Agricultural Policy Implementation Project

Ministry of Agriculture, General Directorate for Development Planning and Agricultural Investments (DGPDIA)
Project Office: Boite Postale 24, 1003 Cité El Khadra, Tunis, Republic of Tunisia • Telephone: (216-1) 681-570/573

PN-ABG-127
68210

EXPORT COMMODITY STUDY
WINES

ITHACA INTERNATIONAL LIMITED

JANUARY 1989

Prime Contractor: Abt Associates Inc., 4250 Connecticut Avenue N.W., Suite 500, Washington, D.C. 20008 • (202) 362-2800
Subcontractors: Institut Supérieur de Gestion, 41, Avenue de la Liberté, Cité Bouchoucha, Le Bardo, Tunis, Republic of Tunisia • (216-1) 260-378/261-854
Ithaca International Limited, 707 Cayuga Heights Road, Ithaca, New York 14850 • (607) 257-2541
University of Wisconsin International Agriculture Programs, 240 Agriculture Hall, Madison, Wisconsin 53706-1562 • (608) 262-1271

Supported by USAID/Tunis Special Mission for Economic and Technical Cooperation

EXECUTIVE SUMMARY

The Government of Tunisia (GOT) has an on-going program for agricultural sector structural adjustment. Priority has been given to the promotion of agricultural exports. Wine was one of five export commodities chosen for analysis in 1988/89 under the GOT/AID Agricultural Policy Implementation Project. Part A of this study was directed toward assessing the key factors affecting the export potential for Tunisian wines. Part B of the study investigated the prospects for increasing wine exports to the North American market. The results of Parts A and B were used to develop strategic marketing recommendations for the Tunisian grape and wine sub-sector of the Tunisian agricultural economy.

The Tunisian wine/grape industry has been in a state of prolonged decline since Independence. In order to restore the viability of the industry, and increase its contribution to the national economy a number of **domestic measures** are required to improve production practices, wine quality, and product presentation. These measures are as follows:

1. **Improve wine grape production practices.** Tunisia needs to improve the quality and consistency of the basic raw material for wine-making. Improvements in grape production should be made through the gradual abandonment or removal of low quality vines and the establishment of new vineyards on suitable hillside soils. Policies and procedures are needed to make supplemental irrigation water available on a regular basis. The use of irrigation for wine grapes needs to be expanded in order to stabilize grape yields, and ensure product quality.

2. **Increase price incentives.** In order to exploit the sales opportunities which exist in domestic and foreign markets, profitability of the industry needs to be improved. Better production practices are one element in improving profitability, the other is to improve price incentives. Incentives should be increased through: (i) eliminating the GOT/ONV practice of fixing prices and processing margins through administrative fiat; (ii) eliminating the practice of using tax revenues from domestic sales to cover losses of public sector wine producers; and (iii) changing the *ad valorem* tax on domestic sales to a lower flat rate tax per bottle.

3. **Develop a domestic wine production and marketing plan.** Several steps are needed to improve domestic wine production and increase the efficiency of wine marketing. These steps are important in improving wine quality both in order to expand exports and to develop the domestic tourist market. Sales to tourists are an area in which Tunisian wines have a clear competitive advantage. To exploit this advantage and to develop exports wine quality, product uniformity, and presentation must be improved. Essential components of a production and marketing plan for wine are: (i) Re-define existing AOC wine regions to identify more clearly quality characteristics; (ii) Consolidate the number of wine brands into a smaller number; (iii) Eliminate excess wine-making capacity by closing obsolete state-owned wineries; (iv) Encourage Cooperatives and private wineries to market their products directly, rather than requiring that all wines be marketed through the ONV.

Tunisia is capable of producing quality wines of excellent value. With appropriate actions these wines could find a place in North American markets. The greatest prospects for success in selling Tunisian wines in North America are in the United States. Provincial government regulation, high taxes and the smaller consumption of imported red wines limit the potential of the Canadian market for Tunisian wines. Primary sales emphasis should be in the United States.

Several **export measures** must be taken in order to achieve an acceptable volume of sales in the U.S. market:

1. **Improve product presentation.** Better bottles, corks and labels need to be used for wines exported to the United States. The elimination of impediments to imports of high-quality packaging materials would help to improve the quality of packaging. Further use of 'off-

shore' export arrangements should be actively promoted as a means of improving product presentation and export packaging.

2. **Improve quality control** of the export product. Stricter supervision and inspection of the bottling process is needed. Inspection of the export product to ensure that it meets standards will be required.

3. **Establish an exclusive marketing relationship** with a reputable and experienced U.S. importer. This will facilitate import clearance and handling. Specialized importers are already integrated into the distribution network and are in a position to help to promote sales of the product.

4. **Undertake promotional activities** in support of the marketing activities of the importer. The activities which will be necessary in order to penetrate North American markets include: (i) the use of **exhibits** at U.S. wine industry trade shows; (ii) the use of **organized visits** in Tunisia for key U.S. wine industry participants, such as distributors and journalists etc.; (iii) the preparation of **improved publicity materials** on Tunisian wines; (iv) a **limited advertising and promotion campaign**, possibly at the regional level, in support of the marketing efforts of the importer.

Wine consumption in North America has been expanding rapidly, but growth has now slowed. As in many other countries, consumers are drinking less table wine in total, but more quality wine. The market is becoming intensely competitive. **Consumer acceptability is the key to whether Tunisian wines can find a niche in the North American market.** On the basis of controlled taste tests it is concluded that Tunisian red wines are judged by consumers to be comparable in taste and quality to competing products in the $3.99-$5.99 price range from France, Spain, and California. The rose wines are substandard and are not likely to sell well in North America. The two Tunisian wines with the greatest appeal to North American consumers are *Pinot de Tunisie* (1983), and *Prestige Lamblot*, *Coteaux d'Utique* (1984). Wines such as these could be sold in North America if they are priced in the $3-$5 range at retail. This would place them in the lower end of the premium wine market.

It is estimated that, **a realistic sales target would be between 7.5 and 11.5 thousand hectoliters of annual sales in the United States, with the possibility of an additional 1 to 2 thousand hectoliters in Canada.** To accomplish these targets, total expenditures of roughly $443 thousand would be required over a five year period. These expenditures would yield annual wine sales of $1-$2 million. Given the competitive nature of the North American wine market, success cannot be guaranteed. The probability of achieving sales of this volume are of the order of 25 to 50 percent.

- 2

AGRICULTURAL POLICY IMPLEMENTATION PROJECT

EXPORT COMMODITY STUDY

PART A

WINES COMPETITIVENESS ANALYSIS

January 1989

FINAL REPORT

3

PREFACE

This Part A study of wine grape production, wine making and wine marketing in Tunisia was requested by the Government of Tunisia (GOT), in the context of its on-going economic structural adjustment program for the agricultural sector. The research was funded through the Tunisia Agricultural Policy Implementation Project -- Project No. 664-0343 -- which is jointly sponsored and funded by the GOT Ministry of Agriculture (MOA) and the United States Agency for International Development (USAID). The prime technical assistance contractor for this project is Abt Associates, Inc. of Washington, D.C. and Cambridge, Massachusetts. Sub-contractors for the project include the University of Wisconsin, Madison, Wisconsin; the Institut Superieur de Gestion (ISG), Tunis, Tunisia; and Ithaca International Limited, Ithaca, New York.

The Part A Commodity Report on wines was researched, written and revised during the period from May 1988 to January 1989 by a team of five agricultural specialists from the Direction General de la Developpement, du Plannification, et des Investissements Agricole/General Direction for Planning, Development and Agricultural Investment (DGPDIA) of the Ministry of Agriculture in Tunis, Tunisia, and Ithaca International Limited of Ithaca, New York. These specialists were:

DGPDIA

Abdel Hakim Khaldi
Abdel Rachman Chaffai
M'Nasri Belgacem

Ithaca International Limited

John H. Eriksen
Jack W. King, Jr.

The team's research efforts in Tunisia were greatly facilitated by the assistance and guidance provided by the Director and staff at the DGPDIA; the resident APIP project manager, Dr. Roger Montgomery; and the USAID project manager, Dr. Shirley Pryor. The director and staff of the Tunisian Office National de la Vigne/National Office for Grape Products (ONV) provided us with invaluable insights into the current situation in the wine sub-sector in Tunisia. In this, they labored long hours to respond to the team's general questions and requests for clarifications on specific points. Finally, team members conducted numerous interviews in the field with wine grape producers and vintners from both the public and private sectors -- all of which added new perspectives and information for this final report.

Upon completion of the draft final report, the text and tables were professionally reviewed and critiqued separately by Dr. Max Brunk, Professor-Emeritus of Agricultural Marketing at Cornell University; Dr. Kirby S. Moulton, Economist, Cooperative Extension of the University of California at Berkeley; and Drs. Roger Montgomery and Mark Newman of Abt Associates, Inc. To the maximum extent possible, their comments and suggested revisions were incorporated into the final report.

The team wishes to thank all of specialists for their sincere efforts on our behalf and for their assistance with the production of this final report.

TABLE OF CONTENTS

I. GENERAL CHARACTERISTICS OF THE WINE GRAPE SUB-SECTOR 2

A. An Historical Perspective on Sub-Sector Development 2
B. Land and Other Resources Employed 5
C. Economic Importance of the Sub-Sector 8

II. INFORMATION DESCRIBING THE DIFFERENT STAGES OF GRAPE PRODUCTION, WINE PRODUCTION AND EXPORT MARKETING 8

A. Grape Production Aspects 8
1. Description of Wine Grape Production Capacity 8
2. Key Factors Affecting Wine Grape Quality 10
a. The System of Appellation d'Origin Controlee (AOC) and Vin de Qualite Superieure (VDQS) Classifications 10
b. Grape Varieties 13
c. Climate 14
d. Soils 16
3. Key Factors Affecting Wine Grape Production 16
a. General Observations 16
b. Variety 18
c. Cultural Practices 18
d. Irrigation 20
4. Key Factors Affecting the Costs of Production for Wine Grapes and Grower Net Incomes 22
a. Yields Required to Cover Costs of Production for Wine Grapes in Tunisia 22
b. Changes in Input Costs 25
5. Comparative Advantage and Position of Wine Grape Production Relative to Other Alternatives 26
6. Prospects for Improved Production of Wine Grapes 27

B. Wine Production Aspects 28
1. Description of Wine Production Capacity 28
2. Key Factors Affecting Wine Production 30
3. Key Factors Affecting Wine Quality 31
4. Key Factors Affecting the Costs of Wine Production 33
5. Prospects for Improved Wine Production 34

C. Export Marketing Aspects 35
1. Description of the Role of the ONV in Wine Marketing 35
2. The Timing and Consistency of Wine Availability 36
3 Description of Local Capacities for Product Preparation, Packaging and Labelling 37
4. Description of Existing Markets for Tunisian Wines, Quantities Exported, Prices Received, and the Characteristics of Export Wines 39
5. Cost Structure for Wines Exported FOB Tunis 40
6. GOT/ONV Pricing Policies for Wines 40
7. Competition Between Wine Exports and Domestic Consumption 42
8. Information Available to the ONV and Wine Producers on International Markets for Tunisian Wines 42

5

III. CONCLUSIONS 43

A. Costs as They Affect Export Potential 43
B. Quality as It Affects Export Potential 44
C. The Present Marketing System as It Affects Export Potential 44
D. GOT Policies and the Role of the ONV as They Affect Export Potential 45
1. The Predominance of ONV in Wine Marketing 45
2. GOT Development Policy Towards the Sub-Sector 46

ANNEX A Statistical Tables

ANNEX B Description of Tunisian Wine Regions and Export Wines

ANNEX C Map of Wine Regions of Tunisia

ANNEX D Report Part A Terms of Reference

ANNEX E Report Bibliography

- 6'

LIST OF ACRONYMS

AOC	Appellation d'Origin Controlee (a unique wine region with production regulations and marketing designation)
CAP	Common Agricultural Policy
EC	European Community
FAO	Food and Agricultural Organization of the United Nations
GNP	Gross National Product
GOT	Government of Tunisia
MOA	Ministry of Agriculture
ONV	Office National de la Vigne (National Office for Vines and Wine)
OTD	Office des Terres Dominiales (Office of State Lands)
OV	Office de Vin (Office for Wine)
UCCVT	Union des Caves Cooperatives Viticole des Tunisie (Union of Tunisian Wine Cooperatives)
VDQS	Vin de Qualite Superieure (marketing designation for a wine of superior quality)

MAIN REPORT: PART A

I. GENERAL CHARACTERISTICS OF THE WINE GRAPE SUB-SECTOR

A. Historical Perspective on Sub-Sector Development

The wine grape sub-sector in Tunisia has been in a state of crisis and decline for almost twenty-five years. Recently, attempts have been made to restructure the sub-sector, engendering a shift from production of ordinary wines of the type formerly used for blending with low cost domestic wines in France to higher quality wines which can be sold directly as varietals or blended to produce wines in Tunisia. To understand the factors leading to this restructuring effort, present conditions in the sub-sector must be set in an historical perspective.

Wine production in Tunisia has historical roots in the Carthaginian and Roman civilizations in North Africa. Almost two thousand years ago, wine production in Carthage was a developed industry based upon cultural practices set down by the Carthaginian agronomist, Magon. Local wines were trade goods in the Mediterranean basin in the early years of this millennium and a local tradition in grape production and wine making has endured into the present century.

Of more relevance to the present state of the sub-sector was the expansion in wine production which took place under French colonial occupation in the first half of this century. Colonial rule encouraged substantial numbers of French and other European farmers to immigrate to Tunisia. Many of these farmers adopted wine grape cultivation as their principal agricultural enterprise.

Local production expanded rapidly in the 1940s and 1950s in the aftermath of the *phylloxera* crisis in metropolitan France. With expanding demand, fueled partly by the post-war return to more normal consumption habits and partly by the economic integration of French metropolitan and Tunisian businesses, wine producers in Tunisia found ready markets for their wines in France. Given shortages in French markets, Tunisia wines were permitted to enter France without trade restrictions and were sold on the same terms as comparable local products. In essence, during this period, French wine producers in Tunisia sold their products to French consumers under the same conditions as their counterparts in the Metropole.

By the early 1960s, therefore, 45 thousand hectares of wine grapes existed in Tunisia. Almost all of these vineyards were managed by immigrant owner/operators. Production units were large -- ranging from 50 and 600 hectares in size. Grape varieties were specifically selected to meet the micro-climatic conditions of production areas in a crescent around Tunis and on the Cap Bon peninsula. Local output was specifically tailored to the demands of the French markets.

The local wine situation changed dramatically with Tunisian independence and the nationalization of foreign land holdings in 1963. At the point of nationalization, the vineyards in Tunisia were producing 1.8 million hectoliters of wine -- or an average of 40 hectoliters of wine per hectare -- from vines with an average age of 20 years. Large production units were enjoying a period of high prices, low production costs, and easy access to European markets. The common saying of the day was that producers had "one harvest in the bank, one in the cellars, and a third on the vine".

During the colonial period, there was a strong wine producers cooperative movement in Tunisia which organized wine production, grape harvest and transport operations, and, in certain cases, phytosanitary operations and seasonal credit facilities for producers. In addition, there was strict control over nursery production of grape vines and a well-managed program for scheduled replanting of over-aged vines. Finally, wine producers were generally well-trained in the technical aspects of their operations. Most were graduates of the Colonial School for Agriculture in Tunis and actually had to pay the government for the rights to plant vineyards. There were essentially no "gentlemen" farmers or absentee vineyard owners at this time.

In 1964, France retaliated against Tunisia for the nationalization and confiscation of foreign assets without compensation. In October 1964, France abrogated the existing trade agreement with Tunisia and cut off all imports of local wines to the metropole. Virtually overnight Tunisia lost its principal wine market and was left holding record wine stocks of 1.85 million hectoliters. Even though some of the slack in exports was taken up by exports to other African countries, wine prices plummeted and Tunisian farmers -- having access to the

10

nationalized assets -- embarked on a massive effort to pull out the existing grape vines and plant other crops. At the time, the situation was deemed to be so hopeless that the GOT's national development plans for 1962/64 and 1965/68 did not even contain sections on wine grapes.

By 1970, the sub-sector was in a state of advanced deterioration. Wine grape plantings totalled only 34 thousand hectares and national wine production had fallen to 600 thousand hectoliters. Through 1976, the decline continued with hectarage of wine grapes falling further to 28 thousand hectares. The remaining vineyards were greatly affected by disease; invasion of weeds, particularly Bermuda grass; abandoned vines; and widespread mismanagement. In short, wine grapes had become a non-viable crop in the opinion of most sub-sector participants.

Finally, starting in 1976, the government recognized the disastrous situation in the sub-sector and embarked on a national program of restructuring. The two development plans -- i.e. 1976/80 and 1980/86 -- supported three principal activities:

- annual replanting of 1,600 hectares of existing vineyards to replace ordinary grape varieties with improved varietals i.e. 1,200 hectares in wine grapes and 400 hectares in table grapes;
- renewal of existing vineyards by severe pruning of grape vines; and,
- enforcement of restrictions on grape producers' ability to convert existing vineyards to other types of crop production, particularly on public lands.

The development target for 1990 was set at 850 to 950 thousand hectoliters of wines, with 268 thousand hectoliters being allocated for domestic consumption and the remainder for export. The target production level was approximately equivalent to the 1987 wine production in neighboring Algeria; slightly less than that in Switzerland; and about 1.3 percent of French wine output. Additionally, the restructuring program target was set at 7,000 to 8,500 hectares out of a total hectarage of 28 thousand hectares in wine grapes. New techniques for production of superior wines were introduced in collaboration with foreign aid donors and a system of regulated wine production regions -- i.e. *Appellation d'Origine Controlee* (AOC) -- was established.

To manage and fund this development program, the Government of Tunisia (GOT) took three steps. First, it entrusted the implementation of the program to the Office du Vin (OV), a government parastatal. Second, it set up a special fund for sub-sector reconversion. And, third, it financed the program through a surtax on all alcoholic beverages sold in Tunisia. This surtax was instituted to provide funding for the sub-sector restructuring program on a declining percentage schedule -- i.e. 10 percent of total surtax receipts in 1980, 6 percent in 1984, 5 percent in 1985, 4 percent in 1986, and phaseout in 1987. The surtax was originally a flat per bottle tax on alcoholic beverages but was later changed to an ad valorem assessment on bottle contents. The assessment generated between 1.5 and 2 million Dinars of government revenues per year over the Plan period, which essentially funded the wine sub-sector program.

B. Land and Other Resources Employed

The specific results of Tunisian efforts in the sub-sector can be seen in Annex A, Tables 1 to 6. As shown in Annex A, Tables 1 and 2, the two principal results of the GOT development program have been a further reduction in wine grape hectarage from 28,000 to 23,500 hectares and a shift in the relative ownership of wine grape vineyards from approximately 55 percent private ownership/management to 54 percent government ownership/management. These shifts are explained largely by private operators' movements out of wine grape production and into alternative crops with higher net producer revenues per hectare, including table grapes, citrus, and other fruit and vegetable crops. This private exodus from wine grapes has been accompanied by a very modest increase in wine grape production by public entities.

With respect to changes in the composition of grape vines in the remaining vineyards, Annex A, Tables 3 and 4 present the shifts in age classes of vines and the attainments of the restructuring program. In 1977, grape vines in the 5 to 34 year age class constituted 79 percent of all wine grapes -- or 21,928 of 28,000 total hectares. Wine production in that year was 700 thousand hectoliters and average production of wine and wine grapes per hectare were 25 hectoliters and 3.5 metric tons, respectively. By 1986, 23,500 hectares were planted to wine grapes -- with an additional 8,000 hectares in table grapes. Wine production over the

intervening ten year period averaged 570 thousand hectoliters, with approximately the same per hectare yields.

During this period, the restructuring program proceeded at a respectable rate of 3 percent per year -- although the rate was considerably below that projected in the Plan. Twenty percent of the existing vineyards were eventually planted to superior wine grape varieties. While this rate of vineyard reconversion was not sufficient to prevent producers having a higher percentage of total wine grape vines over 35 years of age by 1986, the figure is slightly deceiving. This is so because many of the over-aged vines were the targets of the severe pruning program and, therefore, are now physiologically, if not chronologically, better in production terms than the data appear to indicate.

Perhaps the most important change in the sub-sector over the restructuring period, however, has been the shift from production of ordinary wines to superior wines. This shift can be seen in Annex A, Tables 5 and 6 by comparing the quantities and relative percentages of ordinary, AOC and VDQS produced in Tunisia in 1977/78 and 1986/87. In 1977/78, 97 percent of all Tunisian production was ordinary wine and less than 1 percent was AOC and VDQS wines. By 1986/87, partly as a result of somewhat arbitrary reclassification and partly through production of new wines, ordinary wine production had dropped to about 40 percent of production; whereas, AOC and VDQS wine output constituted 59 percent of all production.

This shift to higher quality wines is important to Tunisia's wine export potential for several reasons. First, ordinary wines from Tunisia were previously exported almost exclusively to France in bulk and were used by French importers only in blending operations to produce cheap table wines -- i.e. *vins de table*. However, due to changes in the European Community's Common Agricultural Policy (CAP) regulations in the 1970s, importations of these ordinary wines by blending were completely prohibited.

Second, export potential for ordinary wines in bulk to the remainder of the international market is extremely limited, principally due to competition from low cost wines of higher quality. At present, therefore, the only existing markets for Tunisia's ordinary wines are the domestic market and, to a lesser degree, in African countries south of the Sahara.

Finally, the shift in domestic production to higher quality bottled wines has given Tunisia an improved potential to exploit three distinct marketing opportunities:

-- the international market outside the European Community;

-- the seasonal tourist market in Tunisia; and,

-- the domestic market for Tunisian consumers.

This export potential would be improved further if Tunisia could export to the European Community but, for reasons to be discussed more fully below, this market is effectively closed to Tunisian exports of quality bottled wines.

To summarize the resource allocation situation in 1988, the wine grape sub-sector uses 23,500 hectares of the 4.7 million of arable cropland in Tunisia -- i.e. 0.5 percent of the total. Wine grape production is localized in a crescent around Tunis, stretching from Bizerte in the northwest to the Cap Bon peninsula in the northeast. Whereas table grapes are produced under irrigation, virtually all wine grapes are grown under rainfed conditions. In a very small number of cases, wine grapes may receive supplementary irrigation water in exceptionally dry years, but these applications are said to never provide more water than that which would be available to vines in years of normal rainfall.

With respect to human resources employed in the sub-sector, it has been estimated (ONV, January 1987, p.3) that total grape production, processing and marketing has provided 2.7 million person/days of employment in recent years. The sub-sector is said to employ approximately 27 thousand "permanent" employees. However, since average annual labor input requirements per hectare of wine grapes are estimated at only 50 person/days and the bulk of wine production activities are highly seasonal, it would be more accurate to say that the vast bulk of these "employees" are in effect seasonal laborers -- i.e. family labor and hired workers -- whose primary agricultural enterprise is grape and wine production. Actual full-time employment in the sub-sector is probably limited to small numbers of employees at the various wineries and officials of the Office National de la Vigne (ONV) -- the renamed OV parastatal -- itself.

Use of non-labor inputs in wine grape production is largely limited to tractors and

14

tillage equipment, fertilizers, agricultural chemicals for disease control, and transport for post-harvest handling of the grapes. Input requirements are relatively modest for all these items. For wine production, existing levels of plant and equipment are generally under-utilized, as discussed in more detail below.

C. Economic Importance of the Sub-Sector

Wine grapes constitute one of the smallest sub-sectors in the agricultural economy of Tunisia. Wine exports of improved quality bottled wines to Europe and lower quality bulk wines to African countries have generated on average about 5.5 million Dinars ($6.9 million) in foreign exchange earnings in the 1980s. The sub-sector also generates through various taxes, primarily on domestic wine consumption, of about 21 million Dinars ($26.3 million) in GOT budgetary receipts.

II. INFORMATION DESCRIBING THE DIFFERENT STAGES OF GRAPE PRODUCTION, WINE PRODUCTION AND EXPORT MARKETING

A. Grape Production Aspects

1. Description of Wine Grape Production Capacity

As described above, 23,500 hectares in Tunisia are planted to wine grapes. Over the past ten years, annual wine production in Tunisia has averaged 556 thousand hectoliters, with interannual variations being mainly attributable to changes in precipitation.

Production figures registered in the early 1960s represent the peak in Tunisian capacity to produce ordinary wines with the high alcohol content, high sugar and low acidity. The stated goal of Tunisian wine grape growers at present is **to produce superior wine grapes** for use in making high quality wines for the international wine market. The areas capable of producing such superior wine grapes in Tunisia are still being identified; but, for reasons to be discussed below, they may represent only a fraction of the hectarage currently in vineyards.

With respect to this area identification process, a basic fact must be pointed out. In talking about the Tunisian wine grape production, many people use "improving the qualities of existing wine grapes" and "producing quality wine grapes" as if the phrases were interchangeable. They are not the same thing. An important and demanding threshold has to

15

be crossed before it can be said that a truly quality wine grape is being produced in Tunisia. Below that threshold, improvements in quality are often of little or no economic importance.

In this respect, Tunisian marketings of slightly improved wines made from the production of existing vineyards in the 1980s would not -- in our opinion -- be a significant improvement over the sales of the indisputably ordinary wines of the 1960s. However, the marketing of high quality wines made from superior grapes grown on properly sited vineyards would be a major advance.

To produce high quality wines in Tunisia, vintners need to concern themselves anew with four basic things:

- introduction of superior wine grape varietals;
- growing temperatures in their vineyards;
- soil conditions for their vines; and
- oenological practices.

High quality wines are, with few exceptions, produced from superior grape varieties grown in areas with cool night time temperatures and good air drainage during the growing season. These superior grape vines are almost always grown on marginal soils, most often found as shallow deposits on hillsides.

In this regard, Tunisia has been badly served by decisions made during the colonial era. During that time, the immigrant vintners tailored their output to the available market -- France -- and produced large quantities of ordinary wines from low quality grapes. Because they were wholly focussed on volume production, they deliberately sited their vineyards on the best available valley soils in areas with warm growing temperatures. Moreover, they chose grape varieties adapted for high yields under such conditions.

The result was that Tunisian wine producers at nationalization "inherited" vineyards tailored specifically to production of ordinary wines from low quality grapes. Many of the grape varieties grown produced wines which had to be consumed soon after harvest. Extended storage of such wines resulted in their turning brown in color and being unusable.

For these reasons, many -- if not, most -- of the existing vineyards in Tunisia have only

very limited potential for production of the superior grapes and high quality wines. This is so because they were sited in areas where the basic physical and climatic conditions needed to produce superior wine grapes do not exist. Under these conditions of good soils and warm temperatures, the present GOT program for "reconverting" Tunisia's vineyards may ultimately succeed in raising per hectare yields and in improving the quality of existing wine grapes; but no amount of "reconversion" on most of the existing vineyards will produce the truly superior grapes.

2. Key Factors Affecting Wine Grape Quality

a. The System of Appellation d'Origine Controlee (AOC) and Vin de Qualite Superieure (VDQS) Classifications

The concept for AOC and VDQS classifications comes to Tunisia from France. Under the French system, an AOC is a unique, specifically delineated wine grape production region. Within the region, each vineyard which meets the special criteria for AOC production is identified and registered. Moreover, the maximum permissible yield per unit area for the AOC and, consequently, for each of the vineyards is also specified. And, finally, the variety -- or percentages of several varieties -- allowed as plantings within the AOC is also regulated.

The VDQS is a secondary classification. It allows quality wines which do not qualify for an AOC rating to carry a quality designation which may prove helpful in marketing.

A Tunisian system of AOC and VDQS classifications is the primary vehicle being used in the 1980s to encourage and reward improved wine grape production. Under the system, there are seven AOCs. Three of them --*Muscat de Kelibia*, *Muscat de Rades* and *Muscat du Thibar* -- were established in 1958 by the colonial government. In the 1970s, the Office du Vin, which was organized in 1970, established the other four AOCs -- *Coteaux de Tebourba* (1973); *Sidi Salem* (1973); *Grand Cru Mornag* (1977); and *Coteaux d'Utique* (1980).

The three AOCs established in 1958 specified only production of *Muscat d'Alexandrie* wine grapes within their designated areas. Production of *Muscat* wine grapes in Tunisia predated the colonial period by centuries. The *Muscat* grape is well adapted to the Tunisian environment. It makes a good white table wine and a reasonably good sweet or dessert wine.

Promotional materials published by the Office de la Vigne claim that *Muscat de Kelibia* is recognized as one of the best *Muscat* wines in the world. Unfortunately, however, consumer demand for such wines in international markets is not very large.

One of the major factors limiting the production of wines from *Muscat* grapes in Tunisia at present is the fact that the *Muscat* is a multi-purpose grape. Although seeded, it can be used to make excellent raisins and it also finds ready acceptance in local markets as a table grape.

Since the prices paid for both table grapes and raisins in Tunisia are much higher than those paid for *Muscat* grapes used for wine, growers have increasingly diverted their production toward these two markets. This has occurred to such an extent that the AOC *Muscat de Rades* is no longer in wine production and *Muscat de Thibar* is now known simply as *Thibar*. Wine production in AOC *Muscat de Kelibia* is also in severe decline and its future as a special wine production area is in doubt.

In reviewing the Tunisian AOC classifications, several important facts become evident. The first is that three of the AOCs were directly tied to production of the *Muscat* grape: an old variety very different in basic characteristics from the red and rose wine grape varieties which dominated Tunisian wine production in 1958. Second, the AOC *Muscat de Thibar* is the only wine growing area for which extensive soil/climate descriptions have been made and is the only one which has seasonally cold temperatures during the growing season. Finally, convincingly unique production characteristics are absent from the available descriptions of the four AOCs as defined by the Office du Vin since 1970.

It would seem, then, that only the three earlier AOCs truly represented defined regions capable of producing unique, quality wines. The four AOCs established more recently -- as part of the GOT's sub-sector development program -- seem to be more an attempt to upgrade certain wine producing areas of the country arbitrarily for marketing, rather than technical, reasons. And, we at least have found no evidence to support the implicit assumption that unique microclimates exist in these designated areas which would lead to production of superior -- or, even, unique -- wine grapes.

-18-

In discussions of the AOCs, the impression is sometimes conveyed that the seven defined areas are a recent innovation in Tunisia made in response to changes in the international wine market. This is inaccurate. The oldest AOCs have been in existence for thirty years and predate Tunisian independence. The four most recent ones were established between 1973 and 1980.

The total area included in the seven AOCs is not known. Our impression, however, is that the areas which are actually functional are relatively small. For example, for the original three AOCs., information is available only for *Thibar*, which now apparently has slightly over 716 hectares of wine grapes. *Coteaux d'Utique* reports 1,500 hectares in production and *Grand Cru Mornag* claims 2,500 hectares. These areas, then, total 4,716 hectares. National production of 1986/1987 AOC wines amounted to 105,785 hectoliters. This amount of wine could have been produced on the 4,716 hectares of reported AOC plantings if they averaged 22.43 hectoliters of wine production per hectare. This would be a fresh grape yield of about three tons per hectare -- a rather low yield. Presumably though, there are actually more than 4,716 hectares of vineyards in the seven AOCs, which would mean that actual average production is below 22 hectoliters per hectare. For lack of better figures, however, these production figures will be used as the basis for comment relative to AOC production levels.

In 1986/1987, Tunisian vintners produced 418,024 hectoliters of wines from 23,500 hectares of vineyards -- or an average yield of 18 hectoliters per hectare. However, 1986/87 was a very dry year. If one uses the ten year average yield of about 556 thousand hectoliters, the per hectare average yield would be 23.66 hectoliters per hectare -- presumably with higher per hectare yields from poorer quality ordinary wine grapes. In field interviews, producers considered a yield of 20 hectoliters per hectare as about average. It should be pointed out that average yields of 20 to 24 hectoliters per hectare are terrible for a country with Tunisia's climate. Such yields are 10 to 14 hectoliters below those of Morocco and Portugal -- both of which are considered notoriously poor producers by international standards.

Mornag is defined as a VDQS wine. This is not a traditional designation. In this case, the designation was apparently developed during implementation of the recent FAO/UNDP

19

wine production project. VDQS is a secondary means of recognizing quality wines, which do not qualify for the AOC designation. The area in vineyards producing VDQS wines is not known, but wines with this designation accounted for 33.7 percent of Tunisia's total production in 1986/1987.

According to Annex A_1 Table 6, 60.38 percent of Tunisian wines are now designated AOC, VDQS, or "Superior" wines. The percentage of total production in "superior" wines, however, has been both low and variable over the years -- and they are not a significant factor in the wine trade. The same table shows that the AOC wine production increased by 260 percent between 1985/1986 and 1986/1987. This shift also represented an increase of 633 percent over the average AOC production of the previous nine years. VDQS wines experienced a similar jump in production between the 1984/1985 and 1985/1986 harvests. The corresponding figures for these wines were 426 and 739 percent, respectively.

It is difficult to explain such rapid improvements in wine quality within the context of the sub-sector development projects implemented in the late 1970s and 1980s. Available reports do not adequately explain this implied shift in wine quality and more information has to be gathered before one can draw many conclusions about shifts in the quality of Tunisian wines. This is so because simply extending the use of designations, which imply quality in the parent classification system, to another situation does not necessarily imply an economically significant improvement in the quality of wines produced.

b. Grape Varieties

The French concept of an AOC area differs from the German one. In the French system, any given region is characterized by one or more wine grape varieties. Although other varieties may be introduced to complement and improve the these varieties, the original variety base of the region must be maintained. The German concept for an AOC is that an ideal combination of wine grape varieties is selected for a defined region and then this combination is imposed on vintners to the exclusion of other varieties.

The Tunisians are generally adhering to the French concept in their AOCs. The basic variety of wine grape throughout Tunisia is *Carignan*, which is a French variety. Plantings

of this variety account for 60 percent of all wine grapes in Tunisia. The *Carignan* is noted as a high yield variety with grapes of high sugar content -- for use in red and rose wine production. *Grenache* is a Spanish variety, which has similar characteristics. Its grapes are used for rose wines. *Grenache* plantings constitute 15 percent of the varietal base in Tunisia. *Cinsault* is a French variety, similar to *Grenache*. *Cinsault* grapes are used for rose wines and plantings constitute 10 percent of wine grape hectarage.

A major portion of the effort to improve the quality of Tunisian wine has been focussed on the introduction of new varieties to complement and raise the overall quality of wines made from the grapes originally grown during the colonial period. Given the definition of an AOC in Tunisia, these colonial grape varieties must constitute the varietal base for Tunisian AOC wines. This means that over 80 percent of the wine grapes used in the AOC wines must be from these old varieties. These varieties are hardy and heavy yielders of substandard wine grapes. Such a varietal base will not produce the high quality combination of wine grapes Tunisians seem to be looking for in the future.

The varietal issue has been considered first in this section because the introduction of new varieties has been a major element in the Tunisian approach to producing higher quality wines. Variety selection, however, is not the only factor to be considered in production of superior wine grapes. Climate and soils play important roles as well.

c. Climate

What impresses one about the available AOC climatic descriptions is their similarity and the fact that more precise information is given on rainfall than on temperature.

Coteaux de Tebourba

Temperature	:	No information
Rainfall	:	No information

Coteaux d'Utique

Temperature	:	Mild
Rainfall	:	500 millimeters

21

Grand Cru Mornag

Temperature	:	12 degrees Centigrade average annual temperature
Rainfall	:	500 millimeters

Muscat de Kelibia

Temperature	:	Temperate
Rainfall	:	No Information

Muscat de Rades

Temperature	:	No Information
Rainfall	:	No Information

Sidi Salem

Temperature	:	No Information
Rainfall	:	500 to 600 millimeters

Muscat de Thibar

Temperature	:	A continental climate influenced by altitude and cold west winds. Freezing temperatures do occur. Protected from south winds by Djebel Goras and the Tunisian dorsal uplands. Average annual temperature is 16.5 degrees Centigrade, with an average monthly minimum of 4.7 degrees in February and an average monthly maximum of 37.7 degrees in July.
Rainfall	:	Average of 630 millimeters per year.

Of the AOC descriptions above, only the one for *Thibar* is nearly adequate. Even with this, however, it is difficult to determine the basis for differentiating between AOCs in the first instance and what real impacts these definitions can be expected to have on production of quality wines.

As will be discussed in more detail in the section below dealing with wine grape production, it is feasible in some instances to compensate for inadequate total rainfall and/or poor seasonal distribution of rainfall in any area using irrigation techniques. However, no similar agricultural technologies are available to vintners to correct for unsuitable climatic conditions. If Tunisia is going to grow quality wine grapes, therefore, they are best grown in areas with cool nighttime temperatures during the growing season and chilling winters. As with wine varieties, Tunisian wine grape growers are at a comparative disadvantage in

-22-

production of superior quality wine grapes because the essential siting of their vineyards was accomplished during the colonial period. The majority of these vineyards were established in warm areas with an emphasis on high volume production of lower quality wine grapes.

d. Soils

In the colonial period, many wine grapes were planted on deep valley soils, which were then considered to be Tunisia's best soils. These soils were, in fact, highly suitable for producing high yields of low quality wine grapes. However, most superior wine grapes are better adapted to soils and land types which are marginal or sub-marginal for other crops. Shallow, hillside soils, which would not be considered well adapted to any other crop, are preferred for production of superior wine grapes under proper management.

When the dislocations associated with nationalization occurred in the early 1960s, Tunisian farmers first cleared the wine grape vineyards on the good soils of private land holdings. Unfortunately, such renovations did not take place on the state farms, where the good land is still planted to wine grapes when it is much more adapted to other crops. Most importantly for the future, in our opinion, is the fact that superior wine grapes can do very well on marginal, hillside soils; and this may be the only factor which might make wine grapes a competitive crop in Tunisia's present agricultural economy.

3. Key Factors Affecting Wine Grape Production

This subject was recently dealt with in a study entitled *Strategie de Developpement du Vignoble a Raisin de Cuve* (ONV, March 1988). The commentary below is in response to the six principal recommendations made in this report.

a. General Observations

Three of the recommendations in the report are very general in nature and concern:

- improvements in training;
- improvements in research and extension support; and
- increased development funding for the sub-sector.

While improvements in training, research, extension and overall funding levels are almost always seen as desirable in the abstract and may actually be needed as components in any

23

comprehensive GOT action plan for the wine sub-sector, pleas of this type -- which essentially boil down to requests for more attention in the allocation of the GOT development budget -- are not unique to that sub-sector. Moreover, even massive increases in funding for these areas would not, in our opinion, resolve the most basic problems facing the wine sub-sector.

In this regard, it is worth noting the interesting comparison to be drawn between the citrus and wine grape sub-sectors in Tunisia. The citrus sub-sector in Tunisia is seen by most people to be profitable and protected. Citrus production has a clearly defined potential in Tunisia, which is now being only partially exploited. And, finally, there is -- in our opinion again -- a prevailing, if unjustified, complacency among many citrus sub-sector participants with respect to the present state of the sub-sector and its prospects for the future.

The wine grape sub-sector in Tunisia, on the other hand, is clearly unprofitable at present and highly vulnerable to international market influences. It also has a clearly defined potential, which is far from being fully exploited. However, wine sub-sector participants, while discouraged and discontent with the current state of the sub-sector, are, at least, trying to find solutions for the existing problems.

Well-managed vineyards are present, if not common. Available technical people are knowledgeable and open-minded. Administrators at ONV are dynamic and well-prepared for their current positions.

In some respects, however, citrus production in Tunisia may serve as a model for wine grape production in that citrus appears to have found a comfortable niche in the local agricultural economy. Citrus production is centered in one small but agronomically suitable environment. Its major export product is the high value Maltese orange for which private exporters have found relatively safe markets in Europe. In addition, other type of citrus find ready acceptance in domestic markets.

The position of the wine grape sub-sector in the Tunisian economy, on the other hand, seems contrived and artificial. While the Tunisian citrus industry could be seen as having followed a natural and basically Tunisian course of development over centuries; wine production in Tunisia at present seems to be an anomaly and more the vestige of a colonial

past, than an industry which would have developed and flourished under Tunisian auspices. Even in a rather liberal Moslem society, like Tunisia, there is clearly considerable social and religious resistance to actively promoting a domestic wine industry. And, the wines produced to date have not found a niche in export markets anywhere near that for Maltese oranges or, even, Tunisian olive oils.

The wine grape industry, therefore, is still trying to find a profitable economic niche, while simultaneously fighting off socio-religious resistance to its existence and the lingering effects of a great deal of bad historical decision-making. Increases in training, research, extension and development funding in themselves are not going to contribute much to the strengthening of the sub-sector, unless greater efforts are made to come to grips with the most basic problems of land utilization and the importance of utilizing appropriate micro-climates for superior wine grape production. There is also a critical need to clearly define feasible marketing goals for the sub-sector.

b. Variety

One of the remaining recommendations with respect to variety selection relates more to the qualitative aspects of wine production in Tunisia and has already been discussed above. Variety selection is obviously very important to both yield potential and the quality of the grape yield. To date, in Tunisia, varietal selections have focussed mainly on quality factors. This is probably a wise orientation since the grape variety planted per se is not now the major factor limiting grape yields. If, however, a concerted effort is made to improve yields of superior wine grapes in more appropriately sited vineyards, then variety selection for response to intensified management would become a more important consideration.

c. Cultural Practices

One of the two remaining recommendations deals with the maintenance of existing vineyards by modernizing and intensifying crop cultural practices. This recommendation is, in our opinion, ill-founded. Yields in existing wine grape vineyards are very low by international standards. Achieving major improvements in grape yields per hectare is important to the survival of wine grape sub-sector in Tunisia. However, it appears to us that

the primary constraints on yield improvement through intensification of crop cultural practices are the variability of available soil moisture during the growing season, the lack of financial incentives for grape producers to adopt improved cultural practices, and the perceptions within the sub-sector that market prospects for Tunisian wines, both domestically and in international markets, are, at best, uncertain.

With regard to the technical aspects of the vineyard maintenance recommendation, one major consideration is the age of the existing grape vines. As shown in Annex A, Table 3, seven percent of existing vines were planted within the last five years; 64 percent are between 4 and 34 years of age; and 29 percent of the vines were planted before 1953. Under "normal" circumstances (with uniform age distribution), one would expect an annual vine planting rate of about 2.5 percent to the total wine grape area just to maintain the existing vineyards. In Tunisia's case, this rate would obviously have to be higher.

Wine grapes grown under dryland conditions in Tunisia are in prime bearing condition when they are between 5 and 34 years of age. Grapes grown more intensively -- i.e. table grapes -- start to decline after about 20 years of age. According to available census data, about two thirds of Tunisian wine grape vines are now in their prime. But these vines are aging and, as one would expect, given the poor financial returns to wine grape production in Tunisia, the percentage of new plantings is low.

All grape varieties used in Tunisia are grafted on American rootstocks resistant to Phylloxera and with some drought tolerance. They are also adapted to the calcium and salinity levels of Tunisian soils. Six main varieties of rootstock are used. They are: *92 Riechter*, *110 Riechter*, *140 Ruggeri*, *f41 Belandeur*, *1103 Paulsen*, and *SO4*.

Proper pruning, trellising, cultivation, and plant protection practices are recommended and, to some extent, practiced for wine grapes in Tunisia. However, given that available moisture is the primary limiting factor on wine grape production, financial returns to adoption of the recommended cultural practices may be negative in dry year and very low even in "normal" years.

d. Irrigation

The last and most important recommendation is to "supervise new plantings so that, to the extent possible, they are established in large blocks where there is good rainfall or where irrigation is available". The present ONV policy on use of irrigation water for wine grapes is also spelled out in the report as follows: "Whereas table grapes are produced under irrigation, virtually all wine grapes are grown under rainfed conditions. In a very small number of cases, wine grapes may receive supplementary irrigation water in exceptionally dry years but these applications never provide more water than that available to vines in years of normal rainfall" (ONV, March 1988, pp.4-5). Saving existing vines during a drought is also cited as a justification for use of irrigation water.

Many Tunisian wine specialists and grape growers adhere to the traditional French view that irrigated wine grapes are inferior to grapes grown under dryland conditions. Adherents of this view, however, have never adequately explained how a grape vine distinguishes between water from irrigation and water from rainfall. Or why, given the appropriate climatic conditions, properly irrigated vines will consistently yield large tonnages of high quality wine grapes per hectare; while vines under dryland conditions will yield grapes of varying quality from year to year as a function of moisture availability.

In most cases, wine grapes in Tunisia would benefit greatly from supplementary irrigation amounting to 200 to 400 millimeters of water during the growing season. This is a modest irrigation requirement compared to other irrigated crops in Tunisia. The objective of such supplementary irrigation would not be to match the average moisture available in "normal" rainfall years, but rather to provide the vines with that amount of moisture which is needed for optimum production of wine grapes.

The optimum production level -- i.e. good yields without loss of quality -- is highly site-specific and also varies with the variety grown. In Tunisia, however, the binding soil moisture constraint must be released if yields are to be improved substantially. And, the optimal amounts of irrigation water for each vineyard could be established rather easily by measuring wine grapes for sugar and acid accumulations during the growing season.

21'

While many growers in Tunisia claim that wine grapes are not irrigated and attempts are made through AOC regulations to ensure that grapes used for wine grape production are not irrigated, we believe many vineyards do, in fact, already receive some irrigation water.

Under current regulations, a 45 hectoliter per hectare production maximum -- i.e. 6.25 tons of wine grapes per hectare -- is imposed on AOC-designated vineyards. This production limit is supposed to preclude use of wide scale supplementary irrigation. But, observed yields in AOC vineyards vary from 10 hectoliters to 60 hectoliters per hectare -- i.e. from 1.4 to 8.3 tons of wine grapes per hectare, which is an indication that, at least, some growers are using irrigation water.

In the current situation, a grower with low dryland grape yields and access to irrigation water might irrigate a portion of his vineyard. Then, for purposes of adhering to the AOC regulations, he could distribute the increase yield from irrigation over his entire hectarage so that average per hectare yields would be at or under the production level allowed to qualify for the AOC quality designation. In these cases, the supplementary irrigation water would have been used to push a limited number of vines beyond their ability to produce quality wine grapes and it would have been much better to allow the grower to use proper irrigation techniques and the same amount of water openly over his entire vineyard.

Irrigating wine grapes is obviously something which is attractive to many Tunisian grape growers because they know the supplementary water will increase their yields enormously. The fact that growers can openly use irrigation water on table grapes to release the seasonal moisture constraint and eliminate the element of uncertainty in their production enterprise is precisely why there has been a dramatic shift out of wine grapes and into table grapes wherever possible. We believe that shift would have occurred even in the absence of significant price differentials between wine and table grapes because irrigation represents such a quantum jump in crop productivity for these growers. The lack of irrigation also clearly discourages grower adoption of other crop cultural practices to intensify wine grape production because, without the supplementary water, the risks of incurring financial losses in years with erratic rains are judged too great.

Due to persistent drought conditions, the 1986/1987 wine grape harvest was poor, with average yields of about 2.5 tons per hectare. The 1985/1986 harvest, however, was the best in ten years, with yields averaging about 4 tons per hectare. With on-demand irrigation available on properly sited vineyards, one could realistically expect to produce an average of ten tons of superior quality wine grapes per hectare consistently each year -- or from 2.5 to 4 times current dryland yields.

The 40 hectoliter per hectare yields reported during the colonial period imply yields of about 5.5 tons per hectare of wine grapes. These yields were accomplished when market incentives and growing conditions were geared to quantity, rather than quality, wine production. Under present conditions, without irrigation, it is highly doubtful that this production level could be equaled as a national average. With irrigation, the colonial average could easily be nearly doubled -- and with production of truly superior quality wine grapes.

With effective irrigation, the current average national yield for wine grapes could be obtained from 6 to 9 thousand hectares of well-sited vineyards, rather than 23,500 hectares in production at present. If the irrigated wine grapes were well-adapted, high-value, superior quality varietals, the increased value of the wines produced would mean that Tunisia could generate revenues equal to or greater than those now being collected from less than one-third of the land presently planted to wine grapes.

4. Key Factors Affecting Costs of Production for Wine Grapes and Grower Net Incomes

a. Yields Required to Cover Costs of Production for Wine Grapes in Tunisia

Enterprise budgets for wine grape production in Tunisia based upon actual farm level survey data are virtually non-existent. Available information from the ONV is limited to single indicative enterprise budgets for three different years -- see Annex A Table 7. While interesting, the budgets are of very limited use because they are based on assumed yields of 5.5 tons of wine grapes and 40 hectoliters of wine produced per hectare using a full technical "package" of inputs -- i.e. labor, machinery, fertilizers, pesticides, etc.. Such yields are far above the national average for the last decade -- i.e. 3.5 tons of grapes and 23.7 hectoliters of wine per hectare -- and, according to the information we collected in our field interviews, few

29

wine growers actually use the full technical package as recommended.

One, however, can use the indicative enterprise budget information supplied by the ONV to calculate the breakeven yields required from AOC, VDQS and other wine grape growers under the assumption of full technical package use. To do this calculation for the 1986/1987, one needs to know the producer prices paid in that year and the average alcohol content of the wines produced.

In 1986/1987, growers were paid on the basis of the alcohol content of the wine produced from their grapes. The AOC producer price was 1.935 Dinars for each one percent of alcohol per hectoliter. Under this same formula, the VDQS and ordinary wine producer prices were 1.920 Dinars and 0.935 Dinars, respectively.

If one assumes, based on the information contained in Report Annex B, an average alcohol content of 12 percent for all wines produced and an average grape to wine conversion rate of 140 kilograms to one hectoliter, producer prices per ton of grapes under the different categories would be:

- for AOC producers : 154.80 Dinars per ton
- for VDQS producers : 153.60 Dinars per ton
- for other producers : 74.80 Dinars per ton.

At these prices, if a grower applied the full ONV technical package to his vineyard and incurred the estimated costs of 745.08 Dinars per hectare, the breakeven yields for the different categories would have been:

- for AOC producers : 4.81 tons per hectare
- for VDQS producers : 4.85 tons per hectare
- for other producers : 9.96 tons per hectare.

The average 1986/1987 wine grape yield for AOC growers was reported to be 3.1 tons per hectare. If one assumes that the average 1986/1987 national production figure -- 2.67 tons of wine grapes per hectare, as calculated from Annex A Table 5 -- applied for VDQS and other producers, then growers, who applied the full technical package in that year, would have incurred the following net losses per hectare:

--	for AOC producers :	265.20 Dinars per hectare
--	for VDQS producers :	334.97 Dinars per hectare
--	for other producers :	545.36 Dinars per hectare.

And, finally, one can deduce from the above information that growers in 1986/1987, after applying the full technical package as recommended, would have had to receive the following producer prices to breakeven on their enterprise operations:

--	for AOC producers :	240.01 Dinars per ton of grapes or 36.00 Dinars per hectoliter of 12 percent wine
--	for VDQS and other :	279.21 Dinars per ton of grapes or 41.88 Dinars per hectoliter of 12 percent wine.

Unfortunately, production year 1986/1987 had the worst national wine grape yields in the past decade due to drought -- and, because of this, the figures above show a worst case scenario for the sub-sector. However, the producers' situation would only have been marginally better if 1986/1987 had been an average production year. If one assumes that the growers across categories produced at the ten year average -- i.e. 3.55 tons of grapes per hectare -- and that they applied the full technical package, then they all would have sustained substantial net losses on enterprise operations. Conversely, even under "normal" year conditions, producer prices would have had to have averaged 209.88 Dinars per ton of grape -- or 31.48 Dinars per hectoliter of 12 percent wine produced -- for growers to have broken even on their enterprise operations.

Clearly, Tunisian growers producing grapes under dryland conditions in 1986/1987 would have been badly hurt financially if they applied the recommended technical package. Input/output price relationships for the package would have resulted in severe financial losses per hectare even the "normal" production conditions -- much less in the face of drought.

Under such circumstances, we were not surprised to find that growers and sub-sector specialists interviewed in 1988 were unanimous in their opinions that wine grape production in Tunisia could not provide current producers with adequate incomes and that wine grapes were now clearly the least profitable crop to grow in northern parts of the country. Conversely, the interviewees consistently cited table grapes and citrus -- both under irrigation

31

-- as the two enterprises with the highest returns to labor and management.

Many people described themselves as being in a severe cost squeeze. Prevailing producer prices and regulations against the use of irrigation water on wine grapes prevented them from adopting crop technologies they are convinced would give them higher wine grape yields. On the other hand, the growers felt that they could not continue to produce under the highly uncertain dryland conditions they faced without substantial subsidies from the government. And, most said that they would move quickly to other crops if they could obtain the necessary capital resources and receive necessary authorizations from government to pull out their wine grapes.

b. Changes in Input Costs

It is clear from our field interviews that the rising costs of the inputs recommended for wine grape enterprises have played some role in producer perceptions of the current cost/price squeeze. However, since no detailed field surveys of actual wine grape enterprises exist to our knowledge, it is impossible to accurately assess the real impacts on producer incomes of such input cost increases. One suspects, however, that the principal grower response to rising costs has been to cut back even further on the use of fertilizers, pesticides, insecticides, and custom-hire tractor use; rather than risk incurring even greater enterprise losses in their application.

Nevertheless, one example of recent input price increases may be helpful to the reader in understanding what wine grape growers as facing in 1988. If one takes the fertilizer component of the recommended technical package, one sees a per hectare requirement for nitrogen applied as 350 kilograms of ammonium nitrate; phosphorous applied as 100 kilograms of triple superphosphate; and potassium applied as 150 kilograms of potassium sulphate. In addition, an application of 3 tons of barnyard manures is recommended per hectare.

A grower wishing to follow these technical recommendations has, in the last two years, been faced with the following price changes:

- ammonium nitrate (33% N) has gone from 6 to 11 Dinars per 100 kilograms;

- triple superphosphate (45% P) has gone from 6 to 9 Dinars per 100 kilograms;
- potassium sulphate (48% K) has gone from 2 to 7 Dinars per 100 kilograms; and
- barnyard manure has gone from 7 to 20 Dinars per ton.

These price changes alone, while a relatively small component in the total package, would mean an increase to the grower in fertilizer application costs of 60 Dinars per hectare. Such an increase is not insignificant when one recalls that AOC producer revenues per hectare -- the highest available in 1986/87 -- only average about 480 Dinars.

Another cost factor which must enter into grower perceptions of the future -- although it is not considered in the ONV budgets -- is the rising cost of agricultural land in Tunisia. At present, unirrigated bare land suitable for wine grape production is reported to be selling for between 15 and 20 thousand Dinars per hectare. Bare land with access to irrigation water is said to be worth about 30 thousand Dinars per hectare. Land with established table grapes can bring an additional 15 to 20 thousand Dinars per hectare.

It is clear in these circumstances that growers are absorbing a considerable cost in foregone interest on the capital value of their assets by maintaining their wine grape enterprises. Even if they sold their land at one-half of its reported bare land value of 20 thousand Dinars per hectare and reinvested the sale proceeds at 7 percent interest per year, most growers would increase their net incomes substantially over current per hectare receipts from wine grapes.

5. Comparative Advantage and Position of Wine Grape Production Relative to Other Alternatives

In reviewing the available information, we are forced to agree with the opinion expressed by many of our field informants. This is that, under present price relationships and practiced technologies, wine grapes have no comparative advantage over any of the other cropping alternatives in northern Tunisia. The comparative advantage of wine grapes in Tunisia is often thought to lie with their ability to survive and produce under dry conditions. While it is probably true that wine grapes can produce a crop of perhaps 1 or 2 tons per

hectare even with 300 to 350 millimeters of annual rainfall per year, it is a big mistake to base the comparative advantage of this crop solely on its ability to survive under drought stress.

Wine grapes will never establish themselves as a profitable crop in Tunisia if they continue to be thought of only as an extensive, low intensity culture, like oil olives. The potential comparative advantage of the wine grape in Tunisia lies with its ability to respond to proper management and be highly profitable on land which is marginal or useless for other crops. In this technical aspect, the wine grape is similar to rice or dates. All three of these crops can not only survive but be highly profitable under extreme growing conditions -- i.e. rice under flood conditions; dates under brackish water conditions; and wine grapes under soil and slope conditions generally considered marginal for other crops.

In this regard, the ideal site for wine grape production in Tunisia would be on hillside soils where the climate is cool and supplemental water can be made available either through irrigation or water harvesting techniques. Whereas wine grapes grown under dryland conditions on the best valley soils clearly are not competitive with alternative crops; properly sited vineyards on the hillsides growing superior grape varieties under supplementary irrigation could be a very interesting proposition for skilled growers.

6. Prospects for Improved Production of Wine Grapes

Prospects for quality wine grape production in Tunisia are good if sub-sector specialists grasp the fact that the vineyards and other facilities obtained through nationalization are not a resource, but rather an impediment to Tunisia's effort to produce superior wine grapes and high quality wines.

Traditional practices, which have been profitable and technically appropriate in France, are not necessarily applicable in Tunisia. It is clear that the wine grape varieties planted to date and the climate are the primary factors limiting the quality of Tunisian wine grapes. It is also clear that available soil moisture is the primary factor limiting yields for all types of Tunisian wine grapes. Since the production objective for Tunisian growers is optimal yields of superior wine grapes, if the methods which should be used for production of such grapes collide with foreign traditions, then those alien traditions should be abandoned.

The choice at present is between following an imported and contrived grape productior tradition which is demonstrably unsuitable for Tunisian conditions and objectives or adoptin production technologies which are truly suitable to local growing conditions and potential. Ir our opinion, the potential for Tunisia as a specialized producer of superior wine grapes doe not lie with the current program of "reconverting" the poorly sited vineyards which ar technically suitable only for low quality grape varieties. The high profit potential lies with diversified superior grape production on appropriate hillsides under supplementary irrigatior and intensive vineyard management.

Wine grape production should be concentrated in those limited areas where indisputably superior quality grapes can be grown. Modern wine making equipment should be available in these regions so that quality wine grapes can be collected with minimum delay and transformed into quality wines. To increase total sub-sector profitability, there also should be greater concentration on local production of raisins and table grapes, which are both highly profitable in local markets and less demanding environmentally than superior quality wine grapes.

Export possibilities certainly exist for high quality wines and early fresh table grapes. Higher quality wines and table grapes would also find ready markets with tourists in Tunisia. Raisins would also find significant domestic market demand and could possibly exploit some market niches in Middle Eastern markets.

Under such a plan, the total volume of grape products available for export might diminish but export revenues from all grape product exports could increase. Farmer revenue from more diversified production of grapes and grape products would be increased and the entire sub-sector would be more profitable and less vulnerable to the vagaries of annual weather patterns.

B. Wine Production Aspects

1. Description of Wine Production Capacity

According to official statistics (ONV, March 1988), total wine production over the period 1977/1978 to 1986/87 averaged 555,853 hectoliters per year and ranged from 701,959

hectoliters in 1977/78 to a low of 418,024 hectoliters in 1986/87. Preliminary figures for 1987/88 estimate total wine production at 370 thousand hectoliters. This sharp drop in production is due primarily to the onset of drought conditions in mid-1987. The current grape/wine conversion rate is about 150 kilograms of grapes per hectoliter of wine produced.

Theoretically, wines can be produced in Tunisia by 37 different organizations. Of these, 12 are cooperatives, organized under the Union of Tunisian Wine Cooperatives (*Union des Caves Cooperatives Vins Viticoles de Tunisie*, UCCVT); 10 are attached to the *Office des Terres Dominiales* (OTD), the government agency which manages the state farms; and 15 are under private sector management.

Wine production by these three groups of producers is shown in Annex A, Table 8 for the period 1983/84 to 1986/87. During this period, cooperatives produced 58.5 percent of the total wines; the state farms 26.9 percent; and private operators 14.6 percent. Production share by the cooperatives and the state farms increased slightly at the expense of the private operators, even as absolute production declined. However, since production shares are based on actual wine marketings, this change may partially reflect the types of wines produced and their aging periods than any long-term production trend -- i.e. red wines are aged for one to two years before sale, whereas rose wines are generally sold within three to six months after the grapes are harvested. As wines in inventory are not included in production share figures, the decline in private production may be somewhat exaggerated if they produce proportionally more red wines.

As discussed on pages 7 to 9 above, the composition of the wines produced has also shifted rather dramatically in the 1980s -- Annex A, Tables 5 and 6 -- partly as a result of the maturation of vines planted in the late 1970s and early 1980s under the ONV restructuring program and partly through the somewhat arbitrary reclassification of ordinary wines as AOC and VDQS wines. In the late 1970s up to 97.3 percent of all Tunisian wines were ordinary table wines. By 1986/87, however, the percentage of such wines had dropped to 39.6 percent of total production and the country was producing 25.3 percent AOC wines, 33.7 percent VDQS wines, and 1.4 percent superior wines.

36

The physical plant at the wineries in Tunisia was inherited from European vintners after nationalization of their assets. Almost all of the inherited wineries were constructed before World War II and many date from the turn of the century. While some of the wineries have been modified and repaired over the intervening years, there has been no new building construction since immediately after the war.

With respect to wine making equipment and storage, there have been efforts over the last fifteen years to improve winery facilities to keep pace with advancing technologies. The main improvements have been in:

- installing refrigeration units to chill incoming grape juice and maintain cellar temperatures;
- providing new stainless steel holding tanks;
- painting the interiors of existing tanks with epoxy liners;
- installing equipment to automatically monitor sugar content in the wines;
- providing equipment to handle sulfur additives in preparation of the musts; and,
- finally, in installing new grape presses.

In all, about 5 million Dinars ($6.3 million at current exchange rates) has been invested in this winery modernization effort.

At present, the total wine production capacity of the Tunisian wineries is estimated at between 1 and 1.2 million hectoliters per year. In recent years, however, the functioning wineries have been operating at from 30 to 50 percent of capacity.

2. Key Factors Affecting Wine Production

The key factors affecting the level and composition of wine production in Tunisia are total grape production and the varietal composition of the grapes harvested. Strangely enough, the level of wines in inventory seems to play little or no part in growers' production decisions, possibly due to the fact that the GOT pricing system apparently guarantees the grower price for wine grapes, irrespective of wine stocks in inventory.

With respect to total grape production, interannual yields have shown considerable variability in the last eleven years. Grape production has varied by as much as 205 thousand

37

hectoliters between years and overall production has declined by more than 300 thousand hectoliters between 1977/78 and 1987/88. These production shifts can be attributed to several factors, including direct variability:

- drought conditions in several years;
- the effects of hot, dry winds -- "siroccos" -- in the spring on the setting of grapes on the vines;

and structural changes in the sub-sector:

- the varietal reconversion program and the planting of new vines on about 4,665 hectares in existing vineyards; and
- the conversion of existing vineyards to alternative crops, chiefly irrigated table grapes, fruit and nut crops.

As discussed above, the composition of wines produced has also shifted rather dramatically in the mid-1980s as a result the national reconversion program. Production of ordinary table wines has declined from 682,901 hectoliters in 1977/78 to only 165,607 hectoliters in 1986/87, while total production of AOC, VDQS, and superior wines has increased from 19,058 hectoliters in 1977/78 to 252,417 hectoliters in 1986/87.

Clearly, winery production capacity per se is not a constraint on total wine production given the excess capacity in existing wineries.

3. Key Factors Affecting Wine Quality

The key factors affecting wine quality in the 1980s have been the reconversion program, the timing of harvests, the lack of cooling equipment in many wineries, the skill levels of wine technicians, and government legislative and research programs.

Since the European Community (EC) -- Tunisia's largest export client -- banned the importation of ordinary wines for blending purposes in 1970, the local wine industry has tried to reorient itself toward increased production of higher quality bottled wines. The varietal reconversion program, as far as it has gone, has probably been, on balance, a positive factor in changing the production mix and upgrading the quality of local wines.

Two other positive factors in the development of higher quality wines have been ONV's sponsorship of GOT legislation to improve quality controls on wine producers and its

joint efforts with FAO in wine research.

Since 1970, the parastatal organizations -- OV and ONV -- have been prime movers in sponsoring legislation aimed at modernizing the wine industry. Successive laws since 1973 have defined and tightened restrictions on licit and illicit wine production practices in keeping with standards of the International Office for Vines and Wine. Other laws have promoted better standards for wine labelling and led to somewhat better definition of the local system for AOC and VDQS wines by borrowing heavily from the comparable French classifications. This has resulted in the creation of four new regions with AOC designations and one VDQS administrative classification. Finally, a national commission of wines has been organized to enforce the classification system and to provide a professional group of wine tasters for the industry.

With respect to wine research, the ONV has recently concluded a project with the FAO and the United Nations Development Program aimed at improving production of high quality wines. This project succeeded in converting an old vineyard and winery into a research center for the industry. It also provided research results on new blending formulae for wines within each of the AOC regions and carried out extensive testing on the varietal characteristics of grapes grown in different microclimates. These results are now being communicated to wine producers through ONV agents.

With respect to the timing of the grape harvest, the ONV, in collaboration with wine producers, has instituted a system of field sampling of ripening grapes to determine optimal harvest times. Unfortunately, this system has not yet convinced farmers to change their harvesting times. This problem is related to the fact that producers are paid fixed prices for their grapes based on their alcohol content per hectoliter. Many producers, therefore, leave their grapes on the vines beyond what field agents consider to be their optimal maturities in an effort to raise the percent alcohol yields in the resultant wines. This practice results in higher total receipts for the producer under current pricing systems, but it lowers overall wine quality for the industry because the harvested grapes have sugar content beyond that necessary for optimal fermentation.

Another negative factor affecting wine quality is the fact that some of the existing wineries are poorly equipped with wine cooling equipment. Most of these wineries depend on old and technically outdated cooling equipment in their production processes and consequently have difficulties in controlling fermentation temperatures. Since temperature control is a critical factor in production of the higher quality Tunisian wines, the lack of modern equipment is a serious constraint on the national modernization effort.

A third negative factor cited by the ONV as affecting wine production is the lack of well-trained wine specialists. After the departure of the European settlers in 1964, Tunisia found itself confronted with both a declining wine industry and an absolute lack of trained personnel to reverse the decline. In an effort to provide such expertise, the GOT has funding training programs for Tunisians at French universities having outstanding wine programs -- i.e. Bordeaux, Dijon and Montpellier.

While this effort has succeeded in training 26 specialists, the industry still suffers from an overall lack of technicians and the fact that there are only two trained technicians working for private sector wine producers. Moreover, more diversification in training opportunities would probably also be beneficial for the sub-sector in bringing forth new perspectives on modern wine production and giving students access to new grape and wine production technologies.

4. Key Factors Affecting the Costs of Wine Production

To our knowledge, there are no existing surveys of the costs of wine production in Tunisia. While individual winery operators must maintain certain financial records for tax purposes, it appears that no analyses have been conducted to consolidate these records and determine average production costs across the operating wineries.

From our field interviews, it appears that most of the cooperatives and state wineries are currently operating without much of a fixed cost burden. This is the result of the GOT's confiscation of the European settlers' assets without compensation in 1964. These nationalized assets were apparently turned over to the current operators to manage at no initial cost to themselves. In the intervening 24 years, individual wineries may have incurred certain fixed

costs in plant and equipment modernization but for most operators the essential financial relationship in annual operations is between the variable costs incurred in wine production and the receipts from the sales of those wines. This relationship probably is sufficient to explain why most of these wineries can continue to operate at such low levels of plant utilization in an era of declining wine grape production.

Of course, this "salvage" situation cannot continue indefinitely. To the extent that wine sale receipts cover annual variable production costs but are not sufficient to generate the internal resources for plant and equipment modernization, the present capacity will continue to deteriorate and eventually reach the point where it can no longer be renovated at acceptable costs. Government loans are not an alternative solution to this situation, if producers' margins are so narrow as not to generate the resources needed to service the loans.

5. Prospects for Improved Wine Production

The efforts at improving wine quality and the tightening of wine production and presentation standards in the 1980s are the most positive aspects in the present Tunisian wine industry. Actual annual wine production, however, has been highly variable in this decade. Moreover, it is clear from our field interviews that both grape growers and wine producers are very dissatisfied with the net revenues they are receiving for their production enterprises. Both groups attribute their low -- or negative -- net revenues to three principal factors:

- high government taxation on domestic wine sales, without concomitant subsidies -- or other support payments -- to producers;
- production costs which are rising more rapidly than producer prices; and
- lack of stable and remunerative international markets for Tunisian wines.

In interviews when respondents were asked to rate the net profitability of alternative crops to producers in northeastern Tunisia, irrigated table grapes and citrus were uniformly rated as most profitable crops and rainfed wine grapes were uniformly rated as the least profitable crop.

While we cannot confirm the validity of these producer observations with farm-level data across crop enterprises, it is clear that wine grape growers and winery operators are

41

quite discouraged about their future prospects in the wine industry. Many view irrigated table grapes as the most logical alternative crop, given their experience with wine grapes. Others see citrus or other tree crops as preferred alternatives. No one we interviewed even hinted that they would be interested in expanded wine grape hectarage -- or increasing input use levels in existing vineyards.

The wine industry is clearly in a state of hiatus. Producers are probably in the best position they will ever be to make the changes needed to produce high quality wines; but they have few real incentives to do so. Unless new high value international markets can be found and exploited and the GOT develops a more creative approach for use of present tax receipts from alcoholic beverages for the benefit of grape and wine producers, there appears to be a real danger that total wine production in Tunisia will continue to decline in the 1990s.

If the contraction in total production was selective enough to eliminate that hectarage currently in ordinary table wine varieties by conversion to more profitable crops, the net effect on the Tunisian economy would probably be a positive one. However, if net returns to producers are so low that even production of superior grape varieties on properly sited vineyards is consistently unprofitable, then the wine production will continue decline in the medium-term -- and the industry might possibly disappear in the early part of the next century.

Similarly, the closing of unprofitable wineries in Tunisia would have the beneficial effect of increasing operating efficiencies in the remaining units. After such a consolidation of productive capacity, selective investments could be undertaken to modernize wineries operating at near full capacity and the remaining operators would be in a better position to contribute such modernization from internal resources.

C. Export Marketing Aspects

1. Description of the Role of the ONV in Wine Marketing

As stated in Public Law 70/39 of 14 August 1970, the OV -- and its successor agency, the ONV -- were created as government agencies with full monopoly powers over all aspects of marketing for wines and grape products produced in Tunisia. The ONV's monopoly powers

47

extend to both domestic markets and the international market. At its discretion, the ONV may delegate some or all of its marketing responsibilities to cooperative, state or private producers of wines and/or grape products.

In practice, the ONV has the ultimate responsibilities in wine and grape product marketings for the following:

- negotiation and/or approval of all export contracts with foreign brokers;
- authorization of all wine sales by Tunisian vintners and bottlers;
- promotion of Tunisian wines in domestic and export markets;
- authorization of all trade names used for Tunisian wines;
- research and development activities for new wines and grape products;
- negotiation of producer prices for wine grapes and vintner margins in wine production; and
- formulation and implementation of Tunisian regulations with respect to AOC, VDQS and other wine designations, wine making practices, and quality testing and enforcement of standards for all wines.

In short, the ONV has ultimate responsibility for all aspects of marketing of wines and grape products in Tunisia.

2. The Timing and Consistency of Wine Availability

At present, Tunisia exports only red and rose wines. In general, the timing of wine exports are a function of availability and the needs of the client.

Rose wines are held in storage for approximately three months before shipping to both the domestic market and international clients. Since the grape harvest takes place in August and September each year, these wines are available for shipment starting in December of the production year and January and February of the next year.

Bottled red wines, however, are aged for a minimum of one year and the superior ones may be aged for two or three years before shipment. The single exception to this pattern is a *Beaujolais* type wine -- i.e. *Primeur* -- which has been developed for the West German market. This wine is shipped as soon as possible after pressing and fermentation are completed to enter the market ahead of the French *Beaujolais* wines. It apparently has a short shelf life and is

43

viewed by the ONV as a specialty wine.

In general, then, rose wines from the 1987 harvest entered the markets early in 1988 and red wines from the same harvest will be available for shipment in early 1989 or later, depending on the specific wine.

With respect to export availabilities, the domestic market is heavily oriented toward consumption of rose wines. Over 80 percent of domestic consumption is rose wines. Red wines are consumed in this market primarily during the winter months. Consumption of white wines is relatively insignificant among Tunisian consumers -- i.e. less than 5 percent of total consumption.

Consumption of Tunisian wines by foreign tourists is a significant factor in the domestic market throughout the year, with a peak in the period from April to September. The ONV views wine consumption by tourists as complementary to wine exports as a generator of foreign exchange. Growth in consumption of wines by Tunisians, however, has been actively discouraged by the GOT as an element in its overall social policy. The principal policy vehicle used to implement this social strategy is an array of domestic ad valorem taxes and surtaxes on alcoholic beverages, as discussed in Section II.7. below.

In summary, then, it appears that international clients are clearly the target of opportunity in the GOT's national strategy and for the Tunisian wine industry. The allocation of available wine stocks between the tourist trade and potential importers in international markets is largely a function of price levels and realized foreign exchange earnings in the two markets.

3. Description of Local Capacities for Product Preparation, Packaging and Labelling

Export wines from Tunisia are shipped to clients both in bulk and in bottles. Wines in bulk can be supplied directly from any of the local wineries and are exported in container ships from the ports of Tunis and Bizerte under ONV supervision. This method is used also exclusively for shipments of ordinary table wines to French intermediaries for transshipment to Francophone countries in West Africa.

There are presently nine Tunisian wine bottlers. Of these, the *Union des Caves*

Cooperatives Viticole des Tunisie (UCCVT) is the largest operation. It handles about 66 percent of the wine bottling -- i.e. 20 million bottles per year, of which 1 million are currently exported.

The combined bottling capacity of these operators is currently about 50 million bottles per year. However, the equipment used in most plants is judged by the ONV to be old and technically outdated. It is not up to international quality standards with respect to wine cooling equipment, labelling and/or packaging materials.

Among the public bottling operators, only the UCCVT is deemed to have adequate equipment and bottling standards for export wines. All bottles, labels, corks and packaging materials for public bottlers are obtained from local suppliers in Tunisia as part of the GOT's "infant industry" protection policy. These materials as supplied are of variable quality and virtually none of the resulting bottles meet the presentation standards needed for successful export to European and North American markets.

In the private sector, only the SEVT in Bizerte is considered by Tunisians to be an "ultra modern" bottler. This firm operates as an "off shore" enterprise -- i.e. it has obtained special authorization to import all of the wine bottling materials it uses for exported wines from international suppliers - chiefly France and Spain. The wines bottled by this supplier are noticeably superior in appearance and this is undoubtedly a significant factor in explaining why this company is the only one that has succeeded to even a small degree in penetrating markets in the United States and Canada.

Most Tunisian wines are available in 75 centiliter and 37.5 centiliter bottles. The only exception is *Sidi Saad* wine which is bottled in a 70 centiliter Amphora type bottle. Bottle types used for all other red export wines are comparable in shape and quality to those used for *Bordeaux* and *Burgundy* wines in France. Flute bottles are used for rose export wines.

The 75 centiliter bottles are packed either 6 or 12 to a box and the 37.5 centiliter bottles are 24 to a box. Boxes are palletized in lots of 70 cartons. Pallets are then shipped in 20 foot containers, with between 17 and 18 thousand 75 centiliter bottles per container.

Finally, with respect to labelling, wines are shipped under AOC, VDQS and Superior

brand names. Labels can be designed to importer specifications, as necessary, in English, French or German. In addition, the ONV has produced several high quality, trilingual brochures which present Tunisian export wines in both text and photographs.

4. Description of Existing Markets for Tunisian Wines, Quantities Exported, Prices Received, and the Characteristics of Export Wines

Annex A, Tables 9 and 10 summarize the information obtained from the ONV on export markets for Tunisian wines, the quantities exported, and the prices received between 1983/84 and 1986/1987. Annex B presents a brief summary of the characteristics of the major Tunisian export wines.

Over the past several years, Tunisia's principal export client has been the European Community. Since Tunisian ordinary wine export sales to the French-speaking states in West Africa are brokered through a consortium of French agents, one can conclude that, over the last four years, only 7.4 percent of aggregate export wine sales have been to markets other than EC countries. These sales have been increasing slowly but it would take a major marketing effort to displace the EC as the principal importer of Tunisian wines in the foreseeable future, particularly if one considers the brokered sales through France to West Africa.

With respect to prices received, Annex A, Table 10 is somewhat misleading in that it shows receipts from Tunisian wines to be significantly higher in domestic markets, than in international trade. Since a very high proportion of the received domestic wine price represents government taxation on local consumers, a high percentage of domestic wine receipts is in effect a transfer between Tunisian consumers and the government and does not necessarily represent a net gain for the economy.

In international markets, Tunisia receives the highest average prices for wines in the EC. Prices received in the Federal Republic of Germany in 1986/1987 were slightly more than double those in "other" markets and over three times the average price received from sales to West African markets via France. The low prices received in West African markets are of course a reflection of the low quality wines exported to these markets -- wines which have essentially no other international market.

46

Finally, Tunisian export trade is composed almost entirely of red and rose wines. The only white wine exported is *Muscat de Kelibia.*

5. Cost Structure for Wines Exported FOB Tunis

Annex A, Table 11 presents ONV estimates for the 1988 export cost structures for bottled AOC/VDQS and ordinary table wines FOB Tunis. Actual prices received for these wines, however, are a function of shipping and other transit costs between Tunis and the importer, and ONV negotiating skills with foreign brokers.

In the EC, the CAP reference price system plays a major role in discouraging Tunisian sales of higher quality bottled wines. This situation is unlikely to change in the foreseeable future, given problems of excess wine production within the Community.

6. GOT/ONV Pricing Policies for Wines

In our interviews, ONV officials were extremely reluctant to talk about the GOT/ONV price policies applicable to wines sold in either international or domestic markets. They did state the ONV is responsible for presenting the GOT with detailed proposals on all aspects of pricing for all grape products in Tunisia. In discharge of this function, the ONV is responsible for managing on behalf of producers a price stabilization account -- a *Caisse de Perequation* -- which accounts for all wine sales -- direct or indirect -- and presumably is intended to mitigate interannual variations in receipts for wine sales across all markets.

In export markets, prices offered by the ONV -- either directly or through authorized intermediaries -- are apparently determined by a process of averaging projected sale quantities and prices across all clients, net of transaction costs. In this regard, one would suspect that the announced reference price schedules for wines entering the European Community must play the dominant role in ONV price calculations but officials, however, were not forthcoming with details on the precise mechanism for accomplishing this task.

Whereas export pricing structures -- see Annex A, Table 11 -- do not appear to include any GOT taxes; domestic wine sales are heavily taxed. For example, the combination of ad valorem and unit taxes on bottled wines sold in domestic markets increases wholesale prices as follows:

49

-- on ordinary wines by 326 percent from 0.367 to 1.195 Dinars per 75 cl. bottle;

-- on VDQS wines by 326 percent from 0.368 to 1.199 Dinars per 75 cl. bottle;

-- on the AOC *Chateau Mornag* wines by 323 percent from 0.477 to 1.541 Dinars per 75 cl. bottle; and

-- on the AOC *Magon* wines by 323 percent from 0.593 to 1.913 Dinars per 75 cl. bottle.

This system of domestic taxation on wines has been heavily criticized by both wine grape growers and wine producers. One example of such criticism is a recent appeal by the *Union Centrale des Cooperatives Vinicoles de Tunisie* on 15 March 1988 to the Minister of Agriculture. This appeal contends that the present tax system depresses local sales of wine, encourages fiscal fraud and unfair competition through tax avoidance, and heavily penalizes grape growers and wine producers by lowering producer prices and net incomes. Low producer prices, in turn, are said to be the principal cause for declining wine grape production and export sales.

While we cannot quantify the actual net effects of domestic taxes on producer prices and net incomes on the basis of the available information, it is clear that the whole system for administratively fixing prices and taxes for wines in Tunisia poses enormous problems for the government. Not only does the present system of taxes seem to engender all of the problems mentioned above, it also specifically discriminates against production of superior wines because of its ad valorem nature.

One would think that, if the GOT truly wishes to encourage production of higher value wines for export, domestic taxation should at least be used as a policy instrument for discriminating against producers of the low quality, ordinary wines in low demand on international markets. Tax receipts could then be used to differentially raise producer prices for superior wines still further.

In this regard, adoption of a uniform flat per bottle tax on the wines sold in domestic markets, as proposed by the UCCVT, would be a useful first step in tax reform. Moreover, increased use of government tax receipts to raise prices to all producers -- private and public -- for production of superior wine grapes and wines would be preferable to the current

practice of reserving those receipts in part to subsidize the losses incurred by the state farms and other public agencies in growing wine grapes.

7. Competition Between Wine Exports and Domestic Consumption

At present, the ONV views the relationship between allocation of wines for export and the domestic markets -- i.e. for tourists and local consumers -- as a complementary one. The ONV statements with respect to marketing policy imply that sales of wine to foreign brokers and to tourists always receive the highest priority because they generate foreign exchange earnings. Supplying Tunisian consumers with wine is clearly a secondary priority, where effective demand is dampened, in the first instance, by a high level of ad valorem taxation and, secondarily, by socio-religious sanctions against consumption of alcohol by adherents to Islam.

As can be seen in Annex A, Table 9, export sales over the period 1983/1984 to 1986/1987 have been highly variable; whereas sales in the domestic market have been essentially stagnant at between 232 to 238 thousand hectoliters.

8. Information Available to the ONV and Wine Producers on International Markets for Tunisian Wines

The ONV is well equipped with telephone, telex and facsimile facilities. Much of its current information on wine export markets comes from contacts with overseas clients by telephone and telex. However, ONV officials often travel in Europe and North America to gather information in face-to-face interviews. In North America, for example, Tunisian representatives attended the April 1988 wine importers' exhibition in Boston, Massachusetts. They also have had some direct contacts with U.S. wine importers on the east coast and have had more extensive one with agents in the Canadian provinces of Quebec and Ontario. Certain Tunisian wines have already been tested and certified for entry into Quebec by the provincial liquor authorities and the certification process is underway for Ontario. In the United States, Tunisian wines have been imported by *Carthage Imports*, P.O. Box 5487, Kingswood, Texas 77325 (Tel: 713-358-0584) (see part B of this report).

In addition to the above contacts, the ONV receives wine production and marketing information from the standard French wine journals and trade publications. Additional materials on wine processing standards are received through the International Office on Vines and Wine.

III. CONCLUSIONS

A. Costs as They Affect Export Potential

It is extremely difficult to establish any linkages between wine grape and wine production costs, on the one hand, and Tunisian export prices, on the other. The GOT/ONV system of fixing prices for wine grapes and wines is apparently is wholly conditioned by projections of net export prices to be received in two or three international markets; the administrative AOC, VDQS and ordinary wine designations; and the alcohol content of the wines produced. Estimated production costs for wine grapes or the resultant wines seemingly play no direct role in price determination.

In effect, Tunisian export prices offered or received are not necessarily a direct reflection of local production costs. To the contrary, the limited use of inputs and lack of winery modernization observed are reflections of grower/vintner accommodations to the low producer prices offered them by the government.

The obvious risk in this type of pricing system is that it may not -- and, by the current evidence, does not -- provide adequate incentives to grape growers and vintners to even maintain the productivity of their present operations -- much less make further investments in improved technologies needed to modernize the sub-sector.

Certain of these deficiencies are mitigated for the public agencies engaged in wine production by GOT accumulation of tax receipts on sales of wines in domestic markets. Portions of these receipts are used to defray the losses incurred by these agencies. Receipts have also been used in the past to provide subsidies to both public and private growers for certain changes in line with the government's sub-sector development program. These payments, however, have now ended and apparently will not be renewed.

Our principal conclusions, then, are that:

50

- the present price fixing system does not provide the sufficient incentives to either public or private participants in the wine sub-sector;
- private participants are placed at a further disadvantage vis-a-vis their public sector counterparts by the GOT practices of differentially distributing tax receipts to the public agencies; and
- subsidizing of public agencies to produce wine grapes on the fertile plains actually slows down the adjustments of the wine industry to opportunity costs and market needs.

B. Quality as It Affects Export Potential

Wine quality is inevitably a contentious subject, in that the qualitative aspects of any wine are judged differently by the consumer and the producer. At present, we can conclude that ordinary wines produced in Tunisia constitute the biggest problem in export sales. These wines essentially have no international market outside of Francophone West Africa. They receive low prices in this market and, as the ONV appreciated, currently constitute a misuse of Tunisian resources.

The best of the Tunisian AOC and VDQS wines are of sufficient quality to compete in European and North American markets at moderate prices in direct competition with Spanish, Italian, Yugoslavian, Bulgarian, Chilean and American wines.

The principal marketing problems encountered to date in our investigations have been:

- the lack of uniformity between different lots of the same export wines;
- the tendency of wines made from certain grape varieties to turn brown in the bottles if kept in storage for extended periods; and
- the sub-standard corks, wrappings and labels used on a large percentage of the wines currently being exported.

This last deficiency, as discussed in greater detail in the Part B report, constitutes a major short-term problem for Tunisian wines in highly competitive international markets, where poor bottle presentation can induce consumer rejection of a wine, regardless of its inherent qualities.

C. The Present Marketing System as It Affects Export Potential

The ONV -- and the vintners authorized by it -- have made determined efforts to diversify export sales away from the French market in the 1980s. The ONV has had its greatest

51

success in the west German market, partly as a result of the demand for Tunisian wines expressed by Germans who have been tourists in Tunisia. One private vintner has succeeded in penetrating the United States market in a limited way and the ONV has entered into seemingly successful negotiations with Canadian importers.

The most difficult marketing problems faced by Tunisia at present are:

- the discriminatory trade practices of the EC under the CAP with respect to imports of bottled wines and the favorable export subsidies offered under the CAP for EC-produced wines; and
- French control of the Francophone West African trade in ordinary wines.

Neither trade problem seems likely to be mitigated in the foreseeable future.

The final problem is that Tunisian exporters are severely handicapped in most new export markets -- particularly the United States and Canada -- by the lack of funding for promotional activities. In highly competitive markets, wine sales are directly linked to the exporter's capacity to contribute to the advertising and promotional costs needed to place wines with distributors. Given the relatively small quantities of Tunisian wines available for export, it is highly unlikely that international brokers can be found who would be willing to assume these costs unilaterally.

D. GOT Policies and the Role of the ONV as They Affect Export Potential

1. The Predominance of ONV in Wine Marketing

Wine production in Tunisia is increasingly a public enterprise. Private producers currently do not have sufficient incentives to even maintain -- much less expand and modernize their operations -- due to low producer prices and the GOT's differential use of domestic tax receipts to support public agencies.

Barring GOT moves to restructure the current system and encourage producer groups more equitably, we would expect the current exodus of private producers from the sub-sector to continue and intensify. Such a program should be strongly oriented toward promotion of superior wines for export sales to tourists and the more affluent international markets. Sub-sector leaders must reassess the current "restructuring" program and readjust activities to correct the technical deficiencies outlined earlier in this report. And, finally, these leaders

57

must anticipate the effects of increased competition on the sub-sector and be prepared to allow a further contraction in both the land and other resources allocated to wine grape/wine enterprise, as many poorly sited vineyards and inefficient wineries are shown to be non-competitive.

If, on the other hand, sub-sector activities in the future are to be increasingly dominated by public agencies -- the ONV, the state farms and government-controlled cooperatives -- then strong public leadership will be needed to redirect the use of public land and other resources to other crops, to increase the productivity of those enterprises remaining in grape and wine production, and to subsidize enterprise losses from government tax receipts, as necessary.

Under a restructuring program, necessary sub-sector adjustments would be affected in response to market forces. Producer prices would be a direct function of border prices and transaction costs in international marketing, plus domestic wholesale prices. Government interventions would be restricted, in the main, to mitigating the effects of unfair trade practices in international markets, supportive promotional efforts, and, as necessary, a export quality control program for wines.

Under increasing public domination of the sub-sector, many of the needed reorientations could be accomplished by government fiat, not direct market forces.

2. GOT Development Policy Towards the Sub-Sector

There are inevitably strengths and weaknesses in the GOT's sub-sector development policies.

Positive aspects have been:

- the new orientation toward increasing production of superior wines for export in bottles, rather than as bulk shipment;
- the efforts extended to date to diversify export sales away from the French market,
- the limited support for attendance at trade shows and other product promotional activities in the Canadian and United States markets;
- the research activities aimed at introduction of superior grape varietals and development of new wines; and

63

-- the development activities to shift resource use into production of irrigated table grapes and raisins.

Negative aspects have been:

-- the GOT/ONV pricing system which fixes grower wine grape prices and processing margins for vintners administratively and provides few, in any, incentives for sub-sector modernization;

-- the tax system for domestic wine sales which simultaneously depresses demand for wines sold in domestic markets and differentially rewards public agency wine producers at the expense of private producers;

-- the reluctance of government technicians to consider the potential benefits of irrigation and water-conserving techniques as technical innovations in wine grape production;

-- the reluctance in the restructuring program to allow, and indeed, encourage inappropriately sited vineyards and unprofitable wineries to move resources out of wine grape and wine production; and

-- the poor definition to date of the existing AOC wine regions.

54.

ANNEX A

STATISTICAL TABLES

ANNEX A TABLE 1

STRUCTURE OF WINE GRAPE HOLDINGS

1976

Operators	Hectares in Vineyards	Percent of Total
State Farms	5,760	20.57
Union of Producer Cooperatives	5,660	20.21
Other Public Agencies	1,280	4.58
Private Operators	15,300	54.64
Total	28,000	100.00

Source: ONV, Strategie du Developpement du Vignoble a Raisins de Cuve, ONV, Mars 1988, p.5.

ANNEX A TABLE 2

STRUCTURE OF WINE GRAPE HOLDINGS

1987

Operators	Hectares in Vineyards	Percent of Total
State Farms	5,300	22.55
Union of Producer Cooperatives	5,940	25.28
Other Public Agencies	1,300	5.53
Private Operators	10,960	46.64
Total	23,500	100.00

Source: ONV, Strategie du Developpement du Vignoble a Raisins de Cuve, ONV, Mars 1988, p.6.

ANNEX A TABLE 3

AGE STRUCTURE OF WINE GRAPES

1976 AND 1987

	Age Class of Wine Grape Vines			
	0-4 Years	5-34 Years	35+ Years	Total
1976				
Hectares by Age Class	1,360	20,928	5,712	28,000
Percent of Total Vines	4.9	74.7	20.4	100.0
1987				
Hectares by Age Class	1,650	15,035	6,815	23,500
Percent of Total Vines	7.0	64.0	29.0	100.0

Source : ONV, Strategie du Developpement du Vignoble a Raisins de Cuve, ONV, Mars 1988, p.6.

Note : 1976 figures corrected.

ANNEX A TABLE 4

NEW WINE GRAPE PLANTINGS UNDER THE VINEYARD RECONVERSION PROGRAM

1976-1987

Year	Ordinary Wine Grape Varieties	Superior Wine Grape Varieties
	(hectares)	(hectares)
1976/79	1,758.88	1,542.50
1979/80	577.70	514.27
1980/81	479.96	758.25
1981/82	234.90	434.19
1982/83	261.25	480.75
1983/84	159.10	359.65
1984/85	136.73	261.45
1985/86	157.10	77.75
1986/87	240.03	236.05
Total	4,005.65	4,664.86

Source: ONV, Strategie du Developpement du Vignoble a Raisins de Cuve, ONV, Mars 1988, p.7.

ANNEX A TABLE 5

WINE PRODUCTION BY TYPE

1977-1987

Year	Ordinary	AOC	VDQS	Superior Production	Total
		(Thousands of hectoliters)			
1977/78	682.901	0.378	4.057	14.623	701.959
1978/79	481.235	1.407	0	14.266	496.908
1979/80	509.283	5.582	7.152	22.842	544.859
1980/81	371.181	8.659	19.390	53.938	453.168
1981/82	618.456	20.884	22.762	20.122	682.224
1982/83	414.888	33.177	22.322	29.122	499.509
1983/84	335.797	34.076	31.588	28.138	429.599
1984/85	556.183	34.783	37.678	11.395	640.039
1985/86	450.804	67.498	173.792	0.140	692.234
1986/87	165.607	105.785	140.882	5.750	418.024
10 Year Average Production	458.634	31.223	45.962	20.034	555.853

Source: ONV, Strategie du Developpement du Vignoble a Raisins de Cuve, ONV, Mars 1988, p.12.

ANNEX A TABLE 6

PERCENT OF WINE PRODUCTION BY TYPE

1977-1987

Year	Ordinary	AOC	VDQS	Superior	Total Production
1977/78	97.29	0.05	0.58	2.08	100.00
1978/79	96.85	0.28	0	2.87	100.00
1979/80	93.47	1.02	1.31	4.20	100.00
1980/81	81.91	1.91	4.28	11.90	100.00
1981/82	90.65	3.06	3.34	2.95	100.00
1982/83	83.06	6.64	4.47	5.83	100.00
1983/84	78.17	7.93	7.35	6.55	100.00
1984/85	86.90	5.44	5.89	1.77	100.00
1985/86	65.12	9.75	25.11	0.02	100.00
1986/87	39.62	25.31	33.70	1.37	100.00

Source: Annex Table 5 converted to percentages.

ANNEX A TABLE 7

ESTIMATED COSTS OF WINE GRAPE PRODUCTION USING THE RECOMMENDED ONV TECHNICAL PACKAGE

1978, 1984 AND 1987

Field Operation	Year 1978	1984	1987
	(Dinars per Hectare)		
Soil Preparation/Cultivation	82.50	109.60	144.05
Pruning/Training of Vines	42.00	67.20	70.00
Application of Fertilizers	30.00	58.30	107.25
Disease and Pest Controls	54.00	245.60	225.53
Guarding of the Grape Crop	10.00	13.20	7.00
Harvest Operations	58.00	76.90	81.25
Insurance and Depreciation	30.00	43.00	80.00
Transportation	--	--	30.00
Total Costs	306.50	613.20	745.08

Costs by Year and Major Category

	(in Dinars per Hectare)		
Labor	140.00	238.60	208.30
Machinery	90.00	156.00	184.00
Other Inputs	46.50	175.60	272.78
Insurance and Depreciation	30.00	43.00	80.00

Source : ONV, Strategie du Developpement du Vignoble a Raisins de Cuve, ONV, Tunis, Tunisia, May 1988, pp. 13-15.

ANNEX A TABLE 8

WINE PRODUCTION BY TYPE OF WINERY

1982/83 - 1986/87

Type of Winery	Year 1982/83	1983/84	1984/85	1985/86
Union des Caves Cooperatives Viticole de Tunisie (UCCVT)				
-- Quantity in Hectoliters	321,151	397,445	344,584	238,134
-- Percentage	55.8	58.4	60.8	59.2
Office des Terres Dominiales (OTD)				
-- Quantity in Hectoliters	149,498	191,240	141,933	116,091
-- Percentage	26.0	28.1	25.0	28.9
Private Operators				
-- Quantity in Hectoliters	104,900	91,348	80,163	47,899
-- Percentage	18.2	13.5	14.2	11.9
Total	575,549	680,033	566,680	402,124

Source: ONV, Projet A.P.I.P. Etude Sur L'Exportation du Vin, May 1988, p.6.

ANNEX A TABLE 9

TUNISIAN WINE SALES BY DESTINATION

1983/84-1986/87

	Year			
	1983/84	1984/85	1985/86	1986/87
	(Hectoliters)			
Wines in Stock 1/	122,708	288,609	373,646	290,295
Annual Production	575,549	680,033	566,000	402,024
Domestic Sales	238,105	232,426	201,279	237,138
Export Sales	181,162	394,032	489,049	222,351 2/
Export Destinations				
West Germany 3/	126,940	104,593	62,364	93,246
France 3/	20,332	37,330	72,816	12,967
Francophone West Africa 4/	29,050	232,715	312,145	59,726
Others	4,840	19,394	41,724	27,654

Source: ONV, Projet A.P.I.P. Etude Sur L'Exportation Du Vin, ONV, May 1988, p.13.

Notes: 1. Stocks reported by ONV do not balance the column totals. Stock totals to balance would have to be: 1984/85 - 278,990; 1985/86 - 332,565; 1986/87 - 208,237; 1987/88 - 150,772 hectoliters.

2. Figure as reported does not balance with exports listed below.

3. Total European Community sales were: 1983/84 - 147,272; 1984/85 - 141,923; 1985/86 - 135,180; 1986/87 - 106,213 hectoliters.

4. Francophone African clients include: Cote d'Ivoire, Benin, Togo, Senegal, Cameroon and Burkina Faso. All such sales are through French exporters.

5. Bottled wines exported as 750 cl. bottles, 12 to a case. Total cases exported were: 1983/84 - 38,850; 1984/85 - 47,478; 1985/86 - 78,857; 1986/87 - 88,201.
Bottle sales as a percentage of total export sales were: 1983/84 - 1.9 percent; 1984/85 - 1.1 percent; 1985/86 - 1.5 percent; and 1986/87 - 3.6 %.

ANNEX A TABLE 10

TOTAL VALUE AND AVERAGE PRICES RECEIVED IN DOMESTIC AND EXPORT SALES OF TUNISIAN WINES

1983/84-1986/87

	Year			
	1983/84		1984/85	
	Total Value	Average Price	Total Value	Average Price
	(000 D)	(Dinars)	(000 D)	(Dinars)
Local Sales	6,328	26.58	6,193	26.64
Export Sales	3,093	17.07	6,824	17.32
West Germany	2,512	19.79	2,356	22.53
France	291	14.32	650	17.41
Francophone West Africa	206	7.10	1,548	6.65
Others	83	17.22	269	13.92

	Year			
	1985/86		1986/87	
	Total Value	Average Price	Total Value	Average Price
	(000 D)	(Dinars)	(000 D)	(Dinars)
Local Sales	5,195	25.81	6,488	27.36
Export Sales	6,089	12.45	5,128	23.06
West Germany	1,715	27.50	3,393	36.38
France	1,369	18.80	366	28.25
Francophone West Africa	2,472	7.92	601	10.06
Others	534	12.30	477	17.26

Source : ONV

Note : Average per bottle and per case prices for exported wines in Dinars were: 1983/84: per bottle - 0.374 and per case - 4.488; 1984/85: per bottle - 0.442 and per case - 5.309; 1985/86: per bottle - 0.541 and per case - 6.492; 1986/87: per bottle - 0.691 and per case - 8.286.

ANNEX A TABLE 11

ESTIMATED COST STRUCTURE FOR WINES EXPORTED IN BOTTLES
1988

Cost Item	AOC/VDQS		Ordinary Table	
	(Dinars)	(U.S. $)	(Dinars)	(U.S. $)
Wine Contents	0.184	0.230	0.135	0.169
Wine Bottle	0.165	0.206	0.165	0.206
Export Carton	0.080	0.100	0.080	0.100
Cork	0.035	0.044	0.035	0.044
Cork Covering	0.015	0.019	0.015	0.019
Label	0.010	0.013	0.010	0.013
Bottling and Treatment	0.080	0.100	0.080	0.100
Paletizing and Banding	0.020	0.025	0.020	0.025
Loading and Transport	0.020	0.025	0.020	0.025
Sub-Total	0.609	0.761	0.560	0.700
Breakage at 2 % of Sub-Total	0.012	0.015	0.011	0.014
Sub-Total	0.621	0.776	0.571	0.714
Finance Charges at 3.5 % of Sub-Total	0.022	0.028	0.020	0.025
Sub-Total	0.643	0.804	0.591	0.739
Producer Margin at 10 %	0.065	0.080	0.059	0.074
Sub-Total	0.708	0.884	0.650	0.813
Port Charges	0.007	0.009	0.007	0.009
Sub-Total	0.715	0.893	0.657	0.822
Financial Charges on 180 Day Credit Sales at 3.5 % of Sub-Total	0.025	0.031	0.023	0.029
COST FOB TUNIS	0.740	0.925	0.680	0.850

Source : ONV

ANNEX B

DESCRIPTION OF TUNISIAN WINE REGIONS AND EXPORT WINES

A Brief Description of the AOC Wine Regions and VDQS Wines of Tunisia

Below are descriptions of the six official AOC wine regions of Tunisia. The first AOC regions were defined and designated in 1958. Since then regions have been constantly redefined. While it is generally acknowledged that there are differences among regions in the taste characteristics of the wines produced, environmental differences among regions are not dramatic enough or sufficiently distinct spatially to authoritatively define the boundaries of the six existing regions.

There is also one VDQS designation -- i.e. Mornag.

1. AOC/Grand Cru Mornag

This region, which was established in 1977, is situated in a crescent to the south and west of Tunis. It covers a wine grape growing area of about 2,500 hectares, which is characterized by soils derived from silicate parent materials. The region receives about 500 millimeters of annual rainfall and has an average mean temperature of 12 degrees Centigrade.

The region has produced noted wines since the Carthaginian era. Its wines at present are typified by the red wines Sidi Saad and Domaine des Charmettes. The principal grape varieties used are Alicante Grenache, Carignan, Cinsault and Bouschet, which constitute about 80 percent of all plantings. Blending wines from Mourvedre and Morrastel represent about 20 percent of wine pressings and give the region's typical wines -- e.g. Grand Cru Mornag, Domaines des Charmettes, and Sidi Saad -- their garnet-red color, agreeable bouquet, and full body. The wines are recommended with all meats and, particularly, with game.

2. AOC/Coteaux d'Utique

In this region, which was established in 1980, the climate is generally mild with an annual rainfall of about 500 millimeters. With respect to its soils, the region has two distinct sub-regions.

In the south and southwest, the soils are generally silty with scree slopes over a grape production area of about 1,500 hectares. The red and rose wines from this sub-region -- e.g. Prestige Lamblot, Domain Karim and Coteux d'Utique -- are made principally with the grape varieties, Carignan, Cinsault, Alicante Grenache, Alicante Bouschet and Monique. Small amounts of wines made from Cabernet Franc, Cabernet Sauvignon, Merlot, Syrah, San Giovese, Morrastel and Pinot are used in blending. The wines produced are noted for their body, fine bouquet and softness on the palate.

In the northwest -- the Muscat de Raf-Raf area -- the soils are silty from silicate parent materials. The sub-region is known primarily for its production of Muscat d'Alexandrie grapes, which produce very fruity wines. Other white wines are made using the grape varieties, Pedroximenes, Merseguerra, Clairette and Beldi.

3. AOC/Coteaux de Tebourba

This region, which was established in 1973, covers a large area in a crescent around the northern city of Bizerte. Due to its sunny conditions and the microclimate, the region produces prestige wines with unique characteristics. They are made from the grape varieties -- Alicante Grenache, Carignan, Alicante Bouschet, Merlot, Cabernet and Syrah. Some Mourvedre and Pinot Noir are used in blending.

The region's red wines are garnet-red in color with agreeable and Corsican bouquets. They are typified by the red wine, Magon, and are excellent with all meats. The rose wines

are of the onion skin -- i.e."Pelure d'Oignon" -- type, like Gris de Tunisie, or the Corsician type, like Tardi.

The region's white wines are based on the grape varieties, Clairette and Pedro. They go well with fish and seafood.

4. AOC/Sidi Salem

This region, which was established in 1973, is located about 30 kilometers south of Tunis. Its soils are alluvium with pockets of gravel. The annual rainfall is between 500 and 600 millimeters.

The region produces red and rose wines under the brandnames: Coteaux de Khanguet, Domaine Nepheris, Khanguet Village and Chateau Khanguet. Wines are made principally with the varieties: Alicante Bouchet, Alicante Grenache, Carignan, and Cinsault. Blending varieties are Mouriseche and Pinot Noir. These wines are excellent for red meats and game.

5. AOC/Muscat de Kelibia

This region, which was established in 1958, is characterized by its location of the coast of the Mediterranean. The microclimate is temperate and soils are sandy.

The region produces only a single white wine -- Muscat de Kelibia. It is made with the grape variety, Muscat d'Alexandrie. The white wine is well known in international markets and is rated as one of the best Muscat wines in the world.

The wine is very fruity, soft on the tongue, and fresh on the palate. Alcohol content is not particularly high -- 10 to 12 percent. It is recommended as an aperitif wines and for consumption with seafood and grilled fish. It also is excellent as a dessert wine.

6. AOC/Thibar and Muscat de Tibar

This region was established in 1958 and has a continental climate influenced by its altitude and cold west winds. Freezing temperatures are a problem in the region but it is well protected from south winds by the Djebel Goraa and the Tunisian dorsal uplands. Average rainfall is 630 millimeters per year. The average annual temperature is 16.5 degrees Centigrade, with an average monthly minimum of 4.7 degrees Centigrade in February and a monthly maximum of 37.7 degrees Centigrade in July.

There are 716 hectares of wine grapes in the region -- as designated in three sub-regions: Thibar, Koudiat and Zemamza. Plantings are given in the table on the following page.

Most of the soils in Thibar are dark, silty clays. While there are some vineyards are sited on the slopes of the piedmonts of Djebel Goraa, most are on the plain of Wadi Thibar. These soils are characteristically alluvial in nature. In some places, soils are "hamri". Others are colluvial, light and friable.

The soils of the Koudiat plain are apparently the richest in the region. The presence of a layer of light gravel at a depth of about 1.5 meters plays an important role in providing moisture for the vines during the hot, dry summers.

Wines from Thibar have an alcohol content of between 11 and 13 percent. For the red and rose wines, the major grape varieties used are Carignan, Cinsault, Alicante Grenache and Alicante Bouschet. Small amounts of the grape varieties Mourvedre, Pignatello, Marastel, Saint Giovese. Merlot, Cabernet Franc and Cabernet Sauvignon have recently been introduced. The red wines are ruby red in color, full and agreeable to the palate; while the rose wines are fruity and with pleasing bouquets.

Wine Grape Varieties	AOC Thibar	AOC Koudiat	U.C.P. Zmamza	Total	Percent
		(hectares)			
Red and Rose Wines					
Cinsault	101.00	57.65	--	158.65	31.57
Carignan	52.00	59.86	21.80	133.66	26.60
Mourvedre	24.00	51.83	5.00	80.83	16.08
Alicante Grenache	68.00	2.00	6.03	76.03	15.13
Syrah	--	10.90	7.00	17.90	3.56
Alicante Bouschet	15.00	--	--	15.00	2.98
Merlot	6.00	--	--	6.00	1.19
Merrastel	6.00	--	--	6.00	1.19
Pinot Noir	4.00	--	--	4.00	0.80
Cabernet Sauvignon	--	1.00	1.50	2.50	0.50
Cabernet Franc	--	--	1.00	1.00	0.20
Sangiovese	1.00	--	--	1.00	0.20
Sub-Total	277.00	183.24	42.33	502.57	100.00
White Wines					
Clairette	60.00	11.00	--	71.00	33.20
Pedroximenes	57.00	4.00	--	61.00	28.52
Muscat d'Alexandrie	59.00	--	--	59.00	27.59
Ugni Blanc	21.00	--	--	21.00	9.82
Alicante Blanc	--	1.85	--	1.85	0.87
Sub-Total	197.00	16.85	--	213.85	100.00
Total	474.00	200.09	42.33	716.42	100.00

The white wines of the region are made using the grape varieties: Pedro, Ximenes, Clairette, Belin, Merseguena, Pedroximenes and Ugni Blanc. Improved white varieties are Alicante Blanc and Semillon. These wines are very dry, fine and fresh. Muscat d'Alexandrie is used to produce a Muscat wine.

7. VDQS Wines

The VDQS designation applies to the following areas of Tunisia: Fondonk, Djedid, Khanguet, El Hajej, Bkeni Ayach, Grambulia, Turki Nianon, Bouargoub, Belli, Bordy Hfaiedh, Sidi Dhahes, Kanorba, Soliman, Beni Khalled, Menzel Khalled, Menzel, Bouzelfa, Takelsa, Bin Dranen, Korba and Nabeul.

VDQS red and rose wines are made from 80 percent Alicante Grenache, Alicante Bouschet -- only in red wines, Carignon and Cinsault. Improved varieties used include Mousdere, Nero Amori, Pinot Noir and Nocera. For VDQS white wines, the varieties used include: Pedroximenes, Clairette, Merseguesera, Beldi and Muscat d'Alexandrie.

In the VDQS areas, average annual rainfall is between 400 to 500 millimeters. The soils are light in texture.

Listing of Tunisian Export Winer by Classification Category

Brandname	Classification Category
Red Wines	
Chateau Mornag	AOC/Grand Cru Mornag
Royal Tardi	None
Bonne Bouteille Lamblot	AOC/Coteaux d'Utique
Chateau Khanguet	AOC/Sidi Salem
La Reserve	AOC/Coteaux d'Utique
Thibar	None
El Kahena	AOC/Coteaux de Tebourba
Chateau Feriani	AOC/Coteaux d'Utique
Pinot de Tunisie	AOC/Coteaux d'Utique
Coteaux d'Utique	AOC/Coteaux d'Utique
Domaine Lansarine	AOC/Coteaux de Tebourba
Magon	AOC/Coteaux de Tebourba
Coteaux de Carthage	AOC/Grand Cru Mornag
La Vielle Cave	AOC/Sidi Salem
Sidi Saad	AOC/Grand Cru Mornag
Rose Wines	
Clos Thibar	AOC/Thibar
Domaine d'Arkuosal	None
Domaine de Charmette Mornag	VDQS
Mourouj	VDQS
Haut Mornag	VDQS
Chateau Mornag	AOC/Grand Cru Mornag
Fleur de Mornag	AOC/Grand Cru Mornag
Koudiat	AOC/Coteaux de Tebourba
Clairet de Bizerte	AOC/Coteaux de Tebourba
Prestige Lamblot	AOC/Coteaux d'Utique
Coteaux de Carthage	AOC/Grand Cru Mornag
La Reserve Rosee	AOC/Coteaux d'Utique
White Wines	
Muscat Sec de Kelibia	AOC/Muscat de Kelibia
Blanc de Blanc	AOC/Coteaux de Tebourba

A BRIEF DESCRIPTION OF TUNISIAN EXPORT WINES

Tunisia produces red, rose and white wines for the domestic market and export. The wines offered for export are listed below with brief descriptions provided by the Office National de la Vigne (ONV).

I. RED WINES

Chateau Mornag (75 cl. bottles, 12 % alcohol)

This is a wine of guaranteed vintage -- Grand Cru Mornag. The vineyards of this region are characterized by sunny hillsides, well-balanced plantings and a particularly dry microclimate, which are all factors for the production of a high quality wine. This wine is produced from the recommended vine varieties -- Alicante Bouschet and Carignan -- and the noble vine varieties -- Mourvedre and Merlot -- which provide its body, fragrance, density and softness. It is produced by the Union des Caves Cooperatives Viticoles de Tunisie, Route de Mornag, Djebel Djelloud, Tunis, Tunisia.

Royal Tardi (75 cl. bottles, 12.5 % alcohol)

This red wine is from the region of Ain Ghelal, which is located about 40 kilometers from Tunis. The wine is produced from recommended wine varieties --Carignan, Alicante Bouschet and Alicante Grenache -- and from the noble wine varieties -- Cinsault and Pinot Noir. It is characterized by its color, full body, softness and fragrance. It is produced by the Societe des Vins Tardi, Megrine, Tunisia.

Bonne Bouteille "Lamblot" (75 cl. bottles, 13 % alcohol)

The wine is of guaranteed vintage -- Coteaux d'Utique -- from the hills of the Utique region. It is made from the recommended wine varieties -- Carignan, Grenache and Bouchet -- and the noble wine varieties -- Cabernet, Mourvedre and Merlot. The wine is characterized by its body, velvetiness, fragrance, and, above all, its softness. It is bottled by the S.E.V.T., 56, avenue Habib Bourguiba, Bizerte, Tunisia.

Chateau Khanguet (75 cl. bottles, 12 % alcohol)

This wine of guaranteed vintage -- Sidi Salem -- is from the Khanguet region. It is made from recommended and noble wine varieties -- Carignan, Alicante Grenache, Cinsault, Mourvedre and Syrah -- cultivated on hillsides. The wine is known for its body, velvetiness and softness. It is produced by the Office des Terres Domaniales, 43, rue d'Iran, Tunis, Tunisia.

La Reserve (75 cl. bottles, 12 % alcohol)

A wine of guaranteed vintage -- Coteaux d'Utique -- this wine comes from Ain Ghelal, an area located 40 kilometers northwest of Tunis. It is produced from the recommended wine varieties -- Carignan, Alicante Bouschet and Alicante Grenache --and the noble wine varieties -- Cinsault, Pinot Noir and Mourvedre. The wine is characterized by its color, full body, softness, and fragrance. It is produced by the Societe des Vins Tardi, Megrine, Tunisia.

Thibar (75 cl. bottles, 11.5 to 12 % alcohol)

This red wine is produced in the Thibar region, located about 140 kilometers northwest of Tunis. It is made with the wine varieties -- Carignan, Alicante Grenache, Cinsault and Sangivese. The wine is known for its softness and fragrance. It is produced by the Office des Terres Domaniales, Domaine de Thibar, 43, Rue d'Iran, Tunis, Tunisia.

El Kahena (75 cl. bottles, 12 % alcohol)

This wine of guaranteed vintage is from the Tebourba region, which is famous for its high quality wines. It is made from the recommended and noble wine varieties -- Alicante Bouschet, Carignan, Cinsault and Mourvedre -- which are cultivated on limestone hillsides. It is characterized by its body, velvetiness, and softness. The wine is storage and bottled at SICOB, Rue du 18 Janvier 1952, Tunis, Tunisia.

Chateau Feriani (75 cl. bottles, 12 % alcohol)

This wine of guaranteed vintage -- Coteaux d'Utique -- is from the hills of the Utique region. It is made with the recommended wine varieties -- Carignan, Alicante Bouschet and Alicante Grenache -- and the noble wine varieties -- Cabernet and Mourvedre. It is known for its fragrance and softness. The wine is stored and bottled by the S.E.V.T., 56, Avenue Habib Bourguiba, Bizerte, Tunisia.

Pinot de Tunisie (75 cl. bottles, 12 % alcohol)

This red wine of guaranteed vintage -- Coteaux d'Utique -- from the Ain Ghelal. It produced from the wine variety -- Pinot Noir. It is characterized by its color, full body, softness and fragrance. The wine is produced by the Societe des Vins Tardi, Megrine, Tunisia.

Coteaux d'Utique (75 cl. bottles, 12 % alcohol)

This wine of guaranteed vintage -- Coteaux d'Utique -- is from the hills of Utique. It is made from the recommended wine varieties -- Carignan, Alicante Bouschet and Alicante Grenache Monique -- and the noble wine varieties -- Cabernet and Mourvedre. The wine is characterized by its softness and fragrance. It is stored and bottled by the S.E.V.T., 56, Avenue Habib Bourguiba, Bizerte, Tunisia.

Domaine Lansarine (75 cl. bottles, 12 % alcohol)

This wine of guaranteed vintage is from the Tebourba region, which is famous for its high quality wines. The wine is made from following grape varieties: Alicante, Bouschet, Carignan, Cinsault, and Mouvedre. These grapes are cultivated in vineyards on limestone hills. The wine itself is characterized by its body, velvetiness, fragrance and, above all, its softness. It is stored and bottled by the Union des Caves Cooperatives Viticoles de Tunisie, Route de Mornag, Djebel Djelloud, Tunis, Tunisia.

Magon (75 cl. bottles, 12 % alcohol)

This wine of guaranteed vintage is from the Tebourba region. It is made from the following grape varieties: Alicante, Carignan, Cinsault and Mourvedre. The wine is characterized by its body, velvetiness, fragrance and, above all, its softness. It is stored and bottled by the Union des Caves Cooperatives Viticoles de Tunisie, Route de Mornag, Djebel Djelloud, Tunis, Tunisia.

Coteaux de Carthage (75 cl. bottles, 12 % alcohol)

This red wine is of the guaranteed vintage Grand Cru Mornag. This area with a grape growing tradition dating from the Carthaginian era is famous for its high quality wines. This wine is produced from the recommended wine varieties -- Alicante Bouschet, Alicante Grenache and Carignan -- and the noble wine varieties -- Mourvedre and Cinsault -- which provides its body, fragrance, density and softness. It is produced an bottled by the Union des Caves Cooperatives Viticoles de Tunisie, Route de Mornag, Djebel Djelloud, Tunis, Tunisia.

La Vielle Cave (75 cl. bottles, 12 % alcohol)

This wine is of the guaranteed vintage Sidi Salem from the Khanguet region. It is made from the recommended and noble wine varieties -- Carignan, Alicante Bouschet, Cinsault, Mourvedre and Syrah. It is a wine characterized by its body, velvetiness and softness. The wine is produced, stored and bottled by the SICOB, Rue de 18 Janvier 1952, Tunis, Tunisia.

Sidi Saad (70 cl. bottles, 11.5 % alcohol)

This wine is of the guaranteed vintage Grand Cru Mornag. The vineyards of this region are characterized by sunny hillsides, well balanced plantings and a particularly dry microclimate, which are key factors in production of this high quality wine. It is produced from the recommended grape varieties -- Alicante Grenache, Alicante Bouschet and Carignan -- and the noble varieties -- Mourvedre and Cinsault. The wine is characterized by its body, fragrance, density and softness. It is produced and bottled by the Union des Caves Cooperatives Viticoles de Tunisie, Route de Mornag, Djebel Djelloud, Tunis, Tunisia.

II. ROSE WINES

Clos Thibar (75 cl. bottles, 12 % alcohol)

This rose wine is of guaranteed vintage from the Thibar region in northwestern Tunisia about 140 kilometers from Tunis. This hilly area is characterized by its microclimate which is particularly mild in winter and warm in summer. The wine is produced from the recommended varieties -- Carignan and Alicante Grenache -- and the noble varieties -- Mourvedre and Cinsault. It is characterized by its softness and fragrance. The wine is produced and bottled by the Office des Terres Dominiales at the Domaine de Thibar, 43, rue d'Iran, Tunis, Tunisia.

Domaine D'Arkuosal (75 cl. bottles, 12 % alcohol)

This wine is from the Takelsa region, which has a particularly mild microclimate. The region is situated on the Cap Bon peninsula about 60 kilometers from Tunis. It is produced from the grape varieties -- Carignan, Grenache and Cinsault. The wine is noted for its fragrance and freshness. It is produced and bottled by the Societe Bokobza Freres, La Soukra, Tunis, Tunisia.

Domaine De Charmette Mornag (75 cl. bottles, 12 % alcohol)

This wine is of the guaranteed vintage Selected Wine of Mornag. It is produced on the basis of must obtained before pressing of the recommended varieties -- Alicante Grenache and Carignan -- and the noble varieties -- Cinsault, Mourvedre and Syrah. The wine is produced and bottled by the Union des Caves Cooperatives Viticoles de Tunisie, Route de Mornag, Djebel Djelloud, Tunis, Tunisia.

Mouroui (75 cl. bottles, 12 % alcohol)

This is a superior quality rose wine from the Takelsa region of the Cap Bon peninsula about 60 kilometers from Tunis. It is made using must obtained before pressing of the Grenache and Cinsault grapes and is known for its freshness and fragrance. The wine is produced by the Office des Terres Domaniales, 43, rue d'Irak, Tunis, Tunisia.

Haut Mornag (75 cl. bottles, 12 % alcohol)

This superior quality rose wine is produced in the Mornag region. It is made from the recommended grape varieties -- Carignan, Alicante Grenache and Cinsault -- and is characterized by its softness and fragrance. The wine is produced and bottled by the Union des Caves Cooperatives Viticoles de Tunisie, Route de Mornag, Djebel Djelloud, Tunis, Tunisia.

Chateau Mornag (75 cl. bottles, 12 % alcohol)

This is a wine of guaranteed vintage -- Selected Wine of Mornag. It is made using the must obtained before pressing of the recommended varieties -- Alicante Grenache and Carignan -- and the noble varieties -- Cinsault, Mourvedre and Monique. The wine is produced and bottled by the Union des Caves Cooperatives Viticoles de Tunisie, Route de Mornag, Djebel Djelloud, Tunis, Tunisia.

Fleur de Mornag (75 cl. bottles, 12 % alcohol)

This wine is of the guaranteed vintage Grand Cru Mornag. It is made using the must obtained before pressing from Alicante Grenache, Cinsault and Syrah grape varieties. The wine is produced and bottled by the Union des Caves Cooperatives Viticoles de Tunisie, Route de Mornag, Djebel Djelloud, Tunis, Tunisia.

Koudiat (75 cl. bottles, 12 % alcohol)

This wine is of the guaranteed vintage Coteaux de Tebourba. It is made with the recommended grape varieties -- Carignan and Grenache -- and the noble varieties -- Merlot and Cinsault. The wine is produced and bottled by the SICOB, Rue du 18 Janvier 1952, Tunis, Tunisia.

Clairet de Bizerte (75 cl. bottles, 12 % alcohol)

This wine is of the guaranteed vintage Coteaux de Tebourba. It is made using the must obtained before pressing the grape varieties -- Alicante Grenache, Cinsault and Monique. The wine is produced and bottled by the Societe de Vins TARDI, Megrine, Tunis, Tunisia.

Vin Gris de Tunisie Coteaux de Tebourba (75 cl. bottles, 12 % alcohol)

This wine is of the guaranteed vintage Coteaux de Tebourba. It is made using the must obtained before pressing from the grape varieties -- Alicante Grenache and Cinsault. It is produced and bottled by the Union des Caves Cooperatives Viticoles de Tunisie, Route de Mornag, Djebel Djelloud, Tunis, Tunisia.

Prestige Lamblot (75 cl. bottles, 12 % alcohol)

This wine is of the guaranteed vintage Coteaux d'Utique. It is made using the recommended varieties -- Alicante Grenache and Cinsault -- and the noble varieties -- Cabernet and Mourvedre. It is stored and bottled by the S.E.V.T., 56, avenue Habib Bourguiba, Bizerte, Tunisia.

Coteaux de Carthage (75 cl. bottles, 12 % alcohol)

This wine is of the guaranteed vintage Grand Cru Mornag. It is produced from the recommended varieties -- Alicante Bouschet, Alicante Grenache and Carignan -- and the noble varieties -- Mourvedre and Cinsault. It is characterized by its body, fragrance, density and softness. The wine is produced and bottled by the Union des Caves Cooperatives Viticoles de Tunisie, Route de Mornag, Djebel Djelloud, Tunis, Tunisia.

La Reserve Rosee (75 cl. bottles, 12 % alcohol)

A wine of guaranteed vintage -- Coteaux d'Utique -- this wine comes from Ain Ghelal, an area located 40 kilometers northwest of Tunis. It is produced from the recommended wine varieties -- Carignan, Alicante Bouschet and Alicante Grenache --and the noble varieties -- Cinsault, Pinot Noir and Mourvedre. The wine is characterized by its color, full body, softness and fragrance. It is produced by the Societe des Vins Tardi, Megrine, Tunisia.

III. WHITE WINES

Muscat Sec de Kelibia (75 cl. bottles, 12 % alcohol)

This dry white wine is of guaranteed vintage is from the region of Kelibia, situated at the end of the Cap Bon peninsula in northeastern Tunisia. This region is characterized by its very mild microclimate. It is an ideal place for the growth of the grape variety -- Alexandria Muscat -- an aromatic variety which makes up 100 percent of this wine. It is produced and bottled by the Union des Caves Cooperatives Viticoles de Tunisie, Route de Mornag, Djebel Djelloud, Tunis, Tunisia.

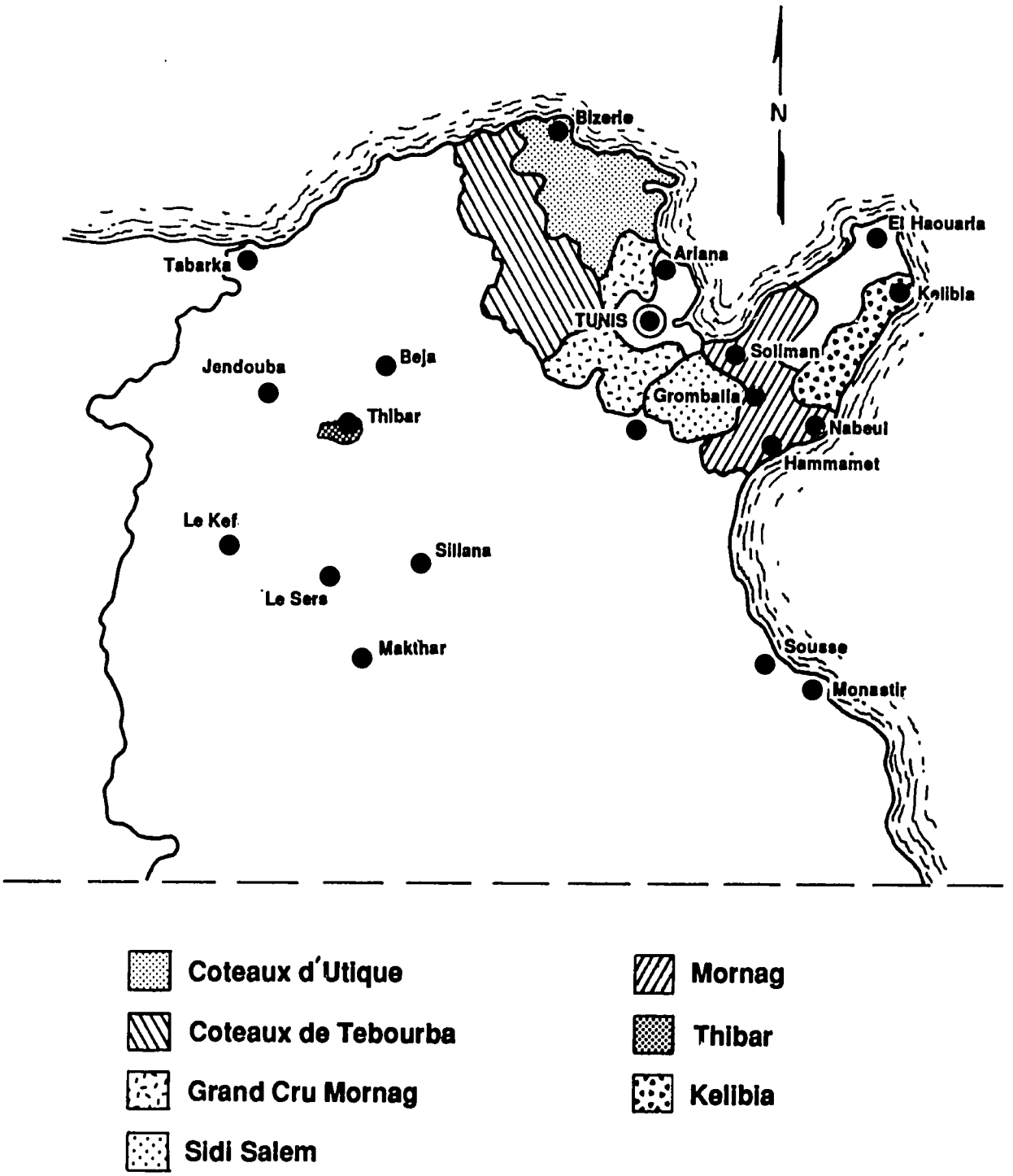
Blanc de Blanc (75 cl. bottles, 11.5 % alcohol)

This dry white wine is of the guaranteed vintage Coteaux de Tebourba. It is produced in the Ain Ghelal region northwest of Tunis. The wine is produced and bottled by the Societe TARDI, Megrine Riadh, Tunisia.

ANNEX C

MAP OF WINE REGIONS OF TUNISIA

ANNEX C FIGURE 1
MAP OF WINE REGIONS IN TUNISIA



Source: OFFICE NATIONAL DE LA VIGNE, Les Vignobles De Tunisie, Les Appellations De Tunisie, September 1987

ANNEX D

REPORT PART A TERMS OF REFERENCE

TERMS OF REFERENCE

WINES EXPORT COMMODITY STUDY

I. INTRODUCTION

As part of its on-going agricultural sector structural adjustment program, the Government of Tunisia has given priority to the promotion of agricultural exports. This effort will only be effective if Tunisian exporters can maintain and increase the competitiveness of their products in their traditional markets and exploit new market opportunities, particularly in North America It will be necessary, therefore, to understand the essential factors determining the competitiveness of Tunisian agricultural commodities entering world markets and to assess the key constraints affecting the availability, quality and export costs for these products. Effective strategies for releasing these constraints need to be developed and existing market advantages exploited, enhanced and consolidated.

This study is one of five export commodities analyses to be conducted in 1988/1989 under the GOT/AID Agricultural Policy Implementation Project. The commodities to be covered by these analyses are olive oil, wines, citrus, dates and nuts, and marine products. Each study will be composed of a Part A and a Part B. Each Part A sub-study will deal with analysis of the key factors affecting the exportability of the Tunisian agricultural commodity - i.e. its competitiveness in export markets FOB Tunis. Each companion Part B will investigate the requirements of importers in key markets and the prospects for increasing Tunisian exports. Finally, the results of the Part A and B studies will be used to develop strategic marketing recommendations for Tunisian agents involved exporting the agricultural commodities being studied.

In the particular case of wines, the study approach will be to assess how to maintain Tunisia's traditional market share in existing European markets while finding new strategies to penetrate or expand non-traditional markets, particularly in North America.

The terms of reference for the wine export study is presented in the sections below. The Part A sub-study deals with the analysis of conditions in Tunisia which affect the competitiveness of Tunisian wines and the Part B sub-study concerns itself with the receptiveness of potential importers to the available products.

PART A SUB-STUDY

WINES COMPETITIVENESS ANALYSIS

I. GENERAL DESCRIPTION OF THE PART A STUDY

The objective of the Part A commodity competitiveness sub-study is to present a clear and concise description of the key factors affecting the exportability of Tunisian wines to world markets.

To accomplish this objective, the Part A study team will review the history of the competitive performance of Tunisian wines as export commodities in its traditional markets and determine the key factors affecting the level of this performance. The study will analyze Tunisian production of grapes and trace domestic wine production through its different stages of its fermentation, bottling and export marketing. At each stage, the team will examine export performance and the factors affecting processing efficiencies and suitability with respect to available quantities, qualities and prices of the Tunisian wines.

II. THE TERMS OF REFERENCE AS DESCRIBED IN OFFICIAL DOCUMENTS

The Abt Associates' prime contract contains a one paragraph description of what is required of this study on page 10.

The AID Project Paper contains no scope of work for this study beyond the one paragraph description included in the prime contract.

The World Bank report on the Agricultural Structural Adjustment Loan Program - i.e. Report P-4368-TUN, Volume II - of 3 September 1986 contains a three page scope of work for an Export Promotion Study.

The Abt Associates' Response to the AID Request for Proposals dated 7 August 1987 contains a two page description of our approach.

Relevant sections of the three documents are appended to this Terms of Reference as Attachment A.

IV. THE OBJECTIVES OF THE OVERALL STUDY WITH SPECIFIC QUESTIONS

The ultimate objective of the overall wine export study is a set of concrete recommendations directed toward increasing the export competitiveness of Tunisian wines. The results of the competitiveness study - Part A - together with its companion export marketing study - Part B - will be used to present a detailed export marketing plan which will be both realistic and cost effective.

In order to arrive at these recommendations, a logical process must be followed of findings, conclusions and recommendations. The following sub-sections deal with the topics to be analyzed by the study team.

A. Factual Information to be Gathered

1. Identify and describe for Tunisia the different wines produced and the different stages in domestic wine production, processing and export marketing. Also describe the structural characteristics of the grape and wines producers in Tunisia (i.e. number of grape growers, size distribution, numbers and size distribution of wineries).

2. Identify the key factors determining the quality of domestic wines for

export - i.e. grape varieties used, major producing areas, climate and soil characteristics, irrigation practices, alcohol content, taste factors - and causing any variations in quality.

3. Assess the timing and consistency of wine availability for export by type.

4. Assess the process of handling and packaging of the domestic wines for export and identify any local trademarks or brand name products.

5. Identify the most important existing markets for Tunisian wines, the quantities presently exported to each market, and, as available, the prices and quality conditions demanded in those markets.

6. Identify, from existing sources, the different costs involved in domestic wine production and processing as well as any constraints experienced at each stage of export marketing.

7. From this information, evaluate the export position of the Tunisian wine products and identify their comparative advantages, if they exist, and key constraints on their competitive position.

B. Conclusions Required

1. Assess whether or not the financial costs of production in growing and processing grapes in Tunisia constitute a handicap affecting the competitiveness of wines for export.

2. Assess whether or not the quality of the wines produced constitutes a handicap or an advantage in present export markets.

3. Assess the technologies currently being used in Tunisia for the processing of grapes and wine production and their impact on the quality of the export products.

4. Analyze the Tunisian system of commercialization and marketing of wines and assess the degree of market information available to the National Office for Wines regarding world markets and export distribution channels.

5. For Tunisian wine producers, evaluate marketing performance and any innovations they have made in overcoming their marketing difficulties with respect to adaptation of their products' quality and packaging, market information, publicity and promotion.

6. In a general manner, assess the effects of government policies and interventions on the competitiveness of Tunisian wines with particular respect to the activities of the National Office for Wines and the involvement of parastatal enterprises in export marketing.

C. Recommendations to be Made as a Result of the Overall Study

1. Propose, as appropriate, recommendations for enhancing existing competitive advantages of domestic wines, if they exist, and for correcting factors reducing competitiveness in export markets.

2. Indicate the implications of these actions for the following actors/agencies in the wine marketing chain:

a. The Government of Tunisia

b. The National Office for Wines (ONV)

c. Domestic Wine Producers and Exporters

d. Grape growers.

3. Sketch out a strategic action plan of practical measures for implementing the proposed recommendations with details, insofar as possible, of the plan, timing and responsibilities for implementation.

V. METHODOLOGY TO BE EMPLOYED

The following general methodology will be employed by the study team in Tunisia.

A. A document search and review will be done by the entire study team to profit from previous studies, including case studies of agro-industrial companies done by the Graduate Institute for Management (ISG) and the National Office for Wines (ONV). A critical synthesis of these studies will enable their findings and recommendations to be used as inputs for this Part A study and to define what additional information needs to be collected.

B. Study findings will also be based upon interviews in Tunisia with key persons in government, at the National Office for Wines (ONV), the Society of Exporters of Tunisian Wines, and with grape growers and wine producers.

C. Collection and study of published statistics for Tunisia on the production and marketing of local wines, with particular attention to existing information on the structure of costs, will be reviewed by the team.

D. Tunisian team members will conduct, as feasible, case studies of a number of selected, representative Tunisian grape growers and wine producers.

VI. KEY AGENCIES TO BE CONTACTED IN TUNISIA

The key agencies to be contacted in Tunisia are:

A. The National Office for Wines (ONV)

B. The Society of Exporters of Tunisian Wines

C. Wine Producer Cooperatives and Companies.

D. Grape Growers.

ANNEX E

REPORT BIBLIOGRAPHY

Associates for International Resources and Development, Tunisia - Agricultural Profitability, Protection, and Comparative Advantage, AIRD, Somerville, Massachusetts, June 1987.

Ministere de l'Agriculture, Evaluation Retrospective des Realisations du VIeme Plan - Sous-Comite de l'Arboriculture, Version Preliminaire, Republique Tunisienne, Tunis, Tunisie, Decembre 1985.

Ministere de l'Agriculture, Preparation du VIIeme Plan 1987-1991 Sous-Commission de l'Arboriculture, Republique Tunisienne, Tunis, Tunisie, Janvier 1987.

Ministere de l'Agriculture, Viticulture, Republique Tunisienne, Tunis, Tunisie, 1978.

Office du Vin, Note de Reflexion sur le Secteur Viti-Vinicole - Situation Actuelle et Propositions Pour Une Strategie de Developpement, Ministere de l'Agriculture, Tunis, Tunisie, Octobre/Novembre 1980.

Office du Vin, Rapport Annuel d'Activite, Ministere de l'Agriculture, Tunis, Tunisie, 1983.

Office Nationale de la Vigne, Note de Reflexion Sur Le Secteur Viti-Vinicole - Situation Actuelle et Propositions Pour Une Strategie de Developpement, ONV, Tunis, Tunisie, Janvier 1987.

Office Nationale de la Vigne, "Projet A.P.I.P. - Etude Sur L'Exportation Du Vin", ONV, Tunis, Tunisie, Mai 1988.

Office National de la Vigne, Rapport Annuel d'Activite, Ministere de l'Agriculture, Tunis, Tunisie, 1984.

Office National de la Vigne, Strategie du Developpement du Vignoble a Raisins de Cuve, ONV, Tunis, Tunisie, Mars 1988.

Office National de la Vigne, Vignobles et Vins de Tunisie, ONV, Tunis, Tunisie, deux partie, sans date.

Office National de la Vigne de Tunisie, Bilan des Recherches Oenologiques en Tunisie 1978-1986, ONV, Tunis, Tunisie, 1986.

PNUD/FAO, Developpement du Secteur Viti-Vinicole - Tunisie - Conclusions et Recommandations du Projet, Rapport Terminal AG:DP/TUN/77/004 et AB:DP/TUN/81/015, PNUD/FAO, Rome, Italie, 1985.

Republique Tunisienne, VIIeme Plan de Developpement Economique et Social 1987-1991 - Agriculture et Peche, Version Definitive, Republique Tunisienne, Tunis, Tunisie, Juillet 1987.

Union Centrale des Cooperatives Vinicoles, "Note de Synthese Relative a la Situation du Secteur Viti-Vinicole", U.C.C.V., Tunis, Tunisie, Fevrier 1988.

Union Centrale des Cooperatives Vinicoles, "Taxe Para-Fiscale Sur les Vins - Une Etude", U.C.C.V., Tunis, Tunisie, 15 Mars 1988.

Union Centrale des Cooperatives Vinicoles, "Valorisation de la Production Vinicole Par l'Instauration d'Une Taxe Parafiscale Specifique et l'Institution d'Une Capsule Congee sur Les Vins Commercialises sur le Marche Local", U.C.C.V., Tunis, Tunisie, 3/15/88.

AGRICULTURAL POLICY IMPLEMENTATION PROJECT
EXPORT COMMODITY STUDY

PART B

WINES EXPORT MARKETING ANALYSIS

January 1989

FINAL REPORT

PREFACE

This Part B study of Tunisian wine export marketing was requested by the Government of Tunisia (GOT), in the context of its on-going economic structural adjustment program for the agricultural sector. The research was funded through the Tunisia Agricultural Policy Implementation Project (APIP) -- Project No. 664-0343 -- which is jointly sponsored and funded by the GOT Ministry of Agriculture (MOA) and the United States Agency for International Development (USAID). The prime technical assistance contractor for this project is Abt Associates, Inc. of Washington, D.C. and Cambridge, Massachusetts. Sub-contractors for the project include the University of Wisconsin, Madison, Wisconsin; the Institut Superieur de Gestion (ISG), Tunis, Tunisia; and Ithaca International Limited, Ithaca, New York.

The Part B Export Marketing Report on wines was researched and prepared during the period from May to October 1988 by six agricultural specialists from Ithaca International Limited of Ithaca, New York. These specialists were:

Ithaca International Limited

Principal Authors

David Blandford
Gerald B. White
Olan D. Forker

Other Contributors

Harry deGorter
Steven Kyle
John H. Eriksen

The team's research efforts were supported by the efforts of several graduate student researchers at Cornell University and contracted secretarial assistance. Appreciation is also extended to the many persons who agreed to participate in the tastings organized to evaluate Tunisian export wines. Finally, team members conducted a large number of both field and telephone interviews in the United States and Canada during the course of this study. These interviewees added new perspectives and information which contributed to the quality of the final analysis.

Upon completion of the draft final report, the text and tables were professionally reviewed and critiqued separately by Dr. Max Brunk, Professor-Emeritus of Agricultural Marketing at Cornell University; Dr. Kirby S. Moulton, Economist, Cooperative Extension, University of California/Berkeley; and Drs. Roger Montgomery and Mark Newman of Abt Associates, Inc. To the maximum extent possible, their comments and suggested revisions were incorporated into this final report.

The team wishes to thank all of participants for their sincere efforts and assistance with the production of this final report.

TABLE OF CONTENTS

I. STRUCTURE AND TRENDS IN WORLD MARKETS 2

II. UNITED STATES - MARKET PROFILE 4

- A. Consumption 4
- B. Imports 6
- C. Factors Affecting Consumption and Imports 8
  - 1. Price 8
  - 2. Income and Demographic Factors 9
  - 3. Advertising 10
  - 4. Government Regulations 11
    - a. Federal Regulations 11
    - b. State Regulations 12

III. CANADA - MARKET PROFILE 13

- A. Consumption 13
- B. Imports 15
- C. Factors Affecting Consumption and Imports 16
  - 1. Listing Practices 16
  - 2. Pricing 17
  - 3. Distribution Practices 17

IV. MAJOR FACTORS IN MARKETING TUNISIAN WINE 18

- A. Consumer Acceptability 18
- B. Presentation 21
- C. Distributional Characteristics and Needs: The United States 22
  - 1. Organizational Possibilities 23
  - 2. Margins and Pricing 26
- D. Distributional Characteristics and Needs: Canada 27

V. STRATEGY FOR MARKETING TUNISIAN WINES IN THE UNITED STATES 29

VI. STRATEGIC ACTION PLAN FOR WINE 33

ANNEX A Summary of State Wine Laws

ANNEX B Wine Tasting Scorecard

ANNEX C Exhibits

ANNEX D Statistical Tables

ANNEX E Report B Terms of Reference

ANNEX F Report Bibliography

91

LIST OF ACRONYMS

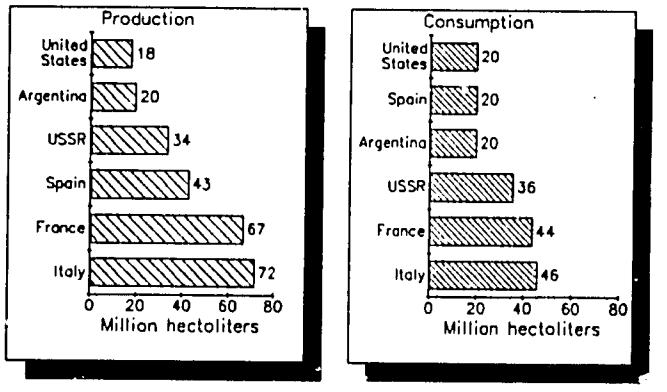
AOC	Appellation d'Origin Controlee (a unique wine region with production regulations and marketing designation)
BATF	Bureau of Alcohol, Tobacco and Firearms of the Department of the Treasury
CAP	Common Agricultural Policy
CIF	Cost, Insurance and Freight
EC	European Community
GATT	General Agreement on Tariffs and Trade
GOT	Government of Tunisia
LCB	Liquor Control Board
MOA	Ministry of Agriculture
ONV	Office National de la Vigne (National Office for Grape Products)
VDQS	Vin de Qualite Superieure (Marketing designation for a wine of superior quality)

MAIN REPORT: PART B

I. STRUCTURE AND TRENDS IN WORLD WINE MARKETS

World wine markets have been experiencing a period of substantial stress and adjustment. **Stagnating or falling consumption, combined with continued increases in production have been placing downward pressures on prices in many countries.** Annual world production at 337 million hectoliters, was 7 percent higher in 1981/1985 than in the comparable period in the 1970s. Consumption was basically unchanged at around 280 million hectoliters. The difference between production and consumption is made up by losses and the distillation of substantial wine surpluses in the European Community to maintain domestic prices.

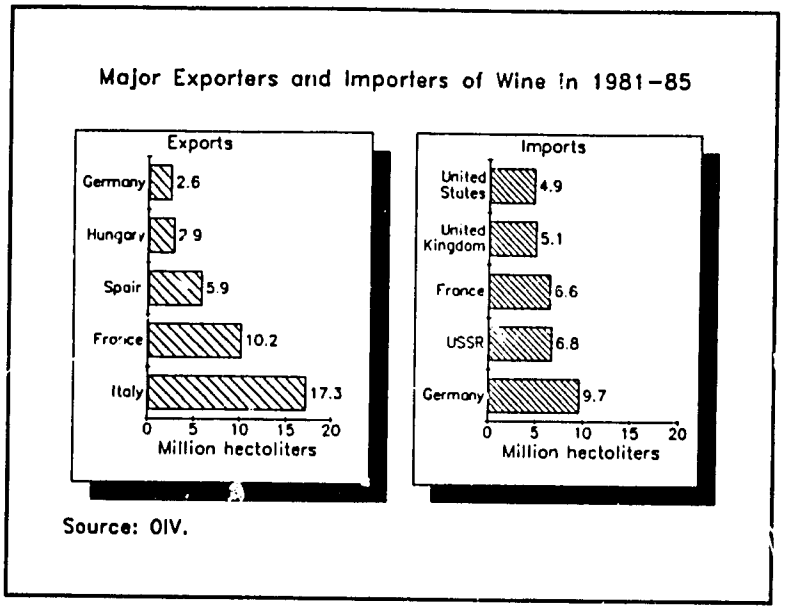
The growing imbalance between supply and demand in the world market can be traced to changes in consumer tastes and preferences in a few key countries, particularly Italy and France. In each of these countries the wine market has shrunk by about 10 million hectoliters over the last 20 years. Increased urbanization, the aging of the population, concerns about the health implications of alcohol, and a shift in preferences to other alcoholic beverages, such as beer, or to non-alcoholic beverages, have had a dramatic impact on wine consumption in major wine consuming countries. At the same time, growing incomes have resulted in a shift in consumption patterns worldwide away from cheaper, low quality wines, towards more expensive high quality wines. Producing countries have responded to this trend, particularly the major exporters. In the early 1970s, quality wines accounted for less than 25 percent of total production in the European Community. In recent



Source: OIV.

years the share of quality wines has risen to over 30 percent.

In a world of increasing production and declining consumption, the North American market has been a relative bright spot for producers and exporters. The wine market in the United States has expanded rapidly since the early 1970s. With an annual average consumption of 20 million hectoliters in 1981/1985, it is the largest non-European market and accounts for 7 percent of world consumption. The Canadian market has also increased in size, although with an annual consumption of roughly 2.3 million hectoliters it accounts for less than 1 percent of world consumption. In recent years, even the North American markets have begun to show signs of saturation. In the United States, per capita consumption of wine fell slightly in both 1986 and 1987, due largely to declining consumption of cheaper red wines.



The major world market highlights are as follows:

-- Stagnating consumption in many of the traditional wine producing nations, combined with continued increases in production, have been placing downward pressures on prices in many countries.

-- North America has been a bright spot for wine exporters because of expanding consumption and imports, but even in these markets there are signs of slower growth, particularly in cheaper red wines.

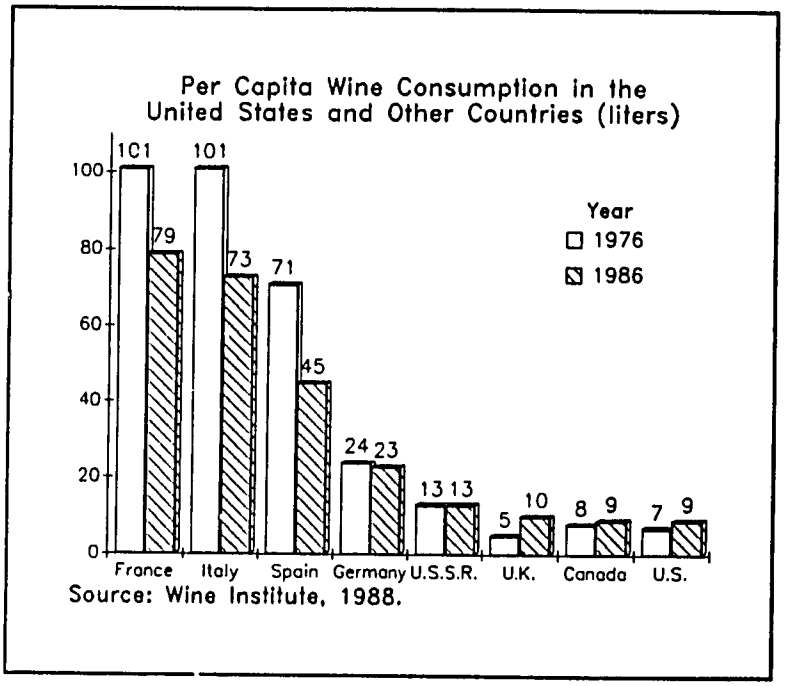
91

II. THE UNITED STATES - MARKET PROFILE

The U.S. market for alcoholic beverages is valued at more than $70 billion in retail sales. Wine accounts for $9 billion of these sales.

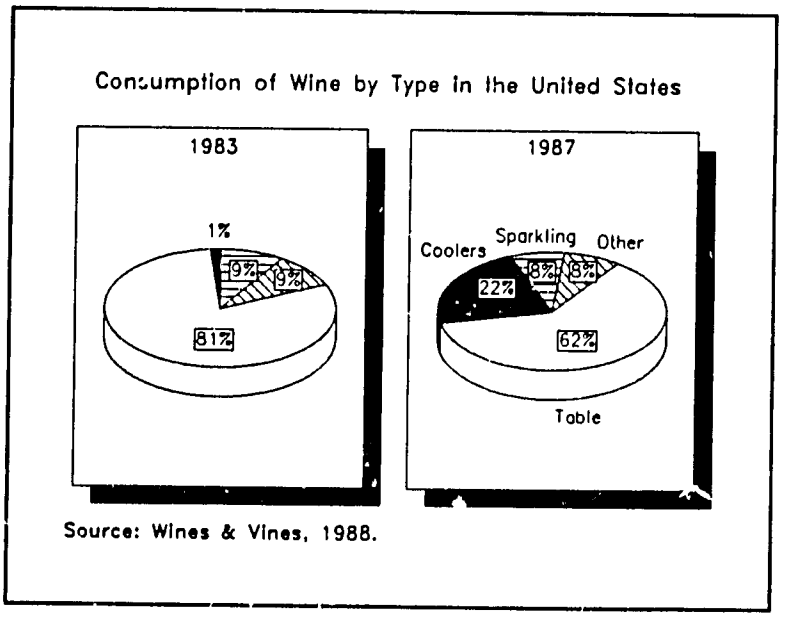
A. Consumption

Per capita consumption of wine in the United States is not high by world standards. In 1986 it was 9 liters per head, slightly less than in the United Kingdom. However, consumption has risen since the early 1970s. It was 7 liters per head in 1976. During the last two years the growth trend has reversed. Per capita consumption fell slightly in both 1986 and 1987.



Source: Wine Institute, 1988.

Table wine made up roughly 60 percent of total wine consumption in 1987. The table wine category excludes sparkling, dessert and aperitif wines. It is broader than the European definition of table wine and includes premium imported (e.g. AOC) and domestic varietal wines. The largest other category of consumption is **wine coolers** with 22 percent. The growth in coolers, which are mixtures of wine and



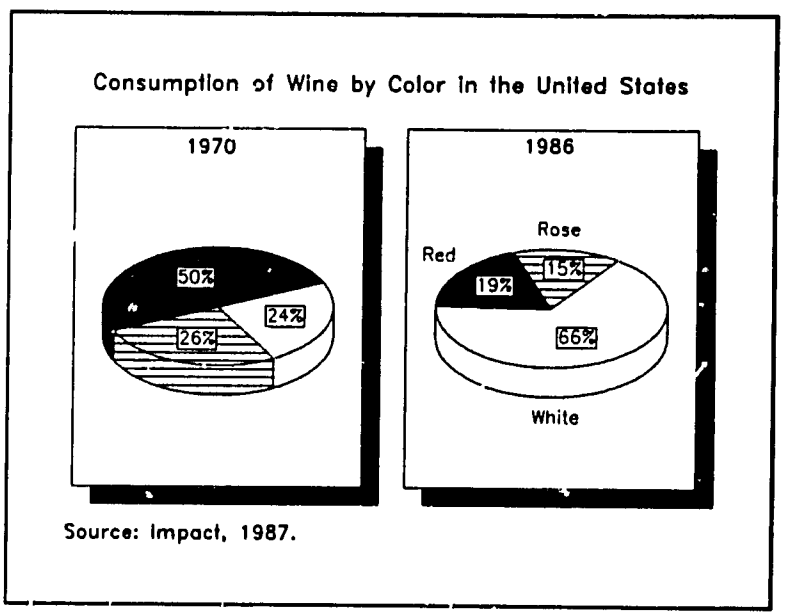
Source: Wines & Vines, 1988.

93

fruit juice, has been dramatic. In 1983 they accounted for a mere 1 percent of total wine consumption. The growth in coolers has come largely at the expense of table wines, particularly cheaper generic types often referred to as 'jug' wines in the United States. These are the U.S. equivalent of the French *vin ordinaire.*

Coolers have been a dramatic development for the U.S. wine industry in the 1980s, although the rate of growth in sales has slowed down significantly in the last two years as the market has matured. Coolers are popular with younger wine drinkers and females, and are a reflection of the general tendency for the U.S. wine consumers to increase their consumption of lighter (less alcoholic) beverages.

The composition of consumption of **table wine by color** has been changing dramatically. In 1970, **red wine** accounted for half of all table wine consumed in the United States. The remaining half was divided almost equally between white and rose. In 1986, fully two thirds of the table wine consumed was **white wine.** Only 19 percent was red, and 15 percent was rose. In response to consumer preferences for lighter color wines, the industry has developed **blush wines.** These are made from red wine grape varieties which are crushed soon after picking and the juice is not allowed to remain in contact with the skins. They are pinkish in color and, like white wines, are typically served chilled. Also being developed are **fruit-flavored** wines. These are distinguished from coolers by having a higher alcoholic content and price. In 1985/86, over half of the 22 new brands of wine introduced in the United States were either special (largely fruit-flavored) wines or blush wines.



Source: Impact, 1987.

93

Less than 50 percent of the wine consumed in the United States is associated with meals. A substantial segment of the wine market competes with other cocktail beverages either at home or away from home. It is this part of the market which has been particularly hard hit by the growth of cooler sales.

The consumption of wine varies enormously by geographic region. Over two thirds of the wine consumed in the United States is in eastern and western states. Consumption in the central states is generally low, although it has been growing rapidly in some cases, most notably in Iowa and Texas. On a per capita basis wine consumption is highest in Washington D.C. (33 liters) and California (27 liters). The Northeast, South Central and Pacific States collectively account for roughly two thirds of all the wine consumed in the United States.

The major consumption highlights are:

-- the growth in the U.S. wine market has levelled off; particularly hard hit have been cheaper red wines;

-- consumers have tended to favor lighter wines, first by shifting from reds to whites and more recently to coolers and fruit-flavored wines;

-- consumption remains concentrated in eastern and western states; some central state markets have been growing but are still not large.

B. Imports

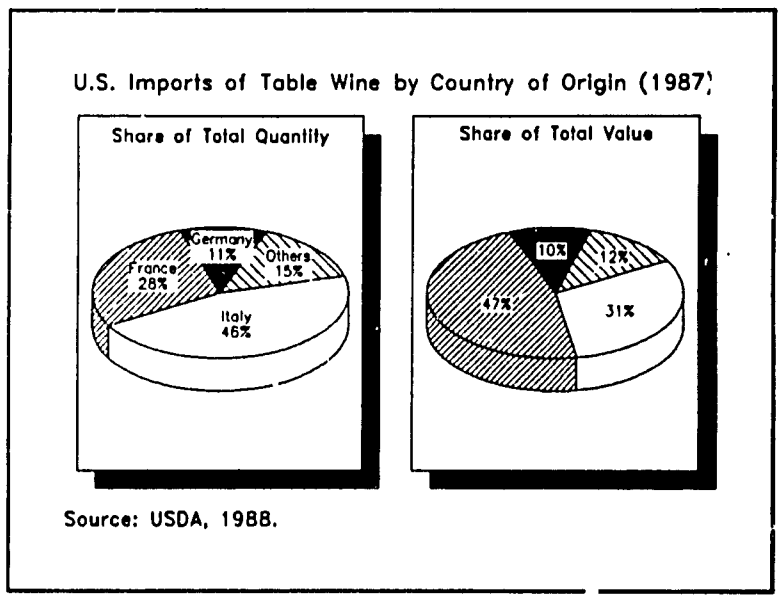
The volume of wine imports has increased dramatically over the past two decades, particularly during the 1980s. In 1970 the United States imported 8.6 million cases of wine (9 liters per case). Imports made up 14 percent of domestic wine consumption. By 1984 imports had reached almost 60 million cases and imports made up 29 percent of consumption. The volume of imports has fallen since 1984, with a substantial decline from 57 million to 45 million cases between 1985 and 1986, and a further decline to just over 40 million cases in 1987.

The growth in imports was stimulated by rising consumer incomes in the United States and highly competitive import prices. During the early 1980s, the value of the U.S. dollar appreciated strongly against other currencies and imports priced in dollars became increasingly cheaper. This stimulated imports of most price categories of wine. Growth was particularly

94

strong in wines from France. Imports of French wines increased from 4.8 million cases in 1980 to 11.7 million cases in 1984. The fall in the value of the dollar in recent years has reversed the trend in import growth, showing that the United States is both an income and price sensitive market for imported wines.

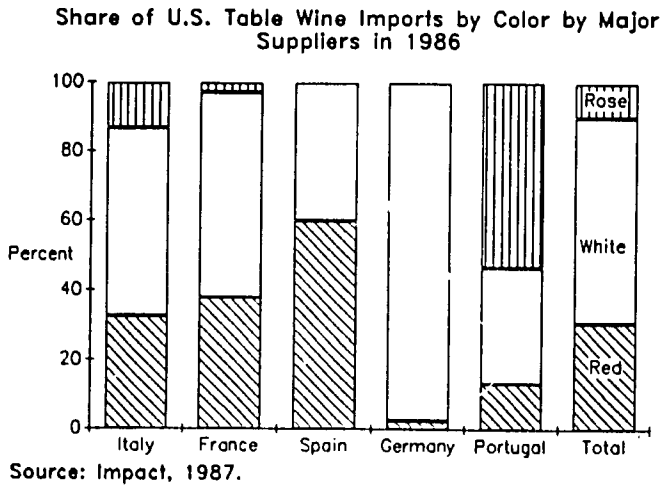
The leading supplier of imports in volume terms is Italy, with 46 percent of the total in 1987. France is second with 28 percent. The only other major supplier is Germany with 11 percent. In value terms, France has the largest share with 47 percent of the total. Italy has 31 percent and Germany 10 percent. These figures show that Italy has traditionally concentrated on supplying inexpensive wines to the U.S. market. These wines have typically competed with jug wines. The French have focussed more on up-market and more expensive wines. Both countries were hurt by the fall in the value of the dollar, but Italy suffered the most. Its shipments of table wine to the United States have declined by over 50 percent from their peak. French shipments have declined by one third. The greatest decline in imports occurred in Italian red wines, particularly of the Lambrusco type. From their peak of 10.6 million cases in 1981 imports of these wines declined to less than 3 million cases in 1986. The only country to increase the volume of its wine sales substantially to the United States in recent years is Australia. It now rivals Spain for the number five slot in the import standings.



Source: USDA, 1988.

The structure of imports by color reflects the pattern of domestic consumption. White wines dominate with roughly 60 percent of the total. The share of reds is higher than their consumption share; roughly 30 percent of imports are red wines compared to 19 percent of

95



Source: Impact, 1987.

consumption. However, even French imports are dominated by white wines (roughly 60 percent), with most of the remainder being red wines. The vast bulk of the red wine imports from France are appellation (AOC) wines. Other importers, particularly Italy have tried to adjust to changing preferences in the U.S. market by shipping more white wines. In 1980, the ratio of reds to whites shipped by Italy was roughly 3 to 2. In 1986 this ratio was reversed and was 2 bottles of red to 3 bottles of white.

The major import highlights are:

-- U.S. wine imports are dominated by Italy and France and by white wines;

-- the French have been the most successful in increasing their share of the U.S. market during the 1980s;

-- the rapid growth in imports of the 1970s and early 1980s has come to an end with higher prices and changing consumer preferences; suppliers of cheaper red wines have been particularly hard hit.

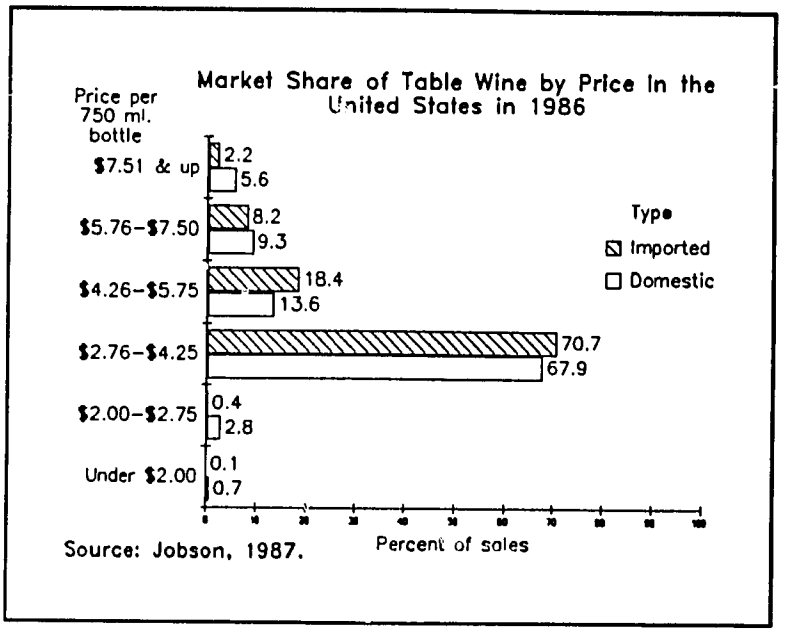
C. Factors Affecting Consumption and Imports

The major factors influencing wine consumption and imports are prices, income and demographic factors, advertising, and government regulations.

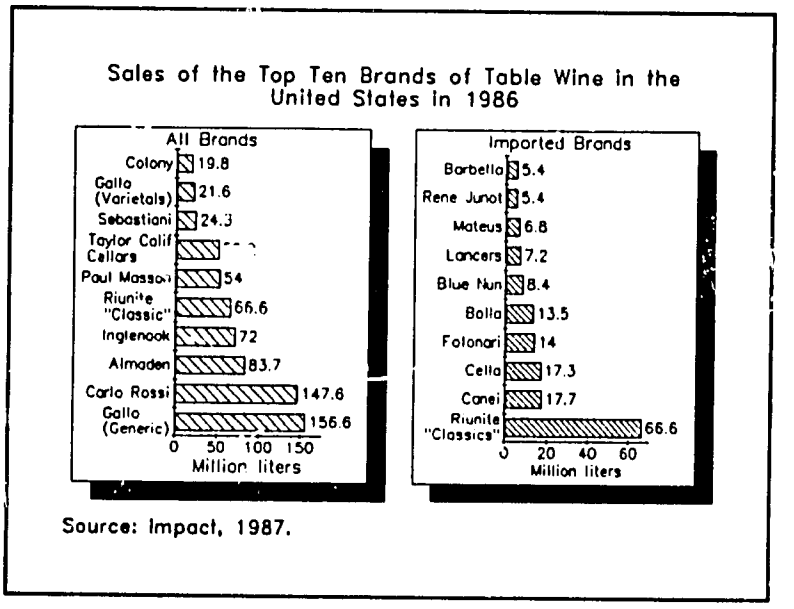
1. Price

According to recent estimates, more than two thirds of the wine sold in the United States is in the popular price range of $2.76 - $4.25 per 750 ml. bottle. Only a small amount of wine is sold at $2.75 or less; the remainder is sold at over $4.25. The average sales price of imported wines tends to be higher on average than domestic wine. *Impact* estimates that the average case price (9 liters) is $29 for domestic wine and $43 for imported wine.

The leading brands in terms of the volume of sales are highly price competitive. Few firms can market wine as cheaply as Gallo which dominates the "jug wine" market. Gallo has 28 percent of the retail volume of sales but only 17 percent of their value. Its two main labels have an average retail price of $1.60 per 750 ml. bottle for *Gallo* (generic) and $1.33 per bottle for *Carlo Rossi*. The only imports which come close to Gallo in price and volume of sales are the Italian *Riunite* brand.



2. Income and Demographic Factors



Wine consumption in the United States has tended to grow most rapidly when consumer incomes have been rising. High income families are the major consumers of table wine. **Households with incomes of over $35,000 per year account for 55 percent of total consumption** (57% of the red wine and 54% of the rose consumption).

As incomes rise, higher priced imported table wines generally tend to benefit more than lower quality wines. Many of the French 'quality' wines such as those from Bordeaux or Burgundy are in the enviable position of having sales which are highly responsive to the

growth in income and have a limited response to increases in price. Sales of many of the lower-priced French wines are highly price responsive, which was an advantage when the value of the dollar was increasing against the French franc, but has been a liability in recent years as the value of the dollar has declined.

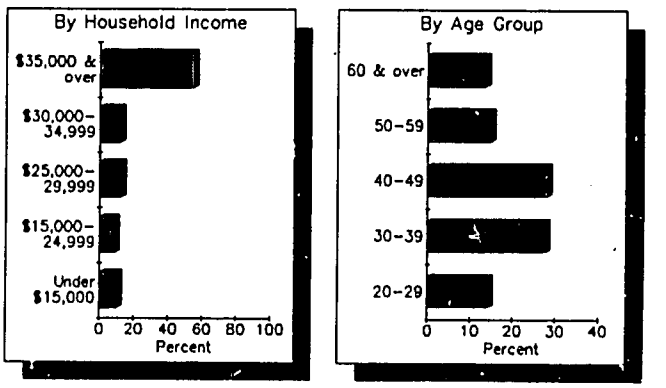


Table Wine Consumption by Household Income and Age Group in the United States in 1986

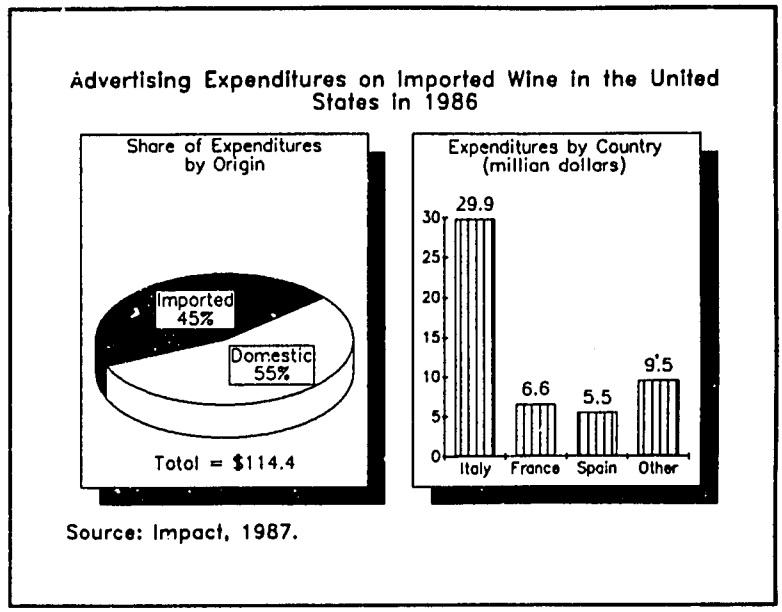
Source: Impact, 1987.

The largest wine consumers in the U.S. population are in the age group 30-49. The so-called 'baby boom' generation accounts for over 50 percent of the total consumption of wine in the United States. The 30-39 age group are the largest consumers of red wines (27% of the total). Younger individuals in general tend to consume a larger proportion of red wine than whites or roses. Females drink 50 percent of the total volume of wine, roughly in proportion to their numbers in the population. The female share of wine consumption is much higher than their share of distilled spirits and beer. Women are a much more significant target group in wine markets than in the markets for other alcoholic beverages.

3. Advertising

The amount of money spent on wine advertising has been falling in recent years and now represents about $0.58 per case ($0.05 per bottle). Expenditures in 1986 were just over $114 million, their lowest level since 1978. However, the volume of advertising for competitive beverages (coolers and beer) is still increasing. Cooler advertising expenditures are more than three times as great as those on table wine. **Advertising expenditures on imported table wine are much larger than the average for all wine** and amount to roughly $1.14 per case ($0.09 per bottle). This figure only includes brand advertising and excludes generic promotion by producer groups or governments. The amount of money spent on promoting imported wine is

45 percent of the total advertising expenditure for wine, although imports make up less than 25 percent of the volume of domestic sales.



Most of the advertising of table wine is in television spots (85%), with the remainder in magazines (7%) or on the radio (6%). Italian firms spent almost $30 million advertising their products in 1986. This expenditure is heavily dominated by Villa Banfi's promotion of *Riunite* and its other brands. Spanish firms, which have been seeking to increase their market share, spent almost as much as French firms on advertising in 1986. Spanish expenditures were 11 percent of the total by importers, despite the fact that Spanish wines have only a 2 percent share of U.S. imports.

4. Government Regulations

There are 50 different sets of laws regulating the sales of alcoholic beverages in the United States; one for each of the states. The Federal laws which overlay these state regulations are binding, but each state has control over the retailing and state taxation of alcoholic beverages. Wines are subject to an import duty of $0.375 per gallon. In addition, a federal excise tax of $0.17 is levied per gallon of table wine.

a. Federal regulations

Federal law regulating the sale of alcoholic beverages is administered by the Bureau of Alcohol, Tobacco, and Firearms (BATF) of the Department of the Treasury. Draft regulations are included in the publication *Laws and Regulations Under the Federal Alcohol Administration Act*. Part 4 of these regulations specifies the requirements for labeling and advertising. **Because of these regulations, the use of established importers and licensed distributors can greatly**

99

simplify the importing of wine. The importer must submit the labels of each wine to be imported to BATF and label clearance requires 60 to 90 days. State laws relating to wine making and labeling are generally identical to federal law.

b. State regulations

A summary of state laws relative to the controls, retailing and taxation is given in Annex A. Three states (Utah, Wyoming, and Pennsylvania, with the exception of Pennsylvania farm wineries) have state monopolies for marketing wines. The most liberal wine distribution laws, in general, are in the 30 states which permit sales in food stores. Studies have shown that these states have experienced the most dramatic growth in sales. The *Wine Institute Economic Research Report* of March 1986 showed dramatic sales gains for eight states which have expanded wine distribution through grocery stores since 1969. (These states were New Hampshire, Iowa, West Virginia, Montana, Washington, Alabama, Idaho, and Maine.)

The major highlights of factors influencing wine consumption and imports in the United States are:

-- the United States is a price and income sensitive market for wine;

-- the most popular price range for sales is $2.76-$4.25 per 750 ml. bottle;

-- the most important wine consuming groups are households with incomes of more than $35,000 and persons aged 20-39;

-- women are an important target group of consumers, this is not the case for other alcoholic beverages, with the exception of wine coolers;

-- advertising, especially television advertising, is important and tends to be used more for imports than domestic wines;

-- the complexity of government regulations for wine sales at both federal and state levels means that there are substantial advantages for exporters in working through established importers and licensed distributors.

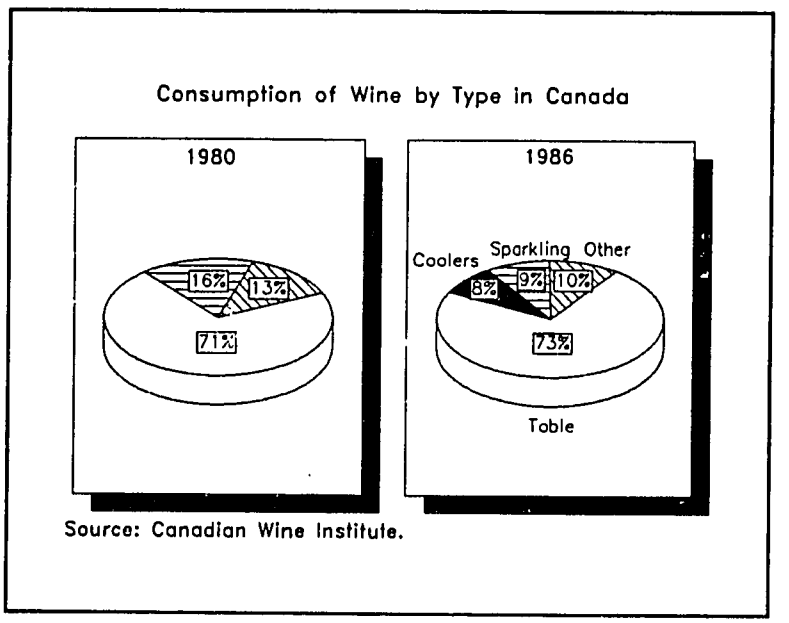
100

III. CANADA - MARKET PROFILE

The Canadian market for alcoholic beverages is valued at more than $8 billion (Canadian). Wine sales make up about $1.5 billion or 18 percent of the total.

A. Consumption

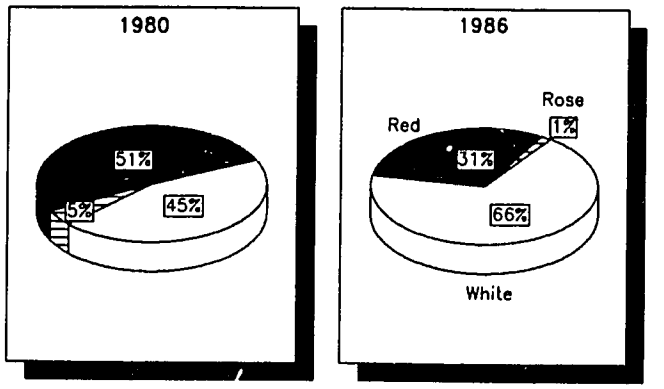
Per capita consumption of wine in Canada is similar to the United States.[1] In 1986 average consumption was 12.7 liters per person aged 15 years or older. As in the United States, **consumption has been growing, but at a slower rate in recent years.** Over the most recent five years consumption has increased by between 1-3 percent per year. This compares to growth rates of over 10 percent during the 1970s. Some of the same trends in the pattern of consumption as in the United States are evident in Canada, but there are also differences. **The impact of the cooler revolution has not been so great in Canada** as in the United States. Coolers account for less than 10 percent of total wine consumption in Canada, compared to over 20 percent in the United States. Furthermore, the increased consumption of coolers has been at the expense of sparkling and other wines, as well as other beverages, rather than at the expense of cheaper table wines as in the United States.



Canada has shared in a general North American tendency for consumers to switch from red wines towards white wines. Since 1980, red wine consumption has fallen from 51 percent of table wine consumption to 31 percent. The share of white wine in total consumption has

[1] Note Canadian statistics are calculated on the basis of the population 15 years and older. U.S. statistics relate to the total population.

101



Source: Canadian Wine Institute.

increased from 45 percent to 68 percent. The consumption of rose wines is flat in Canada, and they make up less than 1 percent of the table wine consumed in the country.

The consumption of wine varies widely by region, from a low of 4.2 liters in Newfoundland to a high of 21 liters in the sparsely-settled Yukon. Among the major provinces, per capita consumption varies from roughly 12 liters in Ontario to over 20 liters in British Columbia. Due to protective legislation, nearly all Canadian provinces "produce" some wine, often using grape juice or wines imported in bulk from elsewhere. Only Ontario and British Colombia have significant production of grapes.

The major consumption highlights in the Canadian market are:

Consumption of Wine in Canada 1986

Province	Per capita (liters)	Total (mill. liters)
British Columbia	20.5	47.3
Quebec	14.1	74.3
Alberta	13.5	24.7
Ontario	11.7	85.7
Canada	12.7	256.6

Source: Canadian Wine Institute.

-- growth has slowed considerably in recent years;

-- consumer preferences are changing away from red and rose wines towards whites;

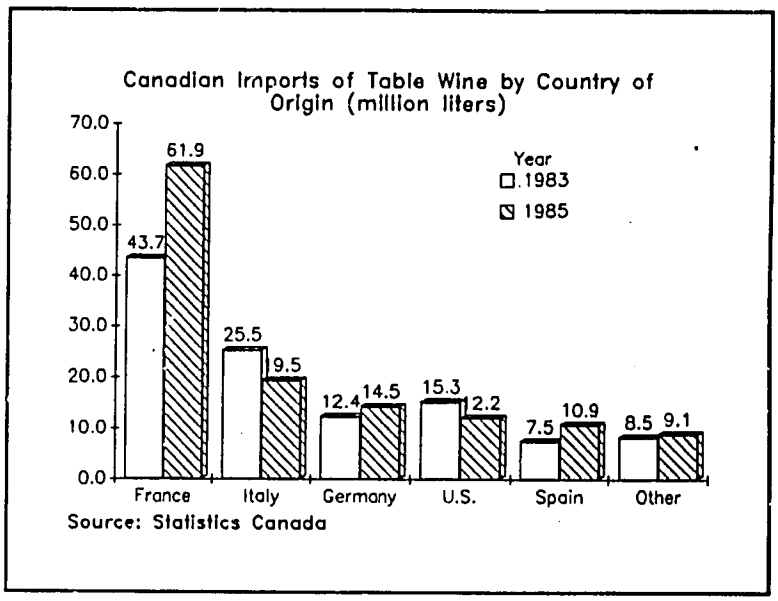
-- consumption is concentrated in the most populated provinces (Ontario and Quebec in the east, and British Columbia and Alberta in the west).

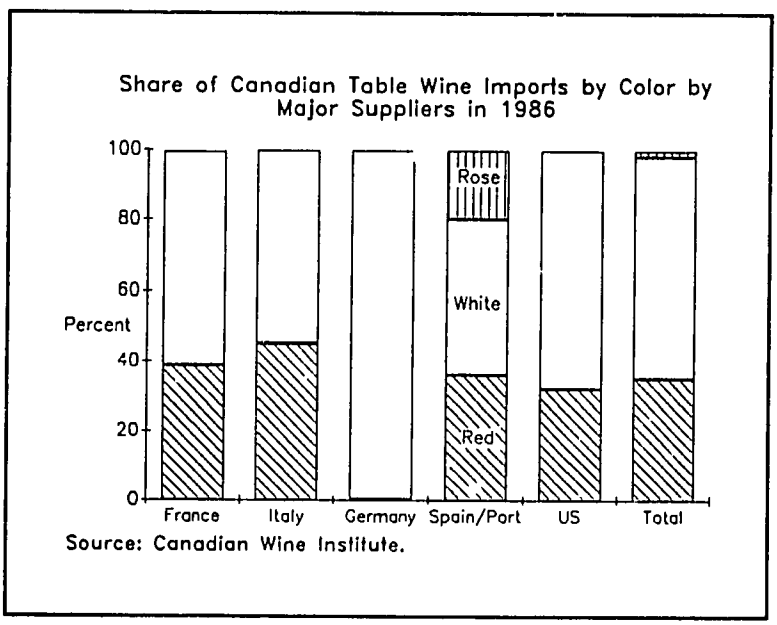
102

B. Imports

Imports account for roughly half of the volume of sales of wine in Canada, a share that has been held constant by government regulation for the last 10 years. In terms of retail value, imports total almost $900 million or 62 percent of total sales in Canada.

France is the leading wine supplier to Canada in both volume and value. In recent years, imports of table wine have declined because of the fall in the value of the Canadian dollar. The volume of imports peaked in 1984 at almost 150 million liters, but had fallen to 121 million liters in 1987. However, the value of imports continues to increase, rising from $165 million in 1985 to $226 million in 1987.





Canadian imports of wine from France are dominated by white wines. Over 60 percent of the imports from France are white wines. Three of the top four brands of wine sold in Canada are blended white wines from France, and all of the top ten wines are white wines. France is the largest single supplier of red wines. Portugal is the major supplier of rose.

193

The major import highlights are:

-- Canadian wine imports are dominated by white French table wines;

-- The growth in imports of the 1970s and early 1980s has slowed down as the growth in consumption has fallen, and imports have become more expensive with the depreciation of the Canadian dollar.

C. Factors Affecting Consumption and Imports

As in the United States, sales of wine in Canada are affected by prices, incomes and changes in consumer preferences. The rapid growth in consumption since the early 1970s has largely been due to the same factors as in the United States: increased consumer preference for wine, growing incomes and demographic changes. Imported wines have benefited from these factors, and have been influenced by changes in the value of the dollar. However, consumption and import patterns in Canada are heavily influenced by government regulation. **Government regulation is much stronger and more pervasive than in the United States, and is a key factor in marketing wine in Canada.**

The Federal government raises revenue from wine through an excise tax, and through import duties and licenses. Producers and distributors are liable for various other federal taxes, including a sales tax of 12 percent of the manufacturers selling price. Excise taxes and import duties amounted to $53 million, or about $0.41 per liter in 1986. Wines and spirits in Canada are sold largely through Provincial Liquor Control Boards (LCBs). The Provincial governments derive substantial revenue from the sale of alcoholic beverages through licenses and permits, fines and confiscations, and a sales tax of 25 percent on all purchases from provincial liquor stores. In most provinces there is also a general sales tax which is applied to all products, including wine. Provincial revenue from the sale of wine alone can not be determined, but for all alcoholic beverages it is $2.6 billion.

Potential exporters of wine to Canada face at least three different types of **barriers to trade:**

1. Listing practices.

The provincial LCBs control which wines are listed for sale. Such listings are protective of wines produced in the province, even when there is negligible grape production. Such

104

protection is especially important in British Columbia and Ontario, which have significant grape production.

2. **Pricing practices.**

"Imports", that is wine produced outside the province, face substantially higher markups (see table). Recently these differential markups were declared to be in contravention of the General Agreement on Tariffs and Trade (GATT) wines imported from signatories to the Treaty. Canada has promised to correct the discrimination. The markups for wine are likely to remain substantial, and will continue to be a major implicit tax on wine in Canada.

Canadian Provincial Markups on Wine

	Province	Other Canadian	Imports
		(percent)	
Ontario	1	66	66
Quebec	94/105		125
Manitoba	65	75	80
New Brunswick	97	124	129
British Columbia	50	110	110
Alberta	77	83	83
Saskatchewan	84	89	89

Notes:
For Quebec, the lower provincial figure is for wines produced in Quebec; higher figure for bottled bulk wines.
For British Columbia, charges are lower for wines over C$12.00 per 750 ml. bottle.
A flat tax of $1.5 per liter is added to all wine in Ontario.

Source: USDA/FAS unpublished data.

3. **Distribution practices.**

The retail outlets within the LCB system may discriminate against wine produced outside the province by simply not ordering from the list, by placing the wine at less desirable locations in the store, or at stores with a lower volume of sales.

The recent GATT ruling and other bilateral trade developments between the United States and Canada are placing pressure on the regulatory system for wine in Canada. However, strong provincial control and regulation of the Canadian market seem likely to persist. As an indication of the effects of such control it should be noted that the retail value of sales of imported wine in Canada (including taxes and margins) is typically 300-350 percent of the CIF import value of wine. **Federal and provincial government controls and the taxes that they imply will continue to constrain wine consumption, limit consumer choice and restrict market**

105

access for foreign suppliers in Canada.

-106

IV. MAJOR FACTORS IN MARKETING TUNISIAN WINE

In assessing the marketing potential and appropriate strategy for Tunisian wines, it is important to evaluate product characteristics and their relationship to the North American market. **Consumer acceptability is a key issue in the pricing and positioning of wine in the market.**

A. Consumer Acceptability

Wine is probably one of the most complex products to market. Not only is it highly differentiated, but its success or failure in the marketplace is determined by numerous subjective consumer factors which are constantly changing. First, there are the perceived characteristics of the product in terms of color, aroma, and taste. Second, there is the presentation of the product, in terms of bottling and labeling. Finally, there are the perceptions that may exist through knowledge (or the lack of it) about country or region of origin.

It is difficult to assess these factors completely without exhaustive market research, but in order to provide a preliminary assessment of major consumer perceptions two **taste tests** of Tunisian wines were conducted in Ithaca, New York under controlled conditions. The first was on July 7 and the second was on July 22, 1988. Ithaca, New York is not a "typical" small town of 50,000 people. It has two universities, one of which is a major international research university. The population is younger, better educated, and more affluent than the national average. Because of these characteristics it contains a large proportion of wine consumers. It is therefore a good location to assess the acceptability of Tunisian wines among an important group of potential consumers of these wines.

The first tasting was a **blind tasting** in which invited participants compared Tunisian red and rose wines against selected wines from France, Spain, and California, without prior knowledge of the country of origin. These competing wines are priced in the eastern United States at between $3.99 and $5.99 per bottle. Participants included five wine experts and seventeen residents of the United States. The non-expert U.S. group was comprised primarily of researchers working on various aspects of the Tunisian export study project and their wives.

The objective of the tasting was to determine the acceptability of Tunisian wines in comparison to other wines commonly drunk by United States residents. Competing products were chosen as wines somewhat similar in character and vintage to the Tunisian wines, in a price range at the lower end of the premium wine price band. It was thought that this price band would be the most likely for sales of Tunisian wines in the United States.

Annex B shows the score sheet and the list of the wines tasted, as well as the scoring system used. A scale with a range of responses from 0 to 13 was used, with 0 denoting "dislike extremely," 13 denoting "like extremely," and 6-7 means "neither like or dislike."

The expert panel was comprised of the following individuals:

-- a wine columnist for the *Washington Post* and Publisher of the *International Wine Review*;
-- the wine manager of the largest retail liquor store in Ithaca, New York;
-- the owner-manager of a retail liquor store in Ithaca, New York, specializing in premium wines;
-- the wine steward from the premier restaurant in Ithaca, New York, which is recognized for its cuisine both regionally and nationally; and
-- the head waiter of the same restaurant.

Results from the experts' scoring is shown in Annex C. The experts scored both rose wines, on average in the "dislike" range, with the results heavily influenced by one who believed Wine A (a French Rose) to be oxidized. Comments by the experts indicated that both rose wines were too old to have the characteristics normally associated with a pleasant rose wine. The experts were most favorably impressed with Wine H, a Spanish red wine. Two Tunisian reds: **Prestige Lamblot**, Coteaux d'Utique, 1984 and **Pinot de Tunisie**, 1983 scored well and were clearly judged to be comparable in quality to the other reds tasted.

United States residents in the tasting were comprised of 9 females and 8 males. Three participants estimated that they drank fewer than 12 bottles per year (the approximate per capita United States consumption) while nine participants indicated they drank more than 65 bottles per year (approximately 50 liters, or the approximate per capita consumption of traditional heavy wine consuming countries such as Spain and Argentina). United States

residents did not find either rose wine to their liking, and gave the highest average score to Wine F, a California wine. The non-experts rated **Prestige Lamblot** highly, but also rated **Pinot de Tunisie** and **Coteaux de Carthage**, 1984 as acceptable.

These scores reveal that, when the experts and United States residents were confronted with tastes comparisons which could not be influenced by product presentation or knowledge about wines regions or the origin of the wines, **Tunisian wines were judged to be about equal in preference to the competing products.** Except for a rather clear preference for wine H among the experts, and the California wine (the most expensive wine among the non-Tunisian wines tasted), consumer acceptance of the wine based on taste preference alone appears to be a neutral factor in the marketability of the three Tunisian red wines tasted.

At the second tasting, the participants were primarily local members of the *American Wine Society*. This group includes individuals who can generally be characterized as having a significantly above-average knowledge of wine. They are a high income group and tend to be habitual consumers of wine. In this tasting, participants were served Tunisian wines in their original bottles so that the origin of the wine and the presentation (labeling, bottles, corks) were clearly evident. In addition, other persons (guests, other researchers working on the Tunisian study, etc.) were present. The same scoring system was used as for the blind tasting.

The results of the tasting reveal that the red Tunisian wines were generally well-received, as was the blanc de blanc. The Tunisian rose wines were rated below average, as in the blind tasting. The **Pinot de Tunisie** (1983) was particularly well-regarded, scoring high marks with the frequent consumer group of the tasting panel. As in the earlier tasting the **Prestige Lamblot** received high marks. Several individuals rated the **Coteaux de Carthage** highly, but the scoring of this wine was highly variable. **Subsequent investigation showed substantial variability in quality across the bottles sampled,** an issue which is taken up again below.

The *Wine Society* group was asked to specify a price that they would be willing to pay for each of the wines sampled. The average prices for the reds were in the $5-$6 range, about

109

the range for some of the lesser French AOC wines. This is somewhat higher than the price range which the authors of this report would recommend, but this result tends to suggest that **with appropriate marketing Tunisian red wines could find a market niche in the United States.**

B. Presentation

Because of the subjectivity involved in wine consumption the **visual image** of the product is an extremely important factor in North America markets. The condition of the bottle, label, cork and seal are extremely important. Consumers interpret these as primary indicators of **quality**. They can be crucial factors in whether the product achieves first purchase, and hence whether the consumer actually has the opportunity to evaluate the product itself. The bottles of wine which we received as samples for our tastings were examined carefully.

One of the immediate characteristics apparent was that the labels on most of the bottles suffered from one or more of the following **defects**: wrinkling; crooked; glue on edges; peeling. These are problems which create an unfavorable impression with potential consumers. **The quality of labeling must be improved if Tunisian wines are to be sold at remunerative prices in North America.**

The design of wine labels is important. Since French wines have a favorable image in the United States, it is desirable that labels should continue to be in French, but several need to be simplified. North American consumers both appreciate and expect information on wine, particularly for those wines with which they may not be familiar. It would be desirable to have a small label on the back of each bottle in English with information about the origin of the wine (wine region, variety, etc.) and its serving characteristics. A number of the labels were relatively "cheap" in their appearance. A designer, familiar with U.S. packaging preferences, needs to work on these labels. Better quality materials need to be used for labels. **The labeling of Tunisian wines needs to be improved** to increase their chance of success in North American markets.

Examination of the bottles revealed several examples of chipped necks. There were many loose-fitting and substandard corks. It is clear that higher quality bottles and corks need to be

obtained for the export market. Finally, the color of some of the wines suggested premature deterioration. This could be due to the quality of the corkage, but may also reflect problems in the distillation, bottling or aging process. **Rigorous inspection and better quality control of bottles and their contents will be crucial** if Tunisian wines are to create a permanent and profitable niche in the North American market.

C. Distributional Characteristics and Needs: The United States

The distribution system is three-tiered in much of the United States. This means that it is mandatory for a wholesaler to act as an intermediary between the producer (supplier) and the retailer. The distribution system is a relic from the repeal of Prohibition (the Twenty-First Amendment to the U.S. Constitution) during the 1930s which sought to preclude producers from dealing directly with retailers, as they had prior to Prohibition. Several states have modified this system, including New York, and now allow producers (suppliers) to deal directly with the retailer.

As a practical matter, an importer is often added to the distribution system for imported wine. The importer handles such matters as label clearance through BATF, import arrangements and customs clearance. The importer also serves as a contact with the numerous distributors that may be required to move a sufficient volume of wine to make imports profitable.

Tunisian exports to the United States have been handled until recently through an exclusive agreement with *Carthage Imports* of Kingwood, Texas. This company has specialized largely in importing hand-made Tunisian craft items such as terra cotta, ceramics, baskets, tile panels, and carpets. The company attempted to distribute Tunisian wines in several states in the Southwest (Arkansas, Louisiana, and Oklahoma), and in California. *Carthage Imports* presented Tunisian wines at the major trade show, the *Wines and Spirits Wholesalers of America* annual convention in Boston in April, 1988.

The Company had considerable difficulty in finding distributors willing to handle Tunisian wines. Some wines deteriorated in storage, and the quality of labeling and presentation were found to be a severe handicap in the U.S. market. The prices of the wines

($8.40 per case for **Chateau Mornag**, $10.80 for **La Reserve** red, and $10.80 for **Pinot de Tunisie**, all F.O.B. Tunis) were too high to attract distributors given the current presentation of the wines according to *Carthage Imports*. In California, the Company attempted to offer a tie-in package, in which German, Californian, Australian, and Tunisian wines were offered to distributors as a package. The Tunisian wines were consistently rated as the bottom choice among potential distributors, and were not judged to be acceptable, largely on the grounds of presentation. The management of the Company has complained of not being able to obtain timely samples of the wines for use in their efforts to expand distribution.

In August 1988, *Carthage Imports* sent a letter and a report to the Director of the ONV indicating that they could no longer handle Tunisian wines without more support in the form of promotion and improved product presentation. At the present time, Tunisian wines are not marketed by *Carthage Imports* or, to the best of our knowledge, any other importer in the United States.

The authors of this report are in no position to assess the validity of the complaints made by *Carthage Imports* about the cooperation it received from the ONV in its marketing efforts. Certainly the firm's observations about the quality of product presentation are consistent with our own. As stated above, it is vital that this problem be resolved if a renewed effort to market Tunisian wines is undertaken in the United States. It also important to note that *Carthage Imports* is not a firm which specializes in wine marketing, and may have been limited by its lack of experience and contacts in attempting to expand the distribution of Tunisian wines. This raises the issue of what alternative organizational arrangements could be used if a decision is made to renew efforts to establish a market for Tunisian wines in the United States.

I. Organizational possibilities

The following options are open to foreign wine producers:

A. Importation in bulk with bottling in the United States by the importer.

This method is advantageous if a supplier can find the right importer since this individual will supply all the marketing services needed. The major disadvantages are that a

high volume of a uniform product is typically required and if the product is successful most of the financial returns are likely to accrue to the importer.

B. Bottled imports with Importer-Distributor-Retailer chain.

This is the most traditional route. The importer assumes the role of contact for distributors who usually operate in a single state. This approach needs substantial financial support for each brand exported, in order to get label clearance, and for promotion and advertising, in order to move a sufficient volume. The start-up costs are high and there is a low short-term payoff, but a higher potential long-term payoff.

Matrix of Organizational Alternatives

	U.S. Bottled	Importer Distributor	Distributor
Entry cost	L	M-H	H
Short-term revenue potential	M	L	L
Long-term revenue potential	L	H	M
Probability of success	M	L-M	L

H=high; M=medium; L=low.

C. Bottled imports with Distributor-Retailer chain.

This requires an agent in the United States, who develops contacts with distributors, advertising firms, and the wine industry, etc. There is a start-up cost in terms of travel, especially in building contracts with distributors. An existing importer has much lower costs in getting distributors to handle new brands.

For Tunisian wines the following characteristics are important:

-- There are numerous labels (brands) and imports of these would involve small volumes, this makes start-up and marketing costs per unit high;

-- Tunisian wines have no existing image with consumers in the United States, their apparent "Frenchness" may help to give them an appearance of quality, but among knowledgeable consumers North African wines are generally associated with low price and quality;

-- There no existing distribution system for Tunisian wines in the United States.

All these factors suggest that the **Importer-Distributor-Retailer chain is likely to be the most successful option for marketing Tunisian wines in the United States.** It involves higher costs and lower returns, at least initially, but has the potential for the greatest long term gains.

In terms of contractual arrangements, where there is a history of business between an exporter and importer, credit can be extended to the importing firm. The French, for example, frequently have such an arrangement and even operate a credit agency with this function in the United States. Other exporters, particularly where there is no existing business relationship with an importer will send a letter of credit when the wine is shipped and require immediate payment. This is the system that will probably be needed for Tunisian wines.

Several distributors and importers were contacted by the authors in major cities as New York, Washington, and Houston, as well as in some minor cities such as Rochester, New York. Our experience was that distributors are not enthusiastic about handling the product. However, we did discover one firm which appears to meet the necessary organizational requirements indicated. This is:

Exquisite Tasters International
233 E. 69th. Street, Suite 1-B
New York, NY 10021-5414
Tel: 212-517-7540
Contact: Dr. Edwin Fondo

Dr. Fondo, a native of Southwest Africa, was aware of Tunisian wines, and is interested in importing them. He is highly regarded by knowledgeable individuals in the wines and spirits trade. He handles various wines, including several from France and Australia. He has warehouse storage, enabling rapid response to orders. Dr. Fondo would require an exclusive agreement to handle Tunisian wines in the U.S. market. He has also indicated that he would need considerable promotional backup from GOT, and that in order to interest distributors in new brands the exporter margin must be low initially. These requirements, mirrored by comments with other individuals in the trade are part of the necessary up-front investment in a successful long-term marketing strategy. We recommend that the GOT explore the

114

possibilities of establishing a commercial relationship with a specialized and experienced importer like Exquisite Tasters International to handle its wines, if a decision is made to renew efforts to market Tunisian wine in the United States.

2. Margins and Pricing

The issue of pricing of Tunisian wines in the U.S. market is critical, not only from the perspective of whether these wines are likely to sell, but also whether Tunisia would find it profitable to ship wines to the United States. There are a number of elements to be taken into account in estimating the likely sales price and returns. We have prepared two examples (Annex C) based upon the second two distribution systems identified above: the importer-distributor-retailer chain, and the distributor-retailer chain.

In terms of product pricing, based on our observations of the product, the results of tastings, and consultations with those in the industry we would suggest that **Tunisian wine should be priced in the $3.00 - $5.00 per bottle price range.** This will place it in competition with "fighting varieties" ($4.00 - $5.00/bottle American produced Cabernet, etc.) and lower-priced premium wines from France, Italy, Spain, Argentina, and Chile. This price range includes the less well-known French AOC wines as well as many Italian DOC wines. However, in order to be successful in this price range it will **be essential to improve the presentation of the wine, improve and maintain consistent quality, and work with importers-distributors-retailers on the establishment of an image for Tunisian wine.**

The establishment of an image will require the preparation of good promotional materials developed by government (using recognized public relations experts in the American market), the use of trade shows (e.g the *Wine and Spirits Wholesalers of America*), the exploitation of wine and food exhibitions, contact with wine tasting groups, etc. It will also be necessary to generate good will and product awareness by sponsoring trips to Tunisia for key importers, distributors, retailers and wine writers, etc. It is recognized that Tunisia will never be able to compete with some other countries in terms of media advertising, but **Tunisia must be willing incur significant expenditures in order to promote its wine image.** A few

favorable articles in the press, and the interest of a few key wine industry individuals in handling and selling the product could make the difference between failure and success.

D. Distributional Characteristics and Needs: Canada

The observations made above about presentation (labels, corks etc.) hold equally for the Canadian market. However, a major difference derives from the degree of government control of the distribution system. Bureaucratic control means that the time required to introduce a product into the market is far longer than in the United States. It can take several months to obtain a listing for a product through an LCB, and for the product to finally appear in the store. In Ontario, for example, less than 800 imported wines were listed by the Liquor Board in 1986, compared to almost 700 domestic wines. Only British Columbia lists a large number of imported wines (over 1,100). There is often little incentive for LCBs to seek out imported wines with a good quality/price ratio, and in some cases there are strong incentives to impede the sales of such wines. The Canadian market is fairly small. Only Quebec and Ontario have populations with wine consumption levels which are large enough to justify much effort in trying to establish a presence in the market. **The opportunities for expanding sales of Tunisian wine in Canada on a profitable basis are severely limited.** One possible exception is Quebec, where the affinity with French wines is stronger. Most of the top selling red wines in Quebec are French, unlike in Ontario where Italian wines are significant. The liquor board in Quebec lists more imported wines than Ontario (over 900, compared to less than 800). It might be possible to realize a limited volume of sales in Quebec by profiting from the French image of Tunisian wines.

116

V. STRATEGY FOR MARKETING TUNISIAN WINES IN THE UNITED STATES

Several steps are necessary in order to be successful in developing profitable sales of Tunisian wines in the United States:

1. Control quality

Tunisia must improve its **quality control** for wines and their bottling. Export standards need to be set and enforced. Consultants, familiar with the North American market, need to be engaged to work on improving product presentation, particularly labeling. Better quality materials, especially bottles, corks, and labels need to be used for export products.

2. Establish contacts

Tunisian exporters, and their representatives with English language capabilities need to attend U.S. wine industry trade shows, such as the *Wine and Spirits Wholesalers of America* annual meeting, on a regular basis in order to **establish contacts** and build relationships with importers and distributors, and to increase the visibility of their product.

3. Develop a regional strategy

Through such meetings and related travel, industry representatives need to select an importer to **develop a regional strategy** for marketing Tunisian wine. Promising areas geographically could be the Southeast and Southwest, although regional emphasis would have to be worked out with importers and distributors. Sales to ethnic restaurants may be a possibility in some areas.

4. Promote Tunisian wines

Undertake promotional activities to support the marketing activities of importers, for example, through advertisements in wine magazines such as the *Spectator*, the preparation of high quality publicity material on Tunisian wines and their distribution through importers, wholesalers and retailers, and the use of knowledgeable individuals to organize tastings and to present Tunisian wines to the trade as well as to consumer groups, such as wine associations or tasting societies.

5. Target visits

Selected wine writers and representatives of the trade should be invited to visit Tunisia for an **organized program of activities** to observe the wine-producing areas first hand, to increase their knowledge of the characteristics and quality of Tunisian wines, to build good will, and to generate favorable publicity for these wines in the United States.

6. Advertise

Tunisian exporters should employ a **limited advertising campaign** in selected target markets to support the promotional activities of importers and distributors. Such a campaign would be based on newspapers and magazines (possibly radio spots) rather than expensive television advertising.

If Tunisia continues to maintain the levels of production of AOC, VDQS and superior wines indicated in Annex A, table 5 of Part A of this report, and maintains its exports of these wines to Western Europe, possibly 50 to 75 thousand hectoliters of quality wine would be available for potential export to North America. It is extremely unlikely that such a large volume of wine could be sold profitably in North American markets. **A realistic sales target would be between 7.5 and 11.5 thousand hectoliters for the U.S. market and 1 to 2 thousand hectoliters in Canada, primarily in Quebec.** Although, given the particular difficulties of selling in the Canadian market, primary emphasis and the higher probability of success must be attached to the U.S. market.

Year	Sales goal ('000 cases)	Revenues ('000 dollars)	Direct advertising
1989	15	172.5	22.5
1990	35	402.5	52.5
1991	60	690.0	90.0
1992	85	977.5	127.5
1993	100	1,150.0	150.0
Total	295	3,392.5	442.5

This sales target was established on the basis of current penetration of the North American market by countries which sell wines comparable to those from Tunisia, and use a level of resources to market their product similar to that indicated above. These countries:

Romania, Bulgaria, and Argentina had shipments to the U.S. market in 1987 of roughly 14 thousand hectoliters (Romania and Bulgaria) and 8 thousand hectoliters (Argentina). Argentina, in particular, has products which are similar to Tunisia's and has achieved its current level of market penetration by selling reasonably-priced, well-presented wines of good quality.

Should Tunisia be able to duplicate the success of these countries, the gross revenues from sales of the magnitude given above would be in the range of $1-$2 million annually (based on prices of F.O.B. Tunis of $10-$13 per 9 liter case). A reasonable sales goal in the first year of a sales effort would be 15 thousand cases, reaching perhaps 100 thousand cases in 5 years. In order to achieve this volume of sales it is estimated that advertising and promotion expenditures of $1.50 per case will be required. **The advertising costs of a five year promotion program would be over $440,000.**

In addition to these expenditures, additional outlays would be incurred during the first year or two of a sales campaign. These would be needed to cover travel for Tunisian sales representatives in the United States and Canada, promotional visits to Tunisia, the development of improved promotional material, and paid publicity through trade magazines and trade shows. **The start-up expenditures over the first two years of the sales campaign would probably total $500,000.** This level of commitment would be required, plus additional domestic expenditures to improve the presentation of the product (improved labels, bottles etc.), in order for Tunisian wines to make any significant inroad into the North American market.

Based on the wines that were available to us for tasting and evaluation (see list in Annex C, exhibit 3), we recommend **Prestige Lamblot**, Coteaux d'Utique and **Pinot de Tunisie** as the two initial wines to be targeted for export to North America. Too few bottles of **Chateau Mornag**, Grand Cru Mornag, were made available to us for thorough evaluation, but based on the authors' subjective tastings, this also merits consideration.

Given the growing preference for white wines in North America, and the predominance of rose wines in Tunisian production, consideration was given to the Muscat brand, and to the

rose wines, **La Reserve** and **Clairet de Bizerte.** The Muscat lacked the complexity and acid balance needed for a premium wine in the selected price range, and the rose wines were generally sub-standard. It should be noted that the roses we received, which were from the 1985 and 1986 vintages, are too old for market acceptability in North America, where the preference is for young and fresh rose wines. Should Tunisia be successful in establishing a presence in the U.S. market, it might be possible to develop new export products, such as blush wines from existing grape varieties. Tunisia cannot compete in the U.S. cooler market, because of the extremely low-cost wines which are used in this product. Tunisia's first priority must be to improve the quality of its existing wines in order to find a profitable and secure market in the United States.

Ultimately, success in promoting sales of these wines in the United States will depend crucially on selecting the right distribution arrangement. It is the authors' belief that the importer-distributor system described above offers the best prospects for success. As indicated above, it is likely that the importer will demand an **exclusive agreement** to market the product. It will be important to identify an importer with superior marketing expertise, a good location, strong sales network, and commitment to the product. Even if such an importer can be identified, Tunisian wines will face stiff competition. Many table wines of reasonable quality are now available for $10 per case (CIF). Given the highly competitive nature of the U.S. market, it is our subjective assessment that the long-run probability of success in developing a permanent and significant presence for Tunisian wines in the United States through the importer-distributor system of marketing is only of the order of 25 to 50 percent.

120

VI. STRATEGIC ACTION PLAN FOR WINE

The strategic plan for the wine industry needs to include provisions for stronger incentives for wine grape and wine producers to improve production practices, wine quality, and bottle presentation. To accomplish this, GOT will need to change some policies that influence returns to vineyard and winery operators, both public and private. Currently net returns to vineyard and winery operations are not adequate to encourage the best and most proper siting of vineyards, the use of appropriate inputs and cultural practices in the vineyards, proper quality control in the wineries, or the use of high quality materials and designs in the presentation of wines to the customer. In addition, the strategic plan should include arrangements with importers to include promotional support. With proper economic incentives, the Tunisian wine industry should be able to export on a modest scale in the competitive North American market and also serve the needs of the domestic market.

Elements of the plan are classified below under wine grape production, wine production and marketing, and export market expansion.

A. Wine Grape Production

1. Relocate Wine Vineyards on Most Appropriate Hillside Soils

Establish policies and programs to encourage gradual abandonment or removal from production of low quality vineyards and vineyards on soils for which more valuable usages are known. Vineyards should only be established on suitable hillside soils where there are appropriate microclimates and good air drainage to provide high quality grapes. This policy might result in fewer vineyards in production but will result in higher quality grapes and higher value yields per hectare.

2. Increase Water Availability and Improve Irrigation Systems

Policies and procedures should be established that would make water available on a more regular schedule and to expand the area under irrigation. Growers should be encouraged to invest in the appropriate systems to provide supplementary irrigation as needed for wine grapes.

121

3. Restructure Price and Tax Policies

This recommended action has three parts. One, eliminate the GOT/ONV practice of fixing grower wine grape prices and processing margins for vintners solely by administrative fiat. Two, eliminate the practice of using tax revenues from domestic sales to cover the losses of public sector wine producers. Three, change the ad valorem tax on domestic sales to a lower flat per bottle tax. Implementation of all three of these suggestions would result in wine grape producers and wine producers receiving revenues and incentives which would more accurately reflect the preferences of the market in terms of quantity and higher quality wines.

B. Wine Production and Marketing

1. Focus on the Tourist Market

The only market in which Tunisian wines have a clear competitive advantage is in the domestic market. An important component of this market is the tourist market. To appropriately exploit the potential of the tourist market will require a restructuring of prices as mentioned above and substantial improvement in overall quality as discussed below. Successful development of the tourist market would yield immediate foreign exchange benefits and set the stage for export expansion with higher quality wines.

2. Improve Wine Quality, Uniformity of Shipments, and Presentation

One of the most severe problems in the marketing of Tunisian wines is the manner in which the product is presented to the trade and to the ultimate consumer. Although the appearance of the bottle, the cork, the label, and the carton do not directly affect the taste or the character of the wine, a wine which is poorly presented is not likely to be purchased by the consumer initially or chosen again over wines that are more attractively presented. Therefore, attention must be given to the overall quality of the product including the quality of the bottle, the cork, and the label and to encourage importers to consider handling the product, the carton must be attractive with consistent and informative markings. Currently, the Tunisian export wines fall far short on overall quality image.

3. Redefine AOC Wine Regions

The current definitions for the AOC regions do not clearly identify quality characteristics. They should be redefined so that an importer or consumer would, upon reading the AOC identification, know exactly what to anticipate in term of taste and character.

4. Consolidate Brands Offered for Export

A smaller number of wine brands, along with a strong quality control program, would improve the Tunisian wine industry's ability to create a more positive image. It is costly to promote even a single brand in the North American market, and there are scale economies to be achieved in promotion of a limited number of high quality export brands.

5. Consolidate Wineries

Eliminate excess capacity by closing down obsolete state owned wineries. The adoption of some of the strategies and policies suggested above will facilitate adjustments in the private sector wine operations. This should reduce costs and encourage investments in modernization and improvement of wineries.

6. Encourage Private Wineries and Cooperatives to Market Directly

The current practice of requiring all wines to be marketed under the aegis of the ONV is costly and discourages improvements in marketing practices by the private and cooperative wineries. Direct marketing would provide the opportunity for consumers or buyers to more directly indicate to wineries and growers their preferences as to wine types and qualities.

C. Export Market Expansion into North America

1. Eliminate Impediments to the Use of High Quality Packaging Materials

The one private winery that has access to imported packaging materials has established a reasonable volume of export business. The quality of domestic packaging material is currently inadequate for export. Importers will handle Tunisian wines in volume and at reasonable margins only if bottle presentation is of high enough quality to attract consumers.

2. Identify the Right U.S. Importer to Handle Tunisian Wines

It will be important to identify an importer with superior marketing expertise, a good location, a strong sales network, and commitment to the product. It is likely that the importer will demand an exclusive agreement, and a Tunisian contribution to a strong high quality promotional effort in marketing Tunisian wines.

3. Develop a Regional Marketing Strategy

Through meetings and interaction with selected importers, the Tunisian export industry should help to develop a regional marketing strategy for North America. Promising areas geographically in the United States include the South and Southeast and in Canada, the Province of Quebec. Penetration of the U.S. market is likely only in large metropolitan areas, where ethnic diversity exists. Opportunities in Canada are brightest in French-speaking areas--i.e., Quebec and portions of Ontario.

The selection of regions for emphasis cannot be independent of the selection of an importer to handle the product. The regional focus must be compatible with the desires of this important partner in the sales effort. The development of a regional sales strategy is secondary to selecting an importer who is genuinely interested in handling Tunisian wines.

4. Undertake Promotional Activities

It will be necessary to support the marketing activities of the importer through advertisements in wine magazines and through the preparation, with government support, of high quality publicity materials on Tunisian wines. Other promotional activities should include organized wine tastings for North American trade and consumer groups, invitations to wine writers and trade representatives to visit Tunisia to observe wine making. Any general advertising campaign should be limited to selected target markets and designed to dovetail with the specific promotional activities of the importer and distributors.

- 134 -

ANNEX A

SUMMARY OF STATE WINE LAWS

ANNEX A SUMMARY OF STATE WINE LAWS

STATE	CONTROLS	RETAILING 1. Off-premises Consumption 2. On-premises Consumption	STATE TAXES	STATE SALES TAX
Alabama	Local prohibition. Licensing of retailers.	1. Package stores for wine in 8 counties. Food stores and other retail outlets in 3 counties. 2. Hotels, restaurants, etc.	35% of wholesale (3 counties). Alabama wines 0 5 cents/gal.	14% on wines
Alaska	Local prohibition in incorporated cities.	1. Package stores,clubs, boats. 2. Hotels, restaurants, etc., wine and beer only.	85 cents/gal.	None
Arizona	No local prohibition	1. Package, food and drugstores. 2. Hotels, restaurants, etc.	42 cents/gal.	4%
Arkansas	Local prohibition in counties, cities, districts and precincts. Licensing of retailers.	1. Exclusive package stores only. 2. Local option, except Arkansas table wines may be sold by licensed restaurants in cities of at least 15,000, or owned and operated by winery on premises.	Out-of-state wines, 75 cents per gal. plus 5 cents. Arkansas wines 5 cents per gal. plus 5 cents/case.	3%, plus 3% excise tax
California	No local prohibition. Licensing of retailers.	1. Package, drug, food and other stores and winneries. 2. Hotels, restaurants, etc.	Table wines, 1 cent/gal. Sparkling wines, 30 cents/gal.	4%
Colorado	Local options in counties, cities. Licensing of retailers.	1. Package and drugstores. 2. Hotels, etc. and non-profit corporations.	7.3 cents/liter Colorado "limited winery" wines - 5 cents/quart	3%
Connecticut	No local prohibition in towns. Licensing of retailers.	1. Package and drugstores. 2. Hotels, restaurants, etc.	30 cents gal.	7 1/2 %
Delaware	Local prohibition authorized, but none in effect.	1. Hotels, restaurants, etc., general stores, clubs. 2. Hotels, restaurants, etc.	40 cents/gal.	None
District of Columbia	No local prohibition. Licensing of retailers.	1. Package, drug and food stores. 2. Hotels, restaurants, etc., and retailers.	15 cents/gal.	6%
Florida	Local Prohibition in counties. Licensing of retailers.	1. Package, grocery and drugstores, and by all on-sale stores. 2. Hotels, restaurants, etc.	$1.75 per gal. No tax on Florida wines	4%
G. .gia	Local prohibition. Licensing of retailers.	1. Package, drug and food stores. 2. Hotels, restaurants, etc.	40 cents/liter. Georgia wines 11 cents/liter	3%
Hawaii	No local prohibition. Licensing of retailers.	On and off-sales by usual outlets.	20%	4%
Idaho	Local prohibition. Mixed state stores and licensing of retailers.	1. Mixed state stores and others. Includes food stores. 2. Hotels, restaurants, etc.	45 cents/gal.	3%
Illinois	Local prohibition in cities, towns, precincts. Licensing of retailers.	On and off-sales in package, food, drug and other stores, and notch restaurants, taverns, etc.	Table, sparkling 23 cents per gal. Dessert wines 60 cents/gal.	4%
Indiana	No local prohibition. Licensing of retailers.	1. Package, drug and food stores, restaurants, hotels, clubs. 2. Hotels, restaurants, etc.	Not over 21% alcohol - 47 cents/gal. Small wineries - 27 cents per gallon	4%
Iowa	Local county option; On-sale by private license.	1. State stores, grocery stores, and special distributors. 2. Clubs, hotels, restaurants, etc.	Mark-up of 80% for still wine, 20% for sparkling, 15% wholesale tax.	3%
Kansas	Local prohibition in cities and townships. Licensing of retailers. On-sale prohibited.	1. Package stores. 2. Clubs only.	Table and sparkling - 30 cents/gal. Dessert - 75 cents/gal. Kansas wines - 15 cents/gal.	3%
Kentucky	Local prohibition in counties, towns, precincts. Licensing of retailers.	1. Package and drugstores. 2. Hotels, taverns, etc.	All wines - 50 cents/gal.	5%
Louisiana	Local prohibition in parishes, wards, cities and towns. Licensing of retailers.	1. Package, drug and food stores, hotels, etc. 2. Hotels, etc.	Table wines - 3 cents/liter. Dessert - 6 cents/liter; Sparkling - 42 cents/liter.	3%
Maine	Local prohibition in cities, towns and plantations. Licensing of retailers.	1. State stores and retail licensees. 2. Hotels, etc.	Table wine - 45 cents/gal. Dessert wine - $1.37/gal. Sparkling wine - $1.12 per gallon.	5%
Maryland	Local prohibition in counties. Licensing of retailers.	1. Package, food and drugstores, and by county stores in 6 counties, farm wineries in some counties. 2. Hotels, etc.	40 cents/gal. Maryland wines - 2 cents/gal.	5%
Massachusetts	Local prohibition in cities and towns. Licensing of retailers.	1. Producers, package, food and drugstores. 2. Producers, hotels, etc.	Table and dessert - 55 cents/gal. Sparkling - 70 cents/gal.	5%
Michigan	Local prohibition. Private licensing for off-sale of table wines, on-sale of all wines.	1. Food, drug and other stores, hotels and state stores. 2. Hotels, etc.	Out-of-state 13.5 cents/liter. Michigan - 1 cent/liter	4%
Minnesota	Local prohibition in counties, cities and villages. Licensing of retailers.	1. Package, food, drug and municipal stores. 2. Hotels, etc.	Table wines - 27 cents/gal. Dessert - 79 cents/gal. Sparkling - $1.50/gal.	4%

ANNEX A SUMMARY OF STATE WINE LAWS

Mississippi	Local prohibition. Licensing of retailers.	1. Private licensees selling alcoholic beverages only. 2. Hotels, etc.	Still wines - 35 cents/gal. Sparkling - $1.00/gal. on Mississippi wines.	5%
Missouri	Local prohibition in cities and counties. Licensing of retailers.	1. Package, drug and other stores. 2. Hotels, etc.	30 cents/gal.	3 1/8%
Montana	Local prohibition in counties. Licensing of retailers.	1. Food, drug and state stores. 2. Hotels, etc.	20 cents/liter State & county tax.	None
Nebraska	Local prohibition in cities. Licensing of retailers.	1. Package, drug and food stores. 2. Hotels, etc.	Table and sparkling - 65 cents/gal. Dessert - $1.25/gal.	3%
Nevada	No local prohibition. Licensing of retailers.	1. Package stores and hotels, etc. 2. Hotels, etc.	Table and sparkling - 40 cents/gal. Dessert - 75 cents/gal	3 1/2%
New Hampshire	Local prohibition in cities and towns. State monopoly on wholesale distribution. Private licensing of hotels, etc.	1. State store, food, drug and department stores, motels and wineries. 2. Hotels, etc.	18 %/gal. (on wholesale) 5%/gal. on New Hampshire products.	
New Jersey	Local prohibition in cities, towns, etc. Licensing of retailers.	1. State stores, food, taverns and restaurants, and farm wineries. 2. Hotels, etc.	30 cents/gal.	5%
New Mexico	Local prohibition in certain counties and cities. Licensing of retailers.	1. Package, food and drugstores and by hotels, restaurants and farm wineries. 2. Hotels, etc.	All out-of-state wines - 25 cents/liter; wine produced in N. M. exempt.	3 1/2%
New York	Local prohibition in certain counties and cities. Licensing of retailers.	1. Package stores, wineries and farm wineries. 2. Hotels, restaurants, taverns, etc.	17 cents/liter 03 cents/liter table and dessert wines 75 cents/liter sparkling wines	4%
North Carolina	Local prohibition in counties. Licensing of retailers.	1. Package, drug, food and other stores, and local wineries. 2. Hotels, etc.	21 cents/liter North Carolina wines - exempt	3%
North Dakota	No local prohibition. Licensing of retailers. No Sunday sales.	1. Package and food stores, hotels, etc. Off and on sales. No Sunday sales.	Table - 50 cents/gal. Dessert - 60 cents, Sparkling - $1.00	3%
Ohio	Local prohibition in cities, towns, districts. Licensing of retailers.	1. Package, drug and food stores. 2. Hotels, etc.	Table - 26 cents per gallon. Dessert - 62 cents/gal. Sparkling - $1.27/gal. Ohio wines - 1 cent/gal.	4%
Oklahoma	No local prohibition. Licensing of retailers. Package stores only.	1. Package stores. 2. On-sale prohibited.	Table - 50%. Dessert wine - $1.00 Sparkling - $1.50	2%
Oregon	Local prohibition in counties, cities and towns. Licensing of retailers except that dessert wines handled by state monopoly.	1. State stores, package food and drugstores, hotels, etc. and wineries. 2. Hotels, etc. and wineries.	Table wines - 67 cents/gal. Over 14% alcohol - 77 cents/gal.	None
Pennsylvania	Local prohibition in cities, etc. State monopoly. Licensing of producers, importers.	1. State stores and PA. wineries of 100,000 gals. or less. 2. Hotels, etc.	25% on delivered cost plus service charge of 25 cents/bottle	6%
Rhode Island	Local prohibition in cities and towns. Licensing of retailers.	1. Package, food and drugstores 2. Hotels, etc.	Table and dessert - 40 cents per gallon Sparkling - 50 cents/gal.	6%
South Carolina	No local prohibition. Licensing of retailers. On-sale dessert wine prohibited.	1. Table/sparkling package, drug and food stores. Dessert by package stores only. 2. Hotels, etc. (Dessert wines in miniatures only).	30 cents/liter	4%
South Dakota	Local prohibition (on-sale only) in cities and townships. Licensing of retailers.	1. Package, drug and food stores. 2. Hotels, etc.	Table - 90 cents per gal. Dessert $1.40/gal. Sparkling - $2./gal.	4%
Tennessee	Local prohibition in counties. Licensing of retailers.	1. Package stores. 2. Hotels, etc.	$1.10/gal. plus 15 cents/case at wholesale level. Tenessee wines - 5 cents/gal.	3%
Texas	Local prohibition in counties, cities, towns and precincts. Licensing of retailers.	1. Package, drug and food stores, and producers. 2. Hotels, etc.	Table - 17 cents/gal. Dessert - 34 cents/gal. Sparkling - 43 cents/gal.	4%
Utah	No local prohibition. Complete state monopoly.	1. State stores; restaurants may sell wine in 375 ml. bottles. 2. Only on trains and by bonafide clubs.	Mark-up - 55% on table & sparkling wine. 61% on dessert. Plus 8% school lunch tax on state store sales.	4%
Vermont	Local prohibition in cities and towns. Private off-sale licensing for table wines and on-sale all alcoholic beverages.	1. Table and sparkling wines by package and food stores. Dessert wines by state stores only. 2. Hotels, etc.	Table and sparkling 55 cents/gal. Dessert wines - variable mark-up.	4%
Virginia	Local prohibition in counties, cities and towns. Licensing of retailers.	1. State stores, package, drug and food stores. 2. Hotels, etc.	40 cents/liter plus 4% on wines sold to non-licensees.	3%
Washington	Local prohibition in cities, towns and un-incorporated areas. Licensing of retailers.	1. State stores, package, drug and food stores and local wineries. 2. Hotels, etc.	20 cents/liter	5.4%, plus local tax of 4.6 to 5.4%

ANNEX A SUMMARY OF STATE WINE LAWS

West Virginia	Local prohibition in cities and counties. Licensing of retailers. No on-sale except by clubs.	1. State, stores, licensed food stores and specialty shops. 2. Prohibited except for private clubs.	26 cents/liter at wholesale level.	5%
Wisconsin	Local prohibition in cities, towns and villages. Licensing of retailers.	1. Package, drug and food stores. 2. Hotels, etc.	Table and sparkling - 25 cents/gal. Dessert - 45 cents/gal.	5%
Wyoming	No local prohibition. State monopoly except private licensing by cities, towns and counties.	1. Package and drugstores. 2. Hotels, etc.	7.5 cents/liter	3%

Source: McRory, George, American Wine Society Journal, Spring 1985, compiled from "The Wines and Vines Buyer's Guide of 1984" and the Eastern Grape Grower and Winery News, "Directory of the Eastern Wine Industry," and the Wine Institute Economic Research Report, March 1986.

ANNEX B

WINE TASTING SCORECARD

Annex B

WINE TASTING SCORE CARD

WINE	SCORE	NOTES
A		Blanchard Rose D'Anjou, 1984 (France)
B		Chateau Mornag Vin Rose, 1986
C		Prestige Lamblot Coteaux d' Utique, 1984
D		George Duboeuf Cotes du Rhone, 1986 (France)
E		Pinot de Tunisie, 1983
F		Sonoma County California Old Wine Red
G		Coteaux de Carthage, 1984
H		Torres Coronas, 1984 (Spain)

BTI Hedonic Scorecard and Checklist

0-1 Dislike Extremely
2-3 Dislike Strongly
4-5 Dislike Slightly
6-7 Neither Like or Dislike
8-9 Like Slightly
10-11 Like Strongly
12-13 Like Extremely

A Age adjustment (Wine tends to mature and gain more points with age)

Checklist of Characteristics for Reference in Note Taking

Appearance Carbonation Fragrance Intensity Grape Essence Health Alcohol Acid Sweetness Astringency Firmness Aftertaste Balance Style Complexity/Simplicity Reminiscence_____ Changes with Air Feel Heat Cold

ANNEX C

EXHIBITS

ANNEX C. Exhibit 1

Results of the Wine Tasting of July 7, 1988,
-Group of experts-

Person	Sex	Wines							
		A	B	C	D score	E	F	G	H
1	M	0	6	9	9	6	8	7	7
2	M	5	6	9.5	9	5.5	10	5.5	10
3	M	7	5.5	6	9.5	9	9.7	9.8	10
4	M	6	9	12	10	11	7	7	12
5	M	6.5	7	12	11	14	9	9	13
Average:		4.9	6.7	9.7	9.7	9.1	8.7	7.7	10.4

Wine Key:
A Blanchard, Rose d'Anjou (sec et demi-sec), 1986, France.
B **Chateau Mornag, rose, 1986.**
C **Prestige Lamblot, Coteaux d'Utique, 1984.**
D George Duboeuf Cotes du Rhone, 1986, France.
E **Pinot de Tunisie, 1983.**
F Sonoma Co. California Old Wine Red, United States.
G **Coteaux de Carthage, 1984.**
H Torres Coronas, 1984, Spain.

In this tasting the origin of the wines was not disclosed to the tasters.
See Annex B for key to scoring.

ANNEX C. Exhibit 2

Results of the Wine Tasting of July 7, 1988,
-U.S. residents (excluding experts)-

	Consumption	Wines							
		A	B	C	D score	E	F	G	H
Females									
1	D	7	9	9	11	6	10	8	10
2	D	10	5	6	6	7		9	10
3	D	4	8	8	6	8	7	6	8
4	D	6	5	9	6.5	8	5	6	4
5	D	8.5	5	8.5	12	8.5	12		
6	B	6.5	2.5	10.5	5	8.5	10.5	6.5	2.5
7	A	9	6	5	7	8	9	8	9
8	A	6.5	4.5	4	3	9	9	9	9
9	A			8		5	12	5	5
Males									
1	D	3	6	8	10	9	11	6	10
2	D	8.5	4	9	12	5	8	10	
3	D	8	8	7	5	5	8	7	8
4	D	7	8	9	8	9	9	8	7
5	C	3	1	11	9	4	8	6	7
6	B				7	3		7	
7	B	8	5	6	5	6	7	5	6
8	B	4.5	4.5	9	6.7	10.5	6.5	6.5	9
Averages:									
Females		7.2	5.6	7.6	7.1	7.6	9.3	7.2	7.2
Males		6.0	5.2	8.4	7.8	6.4	8.2	6.9	7.8
Largest consumers		6.9	6.4	8.2	8.5	7.3	8.8	7.5	8.1
Total		6.6	5.4	7.9	7.5	7.0	8.8	7.1	7.5
Standard deviation:									
Females		1.8	1.9	2.0	2.8	1.2	2.2	1.4	2.7
Males		2.3	2.3	1.5	2.3	2.5	1.4	1.4	1.3
Largest consumers		2.1	1.7	1.0	2.6	1.5	2.1	1.4	1.9
Total		2.1	2.1	1.8	2.7	2.0	2.0	1.4	2.3

Wine Key:
A Blanchard, Rose d'Anjou, 1986, France.
B **Chateau Mornag, rose, 1986.** C **Prestige Lamblot, Coteaux d'Utique, 1984.**
D George Duboeuf Cotes du Rhone, 1986, France.
E **Pinot de Tunisie, 1983.** F Sonoma Co. California Old Wine Red.
G **Coteaux de Carthage, 1984.** H Torres Coronas, 1984, Spain.

Annual consumption key:
A Less than 12 bottles;B 12-34; C 35-65; D Over 65.

In this tasting the origin of the wines was not disclosed to the tasters.
See Annex B for key to scoring.

ANNEX C. Exhibit 3

Scoring Results of the Wine Tasting of July 22, 1988,
-American Wine Society-

	Consumption	Wines						
		A	B	C	D	E	F	G
					score			
Females								
1	D	10	8	5	9	10	10	9
2	D	10	8	5	9	8	11	5
3	D	8	4.5	8	10.5	10.5	10.5	6.5
4	D	8	5	5	9	8	10	10
5	C	9	2.5	7	9	9	9	6
6	C	9	6	8	6	11	9	11
7	C	8	5	6	9	9	10	11
8	C	8.5	8.5	8.5	8.5	4.5	8.5	8.5
9	C	8.5	4	2	7	6	9	7
10	C	8.5	6	4.5	9.5	10.5	11	12
11	A	8	5	11	11	12	9	6
Males								
1	D	8	4	2	8	6	9	10
2	D	5	3	8	9	10	12	4
3	D	5	6	4.5	7.5	8	10	9
4	D	8	7	5	10	10	10	8
5	D	10	8	4	10	11	12	8
6	D	10	7	6	10	10	10	6
7	C	6.5	5	4.5	7.5	8.5	9.5	12.5
8	B	8	7	7	8	7	6	7
9	B	6	5	4	8	9	9	9
Average:								
Females		8.7	5.7	6.4	8.9	9.0	9.7	8.4
Males		7.4	5.8	5.0	8.7	8.8	9.7	8.2
High consumers		8.2	6.1	5.3	9.2	9.2	10.5	7.6
Total		8.1	5.7	5.8	8.8	8.9	9.7	8.3
Standard deviation								
Females		0.7	1.8	2.3	1.3	2.1	0.8	2.3
Males		1.8	1.5	1.7	1.0	1.5	1.7	2.3
High consumers		1.8	1.7	1.7	0.9	1.5	0.9	2.0
Total		1.5	1.7	2.2	1.2	1.9	1.3	2.3

Wine key:
A Blanc de Blanc 1987 (white); B Clairet de Bizerte 1986 (rose); C La Reserve 1985 (rose); D Coteaux d'Utique 1986 (red); E Prestige Lamblot (Coteaux d'Utique) 1984 (red); F Pinot de Tunisie 1983 (red); G Coteaux de Carthage 1984 (red).

Annual consumption key:
A Less than 12 bottles; B 12-34; C 36-65; D over 65.

In this tasting the origin of the wines was known to the tasters. The results reflect a subjective ranking of selected Tunisian wines based on taste and appearance.
See Annex B for key to scoring.

ANNEX C. Exhibit 4

Pricing Results of the Wine Tasting of July 22, 1988
-American Wine Society-

	Consumption	Wines						
		A	B	C	D	E	F	G
		dollars per bottle						
Females								
1	D	5	3	2	5	6	6	4
2	D	5.99	4	4	5	5	7	4
3	D	4.5	2	4.5	6	6.99	8	4.5
4	D	4.5	2.99	2.99	7.25	5.99	8.75	7.5
5	C	4.5	0	4.5	4.5	5	5	5
6	C	4	3	0	4.5	5.5	6	7
7	C	3	6	6	6	0	7	8
8	C	5	2.5	0	4	3	5	4
9	C	4	3	3	3	4	4	4
10	C	4	0	0	4	4.5	6	11
11	B	6	5.5	5.5	6	5.5	5	6
12	A	5.75	5	6	6	6	6	5
Males								
1	D	8	4	2	8	6	9	10
2	D	6	4.5	4.5	5.4	5	6	3.75
3	D	6	4	2	6	6	8.5	4
4	D	3	2	4	4	4.5	8.75	2
5	D	2.99	3	2.79	4	4	6.5	4.75
6	D	5	4	3	6	6	7	4
7	C	4	3	3	4	8.5	8.5	10.5
8	B	3.5	3	0	4	4.5	4.5	4.5
Average:								
Females		4.69	3.08	3.21	5.10	4.79	6.15	5.83
Males		4.81	3.44	2.66	5.18	5.56	7.34	5.44
High consumers		5.10	3.35	3.18	5.67	5.55	7.55	4.85
Total		4.74	3.22	2.99	5.13	5.10	6.63	5.68
Standard deviation:								
Females		0.87	1.81	2.18	1.13	1.76	1.30	2.08
Males		1.66	0.77	1.29	1.37	1.33	1.50	2.89
High consumers		1.43	0.84	0.96	1.22	0.85	1.12	2.14
Total		1.25	1.50	1.90	1.23	1.65	1.51	2.44

Wine key:
A Blanc de Blanc 1987 (white); B Clairet de Bizerte 1986 (rose); C La Reserve 1985 (rose); D Coteaux d'Utique 1986 (red); E Prestige Lamblot (Coteaux d'Utique) 1984 (red); F Pinot de Tunisie 1983 (red); G Coteaux de Carthage 1984 (red).

Annual consumption key:
A Less than 12 bottles; B 12-34; C 36-65; D over 65.

In this tasting the origin of the wines was known to the tasters. The results reflect a subjective evaluation of the maximum price that would be paid by each individual for selected Tunisian wines based on their taste and appearance.

ANNEX C. Exhibit 5

Estimates of Pricing

Example 1. Importer-Distributor-Retailer	Per Case	Cumulative
Per case F.O.B. Tunisia (12 x 750 ml. bottles)	11.00	11.00
Importer margin (20-40% of F.O.B. cost - e.g., 25%)	2.75	13.75
Shipping to United States (NYC)	5.00	18.75
Distributor's margin (33%)	6.19	24.94
Taxes, federal duty, port charges, transportation to warehouse	3.50	28.44
Delivery to retailer	1.80	30.24
Retailer markup (50% in NY, higher in many other states)	15.12	45.36
Price per bottle:	$3.78	

Example 2: Distributor-Retailer	Per Case	Cumulative
Per case F.O.B. Tunisia (12 x 750 ml. bottles)	11.00	11.00
Freight to Spain	.75	11.75
Freight to Montreal	3.00	14.75
Freight and taxes to United States	2.00	16.75
Warehousing and markup @ 33%	5.53	22.28
Transport to retailer	1.80	24.08
Retailer margin @ 50%	12.04	36.12
Price per bottle (Probably would retail for $2.99)	3.01	

Notes: Both examples, but especially Example 1, assume that money is spent on establishing an image for Tunisian wines. The $11.00 per case F.O.B. is taken from the Part A Study, Annex Table 11.

Margins: Importers: 20-40% F.O.B. price. Distributors: 30-40% of cost of goods their door. Retailers: 50% of cost at their door.

ANNEX D

STATISTICAL TABLES

Wine entering distribution channels in the U.S., 1976-87, in million hectoliters.

Year	Table Wine	Dessert Wine	Champagne	Wine Coolers	All Wine
1976	8.6	2.3	0.8	n.a.	14.2
1977	9.9	2.2	0.9	n.a.	15.2
1978	11.5	2.0	1.0	n.a.	16.5
1979	12.3	1.8	1.0	n.a.	16.8
1980	13.6	1.7	1.1	n.a.	18.2
1981	14.6	1.6	1.3	n.a.	19.1
1982	15.0	1.5	1.4	n.a.	19.5
1983	15.2	1.4	1.6	0.3	20.0
1984	15.2	1.4	1.8	1.3	21.0
1985	14.3	1.3	1.7	3.3	21.8
1986	13.3	1.3	1.7	4.6	22.2
1987	12.8	1.4	1.6	4.6	22.0

Source: The Wine Institute Economic Research Report (July 1987) and Wines and Vines, July 1986, 1987, and 1988.

U.S. Imports of Table Wine, 1985-1987, hectoliters.

Country	1985	1986	1987
Italy	2,213,260	1,510,190	1,143,360
France	1,043,770	936,360	699,840
Germany, Fed. Rep.	543,380	355,940	265,840
Portugal	169,110	140,140	136,680
Spain	56,810	52,830	49,990
Yugoslavia	42,230	34,340	33,020
Chile	16,150	18,380	19,800
Greece	22,140	20,580	18,190
Other	119,300	104,780	114,370
Total	4,226,150	3,173,540	2,481,090

Source: USDA (FAS).

Volume of wine sold in Canada, 1977-1986, in liters.

Year	Total	Canadian	Imported
1977	150,994	76,588	74,406
1978	168,560	80,861	87,699
1979	193,205	91,202	102,003
1980	199,664	100,326	99,338
1981	210,046	106,543	103,503
1982	223,623	110,643	112,980
1983	232,340	118,505	113,835
1984	235,131	118,497	116,634
1985	245,963	120,980	124,983
1986	256,603	128,104	128,499

Source: Statistics Canada.

Top 25 imported table wine brands and line depletion analysis, thousands of nine-liter cases.

Rank	Brand	Country	Importer	Depletions 1986	Percent Change 1985-86	Imported Table Wine Market Share[1] in 1986
1	Riunite "Classics"[2]	Italy	Banfi Vintners	7,405	-28.0	21.2
2	Canei	Italy	Wine Shippers Import Co. (Star)	1,970	-10.5	5.6
3	Cella	Italy	Brown-Forman Crop.	1,925	-23.0	5.5
4	Folonari	Italy	"21" Brands, Inc.(McKesson)	1,550	-8.8	4.4
5	Bolla	Italy	Brown-Forman Corp.	1,500	-6.3	4.3
	Total Top 5			14,350	-21.5	41.0
6	Blue Nun	Germany	Schieffelin & Co. (Moet-Hennessy)	930	-15.5	2.7
7	Lancers	Portugal	Heublein Inc. (RJR/Nabisco)[3]	800	-11.1	2.3
8	Mateus	Portugal	Sogrape USA, Inc.	750	-16.2	2.1
9	Rene Junot	France	"21" Brands, Inc. (McKesson)	600	20.0	1.7
10	Barbella	Italy	Welllington Importers, Ltd.(Guinnes)	600	-11.1	1.7
	Total Top 10			18,030	-19.4	51.5
11	Partager	France	Seagram Wine Co. (Seagram)[4]	590	-9.2	1.7
12	Mouton-Cadet	France	Palace Brands, Inc. (Heublein/RJR Nabisco)[5]	450	5.9	1.3
13	Villa Banfi Entree (Jugs)	Italy	Banfi Vintners	445	-11.9	1.3
14	B & G	France	Seagram Classics Wine Co.(Seagram)	440	3.5	1.3
15	Principato	Italy	Palm Bay Imports, Inc.	395	-12.2	1.1
	Total Top 15			20,350	-18.0	58.2
16	Corvo	Italy	Paterno Imports, Ltd. (International Products Corp.)	395	1.3	1.1
17	Papillon	France	Bacardi Imports, Inc.	355	42.0	1.0
18	Avia	Yugoslavia	Laureate Imports Co. (Coca-Cola Trading Co./Coca-Cola)	350	-17.6	1.0
19	Fontana Candida	Italy	C&B Vintage Cellars (Wine World)[6]	330	-5.7	0.9
20	Keller-Geister	Germany	Munson Shaw (National Distillers)[7]	325	-24.4	0.9
	Total Top 20			22,105	-17.1	63.2
21	Bell'agio	Italy	Banfi Vintners	320	-29.7	0.9
22	Black Tower	Germany	Seagram Wine Co. (Seagram)[8]	270	-27.0	0.8
23	Ruffino	Italy	Schieffelin & Co. (Moet-Hennessy)	270	-10.0	0.8
24	Schmitt Soehne	Germany	H. Schmitt Soehne	270	-34.1	0.8
25	Chantefleur	France	Parliament Imports Co.	270	5.9	0.8
	Total Top 25			23,505	-17.4	67.2

[1]Addition of columns may not agree because of rounding.
[2]Includes lambrusco, rosato, bianco and d'oro.
[3]Effective March 1987, Heublein Inc. (IDV/Grand Met.)
[4]Effective April 1987, Vintners International Co. purchased the U.S. distribution rights from J.E. Seagram & Sons, Inc.
[5]Effective March 1987, Palace Brands (Heublein/IDV/Grand Met).
[6]Effective March 1987, the brand moved to Brown-Forman Corp.
[7]Effective May 1987, the brand moved to Canandaigua Wine Company.
[8]Effective May 1987, the brand moved to W.A. Taylor (Hiram Walker-Gooderham & Worts/Allied-Lyons/Gulf Canada).

Source: IMPACT

ANNEX E

REPORT PART B TERMS OF REFERENCE

PART B SUB-STUDY

WINES EXPORT MARKET ANALYSIS

I. GENERAL DESCRIPTION OF THE PART B STUDY

The objective of the Part B export marketing sub-study is to present a clear and concise description of the key factors affecting the importability of Tunisian wines into North American markets.

To accomplish this objective, the Part B study team will review the key trends in United States and Canadian imports of wines and place those trends in the context of the world market. The study team will analyze the key factors to be considered in exporting Tunisian wines into these markets - i.e. import restrictions, sanitary requirements, bottling and packaging requirements. It will also describe the requirements of the most important wine importing firms in the North American market. The study team will develop a strategic appraisal of the prospects for Tunisian wines to North America and a realistic market plan to permit such exports as are deemed feasible over the next five to ten years. Finally, the study team will project the macroeconomic impacts of successful implementation of the strategic marketing plan on the Tunisian economy using the World Bank economic model developed for this purpose.

III. THE OBJECTIVES OF THE OVERALL STUDY WITH SPECIFIC QUESTIONS

The ultimate objective of the overall wines export study is a set of concrete recommendations directed toward increasing the export competitiveness of Tunisian wines. The results of the competitiveness study - Part A - together with this companion export marketing study - Part B - will be used to present a detailed export marketing plan which will be both realistic and cost effective.

In order to arrive at these recommendations, a logical process must be followed of findings, conclusions and recommendations. The following sub-sections deal with the topics to be analyzed by the study team.

A. Factual Information to be Gathered

1. Using data from the O.I.V. (Office International de la Vigne et du Vin), the statistical report of Wines and Vines, the publications of the Wine Institute and other public and private organizations in the United States and Canada, describe the current structure and structural trends in the world wine market, with particular emphasis on North America's position in this market.

2. Identify and analyze the characteristics of North American wine consumption, imports, market shares, and prices by type of wine (table, dessert, etc.; premium and non-premium; color etc.) and the trends in these characteristics.

3. Describe the sales profile for wine in North America by region, type of distribution outlet, and type of consumer.

4. Analyze consumption relationships and consumption trends for substitute and related products, for example, spirits, beer, and alcoholic coolers.

5. Describe current federal, state and provincial regulations affecting the sale and import of wine, including tariff and non-tariff barriers to trade.

6. Using data from the Bureau of Alcohol, Tobacco and Firearms (BATF), the Wine Institute, Wines and Vines Statistical Report, U.S. trade publications, and Canadian counterpart sources plus information gathered from the trade, describe the structural characteristics of North American wine markets, specifically, the domestic production, import, wholesale and retail components of the marketing system (e.g. number and size of participants, contractual arrangements and marketing margins).

7. Identify and describe the requirements for wine importers to enter the North American market (e.g legal, contractual, organizational).

8. Analyze and describe other factors, specific to Tunisian wines, such as consumer preferences and perceptions, pricing and packaging likely to affect potential sales in North American markets.

B. Conclusions Required

1. Assess the probability or feasibility of marketing Tunisian wine in U.S. and Canadian markets, including the potential quantity and value of sales.

2. Assess the strategies used by other suppliers to North American wine markets and their implications for Tunisia.

3. Determine the effects of U.S. and Canadian government regulations and tariff and non-tariff barriers to trade, and the implications that these have for the competitive position of Tunisian wine in North America.

4. Identify the quality, volume, packaging, price and contractual requirements for selling Tunisian wines in North American markets.

5. Identify target markets, outlets and firms for an initial wine export effort from Tunisia, and the terms of trade and financing arrangements required.

6. Provide a strategic marketing plan for exporting Tunisian wine to the United States and Canada. Indicate the nature and extent of promotion and other public relations activities required to achieve necessary sales volumes and returns.

C. Recommendations to be Made as a Result of the Overall Study

1. Propose, as appropriate, recommendations for enhancing existing competitive advantages of domestic wines, if they exist, and for correcting factors reducing competitiveness in export markets.

2. Indicate the implications of these actions for the following actors/agencies in the wines marketing chain:

   a. The Government of Tunisia

   b. The National Office for Wines (ONV)

   c. Domestic Wine Producers and Exporters

3. Sketch out a strategic action plan of practical measures for implementing the proposed recommendations with details, insofar as possible, of the plan, timing and responsibilities for implementation.

V. METHODOLOGY TO BE EMPLOYED

The following general methodology will be employed by the study team in the United States and Canada.

A. A document search and review will be done by the entire study team to profit from existing studies done by government agencies in the United States and Canada, agro-industrial companies, and/or private wine importers and trade associations. A critical synthesis of these studies will enable their findings and recommendations to be used as inputs for this Part B study and to define what additional information needs to be collected.

B. Study findings will also be based upon interviews in United States and Canada with key persons in government and with private wine producers and importers.

C. Collection and study of published statistics for world and North American markets on the production and marketing of wines and, as relevant, grapes, with particular attention to existing information on the structure of market costs, marketing requirements, and market demand will be reviewed by the team.

ANNEX F

REPORT BIBLIOGRAPHY

Bibliography

Bureau of Alcohol, Tobacco, and Firearms (BATF), Department of the Treasury, Laws and Regulations Under the Federal Alcohol Administration Act, Washington, D.C.: U.S. Government Printing Office, 1987.

Canadian Wine Institute, Annual Statistical Report, 1986, Mississauga, Ontario, September 1987.

Foreign Agricultural Service (FAS), U.S. Department of Agriculture, unpublished material.

Impact: American Wine Market Review and Forecast, 1987 Edition, New York: M. Shanken Communications, Inc., 1987.

Jobson's Wine Marketing Handbook, 1987, New York: Jobson Publishing Corp., 1987.

McRory, George, "Highlights of State Wine Laws", American Wine Society Journal 17 (Spring 1985): 16-21.

Office International De La Vigne et Du Vin (O.I.V.), Bulletin (1987: 1004-1006).

Statistics Canada, The Control and Sale of Alcoholic Beverages in Canada, 1985, Ottawa Ontario, 1987.

U.S. Department of Agriculture (Foreign Agricultural Service), "U.S. Wine Trade", Horticultural Products Review (March 1988), pp. 15-18.

Wine Institute, "Economic Impact of Expanding the Distribution of Table Wine to Grocery Stores", (San Francisco, California), Economic Research Report Special Report (March 1986).

Wine Institute, "International Grape and Wine Statistics", (San Francisco, California), Economic Research Report Special Report (April 1988).

Wines and Vines, "The 45th Annual Statistical Survey", July 1988, pp. 14-41.