

Profitability Analysis of Rice and Onions Planted During the Dry Season Under Irrigated Conditions

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Introduction

Farmers plant crops that are adapted to the area and have high market potential. Crops of which farmers are familiar with the production technologies are also grown. In crop production, farmers also prefer to plant crops that result in more profit with less risk involved.

A study was conducted in the area covered by the Upper Talavera River Irrigation System (UTRIS) in Nueva Ecija to compare the profitability of onions and rice planted during the dry season. The study aimed to:

1. Compare the profitability of rice and onion planted during the dry season under irrigated conditions;
2. Determine farmers' reasons for planting rice and onions and the factors which they consider in selecting upland crops;
3. Identify sources of funds for farming operations; and
4. Determine the problems encountered by farmers in rice and onion production.

Methodology

The study covered the 1986/87 and 1987/88 dry seasons. Respondents were farmers who planted onions and rice at the upstream and midstream of the UTRIS main canal. Fifty onion growers and 10 rice farmers as well as 80 onion growers and 28 rice farmers were interviewed during the first and second dry seasons, respectively.

In the first survey, 10% of the total onion growers were randomly selected and 10 rice farmers were interviewed for comparison. In the second survey, 80 onion growers and 28 rice farmers were randomly selected from the upstream and mid-stream parts of the canal. The list of farmers was

obtained from the National Irrigation Administration (NIA).

One-shot interviews were conducted during the first survey (May-June 1986). The second survey was conducted in two parts: the first part was conducted immediately after land preparation (December 1987 for onions and January 1988 for rice); the second part was conducted after the produce were marketed (May 1988 for onions and June 1988 for rice). The same questionnaire-interview schedule was used in both surveys. About 24% of onion growers and 22% of rice farmers in the first survey served as respondents in the second survey.

Frequency counts and percentages were used in summarizing the data; mean costs and return and profitability ratios were used in the analysis.

Research Highlights

Onion production was found more profitable per unit area than rice farming (Table 1). However, the price of onions fluctuated during and between seasons resulting to larger variations in income. Although the price of palay increased, yield decreased during the second dry season. Production cost per hectare did not differ for both crops. However, cost structure varied, i.e., onion production was characterized as input-oriented during the 1986/87 dry season and labor-oriented during 1987/88 dry season. For rice, the cost of inputs did not differ in either dry seasons but became labor-intensive during the second dry season because of increase in labor utilized to irrigate the crop when water became scarce.

All respondents aimed at maximizing their profit. Farmers planted upland crops that will provide the highest returns (Table 2). Water was not considered a primary factor in deciding what crops to plant except for onion growers during the

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Table 4. Production, marketing and credit problems encountered by farmers under UTRIS, 1986/87 and 1987/88 dry seasons.

	1986/87				1987/88			
	Onion (n=50)		Rice (n=10)		Onion (n=80)		Rice (n=28)	
	Average Rank ^a	% ^b	Average Rank	%	Average Rank	%	Average Rank	%
Production								
Attack of pests and diseases	1.77	52	1.70	100			2.28	32
Lack of capital (cash)	2.32	76	3.70	70	1.20	38	1.78	32
High cost of chemicals	4.31	52			2.15	75	1.77	19
Inadequate water supply	3.26	76	1.90	100	3.33	38	1.93	50
Lack of seeds					1.63	14		
Post-harvest								
Lack of storage facilities	1.48	50						
Lack of hauling facilities	1.70	40						
High rental of threshers			1.00	30				
High cost of drying			2.00	40				
Lack of drying facilities			2.00	70			1.50	7
Marketing								
Low prices	1.26	86	1.22	90				
Lack of marketing outlets	2.04	52	2.00	90				
Lack of grading and standardization	3.12	50	3.50	80				
Existence of market tie-ups	3.79	38					1.00	25
Delayed payment							1.50	14
Credit								
Immediate payment needed after harvest	1.88	68	2.70	100	1.46	35	1.40	18
High interest rates	2.21	48	1.80	100	1.94	21	1.00	7
Price paid by lenders is lower than current price	2.62	42	3.50	100	-	-	-	-
Collateral required			2.40	100	-	-	-	-

^aMost problematic = 1, less problematic = higher value of rank

^bProportion of respondent reporting.