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## MULTINATIONAL COOPERATIVES: THEIR POTENTIAL ROLE IN THE INTERNATIONAL GRAIN MARKETING SYSTEM

Michael L. Cook, Ronald D. Knutson, and Thomas L. Sporleder

In recent years, concern has arisen about the structure of the international grain trade and its ability to operate in the interest of exporting or importing countries (McCalla and Schmitz). Producers and consumers question whether international market intermediaries' interests or strategies operate in a manner consistent with producers' and consumers' interests.

Efforts to address these issues have emphasized policies where government becomes more directly involved in trade. Examples include state trading, marketing boards, and bilateral trade agreements. While recognizing such alternatives, this paper addresses the potential for producers and consumers to become more directly involved in the international grain trade through cooperative organizations and thus to improve the performance of the international grain marketing system. To accomplish this, it is necessary to review the structure of international grain marketing.

### Marketing Structure and Functions in Grain Trade

The services and decisions involved in importing and exporting grain can be performed and made by government agencies acting as state traders, by proprietary corporations, or by cooperatives. The services include assembly, purchase arrangements and hedging, storage, transportation, blending, international shipping, unloading at receiving port, receiving port storage, interior storage, processing, and ultimate sale.

In the exchange process, various forms of risk are encountered. These include the risk of changes in government policies, commodity prices, variable levies, currency exchange rates, ocean freight, inland freight, demurrage charges, and buyer credit risks. While many of these risks can be reduced by forward contracts and hedging in futures or currency markets, the need for substantial sophistication and scale of operation in performing these functions is apparent.

The complexity and risks associated with international grain marketing have led to relatively high levels of concentration in the functions performed by public and private participants. Private participants include proprietary trading companies and cooperatives. Public participants are referred to as state traders.

Continental, Cargill-Tradex, Bunge, Dreyfus, and Garnac are considered to be the largest of the private international market intermediaries (Thurston, Phillips, Haskell, and Volkin). These firms are multinational in scope; that is, they deal in the grains from any source as either exporters, importers, or market intermediaries, and generally have a legal base of business operation in most major importing and exporting countries. A fringe of smaller trading companies exists as rivals to these major companies. Among this fringe are a number of Japanese trading companies which now have growing third country sales, own exporting country elevators, and thus hold the potential for challenging the position of the largest firms. Our studies of the major exporting and importing countries indicate that the proprietary grain trading companies are involved as exporters in 74 percent of the volume of international trade in grain and 47 percent as importers. They are involved in market intermediary functions in an even larger proportion of international trade in grain.

Grain cooperatives play a significant role in most market economies. In first handler functions of grain assembly, storage, and transportation, it is estimated that cooperatives handle 45 percent of the grain produced in exporting nations. Cooperative activity in the international grain trade tends to be limited to trading functions that comprehend less risk. Overall, it is estimated that cooperatives are involved in approximately 9 percent of the world grain trade

exports and 10 percent of the imports, at least to the extent of making an f.o.b. sale to or purchase from an international trader. The greatest cooperative participation in grain export trade exists in Argentina, United States, France, and Brazil. The grain importing countries which have substantial cooperative involvement include Japan, Netherlands, the Federal Republic of Germany, and Belgium.

State traders acting as public agencies operate primarily as exporters or importers of grain; that is, they make decisions on the purchase or sale of grain including quantity, quality, price, and timing. They are also involved in making arrangements for shipping which frequently involves the services of market intermediaries. State traders of major centrally planned economies also may perform many or all of the market intermediary functions on at least a portion of their grain purchases. Our study indicates that approximately 17 percent of the world grain trade exports and 43 percent of the imports involve state traders (Knutson, Cook, and Sporleder).

Significant structural differences exist in the international market for food grains, coarse grains, and soybeans (table 1). High levels of country concentration exist in both soybean and coarse grain exports while lower levels of concentration exist in imports. State trading in these commodities is relatively unimportant. International trade in soybeans and coarse grains is thus dominated by the proprietary grain trading companies in exporting, importing, and market intermediary roles. The market shares for cooperative exports of coarse grains and soybeans range from 8 to 11 percent, and their imports from 17 to 22 percent.

Table 1--Comparison of grain importing and exporting  
country concentration ratios by commodity and by  
proprietary, cooperative, and state trading market shares  
for the largest eight exporting and importing countries, 1977-78

	<u>Soybeans and meal</u>	<u>Coarse grain</u>	<u>Wheat</u>
	(Percent)		
<u>Exporting countries</u>			
4 country share	100	88	85
8 country share	100	96	91
State trading share <sup>1</sup>	0	9	31
Proprietary trade share	92	80	61
Cooperative share	8	11	8
<u>Importing countries</u>			
4 country share	46	47	36
8 country share	72	72	51
State trading share <sup>1</sup>	7	10	90
Proprietary trade share	71	73	10
Cooperative share	22	17	0

Source: Knutson, Cook, and Sporleder.

<sup>1</sup> State trading, proprietary, or cooperative share is the estimated percent of the total volume of direct grain exports or imports by state traders, proprietary firms, or cooperatives for the eight largest exporting or importing countries.

In wheat, the structure is significantly different. Exporting country concentration remains high, yet importing country concentration is relatively lower with an eight country concentration ratio of 50 percent. State traders are much more important in wheat. Two of the four largest wheat exporting and seven of the largest eight importing countries are state traders. State traders are estimated to account for one-third of the exports and 90 percent of the imports of wheat. Yet, market intermediaries still perform a significant role since they are frequently called upon by state traders to handle shipping arrangements and other noncommodity price risk functions. Cooperative involvement in wheat trade is very small with less than 8 percent of the exports and no significant volume of imports.

### Coordination Arrangements for Cooperatives

Three alternative coordination arrangements for cooperatives are presented which represent means for linking international grain trade activities. These alternative arrangements impact on the pricing and operational efficiency of international coordination between cooperatives.

A previous study of U.S. cooperatives in international grain trade dealt solely with their role as exporters (Thurston, Phillips, Haskell, and Volkin). The alternative arrangements, discussed below, expand the perspective to import and export activities at the international level.

Intercooperative trade agreements establish a system of grain trading practices among cooperatives in two or more countries. Parties to the agreement may be either exporters or importers. Agreements may cover quantities of grain to be bought and sold, quality, timing, pricing methods, and financing.

International marketing agencies in common combine the international marketing efforts of cooperatives located in two or more exporting or importing countries. This involves the formation of a new federated cooperative to handle functions such as sales contacts, market information, ocean shipping, and financial arrangements. The agency does not take title to the grain, thus leaving the final decisions on purchase or sale to the cooperative members.

A multinational cooperative is owned by cooperatives in two or more exporting or importing countries, takes title to the grain, and performs other functions of international grain traders.

Of particular significance to developing countries, a multinational grain cooperative also acts as a catalyst in developing livestock and poultry production systems. While already a significant aspect of proprietary grain company market development activities, cooperative livestock and poultry production systems hold the potential for being more responsive to local producer needs as well as sharing in the economic benefits of cooperative involvement in the world grain trade.

### Objectives of Cooperatives and Performance Implications

Which alternative arrangement is chosen by cooperatives to expand their role in the international grain trade depends on the goals they seek to achieve. Three objectives with decidedly different performance implications are suggested.

Improving competition as a means of enhancing pricing and operational efficiency has been the traditional cooperative role and basis for extending special public policy treatment to cooperatives. In international grain trade, the most significant source of benefits appears to accrue from: (1) improved timeliness in the sale or purchase of grain; (2) improved market information; and (3) margins from performing grain marketing functions. The first two sources of benefits may be considerably greater than the latter. To capture these

benefits, direct involvement in grain trading through either an international marketing agency in common or a multinational cooperative would appear to be essential.

Certain behavioral patterns are necessary if an international grain marketing cooperative is to have its full impact in terms of improving competition in the grain trade. These conditions were first specified by Helmberger and further adapted here for consideration of an international grain cooperative having both producer and consumer interests. The conditions include: open membership providing freedom of entry and exit from the cooperative for both exporters and importers, no attempts to control members' production or purchases, cooperative operations as efficient and effective as proprietary traders, and net margins distributed in an equitable manner to both importers and exporters.

To compete, an agency or multinational cooperative would need to trade in the grains of two more countries as exporters with as many importing countries as possible. While the source of grain would likely be limited to cooperative member suppliers in two or more countries, sales could be made to either cooperative or noncooperative firms under either the agency or multinational enterprise structure. These structures could thus become a significant alternative source of supply for state traders or private importers in both developed and developing countries.

Cooperative market shares and facilities already exist in coarse grains and soybeans from which a successful marketing agency in common or multinational cooperative could be formed. Cooperatives in the EC, Argentina, Brazil, United States, and Japan would be logical participants in such ventures. Expansion into wheat is possible with the eventual inclusion of Australian, Canadian, and developing country cooperatives.

The benefits of an international grain cooperative having the objective of increasing competition would be shared by both exporters and importers. One could realistically anticipate that exporter benefits would be mainly in the pricing efficiency arena; that is, in terms of increased speed and accuracy of market signals to producers. Pricing inefficiencies in the grain trade have been particularly apparent during times when substantial grain sales have been consummated but information on their magnitude withheld. Cooperatives operating in the international grain market could be more sensitive to the producer and public interest in more perfect information systems.

Importing country benefits would likely concentrate on opportunities for increased operational efficiency. Such benefits include sharing in cooperative margins, improved grain quality, and providing purchasers of relatively small quantities with the benefits of larger volume shipments to areas such as the EC, Southeast Asia, or Africa.

Improving coordination of international grain movements to assure market supplies and outlets has been recognized as a basic need since 1972. This need has resulted in the establishment of numerous bilateral trade agreements between governments. Trading agreements between exporting and importing cooperatives, exporting cooperatives and state traders, or state traders and importing cooperatives could be at least equally beneficial where direct control over grain supplies exists. Such trade agreements could either be part of or separate from agency or multinational cooperative arrangements. Bilateral cooperative trade agreements have been in effect between U.S., Japanese, European, and South American cooperatives for a number of years.

Benefits of such agreements would be limited to cooperatives and countries involved in agreements. Unless combined with an agency or multinational cooperative arrangement, the dispersion of benefits in a broader market performance context would be limited.

Increasing grain prices through various coordinated export devices has received much attention since OPEC successes have become evident. High country export concentration ratios in the major grains suggest, at first glance, potential for

monopolistic exploitation equal to what has been accomplished in oil (table 1). Relatively low cooperative market shares do not, however, hold the same potential. Even if cooperative exporting efforts were to be combined with those of marketing boards, export market shares would in each grain be less than 40 percent.

In the long run, it will be difficult to maintain grain prices above competitive levels. Recent studies of grain supply response indicate a potential for substantially increased production at higher prices (Peterson; and Hedy). In addition, since many of the major wheat importers are either centrally planned or developing countries, international economic and political tensions might increase. The main beneficiaries would, of course, be producers in the United States, Argentina, Australia, France, and Canada.

### Concluding Remarks

A combination of trade agreements and either a common marketing agency or a multinational cooperative holds the potential for reducing market imperfections in the international grain trade--particularly in coarse grains and soybeans. Of these alternatives, trade agreements are clearly the easiest to implement. Expanding trade agreement activities into a common marketing agency holds substantial potential. Interest in this concept exists on both importer and exporter sides, largely as a basis for spreading high fixed costs of an international sales and market information network. The multinational cooperative concept deserves consideration as a longer run goal. Prerequisites for effective operation include the ability to deal in the grains of several countries as a separate operating entity and commitment of both exporters and importers to utilize the cooperative to the fullest extent. A recent survey of cooperative leaders and government trade policy officials in 20 countries indicates that serious consideration of coordinated cooperative arrangements in the international grain trade is appropriate (Knutson, Cook, and Sporleder).

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### OPENER'S REMARKS--W. E. Hamilton

This paper deals with a subject that deserves attention due to the growing

importance of international trade in grains and the leading role played by a few multinational firms in the private portion of this trade. It would be hard to disprove the authors' modest conclusion that a combination of trade agreements and either a common marketing agency or a multinational cooperative holds the potential for reducing market imperfections in the international grain trade--particularly in coarse grains and soybeans. This potential undoubtedly exists, but the obstacles to achieving significant results are substantial. It is, therefore, unfortunate that space limitations apparently precluded a more detailed discussion of the approaches that may be necessary to develop viable multinational cooperative arrangements.

Two fundamental considerations appear to deserve particular attention. First, international trade in grain is a high risk business for private participants. Second, as middlemen, multinational grain companies can deal with buyers and sellers and trade in grain from different origins without the tensions that are likely to develop in cooperative efforts to serve competing or conflicting interests. The differences between direct cooperative exporters and the major multinational grain exporting firms were summarized by Thurston and others and are well known. If these differences actually reflect the greater freedom of proprietary companies to develop mechanisms for reducing and spreading risks, it would appear that the multinational companies have some rather substantial advantages over cooperatives. Cooperatives, of course, have their own strong points and have been able to develop a modest volume of direct exports in some instances.

The obstacles to the development of mechanisms for reducing and spreading risks may be even greater for a multinational than for a national cooperative. If so, this suggests a need to explore arrangements which require a multinational entity to take title to grain. Direct transactions between cooperatives representing producers and cooperatives representing users are clearly possible, but the opposing interests of buyers and sellers suggest that there are likely to be times when buying and selling cooperatives cannot reach agreement. A common buying agency representing importers in two or more countries appears to be a practical possibility and the formation of such an agency should increase opportunities for cooperative to cooperative trade. The use of a common agency to represent both buying and selling cooperatives appears impracticable due to the conflicting interests of buyers and sellers. A common agency representing exporters from two or more countries would need to find ways of convincing its members that sales of grain from different national origins would be made on a completely impartial basis. That could prove to be difficult.

It may be that something other than the typical type of cooperative organization is needed to permit cooperatives to work together on a multinational basis in competition with the multinational grain companies. One possibility is that cooperatives in two or more countries could set up, invest in, or acquire a multinational grain company. A trading company owned in whole or in part by cooperatives presumably would operate very much like any other multinational grain company. It would have the ability as a separate operating entity to deal in the grain markets of several countries, which the authors cite as a prerequisite for the effective operation of a multinational cooperative. It would need to have the commitment of both exporters and importers to utilize its facilities to the fullest extent, but, as a practical matter, it is to be expected that both exporters and importers would insist on retaining the right to utilize other channels.

Strong national cooperatives which have the ability to compete with multinational companies are probably a prerequisite for the development of effective multinational cooperative arrangements. If multinational arrangements are to retain the support of their sponsors, they will probably have to yield benefits which can be clearly identified by participating cooperatives and their members.

Some of the potential benefits cited by the authors are highly conjectural. Multinational activities should improve the flow of information to the managers of participating cooperatives, but this would not necessarily mean a significant improvement in the speed and accuracy of market signals to producers. The authors say that cooperatives operating in the international grain market could be more sensitive to producer and general public interest in more perfect information systems. Cooperatives could be more sensitive, but it does not necessarily follow that they would be. It is not unusual, at least in the United States, for cooperatives to take essentially the same position as their noncooperative competitors on anything that relates to their business activities.

In my opinion, the basic objective of multinational cooperative grain marketing activities should be to increase competition in the international market. While other benefits, such as better information, may be useful byproducts, the long term survival of any multinational cooperative activity probably requires operating results which convince its sponsors that it is adding directly to farmers' incomes through its impact on grain prices, marketing costs, or both.

#### RAPPORTEUR'S REPORT--David I. Bateman

The authors' classification of trading organizations in table 1 made the definition of a cooperative an important issue. Some organizations that might call themselves cooperatives would be regarded in most countries as state traders. In reply, Cook said that he and his coauthors had difficulty in agreeing on a definition of cooperative. They decided that insistence on the Rochdale principles is too narrow an approach and that the most satisfactory procedure in their empirical work was to accept self-classification by the organizations concerned.

Some participants thought that in certain cases (for example, exporting and importing cooperatives) conflict was more likely than cooperation. A cooperative would not give up its own objectives for the sake of cooperative philosophy. Others gave examples of instances where such cooperation had occurred or might occur. Long term supply contracts were referred to as offering the possibility of mutual benefit in the future. Cook agreed that "cooperative philosophy isn't worth half a cent" to most cooperatives, but said that his survey had identified many examples of agreements between apparently antagonistic cooperatives. For example, long term supply contracts between cooperatives already exist. The problem of price setting in this context is one where he has some confidential information, but new ideas are required. There was evidence of a move over time towards "more sophisticated" forms of coordination between cooperatives.

Because international grain trading is a high risk industry, it is possible that a form of coordination that was organizationally feasible might not be cost feasible. Cook emphasized that he had deliberately not addressed this issue. It was important to examine case studies of successes and failures as a guide to cost feasibility.

Contributing to the discussion were Harold F. Breimyer, Hans G. Hirsch, Christian Jorgensen, and Allan D. McLeod.





# **The Rural Challenge at the Disciplinary Level**

