's 580 million people currently have a food deficit of between nine and twelve million tons. And, 40% of its rural people and 50% of its urban people live in poverty, lacking the income to provide a minimum nutritional diet.
India was the first developing country to have family planning programs. But India has yet to make a political commitment to family planning. For the 40 percent of India's people living in poverty, having children to look after parents in old age is a value which limits participation in family planning. India's population is increasing by about 13 million annually.

While China spoke against family planning in the recent U.N. Population Conference, China is deeply concerned about population growth. The first-born child is looked on with high favor, the second is accepted. Beyond two children, couples face political disfavor.

In my concluding that the most basic "hang-ups" confronting the developing countries' task of increasing agricultural production are social, political, energy and weather problems rather than economic and technological problems, I want to emphasize strongly that technology and agricultural policies, including marketing guarantees, are essential. But my point is that you can have the technology, inputs, and guaranteed prices and still the small, subsistence, traditionally-oriented farmer will continue in his traditional ways.

Decisions in the Third World to accept or reject improved agricultural technology will be made by some 300 million small, subsistence, survival-oriented farmers. They place a higher value on meeting their families' subsistence needs, and on following traditional practices with a sense of security, than on increasing production to meet national needs.

Weather, though always an influence on agricultural production, will increasingly be a major factor in who will eat and who will starve. So long as the U.S. had surplus food grains the world could count on, it didn't greatly matter when weather had a 7 percent negative influence on agricultural production. But when the margin of food is narrow a 7 percent to 10 percent drop in production will be the difference between life and death for millions of people.

The world's spotlight is on the U.S. in a more intense way than at any time in our nearly 200 years of statehood. The way we respond in helping the developing countries examine their alternatives and evolve new strategies for solving the population-food crisis will determine whether or not the 40 percent of the world's population now living in poverty are to face slow death through starvation.

If it is peace we seek above all else, we are likely to find that food enough for all will be the key to peace.

The challenge was never greater than it exists today for the U.S. to join the world community in evolving a food system to produce, market, distribute, and feed all the world's people.

The manner and sense of urgency in which all nations join in formulating and carrying out a world food system will, for the decades ahead, determine who will eat and live, and who and how many will be malnourished and die of starvation.