

Ministry of Agriculture and Agrarian Reform

NAPC

National Agricultural Policy Center

COMMODITY BRIEF NO 3

Tomatoes Perspectives in Syria

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February, 2006

Project GCP/SYR/006/ITA



Food and Agriculture
Organization of
the United Nations



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Tomato in Syria

The purpose of this brief is to provide an understanding of the economic significance of tomato cultivation, and an overview for, production, consumption, processing, imports and exports of tomato in Syria.

Tomato in the world:

Tomato comes as one of the most important agricultural products among fresh vegetables in most countries in the world. It is widely distributed in Asia, Europe, North and South America, and in North Africa. And for that, tomatoes are considered major world food crop in less than a century. Demand for tomato products has, in recent years, risen on the international market. In 2003 the main importers were United States of America (26.5%), Germany (19.3%), United Kingdom (12.4%) and France (8.7%), which accounted together for more than 66% of the total world imports value. On the other side, the top ten exporters of tomato in the world in 2003 were Netherlands (23.9%), Spain (20.5%), Mexico (20.5%), Belgium (6.5%) and Canada (5.5%), accounting together all accounted for 77% of world exports. With regard to production (see table 1), China is the world's largest producer of tomatoes (25.3%), yet only exports about 1.3% of world exports and the United States of America comes next.

Table 1 - Top ten countries in tomato production, 2003, including 72.5% of world productions

Tomatoes		%
Production (Mt), 2003		
World	113,985,436	100.0
China	28,842,743	25.3
United States of America	10,382,000	9.1
Turkey	9,750,000	8.6
India	7,600,000	6.7
Egypt	6,780,000	5.9
Italy	6,634,150	5.8
Spain	3,848,600	3.4
Brazil	3,693,830	3.2
Iran, Islamic Rep of	3,005,000	2.6
Mexico	2,148,130	1.9
Sum of top 10 countries	82,684,453	72.5

Source: FAO database

The market of tomato in Syria

The trend of commodity balance for tomato through the period 1994-2003 shows continuing surplus. This indicates that production satisfies the consumption with some extra allocated to exports (the largest amount exported was 218 thousand tons in 2002). The tomato production increases almost the same average as the consumption. However, in some seasons the boost of production creates more surpluses than what can be processed or exported. This leads to a fall in the prices due to the existence of more supply than demand, and thus average price declines cause losses for farmers.

Table (2) - Tomato total supply, 1994-2002, production (thousand tones), population (thousand people)

Item	1994	1995	1996	1997	1998	1999	2000	2001	2002
Production	426	426.5	409	407	555	610.2	753.2	772	900
Imports								4	14
Exports	93	73	83	108	133	143.4	190	168	210
total supply	333	353.5	326	299	422	466.8	563.2	608	704
total population	13782	14285	14670	15100	15597	15891	16320	16720	17130
Per capita consumption	24.2	24.7	22.2	19.8	27.1	29.4	34.5	36.4	41.1

Source: NAPC database

Production of tomato in Syria

In 2003, Syria with around 900 thousand tons, was the 23rd tomato producing country in the world, accounting for to 0.8% of total production.

Tomato production is extremely important to farmers in Syria as an important source of income due to its high productivity and relatively low cost. Moderate temperatures in Syria allow growers to produce tomato widely in open fields. Besides, due to mild climate in the coastal area, rarely greenhouses include or use heating or ventilation machinery for climate control. Also, covered tomato production is important for export earnings. Tomato production is one of the fastest growing crops in Syrian horticulture; it increased more than 30.6 percent through 1994-2003, from 426 thousand tons in 1994 to 923 thousand tons in 2003.

In 2003, approximately 17.1 thousand hectares were seeded (14.3 thousand hectares in open field and 2.8 thousand hectare in greenhouses). Compared with the total area of field tomato in 1994 which was 20.9 thousand hectare, the reduction in this area equaled 6.6 thousand hectares. This gap has been filled by productivity enlargement. Over the last ten years, tomatoes areas have expanded in greenhouses, while they sharply declined in open field (irrigated and rain fed).

Table (3) Area of tomato 1994-2003 (thousand hectares)

Years	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Irrigated area	14.9	14.7	12.7	11	9.8	9.8	13.4	10	12.4	10.9
Non- irrigated	6	5.5	7.8	6.2	7	3.8	4.3	5.8	4.2	3.4
Total field area	20.9	20.2	20.5	17.2	16.8	13.6	17.7	15.8	16.6	14.3
Areas planted in	-	-	-	-	2.2	2.2	2.2	2.6	2.4	2.8
Total areas	20.9	20.2	20.5	17.2	18	15.8	19.9	18.4	19	17.1

Source: NAPC database

Over the period 1994-2003 production increased, on average, at a growth rate of 11.7%, a faster pace than the 3.9 % world trend. All irrigated areas showed a positive trend in tomato production; this confirms the remarkable growth of tomatoes produce in the last decade.

Table (4) Production of tomato, 1994-2003 (thousand tons)

Production	199	1995	199	1997	199	199	200	200	200	200
Production in	397.	395.	364.1	363	312.2	302.	450	383	539	519.1
Production in non	28.4	31.1	45	44.2	46.1	26.5	24	42	23	21.1
Production in Total	425.	426.	409.	407.1	358.	329.	474	425	562	539.
Production in green	-	-	-	-	197	281	279.	347	339	384
Total production	425.	426.	409.	407.1	555.	610.	753.	772	900	923.

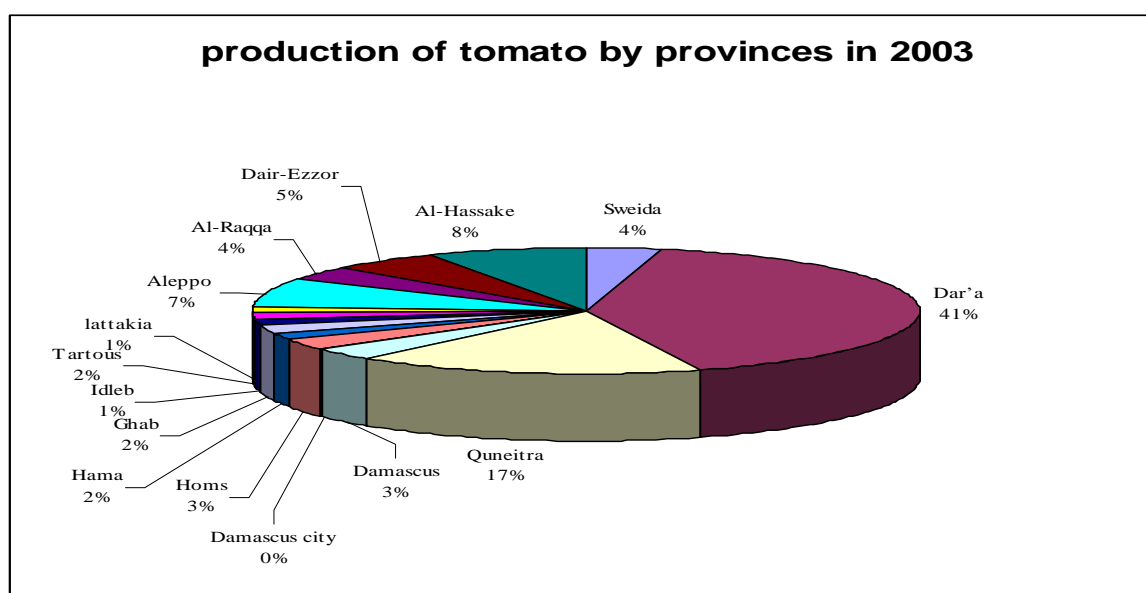
Source: NAPC database

The above table (4) shows that, starting in 1998, production of greenhouse tomato expanded significantly from 197 thousand tons, equal to 35% of total production, to 384 thousand tons in 2003 accounted to 41.6% of total production.

For climatic reasons, Tartous and Lattakia are the dominant regions during the winter months. Together, they supply as much as 98.6percent of covered tomatoes. Open field tomato is cultivated in all governorates in Syria, but it concentrates in Dara'a, Aleppo, Al-Hassaké, and Quneitra. Tomato production in the eastern region benefits from water availability and relatively mild climate that allow growers to produce tomato widely. The first governorate in open field tomato production is Dara'a, with about 211 thousand tonnes in 2003. In productivity terms, the most important governorate is, instead, Sweida, with 136 MT/ha (but the with very limited area (0.1 thousand hectare), followed by Dara'a, with 96.5 MT/ha, while the average yield in Syria in 2003 was 47.4 MT/ha for irrigated areas and 37.6 MT/ha in general, more than the world average at 27.4 MT/ha.

Harvest in winter can be obtained in the coastal region of the country. For climatic reasons, Tartous and Lattakia are the dominant regions during the winter months. Together, they supply as much as 98.6% of greenhouses tomatoes. The most important governorate producing greenhouse tomatoes is Tartous with a cultivated area of 2.3 thousand hectare, a production of 328 thousand tons, and yields of 141 MT/ha.

Figure (1) production of tomato by provinces %, 2003



Source: NAPC database

Tomato is available in Syria around the whole year. Tomatoes for fresh consumption are planted from February to June with harvest from mid-June to late October. There is a number of varieties cultivated in Syria. They differ in their length of growth period, their precocious or lag of ripeness, their ability for processing, their productivity and qualities, and their resistance to diseases. However, the mostly diffused varieties in use in Syria are the following; Sunrise, Shady lady, Shaheen, Supper Queen, Variety 777, I S 55, Golden landside, Robest, CPC-2, Sion x, Marmand, and Claudia Ref. Syria produces large volumes of greenhouse tomatoes. The most important varieties cultivated under greenhouses are ; Speedy hybrid, Katia, Amazon, Alona, and Florence.

The most important tomato processing varieties are; Sunrise, Speedy, Syring, and Supper red. Planting Methods differ by tomato type: most of the fresh market tomatoes are transplanted. Irrigation is used for most Syrian tomatoes. Furrow irrigation is commonly used in tomatoes. Sprinkler irrigation can be used to germinate a direct seeded crop. Nevertheless, sprinklers are rarely used for tomatoes, as the use of sprinklers increase diseases, such as early blight and late blight. Drip irrigation is instead fairly used; indeed, greenhouse production uses drip irrigation systems, mostly subsurface drip irrigation. Drip irrigation provides for good water management and allows hand harvesting at regular intervals. Drip irrigation could rise rapidly in the future. Irrigation facilities are receiving funds for maintenance and construction.

Although tomato in Syria is mostly harvested in July, August, and October, some producers substitute to more early or late harvest varieties to get higher prices for their products.

Syrian government is also highly interested in promoting tomato production by encouraging greenhouses production and supplying a high quality seeds and seedlings. The government also through the Cooperative Agricultural Bank provides finance for constructing facilities and acquiring inputs and machineries

Tomato consumption in Syria

The consumption of tomato in Syria has increased by 111 percent during 1994-2002 with an annual growth rate of 12.4 %. The Syrian per capita consumption of tomato was approximately 41.1 Kg, in 2002. The per capita consumption of tomato increased annually by about 7.8% during 1994-2002. Tomato is consumed either fresh or processed and most domestically produced tomatoes find their way into Syrian markets. But local demand for tomato is subject to income increase and population growth, however, the relatively rising incomes has little influence on the demand of tomato due to the low income demand elasticity. However, with the growing population, demand will probably pushed up. The apparent consumption of tomato in Syria has increased by 111 percent during 1994-2002 with an annual rate of 12.4 percent*.

The Syrian per capita consumption of tomato was approximately 41.1kilo gram in 2002. The per capita consumption of tomato increased annually by about 7.8 percent during the 1994-2002

Marketing of tomato

The majority of field tomato production is located to the growing domestic market. Marketing of tomato, in the wholesale or retail markets in Syria, is subject to market forces. The production is distributed through three branches: local consumption, processing, and export. Most protected tomatoes are exported, while most field tomatoes are locally consumed; the rest is either processed or exported to neighboring countries. The boost of production, in some given seasons creates a great surplus that even can not be processed or exported. This causes a fall in the

* We considered the apparent consumption of tomato adding imports to production and deducting exports.

prices and, thus, losses to farmers. Yet, due to the overall profitability of tomato production, farmers tend to stay in the market.

Tomato is located to the traditional Syrian domestic markets in which farmers bring their products to the market, so trucks from all over rural areas arrive to center cities carrying up their products to wholesale markets to sell them their. The wholesale receive the tomato from the producers and reassemble it for retail delivery. This traditional distribution system usually suffers from a lack of adequate cold storage warehouses and refrigerated delivery vehicles and ineffective packing materials. These shortages can cause losses or degradation of a substantial portion of the product. Small retailers buy tomato and pick up production and transport it to their shops to sell it to consumers or distributors take it to hotels, or restaurants.

The marketing system in Syria lacks an information system, and is in urgent need to improve information delivery and dissemination to make information available across the country; so many domestic producers and processors became aware of the market conditions and the demand and supply of the market.

Syrian tomato trade

Syrian trade of tomato that was formerly local or bilaterally oriented is now much more regional. For tomatoes, trade between Syria and the Arabic countries has increased. Especially Syria trade with Saudi Arabia was exceptionally dynamic between 1994 and 2003.

Syrian imports of tomato

Syria has not been traditionally a significant importer of tomatoes, except for seed tomato because tomato import was restricted. However, Syria's tomato imports, during the last decade, have grown, first slowly, then relatively faster. So, while imports still constitute a small share of the tomatoes for Syrian domestic consumption, significant growth in tomato imports has occurred since 2000. During 2002 imports of fresh tomatoes equaled 13.6 thousand tons, valued at SP 47.5 million. Syrian main partner countries as per tomato imports are those of the Great Arab Free Trade Area (GAFTA), that are not subject to import tariffs any longer. Jordan and Egypt together supplied over 90% of the total value of tomato imports in 2002.

Differently from fresh tomato, the import volume of processed tomato has not raised much. In fact, Syria produces processed tomato and such production satisfies the growing demand.

The south border with Jordan is generally the first port of entry. Tariffs on tomato are 29 percent for fresh, refrigerated or cooked imports tomato, and 102 percent for tomato paste. Nevertheless, since January 2005 imports of tomato and tomato products from GAFTA member countries are exempted from tariffs and it is expected that imports from such countries will continue to grow. for with limitation concerning the calendar before 2005. The relatively low growth rate in tomato import can be related to the high tariff duties on tomatoes before GAFTA.

Syrian export of tomato

Tomato is the most important exported vegetable in Syria. In recent years, Syria's production of tomato has grown up significantly creating an opportunity for exports due to the surpluses generated and the relatively low cost. Syria recorded impressive gains in tomato exports and has sharply increased its presence in the Arab market especially after the implementation of GAFTA. In addition, Syria's tomato harvest schedules starts in summer, through autumn, till winter; so that winter production that recently has grown up in greenhouses helps to provide exporters with a year-round supply of fresh tomatoes. As a result, Syria recorded an accepted gains in tomato exports and has sharply increased its presence in the Arab market especially after the implementation of GAFTA.

During the period 1995-2002 about 22.8 % of Syria's tomato production was exported. Syria recorded an increase in the exports from less than Sp 1 billion, before 1998, to Sp 3.5 billion, in 2000, and Sp 2.8 billion, in 2002. The Arab countries represent a major market for tomato that made up 96 percent of tomatoes export values in 2001, and 88 percent in 2002. In 2001, about 86 percent of Syria's tomatoes exports went to Saudi Arabia, 5 percent to United Arab Emirate, 4.5 percent to Kuwait, and 2.2 percent to Qatar. The second largest market in 2002 is the European one accounting for nearly 8 percent of Syria's tomatoes exports.

Saudi Arabia is the main leading destination for Syria's fresh tomatoes accounting for 81 percent of total tomatoes export values during 2002. Furthermore, Saudi Arabia, together with Lebanon, represent the most important destinations of processed tomatoes absorbing nearly 79 percent of Syria' exports. Moreover, United Arab Emirate is the second largest market for Syria's tomato exports in 2002, accounting about sp 189 million or about 7.5 percent of total tomato exports. So, Saudi Arabia and United Arab Emirate together accounted for more than 88.5 percent of Syria's tomatoes exports.

Processed tomato only accounts for 0.3 percent of total tomato export value in 2002 (Syria expanded exports of processed tomato from less than sp 1.5 million in 2001 to more than sp 8.7 million in 2002).

Exports of tomato in Syria increased at an average annual rate of 24.9% over the period 1995-2002.

Export growth of Syria's fresh tomato can be attributed to the bilateral agreements as to GAFTA agreement that spur export growth, lower barriers to trade and allow exports to partner countries. Seasonal differences are a factor in tomato exports that Syria can benefit to send its products in times in which the destination countries need tomato. However, the Syrian shipping season of tomato corresponds with Jordan's, so the tomatoes of Syria and Jordan come into direct competition in the Arabic markets.

And as GAFTA has removed all import duties, it is expected that Syria will expand its exports to the member countries, and those will provide increased market accession.

An increasingly important market for Syrian tomatoes is the European Union. Syria's tomato exports to EU have increased from 2.2% in the 1995-1999 to 2.7 % in 2000-2002. Syria's tomato exports to the European Union meets a great challenge because of competition of Morocco, Turkey, and other suppliers.

Syria has not been fully successful in exporting tomato to the EU because of the entry price system and with non preferential treatment applied on Syrian exports. Through the negotiations for the Association Agreement (AA) with the EU, Syria would be able to obtain better access to the EU markets for tomato (the AA with the EU will allow Syria to export 15000 tones of tomato free of import duties).

Market opportunities to the EU could be enhanced by taking into consideration the following factors:

- Exporting only the high quality that would give a major advantage to the Syrian traders, since Syria is connected to Europe by shipping routes. Prices also are important factors to facilitate market access to EU, and Syria has an advantage in this area.
- Keeping and facilitating stability of supply, because EU importers wish to avoid interruption of supplies.

Limited post-harvest marketing practices and the inadequate cold storage facilities in Syria would result in less export opportunities. In fact, although tomato exports have become steadily important over the last decade, Syrian traders of tomato, as well as of other vegetables, generally do not take good care to use effectively marketing practices such as: modern packing and packaging techniques, or grade standards, although a number of private traders successfully

export fresh and processed products. Consequently, exporting only high quality would make Syria's tomato more competitive in international markets. So, Syria needs to differentiate the production of tomato practices for export and domestic markets, since export production has to meet the demand of foreign consumers. Furthermore, to enhance their exports, Syrian traders have to tend to establishing good reputation in foreign markets, building relationships with companies and customers and maintaining a competitive advantage by encouraging producers adopting early harvest varieties to enter markets early and by delivering good quality productions.

Tomato processing in Syria

Processing factories of tomato in Syria is carried out by public and private sectors accounting for about 180-200 thousand tonnes each year. The public sector controls six factories distributed all over the country as follows: in Dara'a (Mezerebe), in Rural Damascus (Al Ghouta), in Edleb in Mayadin, in Al Hassaké and in Jeblé. Five of these plants have a daily capacity of about 100-120 tonnes, whereas one (Mezerib) factory could produce 180 tons/day.

On the other hand, private factories are many and mostly located in the south of the country. These factories vary in size, technology and capacity. The processing capability of the private factories ranges from 40 tons to 200, or even 250 tons daily. In the meantime, Five of the Public plants have a daily capacity of about 100-120 tonnes, whereas one (Mezerib) factory output could produce 180 tonnes /day. All in all, the total quantity of processed tomatoes will probably be about 180-200 thousand tonnes each year.

Usually, both public and private companies purchase raw tomato from wholesale markets or directly from farmers. In the mean time, some private plants rent land and produce tomato to satisfying their own processing needs and don't be affected by market price fluctuations.

Although the processed tomato nowadays needs to find markets, investments should be more extensive in the processing facilities. Relatively low labor costs represent an advantage, as well as the significant surplus of production create a need to expand tomato processing to get the benefit of marketing a valued added product, absorb non exported production surplus and employ more workers. Moreover, tomato processing helps to tackle the considerable potential loss initiated from the perishable nature of the commodity, especially during times of overproduction, and accompanied by low demand and limited exports.

Syrian policies concerning tomato

Syria has historically undertaken a policy of banned tomato imports to protect local production. Such protectionist policy started to change in 1998, when Syria joined GAFTA and agreed to participate in the implementation process of the agreement that lead to free market in the region starting January 2005.

Government used to be involved in planning marketing and pricing of tomato. The major goal of Syrian market was to stabilizing prices for producers, taking into consideration that producers avoid volatile prices that might cause loses to them, and as well as for consumers. This involvement was stopped for tomato a number of years ago. Afterwards, to correct the negative effects of volatile prices, the government exerted a lot of efforts in land reclamation, productivity increases through improved varieties, planning to produce sufficient quantities to meet consumption needs, and processing and exporting to absorb the surplus.

Currently, tomatoes as an agricultural product do not benefit from any direct government payments or indirect subsidy program, with the exception of extension services provision. Taxes on agricultural exports have been eliminated, favoring tomato production and exports. In addition, tomatoes as an agricultural product now do not benefit from any direct government payments or indirect subsidy programs except of extension services. In the meantime, the

government has taken arrangements to restrict trade flows of tomato products to limited quantities.

Conclusions

Syria has a remarkable potential in producing and exporting fresh and tomatoes. Further efforts to strengthen Syria trade relations with Arab and foreign countries (bilateral, regional and international trade agreements) are likely to significantly expand export opportunities to global markets.

Relatively low labor costs and good climate contribute to give Syria comparative advantages in the production of fresh tomato[†]. Indeed, Syrian exports of tomatoes are likely to expand. Tomato production can play a significant role as a source of foreign earning, also absorbing unemployed forces in both rural (production) and urban (processing) areas.

In spite of the above, Syrian fresh vegetable in general and tomato in particular, face several problems in the export market. Neighboring countries (Turkey, Jordan, and Egypt) products have better grading and packing qualities. So, they can compete better.

Syria's tomato quality is still far from meeting customer preferences in international markets. A state that if continued would badly affect Syrian reputation as tomato exporter country. High tariffs and market costs for Syrian export to the European Union have negative effects on the Syrian ability to compete with countries such as Turkey, Egypt, and morocco.

Because the government used to practicing inputs subsidies and banned or restricted tomato import, producers are sensitive to market liberalization. Keeping this fact in mind, to minimize the changes that adversely affect tomato production and trade, the government has gradually reduced the protection of local production in order to make producers adjust their conditions with the free market factors.

It is critical for Syria to strengthen export in order to justify its economic performance. In this context, some actions would be of great benefit such as:

First Syria should encourage organic and integrated production of exported tomato to meet the requirements of international markets with clean and free from chemical productions and satisfy the process of competition for Syrian goods in overseas marketing. Second, support to exporters in the kind of finance access might be of great help. Third, export facilities are essential such as facilitating the entrance and exit of cooling trucks that export fresh fruits and vegetables by reducing taxes on such trucks, exporters should insist on producing standard convenient boxes to put exported commodities.

The quality difference between foreign and Syrian domestic products is substantial and improving domestic quality through constructing quality building strategy and through introducing policy that leads to investment in cold storage and other marketing technologies to improve local products.

Syria should make greater efforts to strengthening its trade relation with Arab and foreign countries to get larger market access through bilateral, regional and international trade agreements to significantly expand its export opportunities to global markets.

[†] The comparative advantage study of tomato by Basima Atiya, NAPC, 2004