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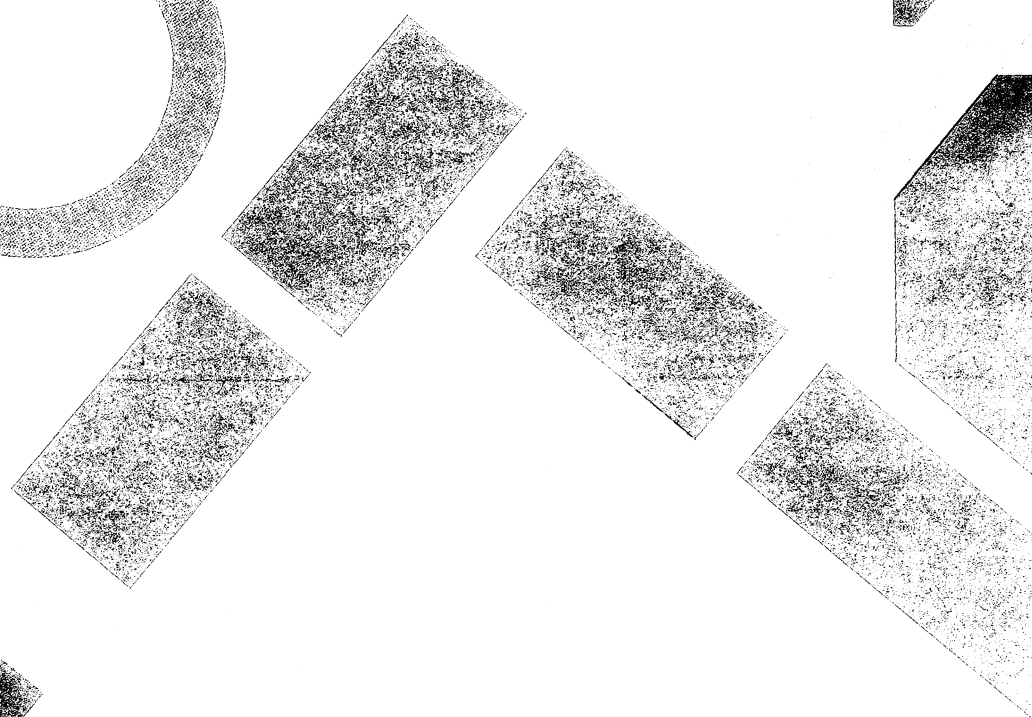
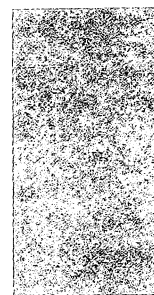
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ASSISTANCE TO AGRICULTURE: THE WHY AND HOW

James P. Houck*

Almost all nations that can and some that cannot afford it, year after year, channel public assistance to agriculture. This publication considers agricultural assistance as practiced by the more affluent nations such as the United States, Canada, Australia, Japan, and Western Europe.

"Assistance" in this publication means deliberate decisions taken by governments to tip the market scales or to loosen the purse strings of public expenditure in favor of agricultural producers. It is now rather widely agreed that farming (or grazing) and rural life are not necessarily the same. Policies and programs which favor one need not favor the other. Attention here will focus on assistance to agricultural producers. Programs in this category have the longest duration and are among the most controversial worldwide.

Why is Agriculture Assisted?

The reasons are political, social, cultural, and economic. Of course they are all bound together in the web of public affairs, but a rough separation might be made between political-social reasons and economic reasons. First among the political-social reasons is that food and fiber are absolute necessities in any society. A modern government which cannot guarantee its citizens continuously adequate food and clothing at reasonable cost does not stay in power. This strategic role of food and fiber insures that governments foster a healthy farm industry in both peace and war. For example, bitter memories of food shortages during and after World Wars I and II gave several European nations (and Japan) the incentive to subsidize their farm sectors.

In most developed nations, both farm and rural populations have

dwindled to less than 15 percent of the total as other more rapidly growing fields of employment attract people. Yet, the political influence of rural producers and their leaders usually has remained strong enough to withstand a rapid erosion of assistance programs begun in an earlier era when there were more farmers. This continues to be true under widely different political systems. It is partly because of slowness in adjusting political representation to dwindling numbers of rural residents, and partly because political representation in many societies is essentially land-based. In the United States, for instance, each state has two senators regardless of population or geography.

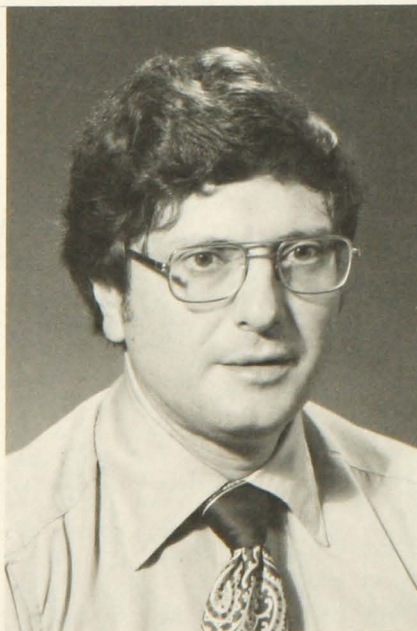
Some public agriculture programs have roots in that special, often mystical, relation between mankind and the land which is critical in virtually every political or social system. The man-land question remains significant in modern agriculture even though it has carried little weight in other industries. In one nation, it may appear in poli-

cies designed to foster a system of small, fully-owned family farms. In another, it may be seen in programs to insure ultimate public ownership, and maybe direct control, of agricultural and rural resources.

Most city dwellers are only two or three generations removed from the land. In large numbers, they share a nostalgic view that country life is somehow more fulfilling and worthy than urban existence. This has made them take a rather charitable view of public assistance to agriculture. However, in the modern era of rapidly rising food prices, growing consumer activism, and disenchantment with public programs of all kinds, it would be as much in error to overestimate this view as to ignore it entirely.

There are economic reasons why agricultural industries are continual candidates for public assistance. These can be grouped under four major headings: stability problems, income problems, market structure problems, and foreign exchange problems. It is widely, though not unanimously, agreed that markets for many agricultural products are less stable than is necessary for efficient use of resources and management of expenditures. Sizable price, output, and income fluctuations occur in agriculture because of the notorious inelasticities of demand and supply, the uncertainties of foreign markets, the weather, insects, and disease. Most legislation to assist agricultural sectors or programs dealing with the marketing of agricultural products usually have the term "stabilization" tacked on. While it is virtually impossible to disentangle stabilization motives from others in any program of assistance, this objective is almost always a strong one.

In most nations, traditionally, farm income growth has not kept pace with income growth in nonrural sectors, even after instability effects are considered. Assistance



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programs to help fill in the gap are typical in most developed nations. These measures can operate by influencing the markets in which producers sell their goods and purchase their supplies, by adding financial payments directly to the farm income flow, and by affecting the public services and facilities available to rural producers.

In most Western societies, agricultural production is still in the hands of large numbers of relatively small farmers with little individual market power. Consequently, some public assistance is promoted as overcoming this lack of market power to balance the substantial concentrations of power which generally occur in nonagricultural industries.

Few nations are self-sufficient in food and fiber production. Some are net importers of agricultural products and some are net exporters. Rightly or wrongly, policymakers in net importing nations often see use of foreign exchange for buying food and agricultural raw materials as unnecessary and wasteful. So internal subsidy programs may be used to promote the growth of import-substituting agricultural enterprises. Similarly, agricultural export nations may deliberately promote the production and export of agricultural goods trying to enhance their international balance of payments position.

The full array of reasons for and the goals sought by agricultural assistance programs is seldom clear-cut or carefully defined. In most nations, these programs were begun and are sustained by political processes. They are subject to all the mixed currents of interest which political action involves.

How is Agriculture Assisted?

Recall that this publication began by specifying agricultural assistance as deliberate government action to help farm producers either in the market place or through public expenditure. So, the first major category involves policies and programs to adjust the terms on which producers sell or buy.

Foremost among these market-altering schemes are those which enhance and/or stabilize market returns and prices. For nations which

are net importers, control of inbound shipments by a variety of measures can limit total supplies and sustain higher prices to domestic producers than otherwise would prevail. For net exporters the situation is somewhat more complex, but higher returns often can be achieved by dividing the higher-priced home market from the lower-priced export market. Then by limiting supplies to the domestic market or subsidizing exports, total returns to agriculture can be boosted.

Limitation or control of farm output or marketings by administrative devices such as acreage allotments, marketing quotas, or access to terminal facilities may be used to enhance returns to growers by taking advantage of the demand inelasticity common to many agricultural products. Simple direct purchase or storage programs by governments are used to shore up sagging markets temporarily for various products.

Naturally, direct payments or subsidies can be added to any of these market-altering devices to further assist producers. In the United States and Japan, for example, direct payments are available to growers who voluntarily participate in supply management schemes for problem commodities. The agricultural assistance program of any developed nation typically displays a variety of these general schemes. Often they are combined in programs of bewildering complexity.

In some nations, assistance to rural industry is also provided by reducing the costs of production to farmers and graziers. Either the manufacturers or the final purchasers may be subsidized so that costs such as fertilizer and agricultural chemicals can be lowered. Special access to funds for the purchase of agricultural land or for production credit may be extended at low cost through government-controlled or aided institutions. Subsidies and tax concessions may be available for investments in land-clearing, irrigation, drainage, and soil conservation. This reduces real costs to producers. Large public investments in dams and other water-controlling facilities may substantially

decrease the price paid by producers for irrigation water. Farm reorganization or reconstruction projects also may rate special financial concessions.

Although the distinction is vague, some other forms of assistance to agriculture operate largely outside the ordinary market context and these benefits to agricultural producers may be substantial if indirect. For example, continuous public investments in agricultural research and extension provide large benefits to producers and consumers alike. But they are difficult to measure or to allocate among parts of society. However, the historical impetus for these investments was to provide a flow of usable knowledge and practical information to the rural community since producers themselves were too small to undertake scientific or economic research for themselves.

Other assistance measures, outside organized markets, often are available to rural producers to help offset two peculiarly agricultural phenomena—the effects of environment and distance. Farm production is land-using and heavily depends on weather: drought, flood, frost, hail, insects, and disease are its everyday risks. Public schemes to lessen the effects of these problems are common in most developed nations. Drought and disaster relief, special crop and livestock insurance programs, quarantine, and pest control programs are well-known examples.

Long distances between farms, between production areas, and between production areas and markets provide the bases for public assistance programs not generally considered for more densely located firms and industries. On large land masses such as the United States, Australia, and Canada, farm products often receive special rail and truck rates. The movement of drought-threatened livestock to emergency pasture may be subsidized. Rail lines and roads through very sparsely-populated areas may be built for similar reasons. The provision of subsidized electric, telephone, and radio services to areas distant from population centers also falls in this category.

Agricultural assistance, either through the market or outside it, almost always benefits highly productive farmers. Criticism of farm programs often is based on the dilemma that the poorest and least productive people and regions draw the least assistance. Benefits are usually, though not always, proportional to current or historical production. It is difficult to design any other type of *agricultural* programs. These poverty problems are becoming increasingly recognized as social welfare issues and treated as such. However, social welfare programs are likely to be weakest in rural areas.

Cost of Production and Agricultural Assistance

An increasingly common concept in agricultural assistance involves price guarantees sufficient to cover "costs of production plus a reasonable profit." In some places, such as Japan and Australia, annual production costs for certain products are calculated officially through specific methods. Elsewhere extensive farm surveys are conducted to keep data current. It is said that cost of production guarantees are the only fair system of agricultural assistance in this inflationary age. In the United States, the cost of production concept is moving steadily into the language and intent of farm policy legislation and administration.

Although the basic spirit behind the concept seems reasonable, putting the idea into operation in agriculture as diverse as that of the United States, for example, is quite difficult. If all farms were similar in size, products, structure and age of capital assets, productivity, access to credit, and ability of the operator, then production costs for any appropriate level of output could be calculated fairly accurately. But as these characteristics vary across farms and with farmers, then "cost of production" becomes very inexact.

To be at all operational, price (or cost) guarantees must be uniform at any given time across the land, differing by transportation costs at most. Thus, decisions must be made about *whose* and *which* costs will be covered. Look at the latter

first, even if all farms were similar in efficiency, the differing age and mix of fixed assets, especially land and major capital items, cause a major snag in calculating costs. Fuel, fertilizer, seed, *etc.* can be approximated, but how should land costs be treated? If land costs reflect recent purchase prices, then huge windfalls may come to farmers who bought land many years ago. Similarly, if outdated land costs are used, then the cost coverage is incomplete for recent entrants or expanding units. This is simply a dilemma because it tries to treat farmers in their dual economic role of producers and landowners. The use of going rates for cropland and pasture rental is a possibility, though not universally popular.

Even if no problems existed in measuring land costs, questions still would remain about the appropriate costs to use across farms of differing efficiency and inherent productivity. Such differences exist from one major geographic zone to another and even within areas as small as a county or township. Economic theory suggests that the costs of the most efficient (low cost) producers be covered to meet the cost of the last units of output needed to fill domestic markets, export demand, and carryover requirements at long-run prices which are in some sense competitive with those of other producing nations. That is surely no easy task.

If only efficient producers and variable costs are covered, then resulting guarantee levels will be minimum floor prices. They will be unpopular with many producers who may respond by driving tractors to national capitols and demonstrating angrily. Yet, if costs of less-efficient growers are protected

and if current land values are built into price guarantees, then further inflation may be fostered, consumers and/or taxpayers will be angry, and export markets may suffer.

Concluding Comments

Public assistance for and intervention in agricultural affairs has its roots in

- the fundamental importance of food and fiber to society,
- the special characteristics of agricultural production and rural life, and
- the particular economic features of agricultural markets.

Assistance flows through the markets for agricultural products and inputs through schemes and agencies which alter the way in which markets operate. Agricultural assistance also flows through non-market channels into programs which directly or indirectly benefit rural producers. Both benefits are more or less in proportion to the recipient's agricultural production potential. However, dwindling rural populations, increasing demands on available public funds, changing public priorities, and inflation all suggest that agricultural assistance programs around the world will come under increasing scrutiny in the years ahead.

Some nations provide more public assistance to agriculture than others. Furthermore, farmers and those who speak for them feel strongly that despite it all they are being exploited by both public and private institutions not only in prices but in transportation, taxation, land ownership, farm transfer between generations, and environmental protection. These are matters for future articles.

A GLIMPSE OF MINNESOTA'S AGRICULTURE

James P. Houck

Most of us know that Minnesota is an important agricultural state and that agriculture has always been a crucial component of the state's economic life. The late Theodore C. Blegen, distinguished historian and University of Minne-

sota professor, argued that The Minnesota Territory had developed fundamentally into an agricultural community by 1850. The territory's first agricultural association (or society) was founded in 1852 in Benton County.

Agriculture and farming played the dominant role in the state's economic development well into the 20th century. Even as farming's relative economic position has dwindled, Minnesota, because of its abundant resources, productive people, and strong commitment to research and education, has remained a leading agricultural state. Minnesota is fifth among all 50 states in total cash income from sales of farm products, and seventh in number of farms.

The importance of agriculture in Minnesota goes far beyond the 8 percent which farm earnings now represent in the state's total income picture. Perhaps 20 percent of all economic activity and employment in the state is related to the broad food and fiber system. This includes the manufacture and sale of production inputs to Minnesota farmers as well as the transportation, handling, processing, merchandising, and financing of this output plus the output of farmers elsewhere.

The boundaries of Minnesota do not enclose a homogeneous agricultural region. Nor are the several agricultural regions captured by state boundaries exclusively Minnesotan. Professor Blegen also wrote that "Minnesota is prairies, forests, rivers, waterfalls, valleys, lakes, rolling country, iron ore, beds of glacial lakes, and differing temperatures, soils, and conditions that foster growth of the soil. The state is no smooth table of farms and towns."

Such statewide diversity would not be true today if an original scheme to establish the state's boundaries on an east-west scale had become law in 1856. At that time, it was decided that the proposed new state of Minnesota could not encompass all of the land then included in the Minnesota Territory. So this boundary question was even more important than the continuing uncertainty about the U.S.-Canadian border to the extreme north. One proposal would have fixed the northern boundary of Minnesota along the 45° or 46° parallel. Under this plan, Minnesota's border would have extended westward to the Missouri River, approxi-

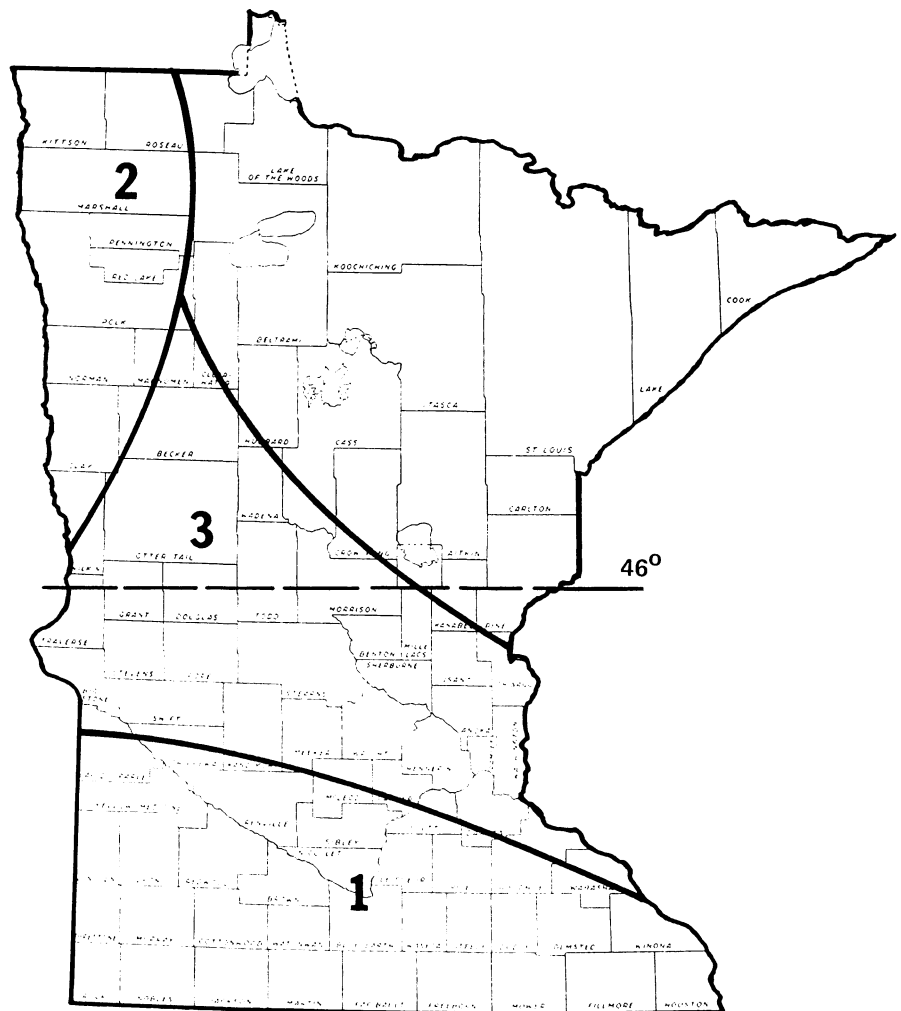
mately along the line of today's North Dakota-South Dakota border. This Minnesota would have been clearly a farming region with very much less diversity in agricultural and other natural resources than with the present north-south orientation.

Today, Minnesota's north-south extension provides the basis for a variety of agricultural regions. For all of its beauty and other natural riches, the northeastern one-third of Minnesota is not a highly productive farming or grazing area. Rather few people are able to turn that magnificent but grudging land into profitable farms. Consequently, the remaining two-thirds of the state contains the bulk of the agricultural resources. Although some experts might disagree with the following distinctions, there are three major agricultural areas in Minnesota (see the map).

The first is the southern area of the state, number 1 on the map. This is the zone lying generally south of the Minnesota River and southwest of the Mississippi as it forms Minnesota's border with Wisconsin. This region is basically an extension of the Iowa Corn Belt, featuring fertile prairie soils and generally favorable farming topography. Some agriculturists might distinguish between the particular soils and flatter topography of the western portion and the soils and generally more hilly topography of the east. Either way, the Minnesota conditions favor corn, soybeans, and the main local consumers of these feeds: hogs, cattle on feed, and laying hens.

The second area is the eastern extension of the Northern Plains, number 2 of the map. It includes the Red River Valley and the counties along the northwestern border of

Minnesota's major farming regions



Minnesota. The dry continental climate and the rich glacial soils of the Lake Agassiz region favor the production of cash crops like small grains (wheat and barley), sugar beets, potatoes, and sunflowers.

Third is the central agricultural area of the state, number 3 on the map. This region extends diagonally from the southern Red River Valley across the state to the Wisconsin border, east of the Twin Cities metropolitan area. This is a zone of mixed agriculture which starts with valley conditions in the west and blends into a dairying zone as it extends south and eastward toward the highly concentrated dairy regions of Wisconsin. Here the soils and terrain encourage milk production, pasture, and roughage.

Yet, feed grains and meat animals also are important throughout this area.

These three agricultural regions are clearly segments of larger, interstate production zones which stretch across the north central United States and happen to overlap here in Minnesota. Therefore, very little that influences these regions economically or physically can be called purely Minnesotan. To be complete, there are several unique and reasonably large "islands" of agricultural development in Minnesota which should be recognized. These pockets take advantage of special local conditions in production and/or marketing. Leading examples include the turkey industry in the west-central

area, the growing and processing of sweet corn and peas in the south-central area, and the truck crop areas north of the Twin Cities.

Even considering these unique areas, it is still true that Minnesota's agriculture is a part of a vast, interconnected food and fiber system. This complex system is subject to stresses, fluctuations, and trends of many sorts—economic, technical, and environmental. Some are sudden and powerfully wrenching. Some are glacial in their implacability and pace. Unraveling and trying to influence these forces to mutual advantage is an exciting role for the staff and students in the Institute of Agriculture, Home Economics, and Forestry at the University of Minnesota.

Jerome W. Hammond Editor
Prepared by the Agricultural Extension Service and the Department of Agricultural and Applied Economics. Views expressed are those of the authors, not necessarily those of the sponsoring institutions. Address comments or suggestions to Professor Jerome W. Hammond, Department of Agricultural and Applied Economics, 1994 Buford Avenue, University of Minnesota, St. Paul, MN 55108.

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