



# Viticulture in Turkey

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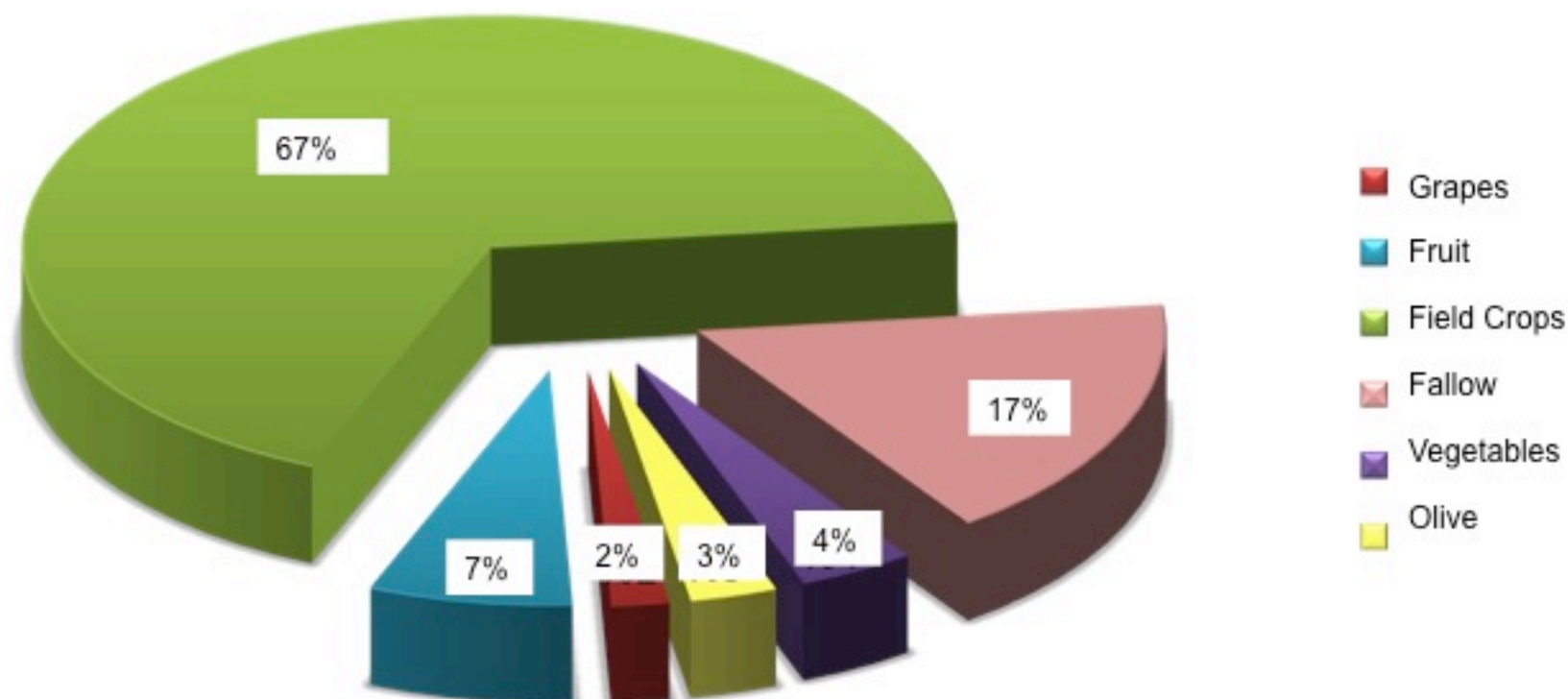
**Ankara University, Faculty of Agriculture, Department of Horticulture,  
Ankara/Turkey**



Countries	Area (ha) 2004	Area (ha) 2007
Spain	1 170 625	1 157 853
France	851 970	827 561
Italy	748 924	770 000
Turkey	520 000	484 610
China	416 633	433 266
U.S.A.	377 617	379 000
Iran	313 310	315 000
Portugal	210 000	222 600
Argentina	205 416	220 000
Romania	205 381	187 629
<b>World Total</b>	<b>7 343 476</b>	<b>7 272 583</b>

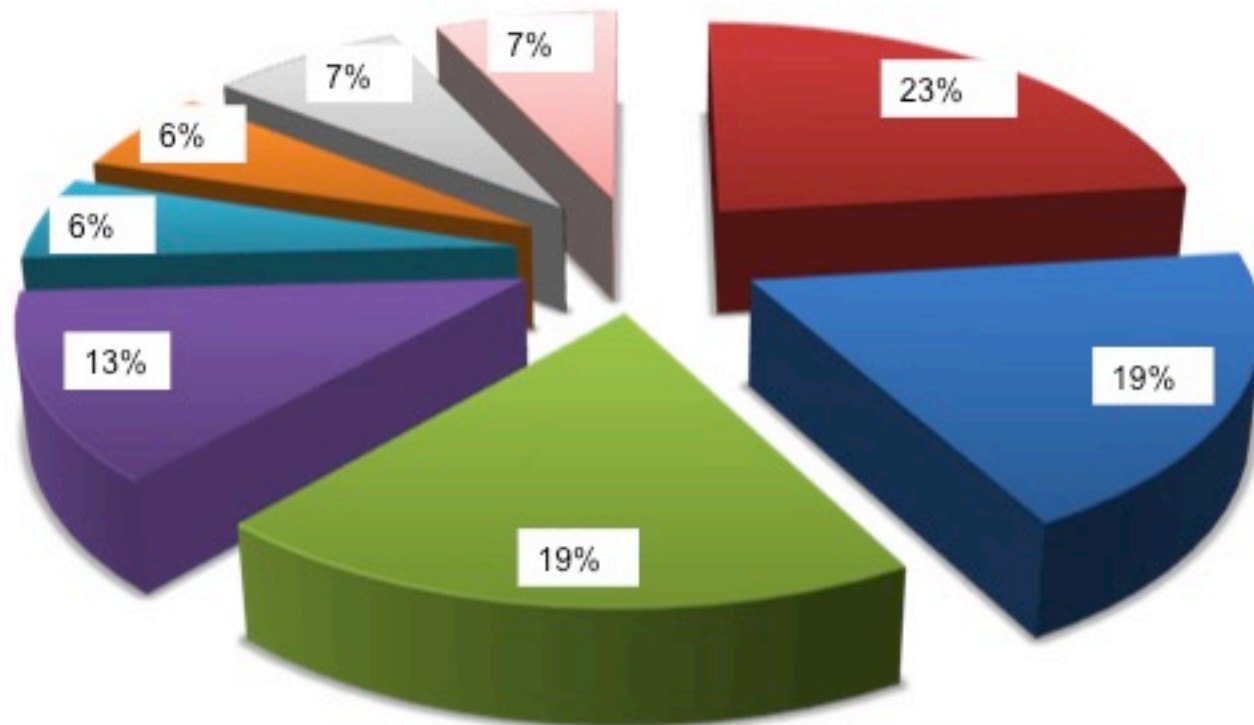
Countries	Production (tonnes) 2004	Countries	Production (tonnes) 2007
Italy	8 691 970	Italy	8 519 418
France	7 564 902	France	6 787 081
Spain	7 064 201	Spain	6 384 090
China	5 770 614	China	6 044 900
U.S.A.	5 660 833	U.S.A.	5 995 300
Turkey	3 500 000	Turkey	3 612 781
Iran	2 795 923	Iranian	3 000 000
Argentina	2 650 972	Argentina	2 900 000
Australia	2 014 965	Chile	2 350 000
Chile	1 900 000	South Africa	1 813 003
<b>World Total</b>	<b>67 565 568</b>	<b>World Total</b>	<b>67 231 000</b>

# Viticultural Areas in Turkey's Agriculture (%)



# Grapes Within Fruit Production in Turkey %

- Grapes
- Stone fruits
- Tea
- Pome fruits
- Nuts
- Olive
- Citrus
- Other fruits



# Turkey's Fruit Production For The Years 2005 and 2007

Fruit groups	Production ( tons )				Difference
	2005	%	2007	%	%
Grape	3 850 000	24.2	3 566 787	23.1	-1.1
Pome Fruits	3 046 300	19.2	2 925 773	19.0	-0.2
Citrus Fruits	2 913 000	18.3	2 988 664	19.4	1.1
Stone Fruits	2 060 500	13.0	1 963 145	12.7	-0.3
Nuts	835 000	5.2	881 841	5.7	0.5
Other Fruits	810 675	5.1	871 886	5.7	0.6
Tea	1 192 004	7.5	1 145 321	7.4	-0.1
Olives	1 200 000	7.54	1 075 854	7.0	-0.5
Total	15 907 479		15 419 271		



# AGRICULTURAL REGION IN TURKEY



- |  |                            |   |                            |
|--|----------------------------|---|----------------------------|
|   | 1st Region (Central North) |   | 6th Region (South East)    |
|  | 2nd Region (Aegean)        |  | 7th Region (Black Sea)     |
|  | 3rd Region (Marmara)       |  | 8th Region (Central East)  |
|  | 4th Region (Mediterranean) |  | 9th Region (Central South) |
|  | 5th Region (North East)    |   |                            |

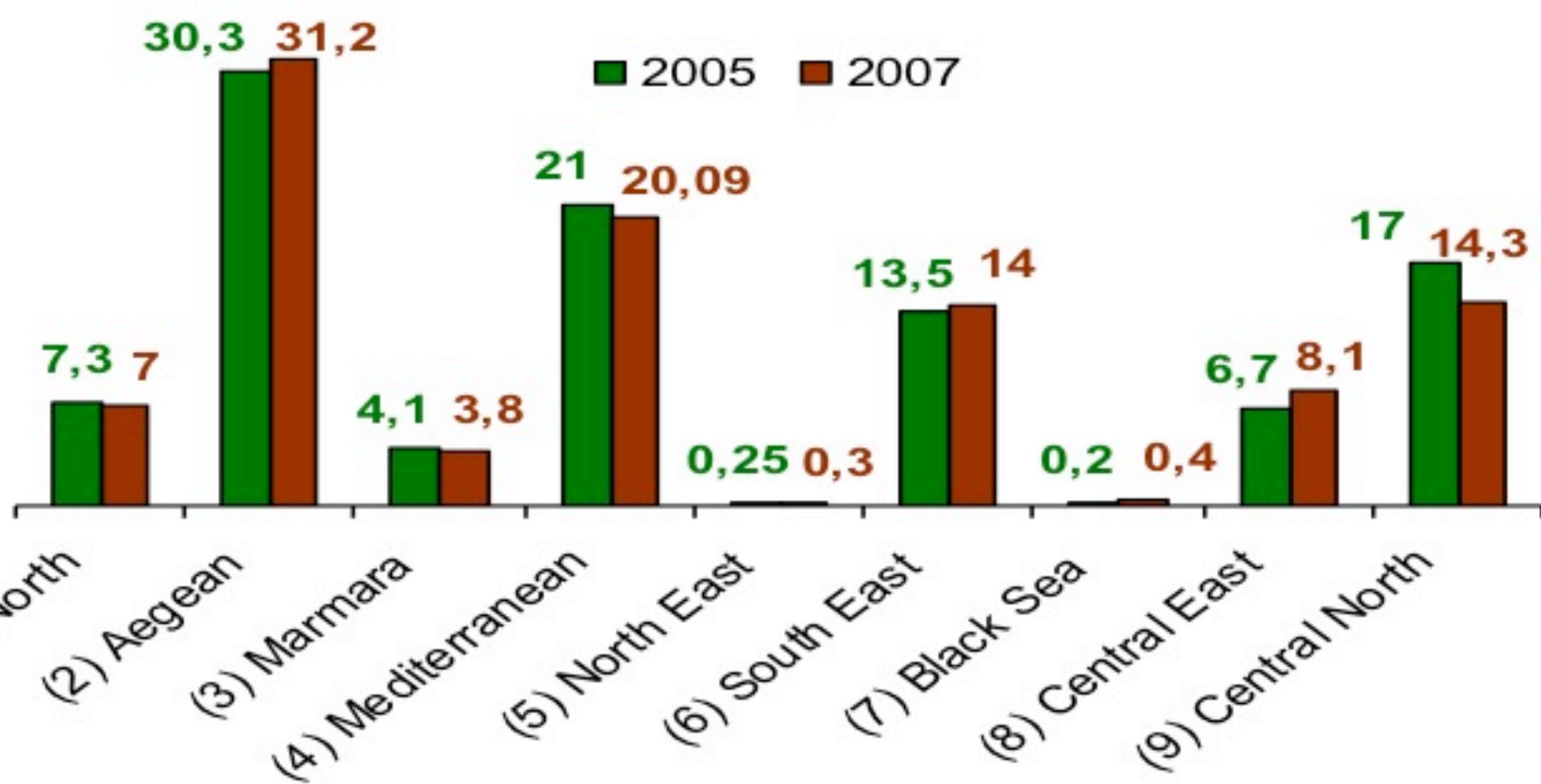


# Viticultural Areas and Grape Production Values of Agricultural Regions

Agricultural Regions	Area ( ha )					Production ( tons )				
	2005	%	2007	%	Difference ( % )	2005	%	2007	%	Difference ( % )
1.Central north	37 526	7.3	34 193	7.0	-8.9	164 083	4.3	168 908	4.7	+2.9
2.Aegean	156 368	30.3	<b>151 400</b>	<b>31.2</b>	-3.2	1 734 058	45.0	<b>1 583 133</b>	<b>44.4</b>	-8.7
3.Marmara	21 079	4.1	18 197	3.8	-13.7	239 539	6.2	151 262	4.2	-36.8
4.Mediterranean	107 356	21.0	101 155	20.9	-5.8	664 045	17.2	677 079	19.0	+1.9
5.Northeast	1 306	0.25	1 523	0.3	+14.2	66 44	0.17	5 957	0.16	-10.3
6.Southeast	69 748	13.5	67 750	14.0	-2.9	378 623	9.9	360 449	10.1	-4.8
7.Black Sea	1 160	0.2	1 708	0.4	+32.0	8 624	0.2	4 992	0.13	-42.1
8.Middle East	34 577	6.7	39 190	8.1	+11.8	149 606	3.9	144 771	4.05	-3.2
9.Central south	86 826	17.0	69 565	14.3	-19.9	504 772	13.1	470 236	13.2	-6.8
Total	515946		484685		-6.1	3 849 994		3 566 787		-7.3



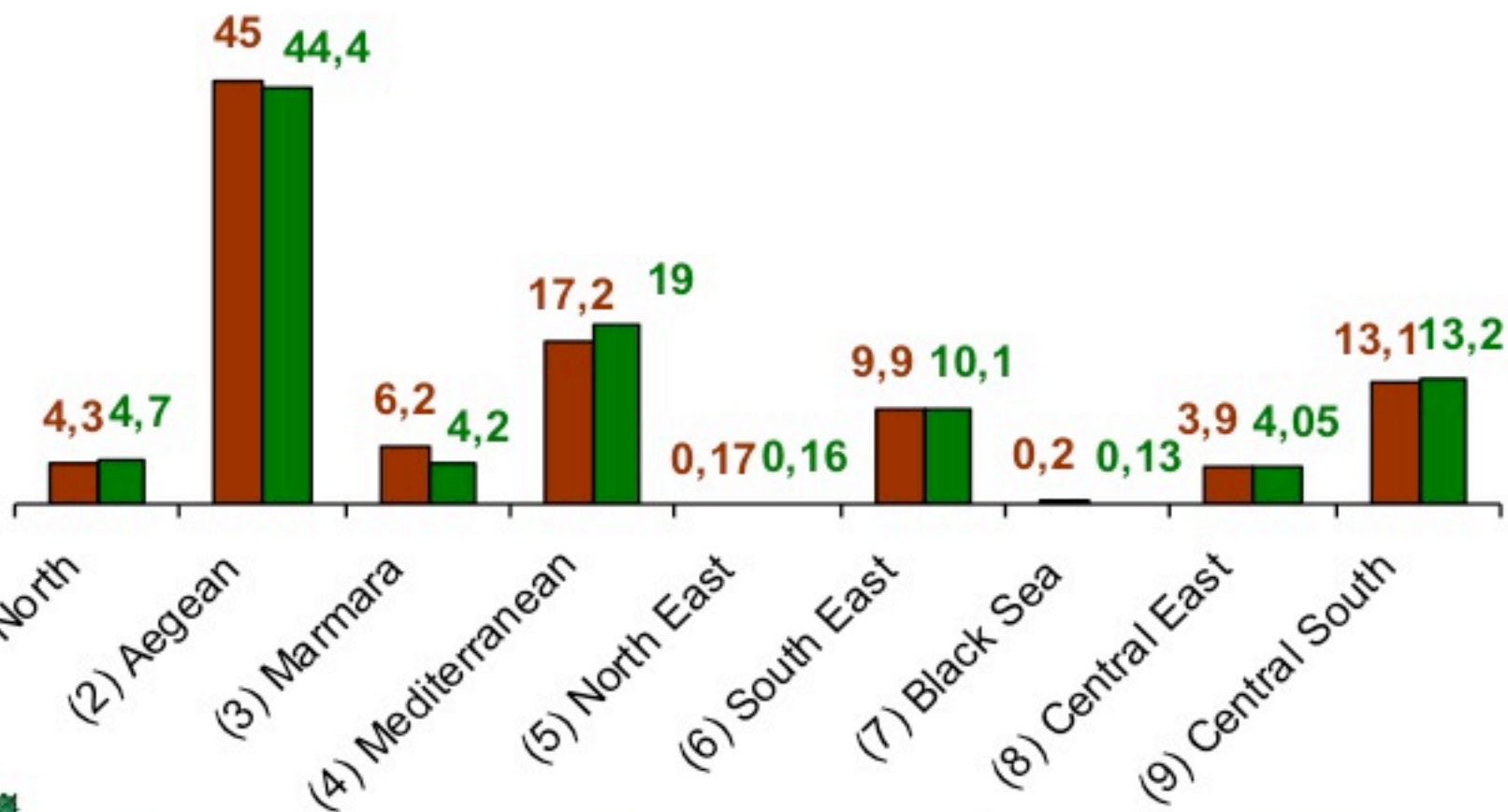
# Distribution of Viticultural Areas in Agricultural Regions (%)



# Total Grape Production in Agricultural Regions (%)



■ 2005 ■ 2007



# Table Grapes

- 1,9 million metric tonnes of table grapes is produced in Turkey. With this value, Turkey is the second after China in the World.

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**Table Grape Area and Production in Agricultural Regions for The Year 2007**

Agricultural Regions	Area (ha)	Production (tons)
Central north	25 204	119 803
Aegean	60 167	586 601
Marmara	14 343	113 531
Mediterranean	67 647	495 582
Northeast	1 524	5 957
Southeast	42 302	237 451
Black Sea	1 708	4 992
Middle East	27 972	121 304
Central south	33 510	226 898
Total	274 377	1 912 119



# Table Grapes (White)



Sultani Çekirdeksiz



Razakı



Italia



Yalova İncisi



Hatun Parmağı



Müşküle

Other Cultivars: Bozcaada Çavuşu, Parmak, Çiftlik



**A. Lavelleè**



# Table Grapes (Coloured)

**Lival**



**Muscat  
Hamburg**



**Ribol**



**Horozkarası**



**Karaerik**



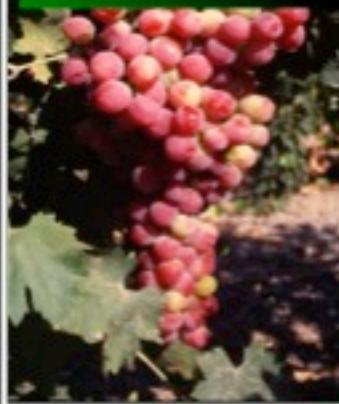
**Tekirdağ Ç.**



**Kozak Siyahı**



**Pembe Gemre**



**Red Globe**



**Trakya İlkeren**



**Hönüsü**





## Seedless Raisin Grape Production in Primary Producer Countries (tonnes)

Row	Country	2006	2007	2008
1	Turkey	274.000	220.000	300.000
2	USA	265.000	295.000	300.000
3	Chile	1.000	60.000	60.000
4	Iran	150.000	120.000	50.000
5	S.Africa	33.000	40.000	40.000
6	Greece	0	25.000	35.000
7	Argentina	1.000	23.000	30.000
8	Australia	500	12.000	10.000
	<b>TOTAL</b>	<b>724.500</b>	<b>795.000</b>	<b>825.000</b>



# Raisin Grapes

- Turkey is the first in total dry seeded and seedless raisin in the world.
- However, Turkey shares the first place with USA in seedless raisin production.
- Seedless raisins make up 75 % of the raisin produced.
- 75 % of seedless raisin grape is exported.
- Sultani is the only variety for seedless raisin grape cv.



## Seedless Raisin Grape Production in Turkey



Years	Production (tonnes)
2004	280.000
2005	250.000
2006	274.000
2007	220.000
2008	300.000

# Seeded Raisin Grapes

- Eastern Mediterranean (Gaziantep and Kilis) and Southeast (Adıyaman “Besni district”, Marin and Diyarbakır) regions rank in the first two places among agricultural regions in seeded raisin production.
- The second important region for seeded raisins is Central South Agricultural region. Nevşehir and Konya are two important producer provinces in this region.

**Besni Bağları**



**Kilis-Rumi**



# Seeded Raisin Grape Cvs.

Besni



Horozkarası



Karadimrit



Rumi



Other cultivars:

Çalkarası, Banazı siyahı, Kerküş, Sergi karası

# Wine Grapes

- In Turkey around 2-3 % of total grape production is used for wine making..
- Turkey's Wine Production is around 75 mio litres per year.
- The consumption per capita is around 1 litre per annum.



# Wine Grapes

- In late 20 years, significant progress has been realised in terms of local and foreign wine grape varieties started to grow to produce high-class wine especially for red wine production. As a consequence, these mentality changes contributed to the qualities of the wines produced in our country.
- In this regards, production potential increased significantly for Kalecik Karası, which is one of the most important local red wine grape, being raised in Denizli-Güney town besides its own ecological area Ankara-Kalecik; Öküzgözü being raised in Denizli- Çal and Güney town, Antalya-Elmalı town and also in cities such as Gaziantep and Adiyaman besides its own ecological area Elaziğ and Malatya; besides Bogazkere's own ecological region Diyarbakır-Çermik and Çüngüş towns with new established vineyards.



# Wine Grapes

- Especially well known red wine varieties of French origin had one's share of this interest showing a rapid increase. It was founded so many modern vineyards in Elmalı county of Antalya, Kalecik county of Ankara, Ürgüp and Gülşehir counties of Nevşehir, Turgutlu and Alaşehir counties of Manisa, Urla, Menderes and Torbalı counties of İzmir, Eceabat county of Çanakkale and Şarköy, Mürefte counties and the center of Tekirdağ with imported plants belongs to different clones of especially **Cabernet Sauvignon**, **Merlot** and **Syrah**.
- These varieties are followed by such **Cabernet Franc**, **Grenache**, **Carignan**, **Cinsaut**, **Cot** and **Sangiovese** which has more limited vineyard areas. The majority of these wine yards are the wine making companies own vineyards operating in our country.



## Wine Grapes

- The majority of these vineyards are the wine making companies own vineyards operating in our country.
- Semi-dense(3000 - 5000 wines per hectare) and dense (5000 - 10000 wines per hectare) planting systems are implemented on almost all of those vineyards planted and grown in accordance with modern cultivation technique.
- Vineyards considered important with well known French white wine grape varieties (Chardonnay and Sauvignon Blanc) even not on the red varieties level are planted in Thrace, Aegean, Cappadoccia and Western Mediterranean regions.



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# Local Winegrapes Cultivars

**Kalecik karası**



**Boğazkere**



**Öküzgözü**



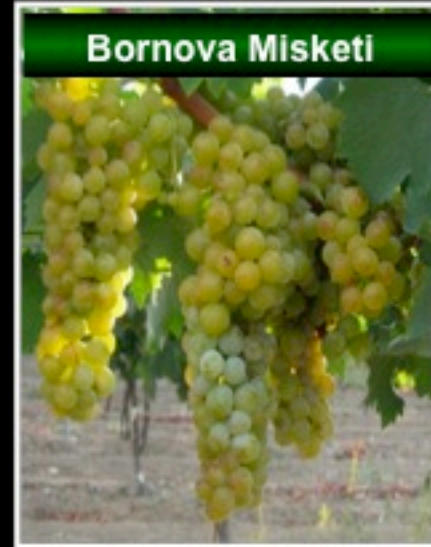
**Narince**



**Emir**

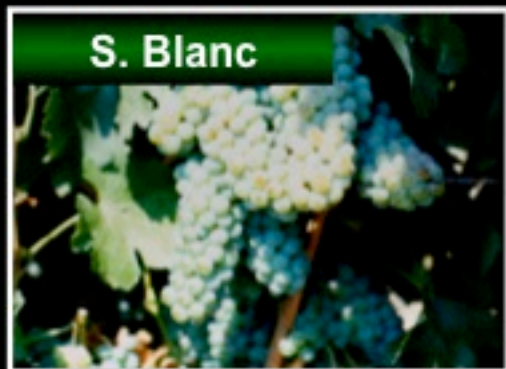


**Bornova Misketi**



# Nobel Winegrape Cultivars

S. Blanc



Riesling



C. Sauvignon



Merlot



Sirah



# Jucy (Must) Grapes

- ✓ Approximately 10 % of fresh grape produced in our country are used in different variety of molasses, sausage (orcik), dried fruit pulp (bastık), köfter (a sweet made of starch and boiled-down grape juice), muska, tarhana etc. and a limited part is used in making of vinegar, grape juice and hardaliye (grape juice flavored with mustard).



Elazığ-Oymaağaç  
Orcik



# Evaluation of the Product

- 
- ✓ Turkey has an a vineyard area of 482.789 and produced a total of 3.918.442 tonnes of grapes.
  - ✓ %50, 3 of the produced grapes are evaluated as table grapes;
  - ✓ 37, 7 % of them are raisins;
  - ✓ 12 % of them are grapes for must production- wine grapes.

## Table Grapes Export

Year	Quantity (Tonnes)	Value (1000\$)	Unit Price (Tonnes/\$)
2004	159 310	81 747	513 13
2005	155 604	91 361	587 14
2006	144 454	79 724	551 90
2007	155 278	118 233	761 43
2008	202 114	169 411	838 20



## Raisin Grape Export

Year	Quantity (Tonnes)	Value (1.000 \$)
2004	211 893	231 400
2005	226 597	239 728
2006	244 212	289 230
2007	240 599	316 827
2008	199 234	349 539



# Wine export

Years	Wine Export	
2004	Quantity (1 000 liter)	4 353
	1000 \$	7 842
2005	Quantity (1 000 liter)	4 442
	1000 \$	8 379
2006	Quantity (1 000 liter)	6 269
	1000 \$	6 757
2007	Quantity (1 000 liter)	5 708
	1000 \$	6 719



## Developments on Regulations

- Important legislative regulations have been developed concerning the viticulture and the more general agricultural and vegetative production in the last five years. (**Law of Agricultural Insurance Law No: 5363, Date of Ratification: 14.06.2005**)
- This legislation aims to determine the appropriate geographical places for viticulture, find and plan the measurements of the vineyard areas and the types and amounts of products produced from grapes and grape products, take necessary precautions regarding the production and process of healthy crops cultivation, support certified grafted vine production and support the producers to use certified grafted vine plants for establishing vineyards and create a database by registering the producers, workers and the traders. (**Viticulture Legislation (issued in 30.12.2006 dated ve 26 392 numbered Official Gazette)**)





# Emir



## BERRY CHARACTERISTICS

Color: Yellowish green

Form: Oblong round

Size: Medium, 2-3g

Seed: 2-3

Flavor: Distinct varietal flavor

## CLUSTER CHARACTERISTICS

Form: Short conical

Size: Large, 250-350g

Compactness: Very compact

## CULTURAL CHARACTERISTICS

Ripening: Midlate

Pruning: Spur-Cane

Location: Nevşehir/Cappadocia



# Emir

## WINE CHARACTERISTICS

- Emir makes straw yellow coloured wines with green reflections; famously with green apple and minerals on the nose.
- On the palate it makes lively, crisp wines. Wines are; light-medium bodied, light yellow colour, high acidity and delicate.
- Emir is used in sparkling and still wine making. Does not match with oak and generally should be consumed in 1-2 years, no malolactic.

## AROMA PROFILE:

- It bears Apple (green/yellow), Pineapple, Kiwi, Lemon, Blood Orange, White Rose.



# Narince



## BERRY CHARACTERISTICS

Color: Yellow

Form: Slightly ovoid

Size: Large, 3-4g

Seed: 2-3

Flavor: Distinct varietal flavor

## CLUSTER CHARACTERISTICS

Form: Winged conical

Size: Large, 350-450g

Compactness: Wellfilled

## CULTURAL CHARACTERISTICS

Ripening: Midlate

Pruning: Spur-Cane

Location: Tokat, Amasya



# Narince

## WINE CHARACTERISTICS

- Wines produced from Narince are usually dry. It has yellow-green colour and sophisticated fruit flavour.
- Since the acidity level is high, wine gains a complex bouquet with aging.
- Narince makes straw yellow coloured wines with floral notes, yellow fruit and citrus aromas on the nose.
- On the palate, it produces round, medium to full bodied wines, balanced with good acidity. It is usually treated with oak.

## AROMA PROFILE:

- Orange, Grapefruit, Lime, White Pineapple, Quince, Floral, Plumeria, Acaccia, Fruit Blossom, Basil, Ripe Green Apple, Walnut.



# Kalecik Karası



## BERRY CHARACTERISTICS

Color: Black with blue bloom

Form: Round

Size: Medium, 2-2.5g

Seed: 1-2

Flavor: Distinct varietal flavor

## CLUSTER CHARACTERISTICS

Form: Winged conical

Size: Small-Medium, 200g

Compactness: Compact

## CULTURAL CHARACTERISTICS

Ripening: Midseason

Pruning: Semi long cane with "Max 6 buds"- Spur

Location: Ankara (Kalecik)



# Kalecik Karası

## WINE CHARACTERISTICS

- Kalecik Karası yields a wine with “dired red rose” colour with a cotton candy boiled aroma on the nose, quite typical of the variety. Better examples have a vibrant, fruity nose, with red fruits.
- On the palate, wine is medium bodied, low on tannins; fresh and lively, with a crisp acidity.
- The high acidity and light tannins result in a soft and elegant wine.

## AROMA PROFILE:

- Red Berries, Cherry, Strawberry, Raspberry, Cotton Candy, Pyrezine, Game or Stable.



# Öküzgözü



## BERRY CHARACTERISTICS

Color: Black with gray bloom

Form: Ellipsoidal

Size: Large, 6g

Seed: 2-3

Flavor: Distinct varietal flavor

## CLUSTER CHARACTERISTICS

Form: Winged conical

Size: Very large, 450-550 g

Compactness: Wellfilled

## CULTURAL CHARACTERISTICS

Ripening: Late

Pruning: Cane

Location: Elazığ, Malatya



# Öküzgözü

## WINE CHARACTERISTICS

- Native to Eastern Anatolia, Öküzgözü derives its name from the fact that it has large, black berries that resemble a bull's eye.
- On the palate, it is medium bodied, producing round, fruity wines, with some tannins and rather lively acidity. Alcohol level is usually between 12.5% and 13.5 %.
- Öküzgözü is high in acidity, medium to low in alcohol content and its medium body offers a delicate bouquet.
- It has fruit and floral flavours, making soft and easy to drink wines.
- Due to its acidity, it can age well.

## AROMA PROFILE:

- Raspberry, Ripe cherry, Black Mulberry, Violet are dominant.
- Mint, Chocolate, Eucalyptus, Sour Cherry, Pomegranate, Ripe Plum, Cherry Marmalade, Clove and Cardamom.



# Boğazkere



## BERRY CHARACTERISTICS

Color: Violet-Black

Form: Round

Size: Large, 3.4g

Seed: 2-3

Flavor: Highly tanninous

## CLUSTER CHARACTERISTICS

Form: Winged conical

Size: Very large, 490 g

Compactness: Wellfilled

## CULTURAL CHARACTERISTICS

Ripening: Late

Pruning: Cane

Location: Diyarbakır, Elazığ,  
Malatya



# Boğazkere

## WINE CHARACTERISTICS

- Bogazkere takes its name from the bitter sensation that it leaves on the palate.
- Bogazkere has very high dense tannins with medium acidity.
- The wines made from this grape are dark in colour, full bodied, dense tannins, with complex flavour profiles.
- The wines from the Bogazkere grape find balance when aged.

## AROMA PROFILE:

- It bears black cherry, raspberry, blackberry, black mulberry, pepper, clove, eucalyptus, tobacco, leather, pine forest, dark chocolate, liquorice.

*Thank you...*

