

BASIC GRAINS: MARKETING CHANNELS
AND FINANCING AT THE FARM
AND WHOLESALE LEVELS

A report to the Food and Agricultural Development Office
of the USAID Mission. Tegucigalpa, Honduras.

Prepared by:

Miguel Loria
Carlos E. Cuevas

Agricultural Finance Program
Department of Agricultural Economics and Rural Sociology
The Ohio State University
2120 Fyffe Road
Columbus, Ohio 43210 USA

January 1984

TABLE OF CONTENTS

	<u>Page</u>
1. Introduction.	1
2. Methodology	5
3. Results, Analysis and Implications.	7
3.1. Overview of the Sample , Main Crops, and Access to Credit.	7
3.2. Marketing Channels.	14
3.3. Producer Groups and Marketing Channels.	18
3.4. Access to Credit and Marketing Patterns	27
4. Operations of Intermediaries.	33
5. Concluding Remarks.	39

ACKNOWLEDGEMENTS

This study was inspired by both formal and informal discussions with selected Honduran officials from the "Secretaría de Recursos Naturales," the Central Bank, IHMA, and BANADESA. Most of these discussions took place at the Telamar meetings in April, 1983. Throughout its design and implementation our work benefitted from insights, support, and cooperation of different personnel of the institutions mentioned above. Thanks to all of them.

BASIC GRAINS: Marketing Channels and Financing at the Farm and Wholesale Levels

1. Introduction

Basic grains production has been a permanent concern among Honduran policy-makers. On the consumption side, they constitute the single most important component of the diet for a large majority of the population. On the production side, basic grains (especially corn) are grown by a large majority of the farmers in the country. Furthermore, small farmers account for a large share of the total production of grains, and they tend to allocate an important proportion of their land to the production of these crops. As a consequence, the goals of food self-sufficiency, on the one hand, and rural income on the other hand, underlie policy-makers' concern about basic grains production. This concern increased in the mid-seventies as the status of grain-surplus economy disappeared, and the reliance on grain imports was growing. A complete review and analysis of these trends in basic grains production, trade and pricing patterns is provided in a separate report.^{1/}

It is important to highlight here the effect that the overall stagnation and decline of the basic grains sector has had on government policies in general, and credit policies in particular. A special inter-institutional committee^{2/} was created to study and recommend policy actions directed to the basic grains sector. Basic grains constitute the

^{1/} See Pollard, Graham, and Cuevas, "Coffee and Basic Grains: Review of Sectoral Performance and Pricing Patterns", January 1984.

^{2/} "Comisión Nacional de Granos Básicos."

most important concern of the "Instituto Hondureño de Mercadeo Agrícola" (IHMA), in charge of pricing, marketing, and external trade policies. The central bank initiated its rediscount lines of credit in the early 70's basically to support basic grains production and, to some extent, grain marketing. Since then, up to the present, basic grains loans have always had special concessionary interest rates to the borrowers. Also, these loans have benefitted from a 100 percent rediscount policy at the central bank, and from several externally funded credit projects channelled through the National Agricultural Development Bank (BANADESA).

Loans to basic grains accounted for 2 percent of the value of new loans granted by the banking system in the period 1971-1976. This share decreased in the period 1976-1980 to an average of 1.7 percent.^{3/} In 1981-1982, the average proportion of new loans going to basic grains production had increased to almost 3 percent of the total amount of new loans in the banking system. Moreover, basic grains loans accounted for an average of over 12 percent of the value of new loans to agriculture in these same two years. Basic grains represented the second most important end-use among loans to crop agriculture (after coffee), accounting for almost 18 percent of the value of these loans. Public-sector concern about basic grains is evident when we consider the sources of these loans to the basic grains producing sector. Even though BANADESA provides only 26 percent of the total

^{3/} OSU, "An Assessment of Rural Financial Markets in Honduras," 1981

value of new loans to agriculture (average 1981-1982), this bank is the source of more than 55 percent of the value of loans to basic grains. These loans accounted for almost 27 percent of BANADESA's agriculture portfolio in 1981-1982, whereas the agriculture portfolio of commercial banks in these years included only 7.5 percent of loans to basic grains.

Despite the efforts of public-sector entities, and preferential credit treatment to the basic grains sector, production does not seem to respond as dynamically as policy-makers may expect. Many of them have pointed at the marketing structure as an important, possibly crucial, bottle-neck in the flow of policy actions and price signals towards basic grains producers. Even the most concessionary credit policies may not succeed if the policy target is essentially a bad project in terms of its real rate of return. Therefore, if price-support policies and other marketing policies are not reaching the farmers effectively, these will not allocate to basic grains the resources policy-makers expect. This concern, shared by Honduran officials at the "Secretaría de Recursos Naturales" (SRN), the Central Bank, IHMA and BANADESA, inspired this study by the OSU Research Team.

The aim of this study is to investigate the features of basic grains marketing at the farm level. We document and analyze the marketing channels utilized by basic grains producers, prices received, marketing costs, and informal financing associated with marketing arrangements. The role of IHMA and its pricing policy receives particular attention in our work. The characteristics of private market intermediaries

(truckers, wholesalers, retailers) are also documented and analyzed, based on primary data obtained directly from these intermediaries. Our methodology is described in the next section. Survey results, and their analyses, are presented in Sections 3 and 4. Section 3 discusses the results of the interviews with basic grains producers, while the following section does the same with the interviews conducted among market intermediaries. The final section includes our concluding remarks, where implications with respect to the role of IHMA and marketing policies are highlighted.

2. Methodology

A field survey was conducted in August 1983 to investigate the most relevant factors characterizing the basic grain marketing system in Honduras. Personal interviews were conducted in nearly 70 locations comprising 5 of the 7 regions of the country. The survey provided almost 350 basic-grain farmer interviews, that were complemented with 50 additional interviews to intermediaries. The regions were chosen according to their shares in overall basic-grains production, and their concentration of small and medium-size farms.^{4/} In analyzing these geographical areas, random samples were drawn from records of Banco Nacional de Desarrollo Agrícola (BANADESA) and selected private commercial banks. A sub-sample of farmers without institutional loans was obtained from among the farmers receiving technical assistance from the "Secretaría de Recursos Naturales" (SRN). This sub-sample improved the representativeness of the sample and allowed the investigation of possible associations between access to institutional credit and marketing patterns.

The survey focused on the four basic grains: corn, rice, beans and sorghum. The sample unit was the grain producer, with or without formal financing, that sold some proportion of his last harvest. The survey questionnaires were designed to obtain information on the marketing channels utilized by basic grain producers, prices and other terms of marketing transactions, and informal financial arrangements concurrent

^{4/} For analytical purposes, a farm with less than 10 manzanas was considered as "small", and those between 10 and 50 manzanas were considered as "medium-size".

with these transactions.

Information about the operation of private intermediaries was collected from two sources: i) indirect information provided by farmers and ii) direct information from intermediaries through personal interviews. The number of interviews with private intermediaries was necessarily limited due to some peculiar features of this little-known market-sector. Intermediaries, especially truckers, were very difficult to locate since they were constantly traveling in search of grain purchases. Also, in many cases, the references and directions given by the farmers were inaccurate or vague. The interviews were difficult to conduct because intermediaries were usually involved in transactions or were busy loading or unloading trucks. In some instances, middlemen refused to give information about their business, due basically to distrust or fear of competition.^{5/}

It is important to note that in some cases it was difficult to classify the intermediary in a particular group (trucker, wholesaler, retailer). For instance, some truckers were also wholesalers or retailers and vice versa; there were intermediaries who sold grains both wholesale and retail, as well as farmers owning a vehicle acting as intermediaries. As a consequence, private intermediaries had to be classified rather arbitrarily according to their main activity.

^{5/} During the period in which the survey was carried out, there was a shortage of grains in the country so that government supervision and price controls were enforced.

3. Results, Analysis and Implications

3.1. Overview of the Sample, Main Crops and Access to Credit.

A total of 347 interviews to grain farmers were conducted in the following regions and departments:

<u>REGION</u>	<u>DEPARTMENTS</u>
Sur	Choluteca - Nacaome
Central	Comayagua
Occidental	Copán - Lempira
Norte	Cortés - Santa Bárbara - Yoro
Litoral Norte	Atlántida

Corn, rice and beans were the most important grains planted by the farmers. Since late-season rice and sorghum production were insignificant in the sample, they are excluded from our analysis here. As shown in table 1, corn was the predominant grain cultivated in the two seasons. Moreover, corn was also the leading crop in terms of market significance for the farmer. Approximately 83 percent of the farmers who sold corn reported this crop as their most important grain crop in terms of sales. At the other extreme, beans were the least important grain crop in terms of overall frequency in the sample and in marketing. On average, beans were marketed by almost 80 percent of the farmers who harvested them. However, this grain was the most marketed grain for only 15 percent of the bean producers.

For analytical purposes, farmers were classified in producer groups as corn, rice, and bean producers according to the crop observed as the most relevant in terms of total sales. This classification will be utilized in what follows. Farmers

Table 1. Number of Farmers Cultivating and Selling Grains,
by Crop Season

Crop Season	Number of Farmers Growing the Crop (1)	Number of Farmers Selling the Crop (2)	Farmers Who Reported Each Grain as the Most Important in Terms of Sales	
			No. (3)	(3/2)%
<u>Early Season</u>				
Rice	97	94	59	62.7
Corn	304	270	223	82.6
Beans	94	72	10	13.9
<u>Late Season</u>				
Corn	106	65	21	32.3
Beans	86	70	11	15.7

^{1/}The proportion of farmers selling the crop (column 2) with respect to the number of farmers growing the crop (column 1) cannot be interpreted as the "degree of commercialization" in the sample, since this was drawn precisely trying to include farmers that had effectively sold some of their harvest.

Source: OSU Survey, August 1983.

tended to specialize in one grain crop and presented a low degree of grain crop diversification. This is evident for corn and rice producers (see table 2) comparing the average harvest obtained in the main crop with those corresponding to the other grain crops. For bean producers, however, even though beans were the most important marketed crop, the main crop in terms of production was corn. This is reflecting the importance of corn for farmers' consumption.

The average area devoted to the main crop is shown in table 3. In general, the area occupied by the main crop did not represent a large proportion of the total area of the farm. Corn producers utilized 13 percent of the total land to grow corn in the early season, and only 3 percent in the late season. Rice producers, however, devoted about one-third of their land to plant rice.

As shown in table 4, the sample included 136 farmers who received credit in at least one of the last two crop seasons and 211 producers who did not receive formal credit in either of the last two harvests. Only 6 percent of the farmers obtained credit in the two crop seasons, approximately 40 percent received a loan in at least one of the seasons, while 60 percent did not receive institutional credit in any crop season.

Among farmers receiving loans from institutions, the average loan size received from BANADESA in the early season was 5,647 Lempiras. In the second season, the average loan size was 3,052 Lempiras (see table 5). Only six farmers

Table 2. Farm Production Structure by Crop Season.
Average Harvest per Producer, in Quintales,^{1/}
by Producer Group

Crop Season	Producer Group 2/		
	Rice	Corn	Bean
<u>Early Season</u>			
Rice	370	13	--
Corn	57	316	65
Beans	7	6	20
<u>Late Season</u>			
Corn	9	206	--
Beans	2	4	26

^{1/1} Quintal = 100 pounds.

^{2/} Defined according to the most important crop in terms of sales.

Source: OSU Survey, August 1983.

Table 3. Average Size of Farm and Area of Crop by Farmer Group and Crop Season, in Manzanas^{1/}

Crop Season/ Farmer Group	Number of Farmers	Average Farm Size	Main Crop Area, Average	Main Crop Area / Farm Area
<u>Early Season</u>				
Rice Producers	59	48 mz.	16 mz.	33.3%
Corn Producers	223	68	9	13.2
Bean Producers	10	76	12	15.9
<u>Late Season</u>				
Corn Producers	21	102	3	2.9
Bean Producers	11	12	3	25.0

^{1/}1 Manzana (mz.) = 0.7 hectares.

Source: OSU Survey, August 1983.

Table 4. Basic Grain Producers in the Sample, Classified by Credit Access and Crop Season

Early Season	Late Season		Total	%
	With Credit	Without Credit		
With Credit	21	103	124	35.7
Without Credit	12	211	223	64.3
Total	33	314	347	100
Percentage	9.5	90.5	100	

Source: OSU Survey, August 1983.

Table 5. Credit from Institutions. Number of Loans, Average Loan Size and Loan Size Range, in Lempiras^{1/2}

	BANADESA (Early Season)	BANADESA (Late Season)	Private Banks (Early Season)
Number of Loans	110	29	6
Average Size, L.	5,647	3,052	5,480
Minimum Value, L.	160	100	2,000
Maximum Value, L.	63,000	13,000	8,000
Coefficient of Variation (%)	141.0	102.9	35.9

^{1/2} Lempiras (L.) = 1 U.S. dollar.

Source: OSU Survey, August 1983.

reported loans from private banks, all of them in the first (early) growing season.^{6/} In this case, the average loan size was 5,480 Lempiras. There was a large dispersion in the BANADESA loan size distribution, while private bank loans were highly concentrated around the average loan size, as indicated by the coefficients of variation presented in table 5.

Loans received from BANADESA in the first (early) season were the most numerous among all sources, thus allowed further analysis of their distribution by loan size and farm size. These results are shown in table 6. Nearly 55 percent of the borrowers received loans between 1,000 and 5,000 Lempiras. These credits were obtained mainly by the smallest farmers, i.e., those with less than 50 manzanas of land. On the other hand, only 11 percent of the farmers received loans of more than 10,000 Lempiras. These credits were obtained primarily by farmers owning the largest farms (over 100 manzanas).

3.2 Marketing Channels.

One of the purposes of the survey was to identify the main marketing channels used by basic-grain farmers in selling their output. During the interviews, farmers were asked about the buyers of their product and the main features of their transactions. The types of intermediaries explicitly considered were: the Instituto Hondureño de Mercadeo Agrícola (IHMA), wholesalers, processing firms (mills and "bene-

^{6/} No financing was reported from private banks in the late season, or from cooperatives or any other financial institution in any season.

Table 6. BANADESA Loans in the Early Crop Season, Number of Borrowers by Loans Size and Farm Size.

Loan Size (Lempiras)	Farm Size (Manzanas)				Total	%
	0-10	10-50	50-100	Over 100		
0-1,000	4	7	2	1	14	14.6
1,000-5,000	10	26	9	7	62	54.2
5,000-10,000	2	3	7	7	19	19.8
Over 10,000	0	3	1	7	11	11.4
Total	16	39	19	22	96 ^{1/}	100.0
Percentage	16.7	40.6	19.8	22.9	100	

^{1/}This total does not coincide with the total number of loans indicated in Table 5 (110) because of missing observations.

Source: OSU Survey, August 1983.

ficios"), "coyotes"^{7/}, farmers, and other buyers.^{8/} Table 7 shows the marketing shares of different buyers, in terms of the proportion of farmers in the sample selling to each type of buyer.

Wholesalers, IHMA and other buyers in that order, were the most important buyers overall. About 24 percent of the farmers sold their harvest to IHMA, whereas 76 percent sold to private intermediaries. There is no strong evidence that "coyotes" (truckers) control the market of grains at the farm level, since only 14 percent of the farmers marketed their harvests through this type of intermediary. However, as pointed out before, the classification of private intermediaries is necessarily somewhat arbitrary. Therefore, if truckers are grouped with wholesalers, their market share becomes 50 percent of the number of suppliers, a proportion that doubles the significance of IHMA as a marketing channel. "Beneficios" and mills prefer to deal with a few wholesalers instead of a large number of individual producers, according to the information supplied by managers and owners of these firms. This explains the low percentage of farmers who sold grain to processing firms (7.4 percent). The results presented in table 7 show that it is not common that farmers purchase grains from other farmers, either for consumption or for further selling. Only a small proportion of the farmers (1.6 percent) declared having sold grain to other farmers.

^{7/} A nickname given to truckers, who are usually blamed for the high prices charged to consumers and the low prices received by producers.

^{8/} Includes retailers, friends, relatives, cooperatives, feedstuff producers, and packing firms.

Table 7. Marketing Channels: Shares of Different Buyers, by Farm Size of Producer.

Marketing Channel	Farm Size				Total
	Smallest (less than 10 mz.)	Small (10-50 mz.)	Medium (50-100 mz.)	Large (over 100 mz.)	
IHMA	20.8%	24.4%	29.4%	22.0%	24.2%
Wholesaler	54.2	36.6	29.4	34.0	36.8
Processing Firm	4.2	8.5	5.9	8.0	7.4
Trucker ("coyote")	8.3	12.2	20.6	14.0	13.7
Other Farmers	--	--	--	6.0	1.6
Other Intermediaries ^{1/}	12.5	18.3	14.7	16.0	16.3
Total	100.0	100.0	100.0	100.0	100.0

^{1/}Includes retailers, friends, relatives, cooperatives, livestock-food producers and packing firms.

Source: OSU Survey, August 1983.

Wholesalers were particularly important among the smallest group of producers, i.e., those with less than 10 manzanas of land. More than 50 percent of these farmers sold their grains to wholesalers. The relative participation of IHMA as a marketing channel tended to increase with the size of the farm. Twenty percent of the smallest farmers dealt with IHMA, while almost 30 percent of the medium-size producers did so. It is interesting to note that IHMA had a quite similar participation among both the smallest and the largest group of the distribution in terms of the proportion of producers that sold grain to this institution (approximately 20 percent). "Coyotes" were not very important as a marketing channel for the small farm sizes. However, they were more significant in the case of medium-size farms (50 to 100 manzanas).

3.3. Producer Groups and Marketing Channels

Analysis by group of producers (defined according to their main crop) showed the same pattern of marketing channels discussed in the preceding section. As shown in table 8, wholesalers were the most important agents used by producers who planted grains in the early season.^{9/} These intermediaries purchased from 35 percent of the farmers interviewed, while IHMA was the second most important channel with 24 percent of the suppliers. Truckers presented a relatively low share of the markets in terms of the number of farmers selling to these

^{9/} The late season was not very significant in terms of marketing, therefore we focus our analysis here on the results obtained for the early season.

Table 8. Marketing Channel Used in the Early Season. Shares of Different Buyers by Producer Group.

Marketing Channel	Producers Group ^{1/}							
	Rice Producers		Corn Producers		Bean Producers		Total	
	No.	%	No.	%	No.	%	No.	%
IHMA	4	6.9	65	30.0	-	-	69	24.3
Wholesaler	25	43.1	70	32.3	4	44.5	99	34.9
Processing firm	11	19.0	7	3.2	-	-	18	6.3
Trucker ("coyote")	13	22.4	28	12.9	2	22.2	43	15.2
Other farmers	-	-	4	1.8	-	-	4	1.4
Other intermediaries	5	8.6	43	19.8	3	33.3	51	17.9
Total	58	100.0	217	100.0	9	100.0	284	100.0

Source: OSU Survey, August 1983.

^{1/}Defined according to the most important crop in terms of sales.

intermediaries. As a group, however, wholesalers and truckers account for 50 percent of the basic grains market. The share of private intermediaries, especially wholesalers and truckers, is higher for rice than it is for corn. In the first case, private intermediaries account for 93 percent of the transactions, with wholesalers and truckers representing, as a group, 65 percent of the total. In the case of corn, however, IHMA was almost as important as private wholesalers, with approximately 30 percent of the market. The combined share of wholesalers and truckers was 45 percent in this case.

Tables 9 and 10 summarize the relative importance of the factors determining the choice of a marketing channel by the farmers interviewed in the survey. In all cases (excepting a small number of "other intermediaries" in the case of rice) the main reason underlying the choice of a particular buyer was "best price" offered. All most important intermediaries, both IHMA and private, were chosen because of the price offered in the majority of the cases. There is no strong indication of market concentration in either corn or rice. The reasons that could be associated with some kind of monopsonistic power, "only buyer" or "nearest buyer" (geographic monopsony), accounted for 28 percent of the cases in rice marketing, and 24 percent in the case of corn. Therefore, according to our results, price-competition seems to predominate in the marketing of basic grains at the farm level.

Prices received by farmers are compared in table 11. In grain marketing transactions, farmers usually have to cover

Table 9. Rice Producers: Main Factors Determining the Choice of a Marketing Channel.
Number of Respondents and Percent of Farmers Selling to Each Buyer.

Marketing Channel	Factor										Total	
	Only Buyer		Best Price		Nearest Buyer		Prior Arrangement		Best Price and Prior Arr.			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
IHMA	-	-	2	50	1	25	1	25	-	-	4	100
Wholesaler	5	20	14	56	1	4	3	12	2	8	25	100
Processing firm	1	9	8	73	-	-	1	9	1	9	11	100
Trucker ("coyote")	3	23	5	38	1	8	4	31	-	-	13	100
Other farmers	-	-	-	-	-	-	-	-	-	-	-	-
Other intermediaries	3	60	1	20	1	20	-	-	-	-	5	100
Total	12	21	30	52	4	7	9	15	3	5	58	100

Source: OSU Survey, August 1983.

Table 10. Corn Producers: Main Factors Determining the Choice of a Marketing Channel.
Number of Respondents and Percent of Farmers Selling to Each Buyer.

Marketing Channel	Only Buyer		Best Price		Nearest Buyer		Prior Arrangement		Other Reason		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
IHMA	-	-	56	90	-	-	6	10	-	-	62	100
Wholesaler	13	19	38	57	8	12	3	5	5	7	67	100
Processing Firm	2	29	3	43	1	14	1	14	-	-	7	100
Trucker ("coyote")	2	7	17	61	5	18	2	7	2	7	28	100
Other farmers	1	25	1	25	-	-	1	25	1	25	4	100
Other intermediaries	9	23	10	26	8	21	4	10	8	21	39	100
Total	27	13	125	60	22	11	17	8	16	8	207	100

Source: OSU Survey, August 1983.

Table 11. Corn: Average Price Received by Producers in the Early Season from IHMA and Private Intermediaries, in Lempiras per Quintal

Marketing Channel	Support ^{1/} Price	Gross ^{2/} Price	Selling ^{3/} Cost	Net Price	No. of Observations
IHMA	17.25	18.14	2.69	15.45	65
Private Intermediaries	-	16.93	0.45	16.48	154

Source: OSU Survey, August 1983, except support price.

1/ Price paid in Tegucigalpa and San Pedro Sula. Source: IHMA.

2/ Selling price quoted by the farmer.

3/ Transaction costs associated with the sales - Includes transportation expenses, bags, special trips to deliver the grain and obtain payments, imputed costs of farmer's time spent in these procedures. Also includes explicit and implicit costs of obtaining the "carnet de productor" when this was required by the purchaser (IHMA).

some expenses associated with the sale, such as traveling costs, bags, loading costs, as well as the opportunity cost of time spent when the farmer has to make special trips to deliver the product or collect the payments. Furthermore, when farmers sell to IHMA there are additional costs that must be covered, such as the transportation of the grain to the IHMA buying station and the explicit and implicit expenses associated with the obtainment of the "carnet de productor", a special card required to sell to this institution that has to be obtained from "Recursos Naturales". Table 11 shows that the gross price paid by IHMA for corn was the highest, compared to that paid on average by private intermediaries.^{10/} On average, farmers received a gross price even greater than the official price announced by IHMA for the main markets (Tegucigalpa and San Pedro Sula). However, the attractiveness of such price was indeed offset by the high cost per quintal associated with IHMA transactions, almost 6 times as high as the costs involved in selling to other buyers (see table 11). On average, farmers had to incur a cost of 2.69 lempiras per quintal sold to IHMA while producers who dealt with private buyers paid only 0.45 Lempiras. Consequently, farmers received, on average, a lower net price from IHMA than from other intermediaries. Despite the difference observed on net prices, IHMA can still be considered a very important marketing channel. Furthermore, as was noted in table 10, the majority of corn

^{10/} Our analysis is limited here to corn producers, since this is the crop with the largest number of observations in the sample.

producers selling to IHMA based their decision on the price paid by this institution. These results suggest that farmers may not be fully aware of the explicit and implicit costs they have to cover when they sell to any intermediary in general and to IHMA in particular. The information obtained in the survey did not show evidence of truckers ("coyotes") trying to take advantage of farmers by offering lower prices. In fact, the average gross price paid by "coyotes" (17.7 L./qq) was slightly higher than the average gross price paid by private intermediaries as a whole.

In order to investigate the existence of informal or implicit financial arrangements associated with marketing transactions, the survey obtained information about the use of "anticipos". These are advances, either in cash or in kind, that farmers received from buyers. While intensively used in the past as a way to secure grain purchases, our results show that these advances are no longer a frequent practice among buyers. Interviews to different intermediaries indicated that most of them considered any kind of advance as "bad business" since it is difficult to recover the money or the equipment given to farmers if these farmers decide to default the agreement. However, some intermediaries still give advances to some qualified farmers. Data obtained from the survey seem to confirm the current reluctance toward the practice of giving advances (see table 12). In general, less than 10 percent of all farmers received cash in advance.^{11/}

^{11/} Advances in the form of services or in kind were practically non-existent among the farmers interviewed.

Table 12. Number of Farmers Receiving Cash Advances, and Average Amounts, By Crop Season and Producer Group

Crop Season/ Producer Group	Number	Percentage of Total	Average Amount (Lps.)	Average Length of Time Before the Harvest (Months)
<u>Early Season</u>				
Rice Producers	11	18.6%	862.2	3.5
Corn Producers	17	7.6	2384.0	2.3
Bean Producers	1	10.0	100.0	1.3
<u>Late Season</u>				
Corn Producers	2	9.5	500.0	1.0
Bean Producers	--	--	--	--
Overall Sample	31	9.6	1648.8 ^{1/}	2.6 ^{1/}

^{1/} Weighted average.

Source: OSU Survey, August 1983.

The amount received varied among producers. Corn producers received the largest advance in the early season. On average, they obtained almost three times the amount received by rice producers. However, cash advances were given with more anticipation to rice farmers. This could reflect the intermediary's intention to minimize the risk of default by shortening the period in the case of farmers receiving the largest advances.

To give guarantee of purchase seemed to be a more usual practice than advances. Table 13 shows that, in general, almost 25 percent of the farmers received such guarantee no less than 30 days before the harvest. Among producer groups, guarantee of purchase was important, especially for rice producers. Thirty percent of them were assured to sell their crop nearly two months before the harvest. Interviews to farmers revealed that guarantee of purchase is neither required nor accepted by many farmers. They argued that these guarantees imply obligation to sell to a particular buyer who will not always pay the best price.

3.4. Access to Credit and Marketing Patterns.

In order to analyze the survey results from a different perspective, farmers were divided into two groups: those who received institutional loans and those who did not receive financial assistance from institutions in the last two harvests. Table 14 shows the relationship between access to institutional credit and the relative importance of different marketing channels. Wholesalers and IHMA were the most important

Table 13. Number of Farmers Receiving Guarantee of Purchase, by Crop Season and Producer Group

Crop Season/ Producer Group	Number	Percentage of Total	Average Length of Time Before the Harvest (months)
<u>Early Season</u>			
Rice Producers	18	30.5 %	1.9
Corn Producers	51	22.9	1.8
Bean Producers	2	20.0	1.7
<u>Late Season</u>			
Corn Producers	3	14.3	1.0
Bean Producers	2	18.2	0.5
Overall Sample	76	23.4	1.7 ^{1/}

^{1/}Weighted average.

Source: OSU Survey, August 1983.

Table 14. Marketing Channels and Access to Credit. Shares of Different Buyers for Farmers With and Without Institutional Credit

Marketing Channel	Farmers				Total	
	With Credit		Without Credit		No.	%
	No.	%	No.	%		
IHMA	43	32.8	28	13.6	71	21.1
Wholesalers	45	34.3	72	34.9	117	34.7
Processing Plants	12	9.2	8	3.9	20	5.9
Truckers ("coyotes")	13	9.9	43	21.0	56	16.6
Other Farmers	1	0.8	3	1.4	4	1.2
Other Intermediaries	17	13.0	52	25.2	69	20.5
Total	131	100.0	206	100.0	337	100.0

Source: OSU Survey, August 1983.

marketing channels among farmers with loans. These two intermediaries together bought grain from 67 percent of the farmers, and their relative importance was quite similar (34 percent and 33 percent respectively). Only 10 percent of the farmers with credit marketed crops through truckers ("coyotes"). Wholesalers were also the main buyer group among farmers without credit, but the relative importance of IHMA in this group decreased significantly. While dealing with 33 percent of the farmers with credit, IHMA was the marketing channel used by only 14 percent of the producers without formal credit. The opposite situation happened with respect to truckers, whose relative marketing participation doubled to 20 percent of the farmers in the group without institutional loans.

The main factors explaining the choice of marketing channel, according to the farmer's access to institutional credit are summarized in table 15. Again, "best price" was the main consideration for both groups of farmers. Some 60 percent of farmers with formal loans indicated this reason as the most important in selecting a marketing channel. This same reason was indicated in 51 percent of the cases by farmers without institutional credit. A small proportion of farmers with loans (approximately 18 percent) had only one option to sell, while 12 percent of the farmers without loans had only one possible buyer. The large proportion of the farmers selling their crops based on prices offered and the relatively small

Table 15: Main Factors Determining the Choice of A Marketing Channel, by Access to Institutional Credit.

Factors	Farmers			
	With Credit		Without Credit	
	No.	%	No.	%
Only buyer	25	18.4	24	11.8
Best price	82	60.3	103	50.7
Nearest buyer	11	8.9	22	11.4
Prior arrangement	8	5.9	22	10.8
To help buyer	5	3.7	22	10.8
Other reason	4	2.8	9	4.5
Total	136	100.0	203	100.0

Source: OSU Survey, August 1983.

percentage of farmers who had only one buyer suggest the prevalence of a significant degree of competition in the Honduran grain market at the farm level.

Among the producers without loans, considerations other than price, such as the geographical location of the buyer, prior arrangements, and friendship were also relevant. One-third of these farmers chose their buyers following these criteria, which are more closely associated with wholesalers and truckers ("coyotes").

In general, farmers with institutional credit had more access to IHMA than those without formal loans. This can be explained by the purchasing policy followed by IHMA that gives preference to farmers having loans with BANADESA. This linkage attempts to improve loan recovery for BANADESA and improve marketing conditions for BANADESA borrowers. Our results suggest that producers without formal loans are induced to market their crops through wholesalers and "coyotes", even though this does not necessarily imply a disadvantage in terms of net prices received.^{12/}

^{12/} Further data processing, in progress, should determine whether the average net price received by non-credit farmers from private intermediaries is similar to that reported in table 11 for all farmers.

4. The Operations of Intermediaries

The survey of grain producers was complemented with interviews to different intermediaries in order to provide insights into the main features of their activities. These intermediaries were located in the same areas where the farm-level survey was conducted. A total of 50 interviews were carried out among market intermediaries that were classified into four groups. The relative importance of these groups in the sample is shown in table 16. Some features of the intermediaries' business organizations are presented in table 17. Most of them are owners of the building where their activities are carried out. A large proportion of them (44 percent) hire permanent workers who are in charge of the business while they are involved in other activities. In fact, only 14 percent of the intermediaries interviewed had grain trade as their only economic activity. Agriculture, cattle and commerce were found among the main complementary activities, with different degrees of relative importance. Temporary workers are employed for short periods only during the harvest season, in quantities that depend on the scale of operation.

Intermediaries have several sources of financing. Own resources were indicated as a source of funds in 48 percent of the interviews. Nearly 40 percent use formal loans from institutions, while informal loans or cash advances from buyers were mentioned in only 6 percent of the interviews. Other miscellaneous sources of funds accounted for 14 percent of

Table 16. Number of Interviews in the Sample
by Type of Intermediary

Intermediary	Number	%
Wholesaler	12	24.0
Processing Firms	10	20.0
Truckers ("coyotes")	17	34.0
Others ^{1/}	11	22.0
Total	50	100.0

^{1/} Includes other intermediaries, such as retailers, cooperatives, and private groups.

Source: OSU Survey, August 1983.

Table 17. Selected Features of Intermediaries' Activities.
Proportion of Intermediaries in Each Case

	Yes	No	Total
Rent Building	36.0%	64.0%	100.0%
Hire Permanent Workers	44.0	56.0	100.0
Hire Temporary Workers During Harvest Time	70.0	30.0	100.0
Buy and Sell Grain as Only Economic Activity	14.0	86.0	100.0

Source: OSU Survey, August 1983.

the cases. Most of the intermediaries interviewed declared having more than one source of financing for their marketing activities.

Our observations in the field indicate that farmers (and truckers) are basically price takers. Prices are set by buyers according to some reference variables. The survey found that market price and quality of the grain were the most important decision variables used by intermediaries to set the price. Some 70 percent of buyers utilized these two criteria. Even though quality is widely used, intermediaries argued that they are not as strict as IHMA in this matter. Some of them used to buy the whole quantity offered by the farmers, regardless of quality considerations, as a way to secure suppliers for the next harvest. When supply is abundant, however, intermediaries refuse to buy damaged grain. Other factors taken into account to establish the price are IHMA price, prices offered by other buyers closer to the retail level, and information about production costs. Season was mentioned as a factor influencing price-setting in 34 percent of the cases. Price is generally independent of the purchased quantity so that price discrimination based on volume does not seem to be a usual practice.

There is no unique pattern in grain gathering. Buyers go out to the farms looking for grain, as well as farmers take their harvest to purchasing places in search of the best price. Buyers who go to the farms usually pay the costs of shipping the grain (transportation, bags, workers).

With respect to market structure, our results suggest a high degree of competition in the Honduran grain market at the farm-gate level. The survey did not find buyers acting as monopsonists in any region. Despite the fact that most of them bought the grain always in the same area (74 percent), and from the same farmers (60 percent), none of them had complete control of the supply of grain in the area. In other words, it seems that buyers try to build a buyer-seller relationship that is difficult to keep due to the presence of a large number of competitors interacting in the same market. According to information provided by buyers who had market agreements with other intermediaries (30 percent of intermediaries interviewed), these agreements are almost impossible to enforce in practice. Price agreements are the most frequent but are usually violated due to the strong competition.

A lack of direct communication was observed among buyers. However, there was perfect knowledge about prices paid, for instance, each wholesaler knew the price offered by his neighbor. They also knew when a farmer or trucker was trying to sell grain previously rejected by IHMA, thus giving them a better position to set a price. Market agreements work better among processing firms (mills and "beneficios"), especially with respect to quality standards. Quantity agreements among wholesalers were observed in small oligopolistic segments of the market. Under these agreements, sellers were forced to deal with only one buyer. The quantity traded was then equally shared among the small group of buyers participating in the agreement.

Some 50 percent of the intermediaries interviewed used to give cash in advance ("anticipo") to farmers, and to a lesser extent, to truckers. On average, advances are given about two months before the harvest, with a maximum of five months. They are usually requested by farmers when they visit the buyers to offer the grain and find out about prices. There is no general procedure for calculating the advance. A few intermediaries estimate the advance as a fixed percentage of the crop value. When this procedure is used, this proportion of the crop value varies according to the size of the crop and sometimes depends on the degree of knowledge the buyer has about the farmer, i.e., well-known farmers receive larger advances than new farmers. In the first case, buyers give producers the amount they request. For new farmers, the advance is given according to the farmer's needs, which are estimated on the basis of cost per manzana. In other cases, the advance is given regardless of the farmer's needs on a "take-it-or-leave-it" basis. No explicit interest rates are charged on advances, allegedly as a way of securing the future supply of grain. This same objective is pursued through other mechanisms such as the provision of some services including technical assistance, provision of seeds, bags, equipment, transportation, land and other non-pecuniary services. Intermediaries also try to attract farmers by paying immediately upon delivery of the harvest, so that the opportunity cost of the farmer is reduced. Guarantee of purchase is also offered with the same purpose. In selling the grain, however, intermediaries seem to work under different conditions. A very small proportion of intermediaries sold the

grain under some kind of obligation (12 percent) and an even smaller percentage received services from their buyers (4 percent). These buyers were usually other intermediaries further up in the marketing chain between farmers and consumers.

5. Concluding Remarks

The results presented in the foregoing sections have provided useful insights into the characteristics of basic-grains markets, primarily at the farm-gate level. Several features of the operations of intermediaries have been described as well, using primary data obtained in direct interviews with these marketing agents.

Private intermediaries, as a group, were found to be the most important marketing channel used by basic-grain producers. Overall, wholesalers are the single most important marketing channel, with some 37 percent of the total number of transactions, while IHMA accounted for approximately 24 percent of the market, in terms of number of producers. The market share of wholesalers and truckers ("coyotes") taken together is 50 percent of the total number of suppliers, while truckers alone accounted for only 14 percent of the transactions.

Gross prices paid by IHMA were, on average, the highest received by basic-grain producers. However, after deducting the explicit and implicit transaction costs incurred by farmers dealing with this institution, net prices received in transactions with IHMA were lower than average net prices received from private intermediaries. Farmers did not seem to be fully aware of these differences in selling costs, possibly because of a different perception of the implicit costs involved. Transaction costs of selling to IHMA were

6 times as high as those associated with sales to private intermediaries. These results suggest the need to revise IHMA procedures in order to reduce the transaction costs that these procedures imply.

IHMA operations were found to be more important among farmers with credit than among farmers without access to institutional sources of finance. This is explained by existing IHMA-BANADESA arrangements that favor borrowers from BANADESA with the purpose of improving the bank's loan recovery performance. As a consequence, farmers without access to institutional loans tend to be excluded from IHMA purchases, and are induced to market their crops primarily through wholesalers and truckers ("coyotes").

According to our results, price-competition seems to predominate in the marketing of basic grains at the farm level. All marketing channels were chosen on the basis of prices offered. Monopsonistic or oligopolistic features were found in less than 30 percent of the cases. Intermediaries on the other hand, did not recognize any kind of monopsonistic power, though some degree of collusion appears in specific transactions. Intermediaries tend to set the price in transactions with both farmers and truckers, but we did not find signs of collusion among intermediaries for price-setting purposes.

Market intermediaries cannot be considered a significant source of informal financing for basic-grains producers. Cash advances or advances in the form of services in kind are not

frequent practices between buyers and farmers. Less than 10 percent of all basic-grains farmers had received some kind of advance from market intermediaries. Intermediaries, in turn, seem to use cash advances on a limited basis to secure the supply from preferred customers. Immediate payment and guarantee of purchases were other means of attracting potential suppliers.

The main policy implications of our results refer to the need of reducing transaction costs associated with IHMA procedures. In general, IHMA operations appear to have a positive effect on market prices and market structure. The institution accounts for about one-fourth of market transactions and its price policy has apparently induced private intermediaries to offer similar price levels. The competitiveness of basic-grain marketing at the farm level has contributed to these results of IHMA marketing policies.