

A Study of the Production and Marketing of Onion in the Tripoli Area

BASHIR EL-WIFATI AND FARID NAWAS¹

ABSTRACT

This study was conducted in the months of February and March, 1978, to identify and find out feasible solutions for the major production and marketing problems facing onion growers in the Tripoli area. Ninety-three farmers from Al-Aziziah, Azzahra, Suany, Naseria, and Janzur areas were interviewed and asked to fill out a questionnaire designed to fulfill the objectives of this study. The study showed that all sampled farmers grew onions. However, different farmers allocated different areas to the production of onions. The study also revealed that most onion seeds available in the local markets were imported from abroad.

'Thalatha Wholesale Market' in Tripoli was the main marketing outlet for the majority of the farmers. Besides, the study indicated that cleaning, storage, and packaging of onions was done on the farm before marketing. Farmers, also expressed concern about the predetermined low prices of onions and recommended that prices of either green or dry onion crops should be raised.

The majority of the sampled farmers felt that there is an urgent need for more and adequate cold storage facilities since this might solve the surplus problem and reduce price fluctuations.

A deep concern was also expressed about the need for more help to be extended by the agricultural extension service and agricultural cooperatives in the area under investigation.

INTRODUCTION

The onion is one of the most important winter vegetable crops in Jamahiriya. It grows well in Tripoli, Fezan and the Oasis areas. The total cultivated area of onions in Jamahiriya is over 9,000 hectares and they are consumed as green or dry bulbs.

This study was conducted in the months of February and March, 1978. Its prime objective was to identify and find out feasible solutions for the major production and marketing problems facing onion growers in the Tripoli area. Identification of these problems and finding the proper solutions for them will be invaluable for both farmers and consumers.

The farmers should be able to judge the profitability of this crop and to reorganize

¹ *Department of Agricultural Economics, Faculty of Agriculture, University of Alfateh, Tripoli, S.P.L.A.J.*

the proper marketing outlets. This will certainly contribute to raising their incomes and thereby increase their standard of living. On the other hand, consumers will be provided with better quality produce at reasonable prices.

MATERIALS AND METHODS

Sampling procedure

To meet the above mentioned objectives, ninety-three farmers from Janzur, Zahra, Al-Aziziah, Naseriah, and Suany areas around Tripoli were randomly selected and constituted the sample for this survey. They were interviewed personally in February and March of 1978 and asked to fill-out a questionnaire prepared especially for the study. The questionnaire included a list of questions to obtain farmers' opinion on the production of onions. Distribution of the sampled farmers among the various areas was as follows:

Janzour (20), Zahra (19), Al-Azziziah (21), Naserieh (12), and Suany (21).

The responses of the sampled farmers to the various questions are analysed and presented in this paper.

RESULTS AND DISCUSSION

1. Allocation of land areas for onion growing

Table 1 presents the distribution of sampled farmers among the various areas, average farm areas, and percentage of the farm areas allocated for onion production. It is clear from the table, that the average farm area is 7.75 hect, while the average area allocated for onion growing is 1.34 hect. Thus, areas allocated for onion production represent 17.30% of the farm areas in the Tripoli region. The average area allocated for

Table 1 Distribution of sampled farmers, average farm areas and farm areas allocated for onion production.

Region	No. of farmers	Average of farm area (hect)	No. of hect per farm allocated for onion production	Percentage of the area allocated for onion growing
Al-Aziziah	21	10.00	1.63	16.30
Janzur	20	6.60	1.02	15.50
Naserieh	12	5.70	1.20	21.10
Suany	21	8.00	1.00	12.50
Zahra	19	7.50	1.80	24.00
Total	93	7.75	1.34	17.30

Table 2 Areas allocated for onion growing.

Area (hect)	No. of farmers	Percentage
Less than 1	33	35
From 1-2	48	52
More than 2	12	13
Total	93	100

onions on each individual farm ranged from 1 hect (12.5% of the farm area) in Suany to 1.80 hect (24.00% of the farm area) in Zahra. This simply means that farmers in Zahra allocate almost one-fourth of their farm areas to onion production which is probably due to the high productivity rate in Zahra indicated by the figures in Table 3.

Table 2 provides additional information regarding areas allocated for onion growing. It indicates that 35 % of the farmers allocate less than one hect, for onion production. However, 52% allocate 1-2 hect, while the remaining 12% allocate more than 2hects, of their farms for onion production.

Our data further show that 31 percent of the farmers allocated a fixed area for onion production due to the small size of their farms.

However, the majority of them (69%) reported that areas allocated for onion growing change from one year to another due to the instability of market conditions for onions caused by price fluctuation, surplus problems, and costliness of farm labour.

2. Seed production

All sampled farmers indicated that they get their onion seeds from private seed markets who in turn import them from abroad. Early Taxes Grano 502 is one of the most commonly used varieties. The majority of the farmers emphasized that the varieties they are using cannot tolerate storage for long durations.

About 52% of the farmers indicated that their seeding rate is 4.00 kgs/hect, the remaining 48%, however, reported rates varying from 3-6 kgs/hect. Transplanting is the most common method used in the cultivation of onions.

The price paid for onion seeds varies from 10-15 LD per kg, depending upon the variety, this simply means that it costs approximately 50 LD to cultivate one hectare with onions.

At any rate, for the amintenance and improvement of the quality of onions it is essential that some arrangements for the supply of improved seeds should locally be encouraged. This could be accomplished through agricultural cooperatives.

3. Average productivity

Available statistics indicate that average productivity in 1970 was about 6.3 tons/hect. Our study, however, shows that average productivity is 13.12 tons/hect (Table 3). If these statistics are true, it implies that productivity has more than doubled in the last eight years. The rise in average productivity is probably, due to the introduction of modern technology in the cultivation of onions. Anyhow, average productivity is still low and all efforts should be directed towards raising it to match the levels reached in other parts of the world.

Table 3 Average productivity of onion in Tripoli area.

Region	No. of farmers	Average productivity (tons/hect)
Al-Aziziah	21	12.95
Janzour	20	12.40
Naserieh	12	13.40
Suany	21	13.20
Zahra	19	13.70
Total	93	13.12

4. Role of agricultural cooperatives

Among the services offered by agricultural cooperatives to farmers is the arrangement for the supply of fertilizers, spraying and irrigation equipment, pesticides and insecticides. However, the majority of the farmers (91.4%) felt that these services are not adequate and suggested that they should be increased.

5. Problems of onion production

Our study indicates that the major production problems confronting onion growers in the Tripoli area are:

a. Diseases and insects The majority of the sampled farmers (90%) reported losses in the onion crop due to this problem. They recommended that the services of supplying farmers with insecticides, and spraying equipment should be intensified alongwith effective extension services to supervise disease and insect control measures.

b. Labour problems About 66 percent of the farmers reported that wages rates are rising and there is a shortage of farm labour. This calls for the need to mechanize farming operations such as cultivating and harvesting of crops.

c. Availability of improved seeds Forty percent of the farmers indicated that good quality and certified seeds were not available. They recommended that arrangements for the supply of improved seeds locally should be encouraged. This will definitely increase the adaptability of seeds to local conditions and guarantee the availability of some varieties that could stand storage for longer durations.

6. Marketing of onions

The figures in Table 4 show that 86 farmers (92.47%) sell their onion crop at Thalatha Wholesale Market in Tripoli. The remaining farmers in the sample sell their onions at local market in their vicinity, or direct to consumers at the farm gate.

Our data further show that 76 of the sampled farmers (81.80%) were dealing with a specific middlemen at Thalatha Wholesale Market (it was felt easier to deal with only one individual to guarantee selling the whole produce without accumulating a surplus of unsold onions). However, 10 other farmers (19.75%) were not dealing with a specific middleman to avoid overcrowding at a particular place and to make sure that the whole produce was disposed of entirely. This might save time and give the farmers the

Table 4 Methods of onion marketing in Tripoli area.

Method used	No. of respondents	Percentage	Remarks
Thalatha wholesale Market	86	92.47	To give the farmer the opportunity to sell his produce at competitive market prices
Direct to consumers	4	4.30	Inadequate volume of production
Local markets and grocery stores	3	3.23	To avoid paying commission to the middlemen at the Wholesale market and thereby make more money
Total	93	100.00	

opportunity to look for a middleman who could sell the produce at a minimum cost. The remaining 7 farmers (7.53%) were not dealing with middlemen probably because they were selling their produce at local markets in their vicinity or direct to the consumers as mentioned earlier.

The commission charged by middlemen for their services ranged from 7-9%, however, the majority of the sampled farmers indicated that the commission rate was exactly 8% which was believed to be relatively high.

As for cooperative marketing, the great majority of the sampled farmers (94.6%) were not in favour of this type of market organization. This might be due to the fact that agricultural cooperatives have played, so far, a minor role in the marketing process. Accordingly, cooperatives should be promoted and provided with all marketing facilities. In addition, some organizations such as Extension Service or the Cooperative Union should start a program to educate farmers about the benefits of these agricultural cooperatives.

7. Servicing of onions before marketing

As for getting the onions ready for marketing, all sampled farmers indicated that the major services performed on onions prior to marketing include cleaning, sorting, grading and packaging. Sorting and cleaning involve removing dust, dry leaves, rotten stuff, and small onions that are not suitable for marketing.

Grading, however, was done on the basis of size, shape, color, and variety. Packing, on the other hand involves putting them in small bundles (in the case of green onions), polyethylene sacs, or wooden crates.

Previous research (1) has shown that these services have the effect of raising the price received by farmers. It is, therefore, suggested that farmers should be educated about the various grades and standards, cleaning, sorting, and packaging of onions prior to marketing.

8. Onion prices

Farmers sell their onion crops either green or as dry bulbs. The prices received by farmers vary from 50-80 Dirham/kg for green onions and 80-100 Dirhams/kg for dry bulbs.

When asked about the controlled prices of onions, 23% of the farmers were of the opinion that controlled prices were reasonable. The remaining 77%, however, indicated that the prices were low and not in the interest of the farmers. They suggested that the prices should be increased to reach 100-120 Dirhams/kg for green onions and 150-200 Dirhams/kg for dry bulbs in order to become more profitable for the farmers.

9. Storage of onions

Sixty-six per cent of the farmers indicated that they do not store onions while the remaining 34% store part of their crop using netted sacs in a well-ventilated place, away from humidity and direct sunshine.

When asked about cold storage and refrigeration facilities, 94% of the farmers pointed out that such facilities should be provided by agricultural cooperatives or any other official agency. Having such facilities might provide a valid incentive for the farmers to produce adequate quantities of onions needed for local consumption and storage. Furthermore, spoilage of onions which is a major factor that increases the marketing costs, will be reduced.

It is worth mentioning that the majority of the farmers indicated that available onion varieties do not stand storage, particularly the white ones. They recommended that some varieties that could be stored for longer durations should be provided in the local markets.

CONCLUSIONS AND RECOMMENDATIONS

The prime objective of this study was to identify and find out feasible solutions for the major production and marketing problems facing onion growers in the Tripoli area. Personal interviews were conducted with 93 farmers in February and March, 1978. In the light of the collected data and previous analysis we come to the following conclusions and suggestions:

1. Area allocated for onion growing represent more than 17% of the total farm area in the Tripoli regions. However, the average area allocated for onion growing on each individual farm ranged from one hectare (12.5% of the average from area) in Suany to 1.80 hectares (24.00% of the average from area) in Zahra. This indicates that onion growing is a profitable business. It is therefore, suggested that onion growers should be encouraged by providing various incentives to expand areas devoted for this crop. This might be accomplished by providing the growers with production inputs on a subsidized basis and other marketing services.

2. Agricultural cooperatives should play a greater role in supplying farmers with various production inputs such as machinery, fertilizers, insecticides, etc. Accordingly, cooperatives should be encouraged and farmers should be educated about the benefits of these cooperatives.

3. Because all farmers get their onion seeds from foreign sources it is thereby recommended that arrangements should be made to encourage onion seed production locally. This will increase the adaptability of seeds to local conditions and also guarantee the availability of seeds to farmers in time.

4. The majority of the farmers indicated that the available varieties do not stand storage for longer durations and suggested that arrangements should be made to import some varieties tolerable for storage or improve the local ones. This might guarantee the availability of adequate supplies of onions throughout the whole year at reasonable prices.

5. Our study also shows that the majority of the farmers sell their produce at Thalatha wholesale Market in Tripoli through middlemen. The commission paid is about 8%, and was believed to be relatively high. It is therefore, suggested that the middlemen commission should be reduced and fixed. However, if cooperative marketing was adapted, then returns from the sales of the products of the members will be increased and the commission paid to middlemen at Thalatha Market will be eliminated. Consumers might benefit from this policy as well.

6. It is recommended that adequate cold storage and refrigeration facilities should be provided. This might help to dispose off onions which is a major factor that increases the marketing costs. The government should also encourage the processing of onions and subsidizing them if necessary.

7. The study further shows that servicing onions prior to marketing was done by the majority of the farmers. It is therefore suggested that some organizations such as the extension service or cooperative union should start a program to educate farmers about various standards and grades of onions as well as packaging and cleaning them before marketing.

8. Ninety percent of the farmers mentioned that diseases and insects are some of the major problems of onion production in the Tripoli area. It is therefore, suggested that the extension service should play a greater role in controlling insects and diseases in the area.

9. The majority of the farmers indicated that controlled prices of onions were low. It is therefore, suggested that price control measures should be revised in such a way to guarantee that prices which farmers get are high enough to cover their costs of production along with a reasonable rate of profit. However, consumers interests in getting good quality produce at reasonable prices should not be ignored, even if this required providing subsidized inputs to the farmers.

10. Lastly, this study of the production and marketing of onions would be complete and more effective if similar surveys were conducted in other major production areas of onions such as Fezzan and the Oasis regions.

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دراسة عن إنتاج وتسويق البصل في منطقة طرابلس

د. بشير الويفاتي — د. فريد نواس

المستخلص

أجريت هذه الدراسة خلال شهري فبراير ومارس من عام ١٩٧٨ م. وذلك لغرض تحديد وإيجاد الحلول المثلى للمشاكل الرئيسية التي تواجه المزارعين من حيث إنتاج وتسويق محصول البصل ولهذا الغرض اختيرت عينة من المزارعين بلغ عددهم ٩٣ مزارعا من مناطق العزيزية والزهران والسواني والناصرية وجنزور وجمعت منهم المعلومات اللازمة على كشوفات أعدت خصيصا لهذا الغرض.

وبعد تحليل هذه المعلومات المجمعة عن طريق المقابلة الشخصية للمزارعين أثبتت الدراسة أنه مع قيام كل عينة المزارعين بزراعة محصول البصل إلا أنه وجد تفاوت في المسافات المزروعة التي خصصت من قبل كل منهم لهذا الغرض، وأن البذور المستعملة من قبل منتجي البصل كانت جميعها مستوردة من خارج الجماهيرية.

أما من حيث تصريف محصول البصل فقد أجمع غالبية المزارعين على أن سوق الثلاثاء هو المكان الرئيسي لتسويق محصول البصل وأن عمليات التنظيف والتخزين والتعبئة للمحصول غالبا ما يقوم بها المزارع بنفسه ودخل مزرعته وذلك قبل عملية التسويق مباشرة.

وبهذا الصدد نفسه أكد المزارعون ضرورة توفير أماكن خاصة لتخزين محصول البصل والذي سيكون لها الأثر الفعال لحل مشكلة تدبذب العرض وبالتالي الحد من التغيرات المفاجئة في أسعار المحصول. ومن شأن الأخير أبدى جلا المزارعين اهتمامهم بمسألة التحديد المسبق من حيث التسعيرة المنخفضة للمحصول وأن المزارعين يرون أنه من الضرورة إعادة النظر من حيث رفع أسعار المحصول سواء الجاف منه أو ذلك الذي يسوق قبل عملية التجفيف.

وجدير بالذكر أن مجمل المزارعين أبدوا رغبتهم الملحة في أن يتمكن جهاز الإرشاد الزراعي والجمعيات التعاونية في مضاعفة الجهد بمد يد العون لهم بالمناطق التي يشملها هذا البحث.