

A COMPARATIVE STUDY OF COST OF PRODUCTION AND DECISION MAKING ANALYSIS IN CASE OF ONION AND SUNFLOWER CROPS IN QUETTA DISTRICT

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ABSTRACT

The agricultural economy of Pakistan is facing severe challenges due to the rapidly growing demand for water resources. Efficient water management is becoming the single most important regional and global resource management challenge, which not only increases the availability of water for agriculture but also saves it for other uses. In Balochistan, the situation is worse; the farmers of tube-well-irrigated agriculture are paying only Rs.4000 per month as electricity tariff, which discourages farmers to use more water. This study aims how by transforming the existing cropping pattern, we can ensure the efficient use of available water resources. Onion and other high delta crops are growing in the tube well irrigated areas extensively; on the other hand farmers can grow low delta crops like sunflower successfully. According to the study results the benefit cost ratio of sunflower (1.99:1) is higher than that of the onion crop (1.43:1). The results of expected value approach model revealed that growing sunflower with an expected value of Rs. 8,566 per acre and low water requirement is a recommended decision as compared with the onion's, for which expected value is Rs.7,502 acre, with high water requirements.

Key words: Benefit ratio, Expected value, Onion, Sunflower

INTRODUCTION

Over the decades our national economy has undergone in to considerable diversifications, however, agriculture sector is still the largest sector and responsible for socioeconomic development. Water remains a critical and limiting resource for sustainable development of agriculture and economic development the country. Agriculture sector with the help of Indus Basin Irrigation system produces nearly 22 percent of the country's GDP (Economic Survey of Pakistan, 2005-06). About 90 percent of agriculture products are produced through irrigated agriculture.

Country's irrigated area has increased from 8.40 million ha in 1947 to 18.04 million ha in 2002 due to construction of large reservoirs, expanding irrigation network and large number of tube wells (Anonymous, 2002). Mainly owe to the integrated river basin management of the Indus Basin Irrigation System, the country now manages the largest contiguous irrigation system of the world.

Agriculture and livestock production are the two dominant sectors contributing to the Balochistan economy, accounting for more then fifty percent of the provincial GDP. The wide agro-ecological diversity of the province permits cultivation of a large number of crops, vegetables, deciduous and tropical fruits (Bajoi, 2004). Irrigated agriculture is dependent both on surface and ground

water resources. The Khirthar and Pat Feeder canals of the Indus Basin Irrigation system and floodwater that flows through the stream are the important sources of surface water. The groundwater resource is available for irrigated-agriculture through Karezes, springs and wells. In Balochistan, over 42 % of the total cropped area is under high water requirement crops causing heavy strain on limited water resource of the province (G.O.B, 2006). With the availability of electricity in the 70's from the national grid system, there has been tremendous increase in the number of tube wells.

In spite of lowering water table and groundwater mining, additional tube wells are being installed each year in different valleys. The reasons for increase in groundwater mining are; continued increase in water demand, lack of incentives for efficient water use due to heavily subsidized electric tariff and lack of information regarding sustainable level of groundwater abstraction. The farmers using tube well for irrigation purposes pay fixed electricity charges at the rate of Rs.4000 per month per tube well. The charges of electricity tariff to farmers are irrespective of size of pump size, duration of pumping, and power consumed by an individual farmer. These fixed charges, therefore offer no incentive for farmers for efficient water and energy use.

Inefficient water use, wastage of surface water and

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indiscriminate exploitation of groundwater aggravated the situation, making management of water a real, complex, important and a difficult task in Balochistan. The persistent drought during the last decade of 20th century had created negative impact on the availability of water and livelihood of rural communities.

Neither land nor water has been efficiently utilizing to achieve yield potentials. All this is due to the mismanagement of the available resources. Scarcity of water for irrigation is one of the major constraints, affecting the agricultural economy of the province. Historically, due to abundance of water the farmers did not manage water efficiently and therefore did not pay attention to the use of water according to the soil and crop requirement.

Water use in agriculture is generally considered to have relatively low value, less efficient, and highly subsidized. There is national and international consensus to treat water as an economic good (Briscoe, 1996; Rosegrand and Binwinger, 1994; ICWE, 1992) for efficient utilization scarce water resources. Adoption of modern irrigation techniques and proper management of available water may help not only to overcome the shortage of water but also to fulfil the food and fibre requirements. Koundori (2004) in his study, on the Issue of economics of groundwater management, argued that devised regulatory schemes usually ignore the information and knowledge needed for the implementation of the policies. He suggested a core of conditions necessary for successful groundwater management reforms. The study aims to contribute water management literature in Balochistan.

The main purpose of this study is to emphasize the opportunities for improved water management with reduced economic and environmental costs by replacing high delta crops with low delta crops using methods of economic analysis that take into account the behavior of natural systems. Economic (analysis of cost and income) and decision-making analysis can be used for the selection of appropriate crop which ensures optimum utilization of scarce water resources. The more specific objectives of the study are:

- i. To find out and compare the cost benefit ratios of sunflower and onion using expected value approach.
- ii. To suggest suitable measures for conservation of existing water resources.

MATERIALS AND METHODS

The study is based on primary and secondary sources of data. Primary data were collected from the various

areas in the Quetta District of Balochistan, through pre-tested questionnaire and the secondary data were amassed from relevant published resources.

Selection of study area and sample

Both the crops (onion and sunflower) are grown in all the areas of the province, but in view of the limitation of time and resources, the present study was confined to the district Quetta (Fig. I). A complete list of sunflower and onion growers was obtained from the office of the executive district officer agriculture extension Quetta District. A total of 49 growers were randomly selected for interview from of the entire population (390) of the farmers.

Data collection

The data were collected through face-to face interview using a pre-tested questionnaire designed in the light of the study objectives in the month of February 2005. The questionnaire was written in English but the questions were asked in local languages. To obtain correct and reliable information efforts were made to explain the question and its purpose to the sample respondents.

Analysis of data

The data thus collected were edited, entered in computer and analyzed with the help of appropriate statistical techniques like averages and percentages. Since the main objective of the study was to compare the cost benefit of the onion and sunflower with special reference to water and water use efficiency. Therefore, data were collected for all the costs involved in the production of both the crops. As the flat rate is fixed at Rs.4000 per month for all the farmers operating one tube-well, therefore the value of irrigation water is calculated by the existing water rate for the area other than flat rate. Cost and income of the sample respondents were computed.

Estimation of costs and incomes

Two types of costs (fixed and variable cost) are involved in the production of both crops. In general, the fixed costs were mostly same for the both crops: therefore, they are not taken into the account. Variable cost, such as cost of land preparation, seed/sowing, irrigation, fertilizer/FYM, weeding/hoeing, diseases/pest control and harvesting were computed for both the crops on the bases of the information gathered from the sample respondents. Net income is calculated by:

$$\text{Net income} = \text{Gross income} - \text{Total cost}$$

Benefit cost ratio

Benefit cost ratio is an important criterion to show the return to investment. Benefit cost ratio has been

computed to show the returns of the onion and sunflower for the growers by the following formula

Benefit cost ratio = Gross average income per acre / average cost per acre

Decision making analysis

Decision analysis can be used to determine an optimal strategy when a decision-maker is faced with several decision alternatives and an uncertain or risk-filled pattern of future events. Decision analysis is an attempt to describe, quantify, and clarify tradeoffs among the relative advantages and disadvantages of alternative actions (Covello 1987). In this problem the model will help in determining the best utilization of farmer's available resources to get maximum benefits especially for the prudent utilization of water, which is the most important and scarce resource in agriculture production. In this problem we have identified two decision alternatives regarding the selection of the crop from onion and sunflower can be grown successfully in the Kharif season in Quetta District.

In the decision analysis the first step is problem formulation, which is the selection of crop. We assume as the farmer has two decision alternatives, which are;

D1 = growing sunflower crop

D2 = growing onion crop

There could be a wide range of possibilities keeping in view of the last ten years' supply and demand trend for both crops. However, we consider three possible chance event outcomes, **S1** weak supply and strong demand, **S2** normal supply and demand and **S3** strong supply and weak demand and only one of the possible states of nature will occur.

S1 = weak supply and strong demand

S2 = normal supply and demand

S3 = strong supply and weak demand

Assumptions for the state of nature

In the case of onion crop

If per Kg. prices were \geq Rs. 10/= then the state of nature will be S_1

If per Kg. prices were $>$ Rs. 6/= but $<$ Rs. 10/= then state of nature will be S_2

If per Kg. prices were $<$ Rs. 6/= then the state of nature will be S_3

In the case of sunflower crop

If per Kg. prices were \geq Rs. 23/= then the state of nature will be S_1

If per Kg. prices were $>$ Rs. 21/= but $<$ Rs. 23/= then state of nature will be S_2

If per Kg. prices were $<$ Rs. 21/= then the state of nature will be S_3

In this problem **decision alternative** is the (selection of the crop) that **state of nature** follows (demand for the crop) and finally a **consequence** will occur which is the profit of the farmer.

Influence Diagram

Influence Diagram shows the relationships among the decision, the chance of event and the consequences for a decision problem (Fig. II).

State of Nature

S1 = weak supply and strong demand

S2 = normal supply and demand

S3 = strong supply and weak demand

Consequence

Profit

Decision alternatives

Sunflower (D1)

Onion (D2)

The farmer's profits depend on the possible uncertain future events or state of nature **N**. When such possibilities are available, we can use the **expected value approach** to identify the best decision alternative. The expected value **ED** of decision alternative **D** is defined as follows.

$$ED = \sum_{j=1}^n p(S_j) d_j$$

Where as,

ED = Expected value of decision alternative

p(S_j) = the probability of state of nature **S_j**

Because one and only one of the **S** states of nature can occur, the probability must satisfy two conditions.

p(S_j) \geq **0** for all the states of nature **S**

$$\sum_{j=1}^n p(S_j) = p(S_1) + p(S_2) + \dots + p(S_n) = 1$$

d_i = possible outcome of the decision alternatives

n = number of states of nature

The expected value of a decision alternative is the sum of the weighted payoffs for the decision alternative. The weight for a payoff is the probability of the associated state of nature and therefore the probability that the payoff will occur.

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of the associated state of nature and therefore the probability that the payoff will occur. For this purpose yearly average prices (demand) of both the crops for last ten years (1995 to 2004) were taken, to calculate the probability assessment of strong demand and weak supply (S1), normal supply and demand (S2) and strong supply and weak demand (S3) for the both crops (Table I) Then probability is assigned to each of these events based on the past occurrence.

RESULTS AND DISCUSSION

General information

The data were collected from the onion and sunflower growers in District Quetta. The literacy level of a population helps in judging the quality of human resources and development stages of the society. The literacy status of the farmers is an important variable which influences farmer's resource allocation efficiency. The results of the study revealed that about 57.69 percent of the of sample respondents have no formal education, while the remaining 42.31 percent have some sort of education. The contribution of agriculture, livestock and off-farm sector in the total income of the sample respondents were 64, 10 and 26 percent respectively.

Common crops

Onion, tomato, chilies, potato, cumin, sunflower, muskmelon, watermelon and ladyfinger were the main crops and vegetables grown in Kharif season while wheat and barley were the main crops grown in the Rabi season in the study area reported by the sample respondents.

Production practices of onion and sunflower

Cost of land preparation

Average cost of land preparation for one acre was Rs. 958 for onion and Rs. 868 for sunflower as reported by the sample respondents in the study area (Table II-III). This is 2.03 % of the total variable cost of onion production and 8.94 % of sunflower production.

Cost of seed and sowing

Seed and sowing cost of onion was very high (Rs. 9030) as compared to the cost of seed and sowing for sunflower (Rs. 330). This is about 19.18 % and 3.39 % for onion and sunflower production, respectively (Table II-III). The farmers broadcast the seed instead of nursery rising for onion production.

Cost on irrigation

For sunflower five to six, while for onion thirty to thirty five numbers of irrigations were reported by the sample respondents. The water charges for irrigation were Rs.175 to 250 per hour for those who have no tube well. On that basis the irrigation and

application, charges were Rs. 28040 and Rs. 5190 for onion and sunflower, respectively. As it is obvious from the cost structure irrigation costs are 59.53 and 53.47 % of the total cost of onion and sunflower production respectively (Table II-III).

Cost of fertilizer/ FYM

It is revealed from the study results that the cost of fertilizer/ FYM was Rs. 3904 for onion and for sunflower production Rs. 2014. This is 8.29 and 20.80 % of the total cost of onion and sunflower production respectively (Table II-III).

Cost of weeding/hoeing

Weeding and hoeing were not practiced in sunflower while these costs were reported as Rs.1990 on average for one acre of onion. This is 4.23 % of the total production cost of onion (Table II-III).

Cost of diseases and pest control

Root rot, downy mildew, fusarium rot, neck rot and thrips, cutworm army worm are the common diseases and pests of onion crop, As there is no serious attack of pest and diseases reported by the sample respondents, therefore the cost of diseases and pest control on average was Rs.1130 for one acre reported by the sample respondents. This is 2.4 % of the total variable cost (Table II-III).

Cost of digging/harvesting

Average digging/harvesting costs of one acre were Rs.2046 and Rs.1304 for onion and sunflower respectively as reported by the sample respondents in the study area, which are 4.34 % and 13.39 % of the total variable cost of onion and sunflower production, respectively (Table II-III). Marketing cost of both crops was ignored; it is assumed that marketing cost is same for both crops.

Yield/ Income

Per acre average yield for onion and sunflower was 8400kg and 880kg, respectively, which is calculated by average yields of the sample respondents. The income of the farmers was computed by multiplying the average yield to the prevailing prices of the crops at the time of harvesting (Table IV).

Benefit cost ratio

Benefit cost ratio has been computed to show the returns of the onion and sunflower growers. When we compared the benefit cost ratio among the sample groups, we came in to know that the benefit cost ratio was 1.43:1 and 1.99:1 for onion and sunflower at the prices of Rs. 8 and Rs. 22 per kg. Excluding the marketing cost for both the crops, the benefit cost ratio of sunflower is higher than that of the onion in the study area (Table IV). As the expected prices and

yields vary across the year and from producer to producer, (Table V & VI) show the expected net returns at a variety of typical prices and yields. Use of this table would help the producers to compare the expected returns from typical prices and yields for both the crops.

Pay off table

Payoff table for the farmers growing onion and sunflower, with average yield in Quetta District

<u>Decision alternatives</u>	<u>State of nature</u>		
	<i>Strong demand</i> S1	<i>Normal demand</i> S2	<i>Weak demand</i> S3
Sunflower D1	Rs. 11,414	Rs. 8,694	Rs. 7,894
Onion D2	Rs. 45,302	Rs. 20,102	Rs. - 5,098

Decision Tree

The decision tree which providing a graphical representation of the decision process for the farmers growing sunflower and onion crops (Fig. III).

Decision making without Probabilities

Such type of decision making process does not require knowledge of probabilities of nature. These approaches are appropriate in situation in which the decision maker has little confidence in his or her ability to asses the probabilities, or in which a simple best- case and worst-case analysis is desirable.

Optimistic Approach

The optimistic approach evaluates each decision alternative in the terms of the best payoff that can occur. The decision alternative that is recommended is the one that provides the best payoff.

Maximum payoff for the each farmer decision alternatives

<u>Decision alternative</u>	<u>Maximum payoff</u>
Sunflower D1	Rs. 11,414
Onion D2	Rs. 45,302

Maximum of the maximum Payoff values

Conservative Approach

The conservative approach evaluates each decision alternative in terms of the worst payoff that can occur.

Decision alternatives

Sunflower D1
Onion D2

Probability of States of nature

<i>Strong demand</i> P(S1)	<i>Normal demand</i> P(S2)	<i>Weak demand</i> P(S3)
0.1	0.4	0.5
0.1	0.3	0.6

Using the payoff values we can compute the expected for each of the two decision alternatives as follows.

Decision Alternative (D₁)

As $0 \leq p(x) \leq 1$

$$[p(s)] = p(S_1) + p(S_2) + p(S_3) = 1$$

Payoff table expressed in terms of profit, and (loss) for the decision making problem being analyzed. The following table indicates the payoff for all combination of decision alternatives and the states of nature.

The payoff table with profit and loss expressed in Rs. with the average yield is shown below.

The decision alternative that is recommended is the one that provides the maximum of the minimum payoff.

Decision alternative Minimum payoff

Sunflower D1	Rs. 7,894 Minimum of the maximum payoff values.
Onion D2	Rs. -5,098

Decision making with probability

In many decision making situations, we obtain probability assessment for the states of nature from Last ten years price data given in (Table I). When such probabilities are available, we can use the expected value approach to identify the best decision alternative.

Expected value approach

Last ten year's prices (demand) for both the crops in Quetta market (1995 to 2004) were used to calculate the probability assessment of weak supply and strong demand S1, normal supply and demand S2 and strong supply and weak demand S3 for both the crops (Table I), Which are shown below:

$$[p(s)] = 0.1 + 0.4 + 0.5 = 1$$

Hence the major probability requirement is fulfilled.

Expected value for the (D₁) Decision alternative growing sunflower is

$$ED_1 = p(S_1)(d_{s1}) + p(S_2)(d_{s2}) + p(S_3)(d_{s3})$$

$$ED_1 = (0.1)(11,414) + (0.4)(8,694) + (0.5)(7,894)$$

$$ED_1 = \text{Rs. } 8,566$$

Decision Alternative (D₂)

As $0 \leq p(x) \leq 1$

$$[p(s)] = p(S_1) + p(S_2) + p(S_3) = 1$$

$$[p(s)] = 0.1 + 0.3 + 0.6 = 1$$

Hence the major probability requirement is fulfilled

Expected value for the (D₂) Decision alternative growing onion is

$$ED_2 = p(S_1)(d_{o1}) + p(S_2)(d_{o2}) + p(S_3)(d_{o3})$$

$$ED_2 = (0.1)(45,302) + (0.3)(20,102) + (0.6)(-5,098)$$

$$ED_2 = \text{Rs. } 7,502$$

Thus, using the expected value approach, we find that growing sunflower crop with an expected value of Rs. 8,566 and low water requirement is the recommended decision.

The study results revealed that sunflower requires less water as compare to the onion crop. There is a reasonable profit and low risk in growing of sunflower crop because its market prices are more stable than the onion crop, so Govt. should encourage this crop and steps should be taken for the promotion of this crop. In this way we save lot of our foreign exchange reserves which have being used for export of edible oil.

Constraints in the Production of Onion

Lack of the stable market prices, irregular supply of electricity during the summer season and weeds were the major production and marketing constrains in the production of onion, reported the sample respondents in the study area.

Constraints in the production of Sunflower

Non availability of good seed, lack of awareness about the production practices and lake of threshing

facilities were the major production and marketing constrains in the production of Sunflower, reported the sample respondents in the study area.

CONCLUSION AND RECOMMENDATIONS

- i. Wide agro-ecological diversity of Balochistan permits cultivation of wide range of field crops and horticulture. Water scarcity is the main problem in Balochistan, which demands to promote low delta high value crops in the province.
- ii. Sunflower has minimum water requirement and a reasonable cost benefit ratio, therefore should be promoted in the areas of water scarcity in Balochistan. Non availability of good seed, lack of awareness about the production practices and lake of threshing facilities were the major production and marketing constrains in the production of Sunflower. Steps should be taken to solve the problems regarding the availability of seed and marketing as reported by the farmers of the study area.
- iii. The original cost of electricity is much higher than the exiting rate which the farmers are paying. Further studies are needed to calculate the original cost of production of different crops without the flat rate. The fixed rate causes over-irrigation and has adverse effect on the water table therefore further studies are needed about this aspect.
- iv. Tribal system, low literacy rate and traditional practices among the water users, including farmers and the general public, also create problems in convincing people of the importance of saving water for their own good as well as for the good of the province and the nation.
- v. Seminars, workshops and training are needed on the cropping pattern on-farm water management approach in order to bring awareness about the benefits of water application efficiency and the disadvantages of over-irrigation.

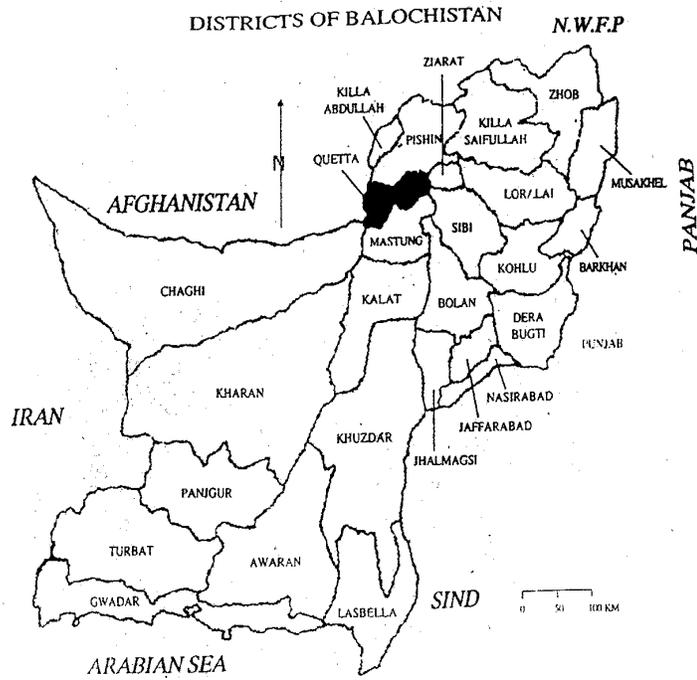


Fig. 1 Map of Balochistan showing Quetta District

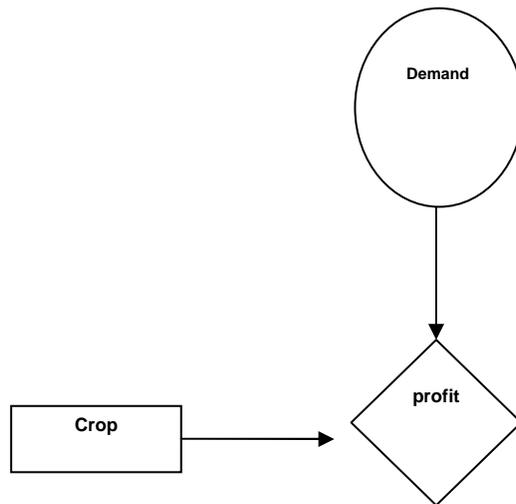
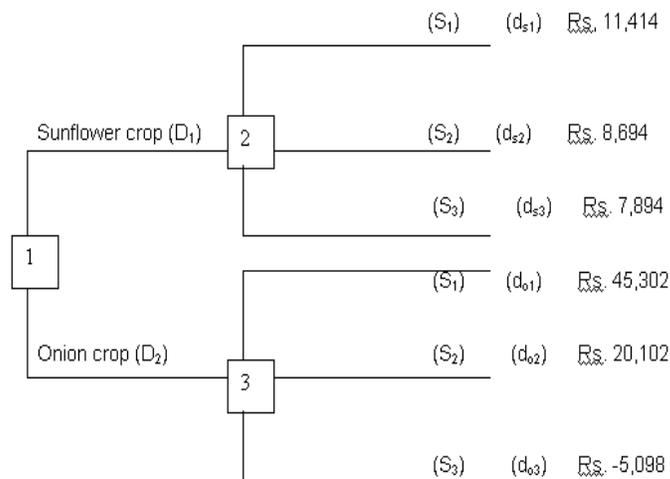


Fig. 2 Influence Diagram



For D₁ decision alternative (growing sunflower) if (S₁) occurs then the outcome will be (d_{s1}) and profit will be Rs, 11,414.
 For D₁ decision alternative (growing sunflower) if (S₂) occurs then the outcome will be (d_{s2}) and profit will be Rs, 8,694.
 For D₁ decision alternative (growing sunflower) if (S₃) occurs then the outcome will be (d_{s3}) and profit will be Rs, 7,894.
 For D₂ decision alternative (growing onion) if (S₁) occurs then the outcome will be (d_{o1}) and profit will be Rs, 45,302.
 For D₂ decision alternative (growing onion) if (S₂) occurs then the outcome will be (d_{o2}) and profit will be Rs, 20,102.
 For D₂ decision alternative (growing onion) if (S₃) occurs then the outcome will be (d_{o3}) and there will be a loss of Rs, -5,098.

Fig. 3 Decision tree for the decisions of growing onion or sunflower crop

Table I. Last ten years yearly prices (demand) for Sunflower and Onion crops in Quetta Market

Year	Sunflower			Onion		
	Price Rs./ 40kg	Price Rs./ Kg	State of nature	Price Rs./ 40kg	Price Rs./ Kg	State of nature
1995	790	19.75	S3	196	4.9	S3
1996	776	19.4	S3	178	4.45	S3
1997	858	21.45	S2	202	5.05	S3
1998	820	20.5	S3	437	10.93	S1
1999	798	19.95	S3	289	7.23	S2
2000	833	20.83	S3	225	5.63	S3
2001	870	21.75	S2	180	4.5	S3
2002	869	21.73	S2	287	7.18	S2
2003	880	22	S2	187	4.68	S3
2004	957	23.93	S1	310	7.78	S2

Source of prices: Economics and Marketing, Department of Agriculture Balochistan (2005).

Table II. Average Costs (variable) of production of sunflower for one acre

Particulars	Unit	Quantity	Rate (Rs)	Amount (Rs)	%age of Total Cost
<i>A) Cost of land preparation</i>					
Ploughing + planking	Hr.	2	354	708	7.29
Bund making	Man days	2	80	160	1.65
<i>B) Cost of seed and sowing</i>					
Seed	Kg	3	89.99	250	2.57
Sowing	Man days	01	80	80	0.82
<i>C) Cost of irrigation</i>					
Irrigation water charges		5	998	4990	51.41
Application charges (1/2 man day per irrigation)	Man days	2.5	80	200	02.06
<i>D) Cost of fertilizer</i>					
Urea	Kg	100	8.5	850	8.76
DAP	Kg	50	19	950	9.79
Transportation charges	—	—	—	58	0.60
Application charges	Man days	2	80	160	1.65
<i>E) Cost of weeding</i>					
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<i>F) Cost of Diseases & pest control</i>					
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<i>G) Cost of Harvesting/Threshing</i>					
Harvesting /Threshing	Man days	08	80	640	6.59
Bags	No.	22	30	660	6.80
Total (A+B+C+D+E+F+G)				9706	100

Source: Survey Results 2005.

Table III. Variable costs (in Rs.) involved in the production of onion and sunflower

Particulars	Onion	Percentage	Sunflower	Percentage
Average cost of land preparation	958	2.03	868	8.94
Average cost of seed and sowing	9030	19.18	330	3.39
Average cost of irrigation	28040	59.53	5190	53.47
Average cost of fertilizer	3904	8.29	2014	20.80
Average cost of weeding	1990	4.23	0	0
Average cost of Diseases & pest control	1130	2.4	0	0
Average cost of digging / Harvesting	2046	4.34	1304	13.39
Total	47098	100	9706	100

Source: Survey Results 2005.

Table IV. Net income and benefit cost ratio of the farmers for one acre

Particulars	Onion	Sunflower
Average yield in Kgs	8,400	880
Prices per kg in Rs.	8	22
Gross average income	67,200	19,360
Average cost	47,098	9,706
Net Income	20,102	9,654
Benefit Cost Ratio	1.43:1	1.99:1

Source: Survey Results 2005.

Table V. Showing Expected fresh market onion net income (loss) per acre at selected price and yield combinations. Expenses covered do not include marketing cost

Price/kg	7200 kg	8400kg	10000kg	10800kg
Rs. 5	Rs. (11,098)	Rs. (5,098)	Rs. 2,902	Rs. 6,902
Rs. 8	Rs. 10,502	Rs. 20,102	Rs. 32,902	Rs. 39,302
Rs. 11	Rs. 32,102	Rs. 45,302	Rs. 62,902	Rs. 71,702

Table VI. Showing Expected sunflower net income (loss) per acre at selected price and yield combinations. Expenses covered do not include marketing cost

Price/kg	800 kg	880kg	960kg	1040kg
Rs. 20	Rs. 6,294	Rs. 7,894	Rs. 9,494	Rs. 11,094
Rs. 22	Rs. 7,894	Rs. 8,694	Rs. 11,414	Rs. 13,174
Rs. 24	Rs. 9,494	Rs. 11,414	Rs.1 3,334	Rs. 15,254

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